




The Professional Video SourceBook

Section 15

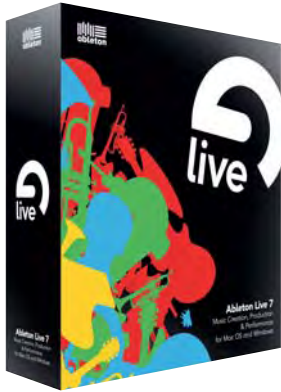
DAWs

Ableton	1258-1261
Apple	1262-1267
Cakewalk	1268-1269
Digidesign	1270-1273
Mackie	1274-1275
MOTU	1276-1279
Sony	1280-1281
Steinberg	1282-1291

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 For Section 15, Digital Audio Workstations use Quick Dial #: 91

LIVE 7 • ABLETON SUITE



Music Creation, Production and Performance

Live 7 is a multitrack audio / MIDI workstation that treats audio as if it were elastic, allowing you to record and import loops and phrases with differing tempos and keys to conform to your session. As you change the tempo of your session, your loops will change along with it. For even greater flexibility, Live's Elastic Audio engine automatically detects the beats in your audio files and places a Warp Marker at each of those locations. These Warp Markers can be moved independently. This not only allows you to tighten up a poor performance by aligning the warp markers to the session's grid, but it also opens a world of possibilities for creating new grooves.

Ableton Suite is a bundle of Live 7 with a selection of Ableton instruments. The package represents a set of additional musical tools, seamlessly integrated into Live's acclaimed workflow.

Ableton Suite includes Live 7, Sampler, Operator, Electric, Analog, Tension and Drum Machines, along with the Essential Instrument Collection 2 and Session Drums.

FEATURES

- ◆ Multitrack recording up to 32-bit/192kHz and 64-bit mix bus summing.
- ◆ Complete non-destructive editing with unlimited undo
- ◆ Powerful and creative MIDI sequencing of software and hardware instruments
- ◆ A comprehensive selection of built-in audio effects, including delays, reverb, filters, distortions, modulation, compressors and EQs
- ◆ Realtime control of parameters with any MIDI controller with dedicated support for many popular controllers.
- ◆ A flexible routing scheme permits resampling from any source, including the entire mix. Sidechaining allows you to insert and re-order effects while the music plays.
- ◆ Realtime time-stretching and warping of AIFF, WAV, Ogg Vorbis, FLAC and MP3 files, plus REX files can be dragged, dropped and played just like WAV or AIFF files, along with native sliced audio files.
- ◆ ASIO and CoreAudio compatibility
- ◆ VST and AU effects and instruments support with automatic plug-in delay compensation
- ◆ QuickTime video import and export for scoring to picture or warping picture to music
- ◆ Live supports ReWire, a protocol that allows audio streams to be transferred, in sync, between audio applications in realtime. This allows you to route virtual outputs of Live into other DAW applications, or vice versa, for further mixing and processing. These include Reason ProTools, Logic, Cubase, Digital Performer, Sonar, and more.

Elastic Audio

Auto Warping: The Elastic Audio engine detects the beats in your audio files and creates Warp Markers — just drag and drop an audio file and Warp Markers will be set automatically and the file warped to the current project tempo.

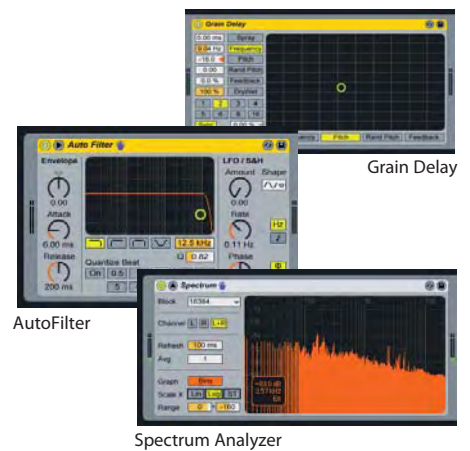
Warp Markers: Allow free adjustment of beats within a loop or audio file. You can move Warp Markers to fix timing errors or explore new creative possibilities by re-grooving a static loop.

Tempo Automation and Swing: You can automate your project tempo and the music will follow along. A single control lets you to apply a variable amount of swing to your entire project.

Warp Music to Picture, Picture to Music: Elastic audio makes it easy to warp music to match the hit points or key frames of imported video, but you can also warp the video to match the music and export the results.

Built In Effects

- ◆ Over twenty built-in audio effects including delays, reverb, dynamics, EQ, distortion, modulation effects, filters and more.
- ◆ Multiple effects can be chained together in any order, and the order can be rearranged at any time.
- ◆ Fully integrated side-chaining capability is available for the Compressor as well as Gate and Auto Filter.
- ◆ The Spectrum analyzer provides visual feedback for any audio signals within Live.
- ◆ EQ Eight has an improved user interface and a 64 bit mode for increased accuracy.
- ◆ Eight assignable macro controller knobs allow you to adjust any number of parameters with a single knob or fader.
- ◆ Drag and drop to and from the Browser to save and recall your custom Racks.
- ◆ A combination of Live devices can be saved within a single embedded device as instrument, drum, or effect Racks.



AutoFilter

Spectrum Analyzer

- ◆ The compressor plug-in integrates three compression models, one of which is based on a feedback design commonly found in the most praised vintage compressors.

LIVE 7 • ABLETON SUITE

Session View

The Session View offers a powerful musical sketch and launch pad, allowing you to try out new ideas easily and improvise freely. These ideas can be recorded on the fly or dragged in from the Browser and played in any order and at any time you wish.

A “tempo nudge” function makes it easier to synchronize to live musicians or DJs.

The Browser allows you to navigate hard drives, and drag and drop audio and MIDI file, along with plug-ins and instruments into your session. Ideas can be previewed in the Browser at the current project's tempo.

Each vertical row of cells in the Session View, is controlled by it's own channel strip, providing access to standard mixing functions, such as volume, pan, solo, and sends. A chain of plug-ins, from standard mix processors, to extreme sound manglers, can be created for each vertical row.

Each cell in the Session View grid can hold a recording, MIDI file, or any other musical idea. Audio and MIDI clips, loaded onto each Cell, can be launched independently, or you can launch all of the clips in a horizontal row using the Scene launch button for that row. Clips and Scenes can be launched by mouse, keyboard or MIDI.



Real-time quantization insures that loops are always triggered in sync. Transpose and detune clips without affecting their tempo.

Clips and Scene launches, along with other any other manipulation within the session view can be recorded in realtime to create on the fly arrangements that can then be tweaked to perfection using the Arrangement View.

Use multiple inputs and outputs from your ASIO or CoreAudio interface to route audio to and from Live. Connect Live to ReWire master or slave programs to exchange audio and sync.

Live employs two unique work environments, the Session View, and the Arrange View allowing the perfect balance between fluid, realtime experimentation, on the one hand, with the editing, mixing, automation and arrangement structure of a traditional DAW. A wide palette of realtime audio and MIDI effects and instruments, known in Live as Devices, allow you to realize the sonic possibilities of your compositions. Live supports 32-bit audio up to 192kHz in a wide variety of formats including Wav, Aif, MP3, Ogg Vorbis, FLAC and even Rex files. Live supports 3rd party plugins and instruments in VST (PC and Mac) and AU (Mac) formats. Live 7's offers an enhanced audio engine with 64-bit mix bus summing. For those working in music for post, or other creative visual media, Live allows you to not only import video into your session, but you can warp video to your audio, or vice versa.

Arrangement View

The Arrangement View offers a timeline-based approach for more traditional multitrack recording, MIDI sequencing and mixing tasks. You can even improvise in the Session View, and all of your actions will be recorded into the Arrangement View, where they can be edited and refined.

Live can capture every one of your actions in a timeline arranger. Record unlimited takes on unlimited tracks. Edit clips and breakpointenvelopes, add and remove materials. Render your work after it's finished.

Time signature changes can be inserted in the Arrangement timeline and tied to Session scenes.

Your entire arrangement is displayed in an overview for quick navigation.



Multiple automation lanes per track can be displayed and edited at the same time.

QuickTime Video Support

For those of you working in the realm of post-production, Live's QuickTime video support allows you to drag and drop movies directly into Live's Arrangement View, and monitor the result on a video window or second screen. You can use Live's powerful warping capabilities to align music to visuals, and process the movie's audio within Live.

LIVE 7 • ABLETON SUITE

MIDI Recording / Editing

- ◆ You can record MIDI clips using hardware or virtual MIDI instruments and edit the data and quantize your performances using the piano roll-style MIDI note editor.
- ◆ The MIDI engine has been designed to minimize timing error (jitter) of recorded MIDI.



MIDI Note Editor

- ◆ MIDI clips can be saved and reused in other project just like audio clips
- ◆ Audio effects can be added to MIDI tracks in the same way that they are used with audio.

Built-in Instruments

- ◆ Live 7 includes two software instruments: a basic sampler called **Simpler** and a drum sampler called **Impulse**.
- ◆ **Simpler** hosts a single sample at a time, that can be manipulated with a subtractive synthesis engine that includes a multimode filter, envelopes, LFOs and more.



Simpler - Basic Sampler

- ◆ When playing instruments from the Instrument Collection, **Simpler** runs in multisample mode, hosting a number of keymapped samples.
- ◆ **Impulse** hosts up to 8 drum sounds, each with its mixing and synth engine with filter and saturation.

MIDI Effects

- ◆ Eight MIDI effects plug-ins are available including an arpeggiator, chord, note length, pitch and more.
- ◆ **MIDI Racks** lets you chain multiple MIDI effects together with 8 custom controller settings, and save them for future use.

The Drum Rack

The **Drum Rack** uses a familiar drum-centric pad interface that allows you to drag-and-drop a different virtual instrument or sample, complete with independent effects chains, on each of the 128 pads. Each pad is automatically mapped to MIDI notes, and will always be matched to your pad controller. Effects can also be assigned globally to entire kit and a **Drum Rack** can have its own sends, returns and sub-mixes.



Conveniences

- ◆ Draw effects automation, pitch changes, volume and pan envelopes, and more over **Live Clips** in realtime.
- ◆ Combine clip envelopes, effects chains, MIDI patterns and more in a single **Live Clip**.
- ◆ All editing is non-destructive, leaving your original sound intact while you experiment.
- ◆ **Deep Freeze** frees up system resources by temporarily rendering files, without sacrificing editing functionality. You can cut, copy, paste, duplicate and consolidate clips without having to re-freeze. And you can automate mixer and clip envelopes, record frozen **Session View** clips into the **Arrangement**, and drag frozen MIDI clips into audio tracks.
- ◆ Copy and paste clip envelopes and go at it again with new envelopes to create endless variations, all in real time.
- ◆ Assign many features to your favorite MIDI controller including playback, recording, clip and scene launching, effects controls, tempo.
- ◆ Setting up your MIDI controller is easy — simply enter **MIDI Map Mode**, select a parameter, move a MIDI knob, button, footswitch or pad, and it is assigned.
- ◆ Using the **Session View**, you can record clips and go directly into looped playback by assigning a clip launch button to a MIDI controller. **Quantized recording** makes it easy to capture perfect loops on the fly.

ABLETON SUITE

Ableton Software Instruments

Ableton's add-on instruments cover physical models of electric pianos, analog synths and string instruments as well as multi-layer sampled acoustic drums, and drum machines. The instruments integrate tightly with **Live**, both in terms of workflow and resource management. **Physical modeling synthesis** uses complex mathematics to reproduce the behavior of the individual physical components of an instrument, and allows real-time tweaking and customization of individual components and parameters.



Analog: Emulates the unique circuitry and irresistible tweakability of vintage analog synthesizers. **Analog** features versatile alias-free oscillators, multi-mode filters, syncable LFOs, looping envelope generators and more. Able to produce everything from silky pad sweeps to earth-shaking bass, **Analog** is also completely integrated in **Live's** familiar interface.

Tension: **Tension** is a physical modeling string synthesizer. Tweak everything from how the string is played—with a pick, bow or hammer—to the size and type of instrument body used. Create incredibly accurate reproductions of real instruments or design otherworldly hybrids, all within **Live's** familiar working environment.

Electric: Offers sounds of classic electric pianos. **Electric** uses the same advanced physical modeling synthesis technology and integrates perfectly into **Live's** workflow. Since it uses synthesis, users can dive inside and play with the guts of the instrument—the hammers, tines, pickups and more—to achieve just that right amount of melancholy or bark and bite.

ABLETON SUITE

Sampler

Sampler is an advanced sound-design and sound-sculpting instrument that offers fresh sound-design possibilities through its unique processing and modulation options. When combined within Ableton's Instrument and Effect Racks in Live, multiple Samplers provide unprecedented depth of control, automation and sonic possibilities.

- ◆ Each instance of Sampler can host any number of sample zones. Multiple playback and looping options can be set up for each zone.
- ◆ Quickly map samples and find appropriate loop points.
- ◆ Import many common sample formats, including AKAI S1000, S3000, Giga, EXS, SoundFont and (non-encrypted) Kontakt.
- ◆ A dedicated oscillator can modulate samples by frequency or amplitude, enabling selective harmonic or disharmonic enrichment of the original timbres.
- ◆ Graphical editing of key and velocity ranges as well as crossfades.
- ◆ Every voice is processed with a "morphable" multimode filter and polyphonic saturation stage. Each aspect of the original sample can be polyphonically modulated.
- ◆ Three LFOs, five multimode envelopes and various MIDI inputs serve as mod sources.
- ◆ Modulate Sampler's controls with clip envelopes, stack Samplers, attach effects and save projects including all samples used by Sampler to share with colleagues.



Sample Page



Modulation Page



Pitch - Oscillator Page

Ableton Sampled Instruments

Essential Instrument Collection 2

Essential Instrument Collection 2 is a multi-gigabyte collection of meticulously sampled and selected instruments, offering a choice selection of acoustic and electric pianos, guitars, bass, acoustic and electronic drums, orchestral strings, brass, woodwinds and more. Presets optimized for fast loading. (Also included in Live 7).

Drum Machines

Drum Machines offers a choice selection of classic drum machines, meticulously sampled and programmed by Ableton content developer PureMagnetik, to faithfully reproduce the original sounds. Drum Machines is easily tweaked with cleverly mapped controls, allowing users to experiment with the inner workings of the instrument and adjust to taste.

Session Drums

A meticulously multisampled library of acoustic drums that reproduces the nuances of a recording session. Session Drums gives you full control of the close mics for each drum as well as the overheads and room mics, so you can craft the perfect drum mix for your songs. It includes stereo kits appropriate for a variety of musical styles. MIDI grooves speed up the production process.

Operator



Operator is a software synthesizer instrument that invites creativity through the fusion of depth and usability, allowing even the most complex sounds to be created quickly.

Operator's voice architecture consists of four oscillators and a resonant multimode filter, allowing for both subtractive and frequency modulation (FM) synthesis. In addition to a wide selection of sine waveforms, which emulate the aliasing artifacts of classic hardware FM synthesizers, each of Operator's oscillators can also generate "virtual analog" synthesis

waveforms such as saw, square, triangle and noise. Each oscillator can either deliver audio signals to the output or modulate other oscillators.

Every parameter of Operator can be automated or remote-controlled via MIDI, allowing you to get completely hands on. Parameters can also be controlled via Live's clip envelopes. Whether you long for evolving synthetic textures, rich expressive leads, gritty percussion, rhythmic atmospheres or anything in between, Operator has the cure.

Live 7 - (Mfr # 80826-111721 • B&H # ABL7)	499.00
Ableton Suite - Live 7 with an inspired collection of Ableton instruments (Analog, Tension, Electric, Sampler, Essential Instrument Collection 2, Drum Machines, Session Drums, Operator) in a consistent workflow. (Mfr # 81142-151721 • B&H # ABAS).....	799.00
Ableton Live 6 LE (Mfr# 80554-141621 • B&H# ABL6LE).....	CALL
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LOGIC STUDIO



Logic Studio is comprehensive suite of professional applications that includes everything you need for audio post production for film and video as well as music production and sound design.

Logic Pro 8 is the center of Logic Studio, featuring an interface that makes it easier than ever to write, record, edit, and mix your music. The intuitive single-window interface provides instant access to powerful music creation and production functions with cutting edge audio and MIDI capabilities. Logic Pro 8 also includes end-to-end surround production capabilities with innovative surround panning controls, multichannel tracks and busses, and support for True Surround software instruments and effects.

Soundtrack Pro 2 is designed for cinematic sound applications with powerful editing tools, surround mixing, and a streamlined design that lets you fly through audio post-production for picture. Logic Studio comes complete with forty pristine quality virtual Studio Instruments; 80 professional Studio Effect plug-ins; and a vast Studio Sound Library; and a powerful set of production utilities.

LOGIC PRO 8 Comprehensive Video Support

Logic Pro 8 has everything you need to compose music for film, create cutting edge sound design and edit and mix sound for picture. Imported QuickTime movies are instantly synchronized with Logic's Time Line, and the video can be played back in a number of different ways including: in a floating movie on top of Logic's Arrange window, or output to an external monitor via FireWire or DVCPRO HD. Logic Pro supports multichannel audio up to 7.1 and includes 16 True Surround effects plug-ins, such as compression and reverb, to help create the perfect surround mix. Complete mixes can be bounced as multichannel interleaved or split surround files, and burned to DVD-A, or exported and embedded directly onto the QuickTime Video.



- ◆ View synchronized QuickTime movies (embedded or floating video), or use a separate monitor with a range of output options, including Digital Cinema Desktop for full-screen, high-definition playback.
- ◆ Locate scene changes by scrolling through a Global video thumbnail track or mark transitions automatically.
- ◆ A video thumbnail track runs along the Time Line. The higher you zoom in in the Arrange window, the more video frames per second are displayed. This allows you to easily locate scene transitions and find the exact video frame to insert a sound effect, or begin an audio cue.
- ◆ Support for all standard surround configurations, including LCRS, Quad, 5.1, 6.1, and 7.1.
- ◆ Surround bounce and burn to DVD-A (PCM only) disc
- ◆ Dolby Digital AC-3 encoding and preview with the included compressor application
- ◆ The Down Mixer plug-in allows you to mixdown to stereo and surround formats
- ◆ Multichannel interleaved and split surround audio files are supported, and you can play back, record, or process multichannel interleaved audio files
- ◆ Route multichannel audio signals via sends, busses, and auxiliaries
- ◆ Control mono or stereo streams within a surround field and simultaneously balance all channels of surround input.
- ◆ Process multichannel audio using any of the 16 True Surround effect plug-ins, including Surround Compressor, Space Designer, Delay Designer, Chorus, Flanger, Microphaser, Phaser, Modulation Delay, and Tremolo.
- ◆ All of the other Studio Effects plug-ins work with Logic Pro 8 and Soundtrack Pro 2 in multi-mono, for use in surround mixes.
- ◆ Built in multi-mono support lets you use any mono or stereo Logic Studio or Audio Units plug-in in a surround project

LOGIC STUDIO / LOGIC PRO 8

Consolidated Arrange Window

Arrange Window

- ◆ All edit and browser windows are consolidated into a single workspace featuring shortcut menus and customizable toolbars.
- ◆ Write, record, edit, and mix from one location without navigating a maze of windows.
- ◆ Graphical time stretching and compression
- ◆ Sample-accurate editing
- ◆ Definable relative or absolute snap grid
- ◆ Nondestructive graphical fades and crossfades
- ◆ Snap-to-transient selection
- ◆ Shuffle and Auto-Crossfade Arrange Edit modes
- ◆ Global Tracks for graphical editing of key and time signatures, markers, tempo, and transposition
- ◆ Note entry using computer keyboard

Tools and Navigation

- ◆ Selectable time- and/or beat-based bar ruler for time-linear and/or beat-linear display in the Arrange window
- ◆ Waveform zoom slider
- ◆ Extensive zoom tools and functions
- ◆ Customizable tool and transport bars
- ◆ Assign tools to mouse and view current assignments directly in the Arrange window

Dual Channel Strips

- ◆ Inspector provides convenient access to region and track parameters
- ◆ View and manipulate entire channel strip for the selected track and any auxiliary or output channel strip to which it is sending a signal without leaving the Arrange window.
- ◆ Simple multiple track creation and setup

Screensets & Key Commands

- ◆ Instantly switch between 90 screensets, containing customized window configurations including window size, position and zoom settings, using computer's numeric keypad.
- ◆ Program functions and navigational macros can be accessed by over 980 user-definable Key Commands and MIDI commands.



Professional Mixing

- ◆ Powerful mixing and automation tools meet the demands of any size production.
- ◆ Create the perfect Mixer configuration with up to 255 discrete audio, software instrument, and auxiliary channels.
- ◆ Up to 32 mix groups and as many output channels as your audio hardware provides.
- ◆ Each track supports 15 inserted plug-ins and 8 pre-fader, post-fader, and post-pan, sends with full latency compensation to keep everything in perfect sync.
- ◆ Record busses
- ◆ Direct insert patching of external hardware instruments and effects

Powerful Automation

- ◆ Automate any channel strip and plug-in parameters on the fly or set values manually for even greater precision.
- ◆ Read, write, touch, and latch automation modes
- ◆ Automation Quick Access for easy hardware control of a currently selected parameter
- ◆ Simultaneously view and edit automation for single or multiple tracks, including multiple parameters per track.
- ◆ Linked editing of grouped automation provides simultaneous writing and editing of automation for multiple tracks. Curve tool helps create natural-sounding transitions.

Built-in Browsers

- ◆ Intelligent, integrated browsers provide fast access to your content.
- ◆ Save complete plug-in configurations using channel strip settings. Preview and select any plug-in or channel strip setting.
- ◆ The Spotlight-searchable File browser helps you find and grab any file on your system.
- ◆ Full support for Apple Loops with Apple Loops browser for finding and previewing loops based on tempo, key, style, and mood.

Additional Arrange Features

- ◆ Seamless punch-on-the-fly recording
- ◆ Low latency mode to remove plug-in induced latency during recording
- ◆ Freeze Tracks feature releases CPU resources by invisibly rendering tracks
- ◆ Distributed audio processing (DAP) aggregates processing power of multiple computers on a network
- ◆ Time-linear and/or beat-linear display in the Arrange window

LOGIC STUDIO / LOGIC PRO 8

MIDI Editing

- ◆ **Piano Roll** editor offers an intuitive approach to editing the pitch, placement and duration of MIDI events using a vertical piano keyboard and horizontal timeline axis.
- ◆ You can use **Hyper Draw** to automate MIDI controller data.
- ◆ 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.
- ◆ **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.

Software Instruments

Ultrabeat – Drum Machine

- ◆ Create original beats from combinations of synthesized and sampled sounds. 50 drum kits, each with up to 25 fully editable drum voices. More than 1000 sounds included.
- ◆ Access to 400 built-in drum patterns
- ◆ Drum grid editor with swing and accent controls; step automation
- ◆ Import EXS drum kits directly.
- ◆ Built-in sound-shaping features include effects, multimode filters, LFOs, and EQs.
- ◆ Up to 16 outputs can be routed to separate auxiliary channels for discrete processing.

Vintage Instruments

- ◆ Modeled simulations of vintage keyboards, including: the **EVB3** for classic organs, such as the Hammond B3; **EVD6** for clavs, such as the Hohner Clavinet D6; and the **EVP88** for Fender Rhodes and Wurliitzer electric pianos.

Sculpture – Modeling Synth

- ◆ Uses component modeling based on a vibrating string or bar as a means of sound generation, allowing you to create an infinite variety of synthetic and organic sounds.
- ◆ Create expressive and unusual sounds available in mono, stereo, and full surround.

EXS24 – Sampler

- ◆ Includes more than 1300 EXS instruments.
- ◆ EXS Editor features an intuitive interface that lets you view and graphically edit your sampled instruments.
- ◆ Three built-in LFOs, two envelopes and a multimode filter with adjustable slopes, variable overdrive, and a fatness circuit that ensures excellent low frequency response.
- ◆ Quickly incorporate sample-based sounds, with sample-accurate timing, a robust synthesizer section, and support for sampled instruments of near-limitless size
- ◆ Up to 16 individual outputs.
- ◆ Broad third party sample library support includes Akai, GigaSampler, SampleCell II, SoundFont2, and REX2.

ES1 – Synth

- ◆ Classic analog-style synthesizer for creating earthshaking basses, rich pads, textures, screaming leads, ultrasharp percussion, and exotic effects.
- ◆ Up to 16-voice polyphony; each voice features a main and sub oscillator shaped by the analog ES1 filter.

ES2 – Synth

- ◆ Access a broad range of sounds, a comprehensive selection of synthesis techniques, and powerful modulation options to create radical sounds or nuanced pads.
- ◆ Surround panning and modulation effect
- ◆ Macro Only mode simplifies sound design by letting you manipulate multiple related parameters with just a few basic knobs.

EFM1 – FM Synth

- ◆ The EFM1 uses FM synthesis to re-create the classic synthesizer sounds of the 1980s.

ES E – Ensemble Synth

- ◆ The eight-voice synthesizer lets you mix sawtooth or rectangular waves in a huge variety of tones, with additional controls for frequency and impulse width modulation.

ES M – Monophonic Synth

- ◆ Design powerful basses and expressive lead sounds. Variable between sawtooth and rectangular waves with a 24 dB filter

ES P – Polyphonic Synth

- ◆ Create the characteristic polysynth sounds of 1980s pop music. Features an oscillator, sub oscillator, filter, LFO and an ADSR eg.

WaveBurner

- ◆ WaveBurner is a CD mastering and authoring environment, that is simple enough for quick turnaround demo discs yet sophisticated enough to deliver professional premasters and Red Book–standard CDs.
- ◆ A large waveform viewer; separate region, track, and plug-in panes; and advanced editing and navigation tools, allow you to master CDs quickly and accurately.
- ◆ Use high-quality Studio Effects processing on specific regions or to an entire CD mix.
- ◆ Bounce individual regions as separate audio files or bounce the full mix with a single click.
- ◆ Dither down final CD mixes using a selection of industry-standard POW-R algorithms.
- ◆ Easily insert track markers and index markers using the graphic timeline and create hidden tracks by editing track markers.
- ◆ Create and modify industry-standard ISRC, SCMS, and PQ codes that can be read by all standard CD players, as well as UPC and EA codes for CD identification.
- ◆ Add detailed CD TEXT information, such as track names, artist names, and websites
- ◆ Uses the same default key commands, zoom controls, and screen layouts as in other Logic Studio applications.

LOGIC STUDIO / LOGIC PRO 8

Sample Editor

- ◆ 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 provides five algorithms designed to work with specific source material – Monophonic, Pads, Beats, Version 5 and the default Any Material.

Environment

- ◆ Provides extensive customization of your external MIDI set-up, audio routing, mixing and real-time effects.
- ◆ Assign 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, software instruments, etc... and store a Screenset for each.

Control Surface Support

- ◆ EuCon protocol support for Euphonix MC and System-5-MC control surface systems
- ◆ Support for Smart AV Smart Console and active control surfaces via CS plug-ins
- ◆ Use your Apple Remote to control Logic Pro 8 including play, stop, record, rewind, fast-forward, and next or previous track

Audio Effects

- ◆ Logic Studio includes 80 professional effect plug-ins, including 16 True Surround effect plug-ins, designed to sonically enhance and deliver endless creative possibilities for your productions.
 - The surround compatible Space Designer convolution reverb, uses samples of real acoustic spaces, as well as hardware units, to create incredibly realistic reverbs.
 - Delay Designer allows you to build creative delay effects in stereo or True Surround. Create up to 26 separate delay taps to use the power of 26 delay processors in a single plug-in.
 - The Surround Compressor plug-in allows you to compress multichannel audio using a variety of vintage and modern circuit models, including Opto and FET. Linked compression ensures consistent, smooth compression of surround signals.

Amp Modeling: Bass Amp; Guitar Amp Pro

Delay: Delay Designer; Echo; Sample Delay; Stereo Delay; Tape Delay

Distortion: Bitcrusher; Clip Distortion; Distortion; Distortion II: Overdrive; Phase Distortion

Dynamics: Adaptive Limiter; Compressor; DeEsser; Ducker; Enveloper; Expander; Limiter; Multipressor; Noise Gate; Silver Compressor; Silver Gate; Surround Compressor

EQ: Channel EQ; DJ EQ; Fat EQ; High Cut; High Pass Filter; High Shelving EQ; Linear Phase EQ; Low Cut; Low Pass Filter; Low Shelving EQ; Match EQ; Parametric EQ; Silver EQ

Filter: AutoFilter; EVOC20 Filterbank; EVOC20 Track Oscillator; Fuzz-Wah; Spectral Gate

Imaging: Direction Mixer; Stereo Spread

Metering: BPM Counter; Correlation Meter; Level Meter; MultiMeter; Tuner

Modulation: Chorus; Ensemble; Flanger; Microphaser; Modulation Delay; Phaser; Ringshifter; Rotor Cabinet; Scanner Vibrato; Spreader; Tremolo

Pitch: Pitch Correction; Pitch Shifter II; Vocal Transformer

Reverb: AVerb; EnVerb; GoldVerb; PlatinumVerb; SilverVerb; Space Designer

Specialized: Denoiser; Enhance Timing; Exciter; Grooveshifter; Speech Enhancer; SubBass

Utilities: Down Mixer; Gain; I/O; Multichannel Gain; Test Oscillator

Production-ready Templates

Choose from a variety of templates designed for different music styles— electronic, hip-hop, orchestral, R&B, rock, and songwriter—and professional production scenarios from multitrack stereo production to surround mastering. Easily modify and save templates or create your own.

Utilities**Compressor 3**

- ◆ Use Compressor 3 to encode and preview surround mixes in the industry-standard Dolby Digital AC-3 format. It outputs files to MP3 as well as to any QuickTime-compatible format, including AAC, AIFF, and QuickTime Surround.
- ◆ Convert surround stems into Dolby Digital Professional AC-3 files. Choose Dolby Digital Pro 2.0 or 5.1 audio, or let Compressor select the appropriate setting based on the number of channels in the source file. Before you start encoding, you can audition your settings in the Preview window to hear how your finished file will sound.

Impulse Response Utility

An impulse response is a sample that captures the acoustic characteristics of a given physical space. Use the Impulse Response Utility to create a profile of your favorite recording space—from a tiny wine cellar to Notre Dame Cathedral—in mono, stereo, B-Format surround, or discrete surround. Then use the sample in Space Designer to place your music “inside” the acoustic space.

The Impulse Response Utility features a single window that includes all parameters and functions needed to create impulse responses, including Waveform, Energy, and Spectrogram display modes for detailed editing.

Apple Loops Utility

The Apple Loops Utility lets you convert any audio file to an Apple Loop. It analyzes the sound file and generates the metadata used by Logic Pro and Soundtrack Pro to match the audio file’s tempo and key to the project tempo and key, without changing pitch.

The Loops Utility also allows you to embed descriptive information in the file. This makes it possible for the file to appear along with meaningful related options when you browse Apple Loops in the Studio Sound Library. Reads AIFF and WAV file formats. Use the utility to add and change tags. You can even batch tag sets of files with shared characteristics.

LOGIC STUDIO / SOUNDTRACK PRO 2

Soundtrack Pro 2



Soundtrack Pro 2 is a DAW environment specifically designed for use in audio post-production for film, video, and games. Soundtrack Pro 2 makes it easy to edit dialogue, create unique sound design effects, and deliver a final mix in stereo or even cinematic surround.

With Soundtrack Pro 2 you will fly through editing and mixing with an intuitive interface that combines the multitrack Timeline and Waveform Editor in a single view. Drag audio clips to position them in the Timeline, then select any clip to see detailed information and make sample-accurate edits to the audio file in the multichannel Waveform Editor.

Sample-accurate, nondestructive audio processing allows you to freely experiment to get the sound you need and stay flexible until the final mix. Create immersive soundtracks with flexible surround tools. Projects are seamlessly transported between Final Cut Pro and Soundtrack Pro, using simple round-trip collaboration features and the industry's first automatic conform process.

FEATURES

- ◆ The Single-window interface for the multitrack Timeline features an integrated Waveform Editor so you can fly through audio editing.
- ◆ Watch perfectly synchronized HD or SD video right in the integrated playback window, view it full screen and full resolution on a second monitor with Digital Cinema Desktop, or send it through professional I/O devices to a broadcast monitor.
- ◆ Support for up to 24-channel files, including mono, stereo, and surround.

Action-based editing

- ◆ Action-based editing is a non-destructive, list-based means of editing audio from within the Waveform Editor. This allows you to experiment with sound design as well as more conventional editing tasks without damaging the original audio file.
- ◆ Easily change the nature of the sound by using the Actions list to reorder actions, add new actions, and turn actions on or off.
- ◆ Audio Effects and Audio Units plug-ins can be applied to supported audio files as Actions, and real time effects applied to audio files can be rendered to Actions.

Mixing for Picture

- ◆ A powerful toolset allows you to create mixes for film and video projects, in both stereo and cinematic 5.1 surround.
- ◆ Create simultaneous surround and stereo mixes in the same project with the automatic surround to stereo fold-down option.
- ◆ Includes an intuitive and comprehensive set of tools for creating professional surround mixes, with discrete 5.1 mixing, bussing, and routing.
- ◆ An innovative surround panner dynamically represents how sound is panned in the surround field, with support for mono, stereo, and surround audio files
- ◆ A console-style mixer offers full stereo and surround meters on every track, bus, submix, and master.
- ◆ Surround Panner HUD with automatable controls for rotation, width, collapse, center bias, LFE balance, and individual speaker disabling
- ◆ Surround and stereo panner automation data simultaneously available on each track
- ◆ Support for True Surround and multi-mono effects

Compatibility

- ◆ Share files with other applications and choose from a wide variety of audio interfaces, as well as control surfaces that use Mackie Control or Logic Control protocols.
- ◆ Support for bit depths up to 32-bit float and sample rates from 2kHz to 192kHz
- ◆ Support for AIFF, WAV, MP3, CAF, BWF, SDII, NeXT, QuickTime, and STAP (Soundtrack Audio Project) file playback
- ◆ Save files nondestructively as STAP files or destructively as AIFF, WAV, SDII, QuickTime, CAF, or NeXT
- ◆ Export mixes as AIFF, WAV, NeXT, SDII, MP3, AAC/Podcast, Dolby Digital Professional (AC-3), or using Compressor
- ◆ Support for multichannel surround files
- ◆ Easily move complete multitrack projects between Soundtrack Pro 2 and other industry-standard audio applications. Import and export AAF files for round-trip convenience. If you need to work on older projects, you can import OMF files.
- ◆ Supports any Core Audio compatible interface.

LOGIC STUDIO / SOUNDTRACK PRO 2

Final Cut Studio 2 Integration

- ◆ Seamless integration with Final Cut Studio provides easy round-trip collaboration with film and video editors. Instantly send audio clips or an entire mix to/from Final Cut Pro.
- ◆ Editorial changes made in Final Cut Pro can be automatically updated in Soundtrack Pro using the Conform feature.
- ◆ The Conform feature offers a comparison of the two versions of a Final Cut Pro project and highlights the changed audio clips in your Soundtrack Pro project. From there you can audition and choose which changes to accept, reject, or modify on an event-by-event basis or decide to accept all changes at once. Audio clips are repositioned to synchronize with the picture change or removes the clip if it is no longer needed.
- ◆ Changes are intelligently grouped by type in the Conform worklist view. Soundtrack Pro analyzes the changes and provides confidence ratings to help you quickly identify and accept low-risk changes.

Podcasting

Podcast track to create audio-only, enhanced, or video podcasts. Support for chapter, artwork, and URL markers on video and audio podcasts

The Bin

Use the Bin to organize and manage files, clips, and markers across multiple projects. A powerful search tool and single-click access to your media.

Scrubbing

The tape-style Scrub tool allows you to accurately locate significant points in the audio for placing edits. You can hear the sound at any speed, just as if you were scrubbing tape. You can also use sample repeat scrubbing simply by dragging the playhead in the Timeline.

Fades and Crossfades

Automatically generate crossfades for overlapping clips. Choose and customize fade curves in a visual interface. Lengthen or shorten fades by dragging fade boundaries in the multitrack interface.

Multipoint Spotting Display

- ◆ The innovative three-up video display makes it easy to synchronize sound effects and dialogue to specific events in the video. The display shows video frames for a clip's start, sync, and end points. Slide the audio clip back and forth and watch the video dynamically update as you identify exactly where to position your sound effect.

Advanced Take Management

- ◆ The Multitake Editor makes it easy to capture multiple ADR tracks and create a composite based on the best performances. It simply displays all takes at once, the best of which can be dragged to be included in the final composite.
- ◆ Crossfades are automatically created between takes for seamless playback.
- ◆ Final composites can be moved anywhere and treated as a single audio clip, while still accessing all of the original takes.

Lift & Stamp

- ◆ The Lift & Stamp tool allows you to quickly copy a set of effects or EQ characteristics from one clip and apply them to another, or to save them as a preset for future use.
- ◆ The Lift & Stamp EQ matching technology is an ideal way to make dialogue from different sources sound as if they were recorded at the same time using the same equipment.

Effects, Sound Effects, and Music Beds in Surround

From Studio Effects to Sound Effects and Music Beds, Soundtrack Pro gives you everything you need to create anything from a quick stinger to the comprehensive sound design that sets the mood for an entire film.

- ◆ Create the exact sound you are looking for using professional stereo and surround Studio Effects.
- ◆ 5000 Foley, sound effects, and music beds included in the Studio Sound Library, including over 1000 royalty-free surround sound effects and music beds.
- ◆ Access any of the 16 True Surround-capable Studio Effects including compressors, EQs, Space Designer reverb, and more.
- ◆ Multi-mono support allows you to use any mono or stereo plug-in in surround.
- ◆ Support is also provided for a wide variety of third-party Audio Units plug-ins.

Intelligent Find-and-Fix

- ◆ Repair field-recorded dialogue or restore old or damaged recordings quickly and easily, using a set of audio tools that analyze a file for common problems such as clicks and pops, hum, and phase issues. Audio files can be fixed individually or in a single operation.
- ◆ Advanced noise reduction features allow you to remove background noise such as wind and traffic from field recordings.

Spectrum View Editing

- ◆ The Spectrum view provides a unique visual representation of audio based on frequency, with amplitude revealed through color intensity. Through this visual interface you can select portions of the audio frequency with pinpoint precision, then edit them without affecting other frequencies.

Dialogue & Restoration Tools

- ◆ A range of tools allow you to improve dialogue quickly, easily, and with precision.
- ◆ Intelligent analysis, repair, and restoration functions for: Clicks and pops, Power line hum, DC offset, Phase, Clipped signal
- ◆ Perform audio time stretching without affecting pitch
- ◆ Use Ambient Noise Print to quickly replace unwanted noises from location recordings. Also Background Noise Removal including noise print.



Apple Logic Studio (Mfr # MA797LL/A • B&H # APLSU)

Multitrack Digital Audio/MIDI Recorder/Editor Software with Virtual Instruments and Sound Library**499.00**

SONAR 7 PRODUCER EDITION



Digital Audio Workstation

Powerful and easy to use software for music creation and recording, the feature packed SONAR 7 Producer Edition provides a remarkable experience that excels at every step of your production—from its inspiring, open and customizable environment, to intuitive music creation and editing tools, to polished mixing, editing and delivery—with the recognized best audio quality in the industry.

It offers comprehensive offering of powerful creative tools with an open and customizable environment, high-quality instruments and effects, and flexible mixing and delivery options. These new developments include user customization for MIDI with Smart MIDI Tools, the introduction of the most powerful Step Sequencer found in any DAW, true Linear Phase Mastering Plug-ins, internal sidechaining, delay compensation for external

hardware through an External Insert plug-in, pitch to MIDI functionality with Roland V-Vocal 1.5, integrated CD burning, and numerous workflow and delivery enhancements throughout the application.

FEATURES

- ◆ Record and edit unlimited tracks of audio and MIDI with effects on input. Edit audio and MIDI fast and inline right in the track view. Get the perfect take with the best comping, editing, and take management tools available.
- ◆ Integrated Step Sequencer view provides the most innovative step sequencer feature set available in any DAW today
- ◆ Use AudioSnap to non-destructively fix audio timing, make instant tempo changes to an entire project, lock multiple tracks into the same groove—even quantize multiple tracks in relation to each other. All with unmatched audio fidelity.
- ◆ Shortcuts for assigning a series of audio inputs, and routing selected tracks/busses to the same input/output/main
- ◆ Original SMPTE time stamps stored with clips with easy revert to original time stamp
- ◆ Right-click at cursor to Import audio/MIDI data
- ◆ Make music with thousands of amazing instruments sounds from Z3TA+ waveshaping synthesizer, Dimension LE (including Garritan Pocket Orchestra), Rapture LE, Session Drummer 2; TTS-1 and Groove Synth; PSYN-II subtractive synth; Drop Zone and RXP REX samplers and more.
- ◆ Wave-64 support provides capabilities to record large scale (2 GB+) projects.

Create

Easily mix large projects right on your computer. Built with ergonomics in mind, SONAR 7 puts vital controls and information right where you need them. With unsurpassed audio quality, SONAR 7 gives you the best mixing experience possible for your productions. SONAR's flexible Universal Bus Architecture offers unlimited sends and busses for infinite routing possibilities. Quick Groups provide on-the-fly grouping of track or bus controls with a simple click. Internal sidechaining lets you achieve a new level of mix sophistication. And tracks stay tight with automatic plug-in delay compensation for both internal plug-ins and out-board hardware. Just some of the ways SONAR 7 provides a professional mixing environment.



- ◆ High bandwidth multi-track recording optimizations.
- ◆ Perfect your vocals with Roland V-Vocal editor, providing pitch correction, phrasing, dynamics, and vibrato with Pitch to MIDI conversion.
- ◆ New file format import/export options include Sony Wave-64, AIF, CAF, FLAC, Sound Designer II.
- ◆ Control and automate your virtual instruments with the enhanced Synth Rack. Group controls from multiple instruments together for ultimate tweakability.
- ◆ Create and edit MIDI in new and intuitive ways with an integrated Step Sequencer, Smart MIDI Tools, and other extensive MIDI enhancements.
- ◆ Smart MIDI Tools—intuitively use one tool for multiple editing tasks; completely customizable.
- ◆ Use Active Controller Technology (ACT) to get total control of virtual instruments, effects, and mixing from MIDI controllers and control surfaces. Change your focus and ACT automatically remaps parameters.
- ◆ Connect any Windows-compatible MIDI devices, control surfaces, and WDM or ASIO audio interfaces.
- ◆ Create backing tracks fast with MIDI groove clips, ACID-format loops, and RXP REX player.
- ◆ Integrated Audio CD ripping and burning; Cakewalk Publisher 2.0 for uploading and presenting music online.

SONAR 7 PRODUCER EDITION

Polish

- ◆ Mix with superior sonic clarity using SONAR's industry-first, end-to-end, 64-bit double precision floating point mix engine (accessible on 32-bit computers).
- ◆ Sweeten your mix with professional effects: Boost 11 Peak Limiter, a new Linear Phase EQ and Multiband Limiter, VC-64 Vintage Channel, Perfect Space Convolution Reverb, Lexicon Pantheon Reverb, Sonitus:fx Suite, and more—34 audio and 8 MIDI effects in all.
- ◆ Mix projects with complete flexibility using SONAR's configurable console view, Universal Bus Architecture, true surround busses, bus waveform preview, configurable metering with real-world ballistics, and unlimited tracks, busses, sends and inserts.
- ◆ Achieve a new level of mix sophistication with internal sidechaining for Sonitus:fx Compressor, Sonitus:fx Gate, and VC-64 Vintage Channel.
- ◆ Keep tracks tight with automatic plug-in delay compensation for both internal plug-ins and outboard hardware effects.
- ◆ Automate your mix, instrument, and effect parameters with freehand and pattern-based envelopes, and individual read and write control of all tracks, instruments, and effects
- ◆ Freeze tracks, instruments, and effects to conserve processing power
- ◆ Deliver audio at virtually any bit-depth, and sample rate (up to 64-bit, 500 kHz). Native 64-bit audio is the highest quality in the industry
- ◆ Ensure pristine quality with POW-r dithering and Windowed Sinc sample rate conversion
- ◆ Deliver audio and video in virtually any format including Sony Wave-64, AIF, CAF, FLAC, SD2, WAV, QuickTime, MP3, WMA. Export to OMFI and Broadcast WAV for collaboration with Pro Tools and other DAWs
- ◆ Upload songs directly to the Internet and build song players for your website, with Cakewalk Publisher
- ◆ Burn your mixes directly to CD with integrated CD burning
- ◆ Take your productions deeper with scalable load balancing for multi-processor and multi-core computers. 8 cores and beyond.

With other DAWs, you might spend hours or even days correcting little timing issues and mistakes in your audio tracks. With SONAR 7's AudioSnap, it is literally a "snap" to fix audio timing, correct drum hits, make instant tempo changes to an entire project, lock multiple tracks into the same groove—even quantize multiple tracks in relation to each other. You can build a perfect track just by using SONAR's Comping features to pick the best part of multiple takes. Click your mouse to keep the parts you want and to silence the sections you don't need.



- ◆ Real-time Drag-Quantize allows selected notes and events to be quickly aligned with snap settings
- ◆ Enhanced MIDI editing with functions for splitting, gluing, and muting notes. MIDI display features including MIDI Magnifier, MIDI Meters, and Velocity Colorizer
- ◆ LP-64 Multiband linear phase mastering compressor/limiter with AutoQ functionality
- ◆ LP-64 EQ linear phase mastering EQ with 20-point control curve
- ◆ Internal sidechaining for Sonitus:fx Compressor, Sonitus:fx Gate, VC-64 Vintage Channel, and 3rd party VST plug-ins with sidechain (multi-input) capability
- ◆ External insert plug-in lets you insert and mix with external hardware effects and instruments with automatic delay compensation.

64-bit Processing

64-bit Multi-Core and Dual Processor Intel-based Workstation Platforms enable outstanding performance for digital audio professionals:

- ◆ Support for 64-bit computing allows access to 8 or more GB of RAM.
- ◆ Process more of your projects in memory with less data caching to and from your hard drive, enabling faster performance.
- ◆ Audio and video processes perform close real-time, critical for complex audio/video filter algorithms and large data sets demanded by today's professional applications.
- ◆ Intel Advanced Smart Cache offers up to 4MB Shared L2 Cache enabling efficient data sharing for improved performance of multi-tasking and multi-threaded applications.
- ◆ Intel dual core processors offer up to 4 threads per socket, enabling multithreaded applications such as SONAR to seamlessly multitask and handle more content creation simultaneously.
- ◆ High-performance 667 MHz front side bus, fast DDR2 667 MHz memory and enhanced memory pipelining enable more responsive sampler performance.
- ◆ PCI Express* x16 graphics offers faster redraws of complex audio waveforms and enables high quality, smooth video playback for scoring your next soundtrack.

SONAR 7 Producers Edition (Mfr # 10-CWSP7.00-10C • B&H # CAS7PE)	499.00
SONAR Power Studio 660: Portable FireWire Audio Production System with SONAR 5 Studio Edition Software and SPS-66 6-In / 6-Out FireWire Audio/MIDI Interface (Mfr # 10-SPS65.00-10C • B&H # CASPS660)	479.95
Rapture Virtual Synthesizer: Plug-In for Mac OS X and Windows XP (Mfr # 10-CWRP1.00-10C • B&H # CAR).....	179.95

PRO TOOLS LE • PRO TOOLS M-POWERED

Music Production Software for Windows and Macintosh



Pro Tools LE 7 and Pro Tools M-Powered personal studio systems are industry-leading digital audio workstation and MIDI sequencing applications that offer exceptionally powerful and flexible recording, editing, mixing and automation capabilities. Both applications offer up to 32 simultaneous audio tracks up to 24-bit 96 kHz (expandable to 48), and 256 MIDI tracks. Pro Tools streamlined interface allows you to capture ideas quickly and easily. They offer powerful customization and grouping options, and improved video functionality and post production workflows that are built for speed, empowering you to work smarter and faster. All editing is nondestructive, and there are a number of specialized audio tools available for editing audio with high

efficiency and greater precision and flexibility. One such tool is Elastic Time which allows you to easily change the tempo and timing of loops, music, dialog, and other sound files in real time without cutting up audio tracks. Both applications allow you to easily import audio, MIDI files and loops in a variety of formats. Pro Tools LE is included with Digidesign's Mbox 2 series and 003 series audio interfaces. Pro Tools M-Powered is available for a wide range of M-Audio interfaces including all Delta PCI and FireWire products, Black Box, M-Audio Ozone, Fast Track USB, MobilePre USB and Transit. Whether you're composing music or mixing audio for post production, Pro Tools is packed with a wide range of cutting edge features to ensure that you make the most of your creativity.

FEATURES

Audio

- ◆ 32 simultaneous audio tracks and 128 virtual audio tracks, expandable to 48 tracks with the optional Music Production Toolkit or DV Toolit 2 desktop post-production suite.
- ◆ Superior sound quality with support for 24-bit/96 kHz audio.

MIDI

- ◆ Fully integrated MIDI sequencing with up to 256 simultaneous MIDI tracks
- ◆ Real-time control of quantization, velocity, note duration and transposition.
- ◆ Instrument Tracks combine MIDI and audio capabilities in a single channel strip, simplifying routing for virtual instruments and MIDI sound modules

Recording

- ◆ Low-latency monitoring while recording with QuickPunch functionality. Set an automatic punch-in/punch-out range to effortlessly fix a passage.
- ◆ Use loop recording to capture several takes of a solo.

Editing

- ◆ Fully non-destructive editing with world-class tools.
- ◆ Beat Detective LE automatic groove analysis and correction tool
- ◆ Time Shift DigiRack plug-in delivers superior time compression/expansion.
- ◆ Region Groups allow grouping of any combination of audio and MIDI regions, across any number of tracks.
- ◆ Region Looping offers an easy way to repeat one or more regions and Region Groups.
- ◆ Separate on Grid and Separate at Transient functions allow editing of multi-track audio regions simultaneously, based on a grid value or transients in an audio file.
- ◆ Quantize audio regions according to a grid or groove template.
- ◆ Strip Silence, plus "Reverse" Strip Silence functionality that allows for extracting louder portions of audio tracks.
- ◆ Right-click functionality allows you to quickly perform common tasks by simply choosing a command from a shortcut menu.

Mixing

- ◆ Host processing efficiency allows you to run many select RTAS effects and instrument plug-ins simultaneously.
- ◆ Up to 32 internal mix busses and up to 10 sends per track increases mixing flexibility and allows larger, more complex mixing architectures.
- ◆ Copy or move send assignments across tracks via drag-and-drop.
- ◆ Full automation of Volume, Pan, and Mute, as well as Send volume, pan, and mute and Plug-in controls
- ◆ Advanced automation features and editing including real-time display.
- ◆ Automate All command allows arming automation of all plug-in parameters at once.
- ◆ Automation data displays in real time while it's being written.
- ◆ RTAS Engine error suppression options ensure that Pro Tools will keep moving along with your creativity—even when your system approaches its processing limits.

PRO TOOLS LE • PRO TOOLS M-POWERED

- ◆ Pro Tools uses both tick-based time and sample-based time. Sample-based time is time in minutes and seconds. Samples of audio exist as a fraction of real time. For example, the sample rate of CDs is 44.1 kHz, that is to say there are 44,100 samples per second. Tick-based time on the other hand is measured in bars and beats, not minutes and seconds.

Compatibility

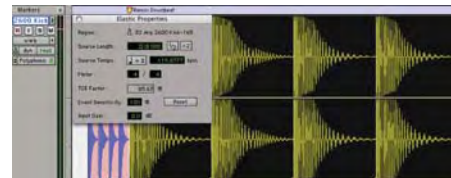
- ◆ Works on Windows XP and Mac OS X computers.
- ◆ Powerful options for importing a wide-variety of audio/MIDI files and session data elements.
- ◆ Built-in DigiBase file management tool organizes audio and MIDI files according to attributes such as tempo; includes importing of Red Book audio CDs.
- ◆ Import MIDI, REX, ACID, WAV, AIFF, AAC, MP3, and CD audio files.
- ◆ Multiple export options.
- ◆ Support for streaming ReWire applications into Pro Tools.
- ◆ Session compatibility with Pro Tools|HD and Pro Tools M-Powered and LE systems.
- ◆ Support for the DigiDesign Control|24 and Command|8 control surfaces.
- ◆ Wide-range of compatible third-party creative software options (AudioSuite, RTAS, and ReWire-compatible applications).

Video

- ◆ Support for QuickTime video formats, including HD formats such as H.264, HDV, and DVCPRO 100.
- ◆ Support for Avid Mojo SDI, an affordable, professional solution for desktop post production that seamlessly integrates industry-standard Avid video.
- ◆ A video track is available that has its own set of track controls, including Track Name, Playlist, Online, Track View, and Track Height. In Frames View, video data is displayed as pictures in the video track. In Blocks View, video frames are replaced by colored blocks.
- ◆ A Video Engine Rate indicator displays video frame rates, and DigiBase browsers let you search and sort video clips by compression type and other useful metadata.

Elastic Time

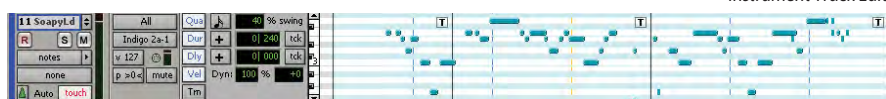
Elastic Time functionality allows you to manipulate the timing of audio events in real time, while maintaining exceptional sound quality, by simply expanding or contracting regions. Powerful tempo and transient analysis allow you to easily create loops from any audio file, including entire compositions.



- ◆ Change the tempo and timing of loops, music, dialog, and other audio files without cutting up audio.
- ◆ Audition loops and audio files in sync with your session's tempo. Imported audio files instantly conform to your sessions tempo.
- ◆ Quantize individual or multiple audio tracks to the session grid or to extracted grooves while preserving timing offsets.

- ◆ Fine-tune regions with precision control over each individual beat using the warp track view and warp markers
- ◆ Choose from a range of time-stretching algorithms to suit the source material on a per track basis.
- ◆ Using Render mode to ease CPU strain. The Render and Commit option replaces all regions with rendered audio files.

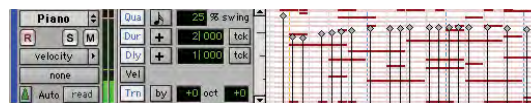
Advanced MIDI Capabilities



- ◆ MIDI regions are created on bar boundaries to help with looping and arrangement.
- ◆ Sample-based MIDI tracks lock MIDI events to time code regardless of session tempo changes.
- ◆ Zoom Toggle switches quickly between two different user-defined settings in the Edit window.
- ◆ Mirrored MIDI editing mode allows adjustments made to one MIDI file to affect all existing copies of that region.

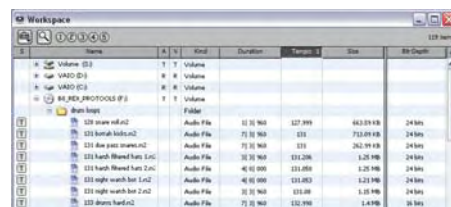
- ◆ Split a MIDI performance into multiple tracks by MIDI note, velocity, duration, or position.
- ◆ Remove Duplicate Notes command allows users to quickly clean up recorded or merged MIDI tracks.
- ◆ Change Duration window offers legato, overlap correction, and transform sustain pedal features.
- ◆ Transpose window transposes all selected notes in octaves and semitones.

Realtime MIDI Properties:
Quantize, Duration, Delay,
Velocity, and Transpose



DigiBase Browser

- ◆ Combines an intuitive browser with an integrated databasing engine, optimized for Pro Tools data and media management.
- ◆ Extensive tools are provided for searching, sorting, auditioning, and importing of audio, MIDI, and session files.
- ◆ Multiple browsers can be displayed and arranged, with custom display settings to optimize your work environment.
- ◆ View mounted volumes (disks), including multiple volumes simultaneously, and search all content on mounted volumes.



- ◆ Drag and drop audio, MIDI, Region Group, REX, ACID, or entire session files, as well as OMF audio and sequences or AAF sequences from browsers into the session.

PRO TOOLS LE • PRO TOOLS M-POWERED

Effects and Virtual Instruments

- ◆ Real-time RTAS effects plug-ins, as well as file-based AudioSuite effects plug-ins.
- ◆ Ships with over 50 RTAS and AudioSuite plug-ins, including EQ, dynamics, delays, reverb and more.
- ◆ Default EQ and dynamics plug-ins allow for immediate access to commonly used plug-ins.
- ◆ Dynamics III DigiRack plug-in allows easy and powerful control of mix dynamics.
- ◆ EQ III includes a filter band-pass solo mode, making it easy to isolate and remove unwanted signals or noise in an audio track.
- ◆ Access a wide range of compatible creative software options available from Digidesign and Digidesign Development Partners.
- ◆ Drag and drop plug-in settings from the DigiBase browser onto insert slots or active plug-ins for instant plug-in opening and setting recall
- ◆ Includes Structure Free sample player with over 885 MB of high-quality samples.
- ◆ Xpand! Sample-Playback/Synthesis Workstation is a powerful instrument plug-in that puts more than 1,000 professional sounds at your fingertips, with up to four layers and two effects.



Structure Free



Bomb Factory Classic Compressors

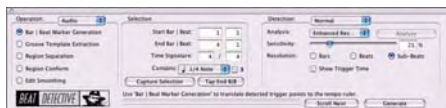


DigiRack Plug-Ins

Included DigiRack Plugins

EQ	1-Band EQ, 4-Band EQ, EQ II, EQ III
Dynamics	Compressor, DeEsser, Dynamics II, Dynamics III, Expander-Gate, Gate, Limiter
Reverb	D-Verb, D-Verb-AS
Modulation / Delay	Chorus, Delay, Extra-Long Delay, Flanger, Long Delay, Medium Delay, Mod Delay, Mod Delay II, Multi-Tap Delay, Short Delay, Slap Delay, Ping-Pong Delay, Pitch Shift,
Utility	Click, DC Offset Removal, DigiReWire, Dither, Normalize-Gain Change, Gain, Signal Generator, Reverse-DC Removal, Time Comp-Exp-Pitch Shift, Duplicate, Invert-Duplicate, Trim
Included Bomb Factory Plug-ins	Essential Clip Remover, Essential Correlation, Essential Meter Bridge, Essential Noise Meter, Essential Tuner, BF76, Funk Logic Masterizer

Beat Detective LE



Beat Detective is a powerful tool for analyzing, editing, and manipulating audio or MIDI tracks that have an inherent rhythmic character. Beat Detective analyzes an audio or MIDI selection, identifies its peak transients or accented notes, and generates beat triggers based on the detected peak transients or MIDI notes.

- ◆ Extract tempo and beat information to create Bar|Beat Markers that can be used to define the session's tempo map.
- ◆ Extract tempo and groove info as groove templates, called DigiGrooves. These templates can be applied to audio or MIDI using Beat Detective or Groove Quantize.
- ◆ Separate an audio selection into discrete regions, and then conform (or "quantize") separated regions to the session's tempo map, or to groove templates.

Streamline Workflow

- ◆ Up to 99 Window Configurations to instantly recall custom view arrangements
- ◆ Easily insert and renumber memory locations
- ◆ Hide All Open Floating Windows command.
- ◆ 104 groups available.
- ◆ The Memory Locations window includes separate tools and view filters, plus Window Configurations. You can also now edit memory locations and change their slot positions.
- ◆ With the Loop Trim tool, you can turn any audio or MIDI region into a loop instantly.
- ◆ The Loop Preview mode lets you quickly audition a selected REX or ACID file in the DigiBase browser, while Auto Preview mode allows you to audition single or multiple files automatically when selected.
- ◆ The Zoom Toggle preference allows you to specify the track height, track view, and Edit grid resolution when zooming. Track height is continuously variable, allowing you to quickly adjust a track's height by simply clicking and dragging.

Software Features	Pro Tools LE	Pro Tools M-Powered
Pro Tools Ignition Pack	Included	-
Support for Control 24 control surface	✓	-
Support for DV Toolkit option	✓	-
Support for DigiTranslator	✓	-
Pre-authorized iLok copy protection device	-	Included

Pro Tools M-Powered – (Mfr# 99105703500 B&H# MAPTMP74)**219.95**

MUSIC PRODUCTION TOOLKIT

Software Expansion Option for Pro Tools LE and Pro Tools M-Powered

Music Production Toolkit is an add on bundle that offers Pro Tools LE and M-Powered users an increased track count, along with an impressive collection of powerful plug-ins and enhanced editing tools. The Music Production Toolkit allows you to expand your Pro Tools sessions up to 48 mono or 48 stereo tracks at up to 96 kHz. Advanced plug-ins available in the Music Production Toolkit include: Hybrid, a versatile high-definition synthesizer from Digidesign's new Advanced Instrument Research group; TL Space Native Edition, a pristine convolution reverb; Smack! LE, a professional compressor/limiter; SoundReplacer, a time-saving sound replacement tool; and DINR LE, an easy-to-use noise reduction plug-in. The Music Production Toolkit also features a multi-track version of Beat Detective, which allows you to perform automatic groove analysis and correction across multiple audio and MIDI tracks at the same time. Additionally, the Toolkit also provides the Pro Tools MP3 Option for exporting mixes as MP3 files.



Music Production Toolkit – (Mfr # 9910-55016-00 • B&H # DIMPTK)CALL

DV TOOLKIT 2 Post-Production Suite For Pro Tools LE



The DV Toolkit 2 option for Pro Tools LE systems provides a comprehensive collection of tools for producing high-end sound for film or video. DV Toolkit 2 offers you access to many of the post production features of Pro Tools|HD, but in a smaller, more portable and cost-effective solution. Like the Music Production Toolkit, the DV Toolkit 2 expands Pro Tools LE's track count to up to 48 mono or stereo tracks at up to 96 kHz (hardware dependent). Included are three powerful post-production oriented plug-ins: TL Space Native Edition convolution reverb, DINR LE intelligent noise reduction tool, and Synchro Arts VocAlign Project for Pro Tools time-alignment tool. DV Toolkit 2 also makes available a host of post-specific Pro Tools functions, including "Replace Region" and "Fit to Marks" commands, Scrub Trim tool, Export Session as Text, Continuous Scroll mode, Universe window, Automation snapshots, and Enhanced Import Session Data features. The DigiBase Pro file management tool accommodates working with the large number of files and volumes associated with post projects. The DigiTranslator 2.0 option allows you to import and export projects to and from video editing applications, such as

Avid Xpress software. Additionally, the Pro Tools MP3 Option allows you to export mixes as MP3 files.

- ◆ A **Time Code** ruler in the Edit window makes it easy to spot sounds and sound effects using Time Code or Feet + Frames values.
- ◆ The **Replace Region** function allows you to quickly replace multiple instances of a sound effect, room noise, loop, or any other kind of audio region with another. Select the **Edit to Timeline Selection** mode to automatically expand or compress the replacement region to fit within a specified amount of time.
- ◆ Use the **Scrub Trim** tool with your mouse to quickly audition audio, select a trim point, and simultaneously trim the region.
- ◆ **Export Session Info as Text** allows you to communicate key session information, including the session's sample rate, bit depth, and time code format plus the edit decision list (EDL)—a list of all edits with their time code in and out points.
- ◆ The **Universe Window** provides a fast visual overview of all tracks in a session and to navigate quickly to any location. A vital tool for the large sound-for-picture projects.
- ◆ **Automation Snapshots** allows you to write or trim automation data for multiple parameters in a single step (or "snapshot").
- ◆ The **Enhanced Import Session Data Options** allows you to Import track names, specify time code mapping, find matching tracks, and much more, from other sessions for a streamlined workflow.
- ◆ **Synchro Arts VocAlign Project** stretches or squeezes one audio signal to automatically match the timing patterns of another, making editing fast and easy. It can be used to synchronize dialog to video, dub foreign language films, tighten Foley and sound effects tracks, or achieve a perfectly lip-synched performance for a music video.

DV Toolkit 2 (Mfr # 9910-55015-00 • B&H # DIDVTK2)CALL

TRACKTION 3



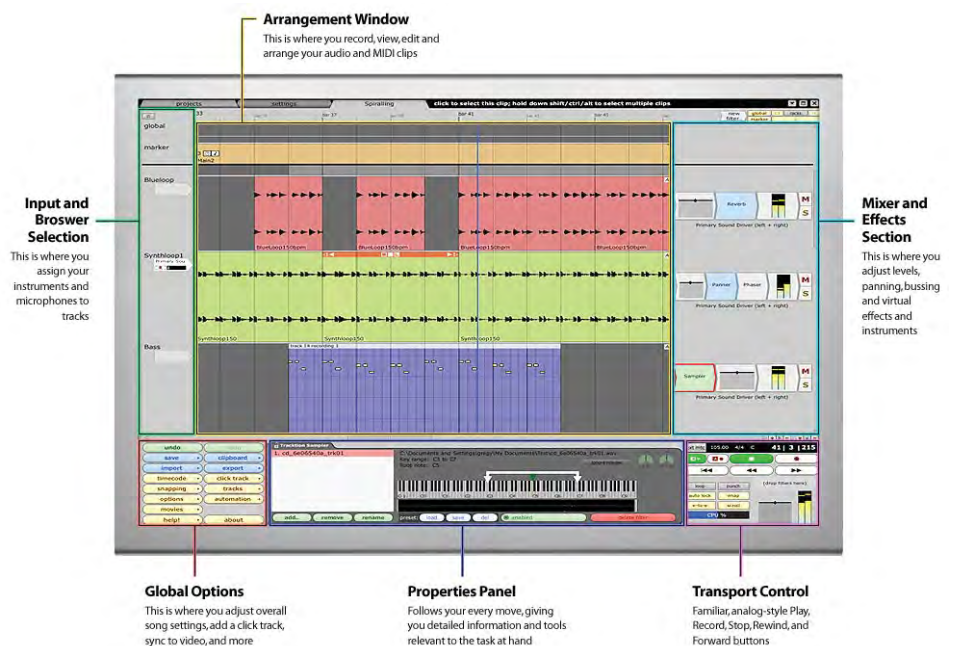
Music Production Software

Tracktion 3 is a PC and Mac compatible DAW that offers streamlined audio and MIDI recording, editing, mixing and mastering, in a clutter-free, single-screen user interface. It offers unlimited tracks, sample rates up to 192kHz, support for unlimited VST effects processing, as well as VSTi virtual instrument plug-ins. Quicktime support allows you to view and sync to video for scoring and post applications. A user-friendly loop browser accommodates quick and inspired music creation. Tracktion 3 supports Apple, ACID and REX loop formats on both Mac and PC for flexible music-making on any platform. Tracktion 3's time stretching and pitch shifting capabilities allow you to conform audio tracks to your music or to picture.

FEATURES

Recording

- ◆ A simple, single-screen interface accommodates all basic recording and editing operations - with a property panel that follows your every move, providing pertinent information for the task at hand.
- ◆ Inputs are on the left side of the screen; audio and MIDI clips are in the middle. Effects and outputs are on the right.
- ◆ The time-line provides time divisions of bars/beats, seconds/milliseconds, or seconds/frames.
- ◆ In/Out markers let you define a section of an edit to be played in Loop mode.
- ◆ To set up a track for recording simply drag the audio or MIDI instrument icon to whatever track you like and hit Record.
- ◆ Recording multiple inputs at once is as simple as selecting the "assign all inputs to consecutive tracks" shortcut.
- ◆ There is no predetermined limit on the number of tracks you can record or the number of effects you can use. Software takes full advantage of dual core/dual processor CPUs.
- ◆ A high-definition 64-bit math mixing option improves headroom and eliminates distortion through the summing bus. Ready for 192kHz-compatible audio interfaces.
- ◆ "Loop Record Mode" makes it easy to record multiple passes of audio or MIDI and compile the best of each into the perfect take.
- ◆ With the Safe Record feature enabled, recording won't stop until a customizable key command is entered.



Editing

- ◆ Non-destructive editing allows you to "undo" and "redo" your edits.
- ◆ Once audio is recorded or imported it is presented in the arrange window as an audio clip.
- ◆ Clips provide tools for editing them right at the top of each clip - no more going to drop-down menus for commands, or going somewhere else on the screen to do fades
- ◆ Folder Tracks allow hiding and showing of groups of tracks in an edit, with support for nested folders.
- ◆ As a practical example, the user can lower the volume or change the panning of every element in a rhythm section, without having to go in and select each individual drum and bass sound
- ◆ A "Marker Track" allows display of all markers in an edit. Markers can be treated as clips, much like audio and MIDI - they can be moved around, split, stretched and edited. Markers can be named and assigned a color for easy identification. Markers can be easily recalled using key commands.

TRACKTION 3

Composing

- ◆ Loop Browser allows for pulling up a huge variety of pre-recorded music loops in a wide range of file formats, including Recycle, Apple Loops and Acid.
- ◆ The Loop Browser lets you access a variety of pre-recorded music loops in a wide range of file formats, including Recycle, Apple Loops and Acid. Loops are organized by instruments, genres and descriptors, and can be further identified by key.
- ◆ Pre-organizes loops by "instruments", "genres" and "descriptors" (single, ensemble, part, fill, acoustic, etc.) The search can be further narrowed by "key" (major, minor, both, neither,) and finally via a "search" field for searching via keywords.
- ◆ Loops can be dragged directly into the Arrange Window.
- ◆ Hundreds of high-quality loops are provided in a variety of styles from Sonic Reality.
- ◆ High-quality Time Stretching capabilities allow you to radically adjust the tempo of loops, samples, or even recorded tracks, and have them to conform to the tempo of your current session.
- ◆ Pitch Shifting allows for using instruments and samples that were originally played in other keys into the current project
- ◆ Features a powerful-yet-streamlined MIDI editor, optimized for speed and ease of use, whether recording from a synthesizer, or doing detailed editing of a performance with the MIDI pencil tool.
- ◆ The "Piano Roll" MIDI editor features pencil and eraser tools for drawing and deleting notes. A select tool lets you move and change the duration of notes, while the line tool can be used to draw in lines of MIDI notes, controller data and velocity ramps.
- ◆ The MIDI editor also offers a Step Entry mode, as well as versatile quantizing functions including creating and applying groove templates, and more.
- ◆ Full ReWire 2.0 support for integration with applications like Ableton Live and Reason and other ReWire-supporting software
- ◆ Supports QuickTime video playback allows you to compose music, add effects, and replace dialog for film and video projects.

Mixing

Filters

- ◆ In Tracktion, the term "filter" applies to any effect, native or third party plug-in, virtual instrument, or anything else. Each track includes a volume/pan filter and a level meter filter, located to the right of the arrange window. Filters can be copied, re-arranged, and applied to individual audio clips, groups of tracks, and more.
- ◆ Common types of Tracktion filters include Volume/Pan, Level Meter, 4-Band EQ, Auxiliary Send and Return, Effects, plus third-party VST plug-in and virtual instruments

Rack Filters

- ◆ Rack filters allow for the simple creation of complex instrument and effects combinations. They allow you to combine filters together and use them as a group - just as you would a rack of effects processors.
- ◆ Create totally unique effects and instruments combinations, unattainable with conventional mixer-based audio software. Custom rack filters can be saved and recalled for later use.

Track Freezing

- ◆ The Track Freeze function renders single and multiple tracks with all of their associated audio files, effects and instruments to a single file on the hard disk, freeing up your CPU of valuable resources.

Effects Plug-Ins

- ◆ Includes a full-suite of native effects plug-ins, ranging from dynamics to modulation, reverb and more. Also supports third party VST and VSTi plug-ins.
- ◆ These plug-ins are available as filters to place on any track, group of tracks, individual audio clips, on groups of audio clips, or across the entire mix.

Mix Automation

- ◆ Mix automation allows you to record and play back mixer settings such as level and pan, as well as plug-in parameters, such as reverb level or filter frequency.
- ◆ Mix Automation is enabled by dragging and dropping the "A" from a track on to any filter - the user can then choose from a list of automatable parameters.
- ◆ Automation moves can be captured while a session plays and then edited further

Control Surface Support

- ◆ Supports Mackie Control Universal/Extender Pro and Control C4 Pro controllers, providing hands-on control of a full range of recording and mixing parameters - including plug-ins and virtual instruments. Also supports third party control surfaces including the Frontier Design Tranzport and Novation ReMOTE LE.

Virtual Instruments

Includes comprehensive collection of virtual instruments and sample libraries from SampleTank, DrumCore, Garritan Personal Orchestra, Native Instruments KONTAKT Player, LinPlug Alpha 3 Classic Synth and Cronox 3 Sample Synth, the RM IV Drum Addiction, and more

Tracktion Bundles

Tracktion 3 Project Bundle: Includes — IK Multimedia SampleTank 2 SE w/ 50 sound sets • LinPlug Free Alpha classic synth and CronoX3 Lite sample synth • IK Multimedia Amplitube Uno • LinPlug RMIV Lite drum machine w/ 100 kits and 50 loops • Garritan Personal Orchestra w/ starter sample set/ powered by Native Instruments • Sonic Reality T3 Project Collection (500 Apple loops, 50 Rex loops, Kontakt 2 Player 250MB multi-track loops) • Submersible Music DrumCore TK w/ starter sample set. (Mfr # TRACKTION3PROJECT • B&H # MAT3P).....**99.99**

Tracktion 3 Ultimate Bundle — IK Multimedia SampleTank 2 SE w/ 100 sound sets • LinPlug Alpha classic synth and CronoX3 sample synth • IK Multimedia Amplitube LE • LinPlug RM IV drum machine w/ 250 drum kits and 2,000 loops • Sonic Reality T3 Ultimate Collection (2,000 Apple loops, 200 Rex loops, • Garritan Personal Orchestra w/ full 820MB sound library powered by Native 1GB multi-track loops) Instruments Kontakt 2 Player • Submersible Music DrumCore TK w/ 2GB drum sample library. (Mfr # TRACKTION3ULTIMATE • B&H # MAT3U)**249.99**

DIGITAL PERFORMER



Integrated MIDI and Audio Sequencer

Digital Performer is an advanced MIDI and audio workstation for Mac OS X that allows you to record, edit, arrange, mix, process and master music, sound tracks for film and television, and other audio production tasks. Digital Performer delivers 32-bit processing and 64-bit mastering, with comprehensive surround sound and video support. Version 6 of Digital Performer features a complete user interface redesign, XML file interchange with Final Cut Pro, and many more industry-leading film scoring enhancements.

Additionally, numerous advancements for workflow and compatibility have been implemented such as track comping, support for interleaved broadcast WAVE audio files, enhanced support as a software front end for Pro Tools HD systems, pre-rendering of virtual instruments, the ability to "bounce and burn" directly to an audio CD and much more. You can process your tracks, both correctively and creatively, with over 50 included real-time audio and MIDI effect plug-ins. A range of new plug-ins have been added including the efficient ProVerb convolution reverb, MasterWorks EQ modeled after British console EQs, MasterWorks Leveler modeled after the legendary LA-2A optical leveling amplifier, MultiMode Filter, Pattern Gate and many more. Get started immediately using the included virtual instrument plug-ins that cover synthesis, drum programming and sampling. Whether you're completing a surround sound DVD, or you just want to write a song and burn a CD or MP3 file, Digital Performer gets you there quickly with elegance and ease.

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 828 MKIII, as well as a wide range of third party audio hardware using Core Audio drivers. ProTools HD is also supported
- ◆ 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.

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

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

- ◆ Over 50 real-time 32-bit and 64-bit DSP-effects are provided 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.

Streamlined Interface

- ◆ Vertically resizable track list gives you a better look at each track's settings and graphic overview.
- ◆ Streamlined windows look clean and information is easy to see. Zooming and navigation controls have been unified throughout. Live window resizing allows users to see the contents of the window as it is resized.
- ◆ The Universal Track Selector conserves screen space by offering one track selector that updates when you switch to a different window tab.
- ◆ Virtually every parameter can be accessed via customized key commands or MIDI controller. Import saved key commands into a DP session at another studio.

Automation

- ◆ Everything is automatable, including effects parameters with five advanced automation modes and sample accurate editing of automation data
- ◆ Save your fully automated mixdown for instant recall at any time, and then create an unlimited number of alternate mixdowns

DIGITAL PERFORMER

Track Comping

- ◆ Record multiple takes into a track, and then choose one take in the track for playback and editing. You can then choose Show Takes to view all takes side by side.
- ◆ The Take Tool allows you to easily makesplit points across all takes and then click the desired section from each take to quickly create a composite take consisting of the selected sections. Crossfades can be applied to the comp, along with all standard region editing in a DP track.
- ◆ The Turn All Takes Into Tracks and Absorb Tracks commands allow you to explode takes into tracks, or collapse tracks into takes, respectively. Takes behave just like tracks, with their own play/mute buttons, output assignments, automation settings and so on.

Track folders

- ◆ In all windows that display tracks, such as the Sequence Editor, you can organize lengthy track lists into folders and sub-folders, much like the list view in the Mac OS X Finder.
- ◆ Several modifier keys are provided for expanding and collapsing all folders, either at the same level of hierarchy or further down the hierarchy via enclosed, nested folders. Users can employ Digital Performer's existing track color management features together with track folders to further color-code and organize your projects.

Pitch Automation

- ◆ Pitch automation functions are available, for pitch correction, quantizing pitch, as well as applying creative pitch effects, using DP's intuitive track-based automation tool set.
- ◆ Pitch automation can be applied to monophonic audio material, such as a lead vocal, in mono, stereo or surround track formats.
- ◆ Pitch is automatically detected on audio that is recorded or imported into DP.
- ◆ Choose between natural-sounding formant-corrected pitch shifting, or standard pitch shifting for creating special pitch effects.
- ◆ Pitch correction can be quickly drawn using the pencil tool. You can loop audio and make changes in real time, and creatively draw the pitch curves using periodic waves forms such as sine, saw and square.
- ◆ You can also adjust pitch on a note by note basis, simply by grabbing the pitch segment for the note and dragging it up or down to the desired pitch.
- ◆ The Quantize Pitch function allows you to correct the pitch of an entire track — all notes simply snap to their nearest pitch.
- ◆ Scalable pitch curves allow you to control the degree of pitch variation and vibrato.
- ◆ The Transpose command allows you to change the key of a track up or down in intervals. Using the custom pitch map you can transpose specific notes to efficiently change the mode or create a harmony.
- ◆ MIDI data can be generated for audio tracks by copying pitch segments from the audio track and pasting them into a MIDI track.

Waveform Editor

- ◆ The full-featured waveform editor can lock playback in the waveform editor to DP's main transports to use all of the familiar transport and selection features in the control panel, including DP's playback wiper.
- ◆ The advanced Beat Detection Engine and audio file tempo map features allow you to directly edit the embedded tempo maps in audio files with a unique "rubber-banding" interface that allows you to make adjustments to individual tempo events while the tempos before and after remain anchored. For example, you can simply grab a tempo event at the downbeat of a measure and drag it earlier or later to perfectly match the downbeat in the audio file. Edits can also snap to detected beats in the audio for quick and easy tempo map adjustments.

Mix Mode Menu

- ◆ Digital Performer's Mix Mode menu in the Mixing Board lets you create, save, edit and switch between multiple mixdowns of your project. This allows you to create several completely different mixes of the same sequence, consisting of all of the volume, pan, plug-in and other mix automation data in all the tracks of the sequence, as well as all of the current plug-ins inserted on tracks.
- ◆ The Mix Mode menu provides complete independence among separate mixes, even if they don't have any automation data in them.

Trim, Slip, Slide and Roll Tools

- ◆ The tool bar contains four audio editing tools: Trim, Slip, Slide and Roll. The **Trim** tool lets users drag the edge of an audio region. The **Slip** tool allows users to move the waveform inside an audio clip earlier or later without affecting the left or right edge of the audio region. The **Slide** tool does the converse: it allows you to move the edges of the audio region earlier or later by the same amount in one drag operation while the audio inside the clip remains anchored to its current position in time. The **Roll** tool allows you to drag the border between two adjacent audio regions in one operation, "covering up" a portion of one region while "uncovering" the other.

Meter Bridge

- ◆ The Meter Bridge window is dedicated to monitoring all signal paths in the Digital Performer mixing environment. With a single click, you can independently show or hide available hardware inputs, outputs, busses, bundles and tracks as desired.
- ◆ The Meter Bridge provides long-throw, scalable meters with extremely fast, smooth and accurate ballistics. You can quickly toggle between two different layouts: the linear layout shows all meters side by side in one row that scrolls left and right. The wrap-around layout displays all meters in multiple rows that fit in the space available in the window for an instant bird's eye view of all signal paths currently being viewed.

Clip-based Automation and Voice Allocation

- ◆ In addition to track-based automation data that can be used to control the overall volume of audio in a track, specific audio regions (soundbites) can have their own non-destructive volume automation curve. By choosing the "Bite volume" layer for an audio track in the Sequence Editor, you can draw a volume curve "inside" a soundbite with the pencil tool (or other automation tools). The bite volume curve is now part of the soundbite and remains with it (and all instances of it) when moved, trimmed, copied or otherwise manipulated.
- ◆ Automatic audio voice allocation ensures audio engine resources are efficiently and dynamically allocated to audio tracks as needed to play and record.

DIGITAL PERFORMER

Sound For Picture

Bounce to QuickTime Movie

- ◆ Import the audio track from a QuickTime movie and place it in the project time line.
- ◆ You can also export your DP soundtrack directly into a QuickTime movie with the Bounce to QuickTime movie feature, or, to save disk space, you can also reference the original source QuickTime video file.

Film/Video Scoring

- ◆ Find Tempo allows you to establish just the right tempo, with sub-frame accuracy, for your cues by calculating which tempos deliver the most "hits" - moments in time where significant points in the action on-screen match the downbeats of your score.

Multiple QuickTime Movies

- ◆ Open a separate movie window for each sequence in a project. For example, if you score TV commercials, and you have one DP project with several versions of the soundtrack (:15, :30 and :60 second versions), each sequence can reference a different QuickTime movie. When you switch from one sequence to another (by clicking its play-enable button in the Chunks window), the movie window will update itself to show the movie you chose for that sequence.

Streamers, Punches and Flutters

- ◆ Streamers, flutters and punches help composers, conductors and musicians to anticipate visual hits and, synchronize the music to what is happening on screen. You can superimpose streamers, punches and flutters directly on a QuickTime movie playing in DP's movie window. This allows you to collaborate more efficiently with music editors and better prepare for and conduct live orchestra sound stage scoring sessions. By bringing these visual cues to the native desktop, without expensive and cumbersome hardware, DP paves the way for you to conduct small- to medium-scale scoring sessions in your studio.
- ◆ DP's ability to trigger these visual cues has also supports the CueLine ProCue 1m1 and ClickStreamMachine, two third-party devices commonly used in the industry for live orchestra sound stage scoring sessions.

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, plus support for third party panners. Panning movements are fully automatable.
- ◆ Each audio track can be assigned to any surround sound format and have its own, independent surround panner. The desired panner can be controlled with the panning dish available for each track's channel strip. Panners can also be opened as separate windows (just like a plug-in).
- ◆ Use a compatible USB joystick to control any MOTU or third-party surround panner.
- ◆ Apply effects to multichannel tracks as easily as mono and stereo tracks. Master your 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 mix setup or print a multichannel reverb.
- ◆ The Auralizer room simulator effect allows you to localize a sound in space using psychoacoustic cues - design the size and absorptive characteristics of the desired space, then place a sound in that space.

AAF File Interchange

- ◆ AAF is a widely adopted pro audio file interchange standard that allows you to easily exchange Digital Performer projects with the latest version of Pro Tools, Final Cut Pro (via 3rd-party utilities) and other professional audio and video applications.
- ◆ AAF allows you to receive and deliver projects from colleagues and clients, regardless of which AAF-compliant audio or video software they use, and complete your projects on - or before - schedule working within the comfortable and familiar environment of Digital Performer.
- ◆ When you transfer a session between Digital Performer and Pro Tools, all of your audio tracks are preserved, complete with volume and pan automation - even with applications that use a clip-based automation model. Digital Performer provides numerous interchange options to accommodate different versions of Pro Tools and other audio and video applications. Options are provided for DigiTranslator 1.0 and 2.0, Avid Xpress and Logic compatibility.

XML File Interchange with Final Cut Pro

- ◆ Both Digital Performer and Final Cut Pro (FCP) offer complete end-to-end production workflow for sound and picture using FCP's XML file interchange protocol. An XML file is generated from the video edits created in FCP and then exported a small file (small enough to be emailed). The XML file can then be imported into DP and all music and audio tracks can then be quickly compared and conformed to the picture edits.
- ◆ The Import Final Cut Pro XML window provides a complete, detailed list of every new picture edit. Double-click any edit in the list, and DP6 scrolls to and highlights the location of the edit in the Sequence Editor time line. The highlight shows a blue border (old position) and red border (new position) for each picture edit. Adjustments can be made to DP's conductor track, audio data and/or MIDI data as necessary to conform to the new edit, "snapping" the edits to the vertical red line if necessary.
- ◆ If DP is running on the same computer as Final Cut Pro, the Export Final Cut Pro XML command sends all tracks and sequences in the current DP project to the project currently open in Final Cut Pro, allowing easy transfer of all work done in DP into Final Cut at any point during the production process, from previewing dailies to final conform and export from Final Cut.

Visual Click

To complement DP's Streamers, Flutters and Punches, a visual click has been added. You can choose the size and color of the visual click, which then flashes - in tempo - as a large circle on Digital Performer's own QuickTime movie window or on an external video screen (via external hardware triggered by DP). The visual click, together with the audio and MIDI click, can be programmed with unlimited flexibility with DP's click programming features.

DIGITAL PERFORMER

MasterWorks Leveler

The MasterWorks Leveler is an accurate model of the legendary Teletronix LA-2A optical leveling amplifier, known for its unique and highly sought-after Automatic Gain Control (AGC) characteristics. The heart of the LA-2A is the T4 opto-coupler, a photoelectric device with almost magical (signal dependent) self-adjusting behavior that makes optical compressors the tool of choice for smoothing out just about any audio material, from vocals to bass guitar to full-program mixes, without destroying perceived dynamics. As a result, the MasterWorks Leveler controls match the front panel of the original LA-2A: Gain Reduction and Makeup Gain knobs, along with Limiter/Compressor buttons and an accurately modeled VU meter that adheres to IEC standards. The LA-2A evolved over the years, producing slightly different characteristics in each generation, so the MasterWorks Leveler also provides four different LA-2A models: slow/fast vintage and slow/fast modern.



ProVerb convolution reverb plug-in

ProVerb is a CPU-efficient convolution reverb plug-in that delivers the sound of stunningly realistic acoustic spaces to any track or mix. Dozens of preset acoustic spaces (impulse responses) are included, and you can simply drag and drop any standard audio file into ProVerb's waveform display to add their own. ProVerb has been optimized so that all parameters can be adjusted in real time, including those that modify the impulse response waveform itself. What might take 10-15 seconds

in other convolution products occurs in real time in ProVerb, as you adjust the parameter. You can fluidly sculpt their sound with pre-delay, damping, 4 bands of EQ and four modes for adjusting the wet/dry mix. A unique Dynamic Mix feature automatically "ducks" the wet signal as the dry input signal rises, then raises the wet mix as the dry signal level subsides. This feature allows a "wetter" mix while retaining intelligibility of the input signal.

Virtual Instruments



◆ **Model 12** is a twelve part programmable drum module. It offers instant drums, with hundreds of factory samples and dozens of preset kits.

Six intriguing virtual instruments are included that will spark your creativity and get you making music in minutes. Browse the hundreds of supplied presets, choose a sound or drum kit, and then hit the record button.

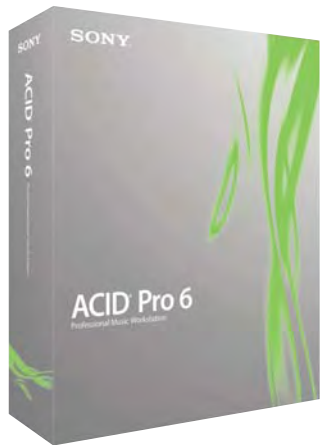
- ◆ **BassLine** is an analog-style monophonic bass synth that delivers monstrous low end and instant bass lines.
- ◆ **PolySynth** is a retro analog-style polyphonic pad synth, that offers lush pads, rude squawks, twisting sweeps, classic analog.
- ◆ **NanoSampler** is the easiest way to play samples. Load a sample and play it. Add filter, LFO and/or envelope.
- ◆ **Modulo** is a highly programmable 2-osc subtractive synth. It features a range of LFOs, multimode filters, envelopes and plenty of modulation possibilities.

◆ **Proton** is an imaginative and provocative two-op FM synth. It's perfect for sparking bells, searing leads, classic Rhodes, simple and effective FM.

Additional Features

- ◆ Third-party AU virtual instrument plug-ins are now 100% sample accurate, providing the tightest possible timing between MIDI tracks and their AU instrument output.
- ◆ Supports for AU plug-in side chain inputs, Cocoa-based AU graphics and ramp-based automation for all automatable AU plug-ins.
- ◆ All AU plug-in parameters can be controlled with external control surfaces such as the new Euphonix MC Control and MC Mix Artist Series controllers, the Mackie Control Universal Pro and other supported work surface devices.
- ◆ Supports the use of RTAS plug-ins on aux tracks and master faders, as well as the use of RTAS plug-ins under DAE on post-TDM inserts.
- ◆ Native support for broadcast WAVE, AIFF and Sound Designer II (SDII) audio files.
- ◆ Native support (both record and playback) for interleaved stereo and surround audio files, without the need to de-interleave them into mono files beforehand.
- ◆ Support for floating point audio files — DP6 can now import, record and play floating point audio files.
- ◆ Plug-in management allows you to enable/disable plug-ins, create plug-in sets, force plug-ins to load when they don't pass AU validation, etc...
- ◆ Master and burn your own audio CDs directly in DP. Simply drop your songs into a track, add markers for index points anywhere you want, create fades and automation, apply mastering plug-in processing as desired and then choosing "Bounce to Disk" and "Audio CD" as the destination for the bounce.
- ◆ DP can also create a disk image for easy replication and archiving.

ACID PRO 6

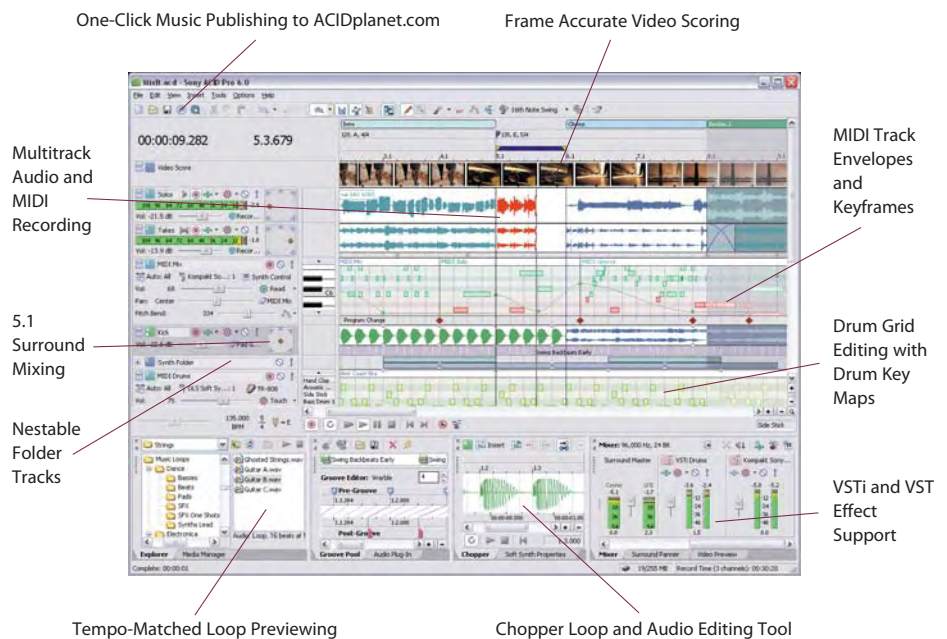


Professional Music Workstation

Since its launch nearly 10 years ago, ACID software has redefined the way music is produced by allowing users to arrange loop-based segments that matched in tempo and pitch. Its automatic loop time-stretching and tempo-matching technology is second-to-none, and its straightforward pick, paint, and play functionality has helped make ACID Pro software the favorite loop-based music creation tool for millions of users worldwide. Now reformulated to add multitrack recording and full MIDI sequencing to its superior looping functionality, ACID Pro 6 software delivers a new formula for ground-breaking music creation: loops + multitrack + MIDI. Together, these key components add up to a full-featured professional music workstation unlike any other.

FEATURES

- ◆ Simultaneously record multiple tracks of audio and MIDI into the ACID timeline through a variety of methods, including step recording, punch in/out, continuous looping and more.
- ◆ Layout multiple media files per track, including one-shots, Beatmapped events, loops and disk-based files with new automatic crossfade capabilities.
- ◆ MIDI data can be manipulated directly on the ACID timeline, using either a piano roll or a drum grid interface. Edit all note position, velocity, pitch bend, and controller information using an easy, visual approach in the main multitrack interface.
- ◆ ACID Pro 6 software provides processing of MIDI data directly on the timeline, including quantization, swing, editing of velocity values, event duration changes, and more.
- ◆ Using automation envelopes, ACID Pro 6 provides increased mixing flexibility for VST instrument parameters.
- ◆ Provides for the creation of project sections that lets users more efficiently rearrange time-based segments of audio and MIDI events located across multiple tracks.
- ◆ Allows for hands-on mixing using external hardware control surfaces. Control record, transport, envelopes, faders, mutes, solos, pans, and effects automation. ACID Pro 6 software includes native support for the Mackie Control Universal, however the generic control interface option allows user-customizable mapping of up to five generic control surfaces.



Multitrack Audio and MIDI Recording

For uncompromising 24-bit, 192kHz sound quality production live or in-studio, ACID Pro 6 has an expanded set of features for maximum audio performance. Whether on stage tracking a combo, or recording MIDI-based studio sequences, ACID Pro 6 is the optimal platform for reliable multi-track production: on-the-fly punch in/out, unlimited tracks for audio and MIDI, control surface support, powerful plug-in processing, and 5.1 surround mixing.

Superior Mixing and Editing

Nondestructive editing, unlimited tracks, and real-time pitch and tempo matching—ACID Pro 6 software has all of the essentials. Includes patent-pending Groove Mapping and Groove Cloning quantization tools, real-time event reverse, freehand envelope drawing, and support for alternate time signatures.

- ◆ The new multitrack workflow provides users with the ability to monitor audio signals with real-time track effect DSP during recording sessions.
- ◆ Drum Map Editor provides an intuitive way to create custom Drum Map templates, to make working in the Drum Grid even easier.
- ◆ Beatmapper tool makes remixing easy, and the Chopper tool helps you create impressive drum fills, stutters, and DJ-style effects.
- ◆ Expand your sound palette with native support for VST instruments, as well as VST and DirectX audio plug-ins. ACID Pro 6 includes the Native Instruments KOMPAKT Sony ACID Pro edition and over 20 DirectX effects.
- ◆ Integrate ACID Pro 6 with your existing studio: full ReWire host and device support, ASIO, and control surface automation for devices such as the Mackie Control and Frontier Design TranzPort.
- ◆ Transform loops and MIDI tracks into fresh, new sounds with exclusive Groove Mapping and Groove Cloning quantization tools. Change the groove of a track, apply different grooves to the same track, extract a groove from one file and apply it to another, or even create custom grooves.
- ◆ ACID Pro 6 has built-in disc-at-once CD burning so you can burn audio CDs of custom remixes or produce DJ mixes with Beatmapper-synched tracks.

Professional Workflow

- ◆ Tag, organize, and search your collection of content with the Media Manager.
- ◆ Use new project sections to quickly audition different arrangements of a project.
- ◆ Maximize efficiency with folder tracks and cluster editing.
- ◆ Use the convenient Clip Pool to easily choose and arrange the events you want to use in your compositions.
- ◆ Place multiple media clips on one track—automatic crossfades tie everything together.
- ◆ Deliver projects in nearly any format without leaving the ACID Pro 6 environment: integrated DAO CD burning, AC3, AIF, ATRAC, AVI, MOV, MP3, MPEG-1/2*, OGG, PCA, RM, W64, WAV, WMA, WMV.

ACID Pro 6 for Windows
 (Mfr # SAC6000 • B&H # SOSAC6000).....CALL

CINESCORE

Professional Soundtrack Creation



Cinescore introduces new levels of customization, performance, and accuracy to the world of professional soundtrack creation. Automatically generate an unlimited number of musical compositions using royalty-free Theme Packs in a wide array of popular styles. Discover the true potential of your video by taking full control over your soundtrack.

- ◆ Cinescore generates an unlimited number of fully orchestrated compositions that custom fit to your video by precisely matching the time duration you specify.
- ◆ Adjust parameters such as mood, tempo, and intensity to create anything from complex songs to short and sweet stinger tracks. Cinescore software gives you the tools and flexibility to create highly customizable songs every time for full control over your soundtrack.
- ◆ No loops to stack up and no complicated licensing fees to drain your budget. Multigenre, royalty-free production music is just minutes away. Cinescore includes one DVD featuring 20 complete Themes perfect for action sequences, weddings, corporate presentations, family vacations, and much more.
- ◆ Enhance your experience with additional Theme Packs in a variety of targeted genres. Each Theme automatically generates an unlimited number of different arrangements and variations. Listen to 15, 30, 45, or 60 second samples of each theme and hear the Cinescore difference!
- ◆ Don't fumble with clunky blocks of prearranged music. Gain full control over your media and create a custom fit for your soundtrack with precise adjustments to volume, panning, pitch, and tempo. Mixing and Editing.
- ◆ Cinescore software imports a wide range of file formats for easy project creation, including AVI, AIF, BMP, JPG, MP3, MPEG 1 & MPEG 2 video, PCA, PSD, QT, SWF, WAV, and WMV. Arrange your media on the timeline, then create dynamic and effective musical tracks for movies, slideshows, commercials, and radio productions with a single click. Export to popular formats such as MPEG-2 for DVD and MPEG-4 for portable media players.

Cinescore for Windows (Mfr # SC1000 • B&H # SOSC1000).....179.95

Get more from Cinescore with additional Theme Packs

A Theme is a completely self-contained universe of music that has been engineered exclusively for use within your Cinescore software. Each Theme contains multiple Variation presets that can be fine-tuned by adjusting settings like mood, intensity, tempo, and more. The result is an unlimited number of unique, royalty-free compositions that fit perfectly to the length of your video clip.

- | | | | |
|---|--------------|--|--------------|
| Take Five: Leisure Soundtracks
(Mfr # TPTF10 • B&H # SOTPTF10)..... | 89.95 | Ideal Vacation
(Mfr # TPTIV4 • B&H # SOTPTIV4)..... | 89.95 |
| Urban 24/7: City Soundmaps
(Mfr # TPUV6 • B&H # SOTPUV6)..... | 89.95 | High Tech World
(Mfr # TPHTW3 • B&H # SOTPHTW3)..... | 89.95 |
| Adrenaline Surge
(Mfr # TPAS5 • B&H # SOTPASS)..... | 89.95 | Incredible Vistas
(Mfr # TPIV1 • B&H # SOTPIV1)..... | 89.95 |
| Hyperculture: New Media Soundtracks
(Mfr # TPHV7 • B&H # SOTPHV7)..... | 89.95 | Pass the Ring
(Mfr # TPTPR2 • B&H # SOTPPTR2)..... | 89.95 |
| The Big Picture: Atmospheric Music for Film (Mfr # TPTBP8 • B&H # SOTPTBP8)..... | | 89.95 | |

NUENDO

Advanced Audio and Post Production System



The Nuendo audio production environment offers a range of advanced features and technologies dedicated to mixers, engineers and editors in post production, studio recording and live recording. Nuendo is designed to accelerate and enhance workflows by increasing efficiency and speed, with a 32-bit audio engine and comprehensive surround support to take command of the most demanding post production challenges. A vastly upgraded set of 38 new first-class surround- and sidechaining-capable VST3 audio effect plug-ins are included that cover dynamics, spatial FX and filtering for almost any situation. Standard on each channel is a VST3 Channel EQ, with an audio quality that can replace many expensive additional 3rd party EQ plug-ins. Nuendo's state-of-the-art automation system combines functions which unite the best qualities found on traditional hardware mixing consoles with

the flexibility inherent in a modern DAW environment. The MediaBay file management system for audio, video and other media files allows you to browse, archive, retrieve and search media files across any connected drive. Advanced post pro editing commands include many options to move, place and trim audio faster and with outstanding precision to save valuable time. The highly flexible Post Filter is engineered specifically for audio post, and features special options to remove unwanted noises from audio material. Nuendo is compatible with Windows XP, Windows Vista and both Intel and PPC-based Macintosh computers running Mac OS10.4.

FEATURES

General

- ◆ State-of-the-art digital audio production environment with crystal-clear 32-bit audio engine and full surround throughout.
- ◆ Dedicated tools, options and features for audio production and post
- ◆ Any mono, stereo or multi-channel signal ranging up to 10.2 can be recorded, edited and mixed. That applies to every link in the signal chain from the inputs to the outputs, including effect busses and groups.
- ◆ The signal path is laid out for multi-channel audio from front to end and supports all standard Surround formats. Mono and stereo formats are readily mixed in Nuendo with LCRS, 5.1 and any other formats, and converted from one to other.
- ◆ Choose whatever audio hardware you wish to use. Select the hardware that is right for you in terms of quality and functionality.
- ◆ Integrated MIDI functions allow you to control external FX or sync to MIDI-based timing protocols. Other MIDI features include the powerful Key Editor and the time-saving MIDI device maps.

Recording

- ◆ Recording of 16 Bit, 24 Bit and 32 Bit float audio files at various sample rates up to 192 kHz (depending on audio device in use).
- ◆ Advanced architecture for recording in standard and extended surround formats.
- ◆ Simultaneously record multiple channels of audio per track, split or interleaved.
- ◆ Supported recording file formats include Broadcast Wave, AIFF, Wave and Wave 64 for extra long duration recordings.
- ◆ Normal, Merge, Replace linear record modes.
- ◆ Cycle record modes: Keep Last, Stacked lanes, Mix (MIDI only), Overwrite (MIDI only)
- ◆ 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 per track
- ◆ Adjustable audio pre-record up to 10 minutes

Editing

- ◆ A rich set of tools allow you to quickly and efficiently post process audio, and create impressive sound design. All standard editing actions can be performed directly in the Project window.
- ◆ Unlimited undo/redo with edit history list
- ◆ Hit point detection for loop editing and cue splitting. Edit mode for syncing events and fades to picture.
- ◆ A powerful Sample editor, with a region list, is provided for tasks such as adjusting the Sync point, real-time pitch-shifting and time-stretching (Audio Warp), and creating individual regions from a longer audio file.
- ◆ All fade-ins, fade-outs and crossfades are nondestructive and computed in real time. Edit fade curves graphically directly in the Project window or in a separate editor which offers pre and post roll auditioning.
- ◆ Time stretch tool allows fast snap-based stretching of material. Audio Warp real-time algorithm supports real-time time stretching and pitch shifting. Time-Warp content tool allows for manual audio warping.

Nuendo 4.0 (Mfr # 502027400 • B&H # STN4) **1799.99**

Nuendo 4.0 Expansion Kit (Mfr # 502028115 • B&H # STN4EK) **299.99**



NUENDO

The Project Window

The Info Line shows info about the currently selected event or part in the Project window.

The Inspector shows various controls and parameters, including a channel strip, for the track you have selected in the Track list.

MediaBay

The Track List

The Toolbar contains tools and shortcuts for opening other windows and various project settings and functions.



The Ruler can reference numerous formats such as bars/measures, time code, feet+frames, seconds, and samples.

The Project Overview displays events and parts on all tracks as boxes. You can use the overview line to zooming, and for navigating.

Video Player Window

- ◆ The Project window is the main window. It provides an overview of the project, allowing you to navigate and perform large scale editing. Each project has one Project window. The Project window is divided vertically into tracks, with a timeline running horizontally from left to right.
- ◆ The Track list displays all the tracks used in a project. It contains name fields and settings for the tracks.
- ◆ Basic track types include Audio, Instrument, MIDI, Group Channel, and FX Channels. Additional track types include the Marker track displays markers which can be moved and renamed directly in the Project window; the Arranger track for arranging your project, by marking out sections in the project and determining in which order they should be played back; the Transpose track allows you to set global key changes.
- ◆ Ruler tracks allow you to displaying the timeline with a number of different formats.
- ◆ Folder tracks contain other tracks, making it easier to organize and manage the track structure. They also allow you to edit several tracks at the same time.
- ◆ A single Video track, is provided for playing back video events. It offers a thumbnail view and can be trimmed like an audio file.

The Nuendo Mixer



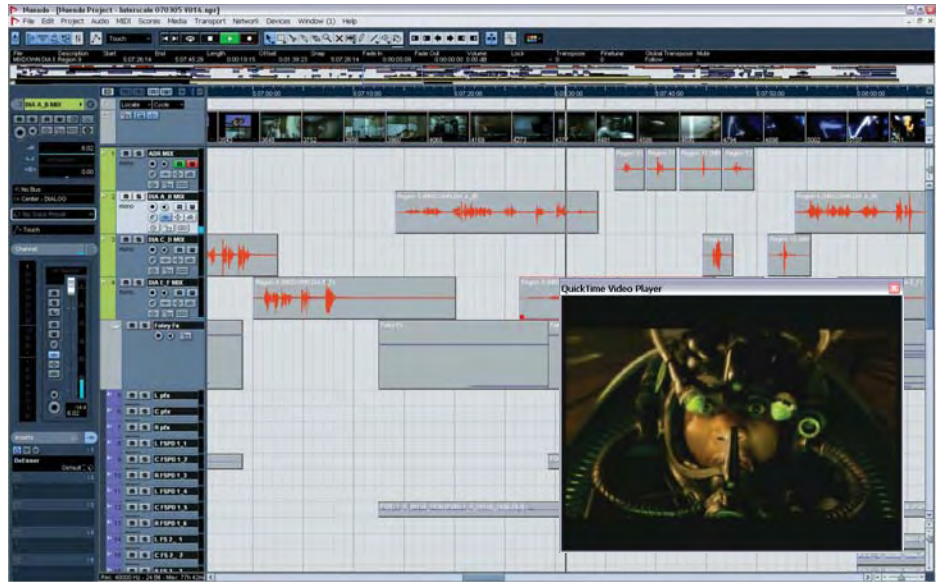
- ◆ The main Mixer view encompasses all crucial channel settings, such as Arm for Recording, Mute, Solo, AFL/PFL, Panning and the Channel Fader.
- ◆ You can show additional sections offering parameters such as Input/Output, Gain, Phase Inversion, Inserts, EQs, Sends, Studio Sends, Surround Panning and Metering whenever required.
- ◆ Signals can be routed freely throughout the mixer, including routing groups to any other group or FX return, or rerouting back to an audio track. This is ideal for creating stems, without the need for an external recorder.
- ◆ A powerful Control Room function offers four Studio Sends, independent switchable monitor setups, 6 external inputs, dedicated headphone bus, talkback with automatic dimming and much more.
- ◆ Automatic latency compensation eliminates delay caused by plug-ins or routing, ensuring that the timing of all tracks remains perfect.
- ◆ Level meters automatically adapt to the channel's width, thus providing an excellent visual reference for Surround signals.
- ◆ The Mixer ships has all the functions found on big studio consoles, including a front-to-end multi-channel audio signal path and a powerful control room section.
- ◆ You can show/hide each channel type as desired, allowing you to tailor the Mixer to suit the task at hand. Mixing console settings can be saved and loaded for individual channels as well as for the entire mixer.

NUENDO

Video

Nuendo offers a very flexible integrated Video Engine featuring a Video Thumbnail track and Video window for sound-tracking videos. Additionally, it outputs images to external video monitors and enables external video playback devices to be controlled via SONY 9-Pin.

- ◆ Timelines and displays are offered in all standard formats. Insert timeline tracks anywhere in the project to view different time formats. When working with multimedia projects that use special frame rates, you have the option of defining the desired frame rate and having it displayed in the timeline.
- ◆ The Transport bar features two time displays in definable formats. You are free to open any number of additional time displays whenever you wish.
- ◆ Play video files directly via DirectShow, DirectX Video or Quicktime on Windows, and QuickTime on OS Mac X. Nuendo accesses the codecs installed in the operating system directly and therefore supports many video formats. You can import and play MPEG (1/2/4), AVI, QuickTime, WMV and WMV Pro files.
- ◆ Audio can be extracted from a video file and replaced back onto the video file.
- ◆ You can open several video tracks that show the pictures as thumbnails.
- ◆ A separate, scalable video window is available for viewing purposes.
- ◆ Sony 9-Pin master control of video playback devices, and syncs to the incoming time code sent from these devices.
- ◆ You can use a DeckLink video card by Blackmagic Design to send video, in any format, to an external TV monitor (from analog to SDI and from SD to HD).
- ◆ You can also use a Multihead graphics card that renders TV signals to view the video image on a separate screen or TV monitor in Maximize mode.
- ◆ Apple Mac users can route video via the Firewire link to an external D/A video converter that relays the signal to a TV monitor.
- ◆ The timesaving audio Pull Up/Down function lets you adjust audio playback speed by 4% and 0.1 % (as well as combinations thereof). It is a big help when a Telecine process or NTSC-to-PAL/SECAM conversion has been carried out and when on-location audio material for film and TV productions must be adapted to the new video speed.
- ◆ You can also accelerate and slow down video playback speed by 0.1 %. This lets you adjust video files that have run through an NTSC Telecine process to match the speed of the original audio recordings.



MediaBay Database System

MediaBay is a fast, powerful media database system that manages all your audio files, FX sounds and samples, plug-in and instrument presets, MIDI files, Track Presets, videos and even entire Nuendo project files.

- ◆ MediaBay searches your hard drives automatically for media files and gives direct access through a clearly laid out file browser.
- ◆ User-definable search locations, a powerful filter section and category search functions make finding exactly the right sound easy.
- ◆ Search results can be sorted by category, file type or user-defined attributes. Drag and drop files directly into the project or via predefined insert options. Manage and organize media files with cut, copy, paste, delete and rename commands.
- ◆ The Scope section shows a preview of the selected file, and allows you to preview audio and MIDI files as well as Instrument presets – even in the context of the project.
- ◆ The Tag Editor offers a range of predefined labels for media files, as well as the ability to create your own attributes. This is the key to category search and filter functionality.
- ◆ The Pool serves as a list of all audio and video clips used by a project, and offers many processing tools for files, including file format conversion and effect rendering.
- ◆ Batch processing tools are also provided for working on multiple files simultaneously.
- ◆ The entire Pool can be archived and imported to another project – ideal for transferring projects to another Mac or PC.
- ◆ Metadata is supported in accordance with EBU specifications for Broadcast Wave files.
- ◆ User-defined metadata may be added to every audio file within a project, say to document the name of the artist, the role number or the number of takes.

NUENDO

Effect Plug-ins

Nuendo includes a brand-new set of great-sounding VST3 effects plug-ins that offer new VST3 functions such as side chaining, or the ability to stop the plug-in processing when no audio signal is present. VST3 plug-ins are also fully surround-compatible, with a single instance providing processing on up to 12 channels.

- ◆ Real-time and offline processing support for VST plug-ins
- ◆ External FX plug-in architecture to integrate external hardware signal processors
- ◆ Dummy plug-in replaces missing plug-ins when transferring projects to another system
- ◆ Side Chaining for all included VST 3 plug-ins
- ◆ Drag and Drop support for convenient moving/copying of plug-ins between different insert slots
- ◆ VST Plug-in Bridge supports PPC plug-ins on Intel based Macintosh computers



VST Dynamics

Cloner



Included VST3 Plug-ins

Delays

MonoDelay
StereoDelay
PingPongDelay
ModMachine

Distortion

ToneBooster
Distortion,
AmpSimulator
SoftClipper

Dynamics

Compressor

Expander

Limiter

Gate

Maximizer

EnvelopeShaper

VSTDynamics

VintageCompressor

MultibandComp

EQ

StudioEQ

GEQ10

GEQ30

Filter

WahWah

DualFilter

Post Filter

Modulation

StudioChorus

Chorus

Flanger

Phaser

Tremolo

Vibrato

AutoPan

Cloner

Rotary

Imaging

MonoToStereo

StereoEnhancer

Reverb

Roomworks

Roomworks SE

Other

Octaver

UV 22 HR

Tuner

Included VST2 Plug-ins

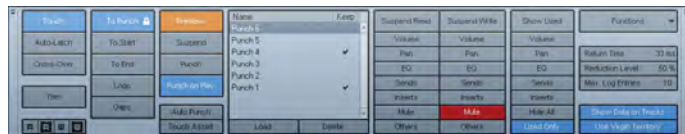
SurroundPan, SMPTE Generator, MultiScope, Mix6to2, Mix8to2, MixConvert, SPL DeEsser, DeClicker, DeNoiser, MatrixDecoder, MatrixEncoder, SurroundDither, MixerDelay, TestGenerator, Metalizer, RingModulator, Chopper, Bitcrusher, Grungelizer, Tonic, Q, NuendoEQ2, MIDI Gate, DaTube, StepFilter

Included MIDI Plug-ins

Tranceformer, VSTDynamics, Arpache 5 Arpache SX, Autopan, Chorder, Compress, Control, Context Gate, Density, MicroTuner, MidiControl, MidiEcho, Note 2 CC, Quantizer, StepDesigner, Track Control, Track FX, Transformer

Automation

A first-class automation system is indispensable when mixing massive audio projects with hundreds of tracks. Nuendo's state-of-the-art automation system offers many powerful and intuitive tools that allow you to take control of massive audio projects with ease. You may automate nearly every parameter on the Nuendo Mixer, including effect plug-ins and virtual instruments. With various procedures for recording automation data and a rich selection of editing options to choose from, you'll be delighted to discover how very convenient and productive the automation workflow can be.



The floating automation panel provides direct access to all automation functions at a glance. Areas not required can be hidden.

Basic Automation Modes

Three different Punch Out modes, individually selectable for each track.

Touch —

Automation data is only written as long as the fader is touched.

Auto Latch —

Writes automation data until playback is stopped or Write is disabled.

Crossover —

Allows the manual crossover to the original value for smooth transitions between new and existing automation data. Data recording is deactivated when an already existing automation curve is crossed.

- ◆ Individual punch out modes per channel
- ◆ Optional Virgin Territories and Fill commands are provided for writing automation to end, start, punch or loop.
- ◆ Trim Tools allows fast trimming of existing volume or send level curves, with a variety of options while the project is stopped or playing back.
- ◆ With Preview Mode you can quickly find the right settings without actually recording data. This can be a real time saver when working on complex projects, and allows fast, intuitive automation setup for multiple parameters at once.
- ◆ Suspend Options, for both Read and Write, allow you to exclude parameters from automation, giving you manual control over certain operations while automating others.
- ◆ The optional Touch Collect Assistant groups together certain parameters, so that when data is written for one parameter in a group, automation data is also written for related ones.
- ◆ Punch Logs can speed up automation tasks by saving and recalling automation actions while in Preview Mode. Punch Logs can be renamed using intuitive user-defined labels for easier recall, so finding exactly the right sets become even easier.

NUENDO

Sample Editor

The Nuendo sample editor features an inspector-style section, which consolidates all parts of the audio editing functions in one place, especially those used for musical tempo operations including Musical Mode, AudioWarp and Hitpoints.



Additional Editing Functions

- ◆ Sync points available in events and regions, s-points scrub the audio
- ◆ Hit point detection for loop creation and editing and cue splitting
- ◆ Volume envelope for events
- ◆ Detect and strip silence
- ◆ Cut Head and Cut Tail commands
- ◆ Zoom presets in the project window and part editor; Zoom undo/redo
- ◆ Optional event based automation layer
- ◆ Various options to lock events in size, fade-length, position etc.
- ◆ Integrated Track Sheet Printing functionality

Audio Warp

- ◆ Identify an audio event's tempo and timing, as well as to apply quantize ("Straighten Up") or Audio Warp. The first "Definition" tab is used to define an audio event's tempo and timing (grid). The second "Playback" tab is used to apply audio quantize or audio warp. The third tab includes all Hitpoint-related functions. Tabs four and five contain tools for setting/adjusting a range selection, as well as for access to any other audio editing and processing functions, duplicating the respective menu items and combining them in one place for easier access.

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, Re-sampling

The Pool

- ◆ The Pool provides a complete project content overview and extensive file information. It accommodates batch renaming functionality for events, parts, clips, regions.
- ◆ User configurable project templates store windows settings, layouts, track heights/sizes, project settings, channel settings, plug-ins and their parameters as well as folders and files.
- ◆ Pool files can be imported and exported, and libraries can be created and opened including files, file references, regions, subfolders and sync points.
- ◆ An advanced search field is provided with a preview option.
- ◆ Additional functionality of the Pool includes an advanced file converter offline processing of files, a minimize function to delete silence and unused material from audio files, as well as archive and backup functions.

Optimizing Workflows

- ◆ Numerous freely definable presets are provided for tweaking tools, commands and functions to suit your style and approach.
- ◆ Personalize the graphical user interface, menu structure and handling via user-defined key commands as you see fit.
- ◆ Unused menu entries and key commands can be disabled.
- ◆ Configurable Track Controls and Toolbars.
- ◆ Workspaces for managing window sets or entire desktops.
- ◆ Colour coding for all tracks and mixer channels.
- ◆ Device Maps and Device Panels provide access to external MIDI equipment (synthesizers, signal processors, digital mixers, etc.) as well as access to internal plug-in parameters.
- ◆ User Panel for Track Inspector allows access to sections of Device Panels or specially designed user panels.
- ◆ User-definable channel strip in VST mixer as part of Device Panel integration.
- ◆ Print tracks sheets from within Nuendo.

Offline Processing

- ◆ Event specific Offline Process History with the ability to modify, disable/enable or replace previous processes
- ◆ Batch processor: Offline Process History can be saved as a batch process

Control Surface Support

- ◆ Comprehensive remote control capability offers full command over crucial Nuendo functions via control systems developed specially for Nuendo by manufacturers such as Euphonix and WK Audio. Support for third party controllers via MIDI protocol.

Remote Control Support List

- ◆ Euphonix System 5, Fusion, System 5 MC and MC via optional EuCon adapter.
- ◆ Support for WK-Audio ID and EDIT.
- ◆ Built in support for remote controllers from various other 3rd parties.
- ◆ Support for additional 3rd party controllers via Steinberg Remote Control protocol.
- ◆ Generic Remote Control support for individually setting up any MIDI controller.
- ◆ Apple Remote support.

NUENDO

Synchronization and Machine Control

- ◆ Nuendo supports industry-standard synchronization procedures via SMPTE time code. It syncs up to external audio and video devices as the master or the slave.

Network Integration

Nuendo integrates seamlessly into any LAN or WAN. Its unique Network Collaboration capabilities entail an extensive access rights management system enabling multiple users to work jointly on a network project. Every user can contribute and simultaneously receive project updates from others collaborators within the net.

- ◆ Record, play back and copy files from dedicated servers, other workstations or library servers.
- ◆ Network collaboration feature set with online merge functionality and user chat window for direct communication.
- ◆ Permission sets of users with individual read/write permissions allow hierarchical sharing of complete projects down to single tracks using TCP/IP
- ◆ VST System Link provides sample accurate sync, audio and MIDI transport between multiple Nuendo systems.

Supported File Formats

- ◆ Record audio signals in all industry-standard audio file formats; import and export additional formats.
- ◆ Import and export audio files with sampling rates up to 384 kHz and up to 32-bit floating point resolution.
- ◆ Work with multi-channel audio files in Split or Interleaved format; conversion into Mono Split Format is also an option.
- ◆ Preview and import CD audio, including individual tracks. Import files MIDI files as well as Cubase project files.

Transfer Formats

- ◆ Supports for all standard formats (including AAF, OMF, OpenTL and AES-31) for transferring projects in professional video editing applications and digital audio workstations.
- ◆ Preview function for all tracks lets you import and export tracks selectively.
- ◆ The Track Export is a fast option for exporting selected tracks and the corresponding media files.

File Format	Import	Export
Audio		
AIFF	✓	✓
AIFC	✓	✓
WAV	✓	✓
BWAV	✓	✓
WAV64	✓	✓
MPEG (MP2 and MP3)	✓	
Ogg Vorbis	✓	✓
WMA (Pro)	PC Only	PC Only
WMV (Pro)	PC Only	PC Only
REX	✓	-
SD2	Mac Only	Mac Only
MP3 Surround	-	✓
Real Audio G2	-	✓
Video		
MPEG (1/2/4)	✓	N/A
AVI	✓	N/A
QuickTime	✓	N/A
WMV	PC Only	N/A
WMV Pro	PC Only	N/A

Control Room

- ◆ Support is provided for additional Control Room and Headphone monitoring busses with up to four user specific Monitor Setups, "Foldback" and "easy solo" functionality.
- ◆ Up to six inputs for external decks such as DAT, Tape, CD, DVD etc.
- ◆ Up to four studio mixes for artists directly from within dedicated AUX Sends in mixer



Nuendo Expansion Kit Cubase Music Tools for Nuendo 4

The Nuendo Expansion Kit (NEK) is an optional add-on for Nuendo 4 that adds core Cubase music composition functionality – known as “Cubase Music Tools” – to the standard Nuendo 4 application. It integrates an extensive set of functions and tools for music notation and score printing, MusicXML import and export, and a drum editor for matrix-style drum sequencing. Additionally, the NEK includes four virtual instruments that cover a range of sampling and synthesis types.

- ◆ The Score Editor allows music to be displayed as a score, complete with all the necessary symbols and formatting. It allows you to extract parts out of a full orchestra score, to add lyrics and comments, create lead sheets, drum scores, and tablature, etc.
- ◆ MusicXML is a data format for interchange of musical scores. It's supported by numerous companies to facilitate the exchange of musical scores between applications.

- ◆ The Drum editor facilitates creating complete drum tracks with just a few click. You can create an individual drum map for every employed instrument.



Drum Editor

Virtual Instruments

- ◆ HALion One adds powerful sample playback synthesis, and it comes with more than 650 ready-to-play sounds.
- ◆ Prologue is a powerful analog synthesizer
- ◆ Spector is a synth with six oscillators per voice, based on two extremely colorful and versatile spectrum filters.
- ◆ Mystic is a unique synth based on three parallel comb filters with feedback.

CUBASE STUDIO 4 • CUBASE 4



Music Production Systems

Designed for professional music production from the ground up, Cubase Studio 4 and the more advanced Cubase 4 combine state-of-the-art audio and MIDI recording, editing and mixing to deliver the ultimate music creation systems for composers and producers. Both applications have cutting edge features and technologies that provide enhanced capabilities and workflow for musicians, producers and other audio professionals. The Cubase audio engine delivers pristine 24-bit/96-kHz audio quality, with 32-bit floating point resolution for internal signal processing. VST3, Steinberg's latest and most advanced plug-in architecture, offers greater flexibility, including side-chaining and dynamic I/O allocation (up to six channels), while at the same time placing less of a burden on your CPU. Another breakthrough feature of both applications is the SoundFrame Universal Sound Manager, which is a powerful combination of Track Presets, Instrument Tracks, and MediaBay database that organizes all your sounds from every instrument in your studio. Cubase Studio 4 is ideally suited to composers and producers working in project studios, while Cubase 4 adds

essential features, including comprehensive support for 5.1 channel surround mixing and advanced automation capabilities, that are demanded by commercial music production and post production facilities.

FEATURES

- ◆ The audio engine delivers pristine 24-bit/96-kHz audio quality, with 32-bit floating point resolution for internal signal processing.
- ◆ Unlimited audio and MIDI tracks.
- ◆ Open file handling allows the use of a mix of bit rates within the same project without prior conversion.
- ◆ Numerous different recording modes, such as Stacked Recording, recording, editing and comping a breeze.
- ◆ Automatic and system-wide latency compensation.
- ◆ Instrument Tracks combining MIDI Input and Audio Output for VST instruments into a single track and mixer channel.
- ◆ Track Presets save entire channels and track parameters without events for convenient sound management.
- ◆ Integration of VST3 for plug-ins and virtual instruments.
- ◆ Cross-Platform: Windows and Mac OS X Universal Binary.

MIDI

- ◆ Versatile tools and editors are provided for MIDI sequencing. Drag and drop MIDI parts directly or play on a connected keyboard MIDI and record parts directly.
- ◆ The graphical Key editor uses a piano roll-style interface that lets you generate and process notes and other MIDI events such as velocity or MIDI controllers. You can also process MIDI parts directly in the Project window in context with other tracks.
- ◆ The Drum editor allows you to build impressive drum sequences with just a few clicks. You can create an individual drum map for every employed instrument.
- ◆ The List editor shows all the MIDI events as a list indicating numeric values. A display filter lets you show and hide special events.
- ◆ Special quantization functions let you add swing, exempt selected notes from the quantization operation or automatically generate random mistakes. Extract grooves from MIDI parts and audio events and store them as quantization presets.

Audio Editing



- ◆ A dedicated Sample Editor is provided for surgical processing of audio material. Audio editing is a non-destructive - all edits are stored in a Task List and can be undone at any time. Unlimited undo and redo.
- ◆ Automatic hit-point recognition and Audio Warp tools, tasks such as adapting a drum loop to the song tempo, transposing a recording in real time and transferring grooves from an audio file to a MIDI track are accomplished in just a few steps.
- ◆ MPEX3 high-quality time stretching and pitch shifting algorithm for offline processing and editing.
- ◆ An offline process history lets you remove, replace and edit every effect added to an audio file in the course of processing.

Cubase Studio 4 - (Mfr # 502012200 • B&H # STCS4)**399.99**

Cubase 4 - (Mfr # 502012300 • B&H # STC4Q)**799.99**

CUBASE 4 • CUBASE 4 STUDIO

Project Window

The Project window is where you view an arrangement and its various tracks. The Project Window provides full scalability allowing you to create a setup to suit your specific requirements.

- ◆ Access all vital parameters for any track including mixer parameters. This provides an easy way of editing mixer settings right in the Project window without having to open a new one. Every element in the Track Inspector can be shown or hidden, plus you can customize the order in which parameters appear for each track or track type.
- ◆ The Global Transpose Track makes it easy to create new musical arrangements based on loops, or experiment with chord progressions without having to edit each part on each track individually.



- ◆ Folder tracks provide an excellent way of organizing complex arrangements, speeding up workflow.
- ◆ Located in the Track Inspector, Quick Controls offers eight user-definable realtime controllers giving ultra-fast access to any parameter available on the current track.
- ◆ Quick Controls are available for Audio, MIDI and Instrument Tracks to increase workflow.
- ◆ The advanced pattern-based Arranger Track delivers tools for enhanced creative experimentation with song arrangements as well as ways of using Cubase for live performance.

Mixing And Automation

- ◆ Utilize up to 128 physical inputs and outputs (256 with Cubase 4) with up to 8 inserts per channel; 64 FX sends, including FX return channels; up to 256 groups/busses.
- ◆ Drag and Drop copying, moving and swapping of insert plug-ins. This works both within a single channel, as well as between channels.
- ◆ Copy/Paste of entire Mixer channels, even to multiple destinations
- ◆ Customizable metering including colorization
- ◆ Unlimited routing between audio channels, busses, group channels and fx returns
- ◆ Every mixer knob can be automated.
- ◆ Every track in the Project window contains automation sub-tracks for all automatable parameters of the given track type, which you can show and hide on demand.
- ◆ Draw and edit automation envelopes directly in the panel, and puts several line and curve tools at your disposal to do this.
- ◆ The Write and Read buttons allow you to record and play back automation data; Write and Read buttons are available for all mixer channels as well as for every effect plug-in/VST instrument.

- ◆ You can flexibly adapt mixer views to suit the task at hand. Two (three in Cubase 4) freely configurable mixer views are available. You can configure each mixer window so that it shows a specific combination of channels, channel types and zooms, an option you'll find especially helpful when mixing big projects. Mixer views can be also be stored as presets.



- ◆ The Channel Strip window for audio and MIDI tracks can be configured to reflect your desired display options. Sections can be switched on or off, and their order from left to right can also be setup exactly the way you want. Configurations can be saved and recalled as view presets.
- ◆ Support is provided for numerous external controllers that let you ergonomically control the VST Mixer and intuitively record fades and pans. The list of controllers includes Mackie Control, Mackie HUI, Steinberg Houston, SAC-2K, Yamaha 01X and Yamaha DM2000. Mac users with an Apple Remote can use it to control Cubase 4.1. It is fully customizable allowing for hundreds of available functions.
- ◆ Track Presets store every aspect of track/channel settings for audio, MIDI, and Instrument tracks. Combinations of tracks can also be saved as Multi-Track Presets. Almost all track and mixer setting are stored including volume and Pan information and all insert effect settings as well as the channel EQ. For instrument tracks, all Instrument / Preset information is stored with a Track Preset, while for MIDI tracks, the Track Preset includes MIDI Port, Channel and Patch information.

CUBASE 4 • CUBASE 4 STUDIO

Integrated VST Instruments



HALion One

HALion One offers powerful sample playback synthesis that is optimized for use with SoundFrame, so finding

the right sound is a cinch. It comes with 100s of ready-to-play sounds covering dozens of acoustic and electronic instruments, as well as hundreds of colorful synth timbres. Sound and effect parameters can be tweaked using eight convenient Quick Controls.

Prologue

Prologue is a rich-sounding virtual analog synthesizer that offers a range of lush, detailed pads and bright, acerbic leads and everything in between. Prologue's intuitive user interface provides full editing capabilities with access to its three oscillators, powerful multi-mode filter, four envelopes, two LFOs, a powerful modulation matrix, and onboard effects. And because Prologue is polyphonic with up to 128 voices, you'll (probably) never run out of creative space.



Spector (Cubase 4 only)



Spector provides original yet detailed sounds with two extremely colorful and versatile spectrum filters, yet also adds the power of up to six oscillators per voice with two different waveforms each. You can create unique sounds by simply drawing new filter curves and then shifting or morphing the two filter's

spectrums. Spector offers four envelope generators, two LFOs, a powerful modulation matrix and on-board effects.

Mystic (Cubase 4 only)

Mystic's versatile and unique audio characteristics are based on three parallel comb filters with feedback. The sound source is an "impulse sound" based on physical modeling technology. The harmonic spectrum of this sound is based on one of six selectable waveforms and a set of two spectrum filters. The sound can be shaped with a filter (Damping), by adding an offset to the comb filters (Detune), or by adding a noise component (Crackle). The result is an exceedingly inspiring VST synth that rewards the adventurous.



VST3 Effects Plug-ins

◆ A complete set of first-rate effect plug-ins are included for mixing, mastering and creating imaginative sound effects. A huge range of great-sounding



- ◆ presets, allow you to experience the excellent quality of these effects immediately. In addition, many reputable audio software vendors offer effects in the renowned VST format that plug right into Cubase.
- ◆ VST3 plug-ins can adjust their number of audio busses to the channel they're inserted to (mono, stereo, 5.1, etc.).
- ◆ A silence detection function makes sure that a plug-in only processes audio when there's a signal present, thus reducing overall CPU load.
- ◆ The VST Plug-in Bridge ensures maximum compatibility of plug-ins. 32-bit Windows versions of plug-ins and instruments can be used in Cubase running on Vista 64. Mac PPC-only versions of plug-ins can be used in Cubase on Macs with Intel processors. While fully compatible, the plug-ins running through VST Bridge should be replaced with native versions whenever available.

Video

- ◆ Supports numerous standard video formats including AVI, MPEG, and Quicktime. Enhanced QuickTime 7 support provides compatibility with the latest and most popular video formats, offering more flexibility and better image quality: MPEG1, MPEG4, .H264 formats are now supported. "Replace Audio in Video File" works with every audio file format supported by QuickTime.
- ◆ View video material in a freely scalable video window or, in combination with the requisite video hardware, on an external monitor. Another alternative is full-resolution image output via Firewire (currently available for Mac OSX only).
- ◆ A video track allows you to treat video files as if they were audio files - including drag and drop. You can view the video's individual frames directly in the track as thumbnails, which tremendously facilitates composing soundtracks with frame-by-frame precision.

Resource Management

- ◆ Create complex arrangements that require less computing power and let you use performance-hungry plug-ins.
- ◆ The Freeze function freezes VST instruments or audio tracks with insert effects. The track is mixed into a temporary audio file, freeing up sufficient resources for further processing. Unlike conventional track bouncing, which requires you to commit early on, freezing grants you greater flexibility throughout the production process because its actions can be undone at any time.
- ◆ The VST System Link lets you the system power of two computers. By linking the two computers via a conventional digital audio connection, you can trigger one computer's plug-ins with sample precision and have the other do the computing.

CUBASE 4 • CUBASE 4 STUDIO

MediaBay

- ◆ MediaBay is an immensely powerful media file management system and is the central place for browsing, searching, managing and categorizing any type of media file. This includes audio and MIDI files, instrument and plug-in presets, track presets, video data and even project files. A tag editor allows you to to apply your own attributes.
- ◆ The Scope section gives full preview of your audio, MIDI or Presets - even down to the auditioning of loops in your song tempo.

SoundFrame - Universal Sound Manager

- ◆ SoundFrame incorporates a powerful Universal Media Library that allows you to combine the Instrument Tracks, Track Templates, and VST3 categorization functions with MediaBay. This allows you to manage ANY sound from ANY software or hardware synthesizer under the single, unified MediaBay user interface.
- ◆ SoundFrame can help you find any sound, by instrument, category, character type, style, or other attributes. 1000 ready to play sounds are included, and can be instantly previewed before loading.
- ◆ SoundFrame can manage your VST effects plug-in presets as well. These can also be organized and categorized to form one big effects library.

Supported File Types

- ◆ Audio import and export: AIFF, WAV, Broadcast WAV, WAV64, Ogg Vorbis, WMA Pro (Windows), REX, SD2 (Mac OS X) and MP3 (optional with Cubase Studio 4).
- ◆ Import and export OMF files to swap projects with other systems.
- ◆ Audio CD grabbing including preview and partial extraction.
- ◆ Import MIDI files and Cubase SX/SL/SE/LE, Sequel and Nuendo projects.

Cubase 4 Only

- ◆ Control Room Mixer with Talkback and Headphone busses, External Inputs, Control Room Monitor busses, seamlessly integrates within analog monitoring environments.
- ◆ MP3 Surround import and export.
- ◆ High-end multi-mode studio equalizer for each channel strip with multiple filter modes and characteristics.

Score Editor

- ◆ Settings dialog with consolidated setup parameters for score layout, staff settings, and more.
- ◆ Inspector-style symbol pallets for improved layout workflow.
- ◆ Category system for staff presets linked with SoundFrame.
- ◆ Two new score fonts: "Jazz" and "Classic".
- ◆ Improved Auto-Layout function.
- ◆ Function to import lyrics from MIDI file.
- ◆ Toggle selection status with control modifier.



	Cubase Studio 4	Cubase 4
Simultaneous playback of audio tracks	unlimited	unlimited
MIDI Tracks	unlimited	unlimited
Physical Inputs/Outputs	128	256
Group channels	256	256
Inserts / FX Sends / Returns	8 / 8 / 64	8 / 8 / 64
Instrument Tracks	unlimited	unlimited
VST Instrument Slots	32	64
MIDI insert plugins	4	4
Number of mixer views	2	3
Control Room	—	✓
Extended Channel EQ (VST3 Studio EQ)	—	✓
Extended Mixer view	✓	✓
Automation modes	touch fader	touch fader, x-over, autolatch, trim, overwrite
Surround: True Multichannel Audio Path	—	✓
Offline Process History	for built-in audio	for built-in audio and all plug-ins
MediaBay	limited*	full
Track Presets	✓	✓
Studio Connections	Recall	Recall + Audio
External FX / Instruments	—	✓
Workspaces (virtual desktops)	✓	✓
Project Browser	✓	✓
Project Logical Editor	—	✓
Advanced Options in Tempo Editor	—	✓
Volume Envelopes	✓	✓
MIDI Devices (Device Maps and Editors)	—	✓
Full MP3 Fraunhofer Encoding	available as update	✓
Windows Media WMA Pro Encoding	✓	✓
# of included VST MIDI / audio plug-ins	16 / 37	16 / 55
# of VST instruments included	2	6
# of instrument sounds included	600+	1000+
Full printed Operations Manual	—	✓

* No detail search, no separate tag editor, no user tags