



Logic Studio

Product Overview
September 2007



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Logic Studio

For creative musicians everywhere.

Logic Studio

- Logic Pro 8
- MainStage
- Soundtrack Pro 2
- Studio Instruments
- Studio Effects
- Studio Sound Library
- Production utilities

Introducing Logic Studio, Apple's comprehensive suite of professional tools that provides musicians with everything they need to create in the studio, on the stage, and for the screen. Logic Studio includes Logic Pro 8, Apple's professional music application; MainStage, an innovative new application for music performance; and Soundtrack Pro 2 for audio post-production. It also includes acclaimed instruments, professional effects, an expanded sound library, and new production utilities—all in a single box at an incredible price.

Logic Pro 8, a powerful music production application, features an intuitive new interface that makes it easy to write, record, edit, and mix music—all with the legendary sound quality and rock-solid timing that have distinguished Logic products for years.

MainStage, a brand-new application for live performance, dramatically simplifies your live rig by making it easy to play software instruments and effects on stage—using standard keyboards, pedals, and other controllers along with an easy-to-read display.

Soundtrack Pro 2 is a full-featured audio post-production application for film and video. It features deep integration with Final Cut Pro as well as powerful sound design tools, multichannel waveform editing, and intelligent sound restoration capabilities.

Studio Instruments and Studio Effects include 40 incredible-sounding instruments and 80 professional effect plug-ins, many with True Surround capabilities.

Studio Sound Library includes the content from five complete Jam Pack collections and the entire sound library from Final Cut Studio 2, as well as new Logic Studio channel strip settings and plug-in settings.

Production utilities include WaveBurner for CD mastering; Compressor 3 for surround encoding; the Impulse Response Utility, used to capture the acoustics of real performance spaces; and the Apple Loops Utility.

New in Logic Pro 8

With its acclaimed power and flexibility for writing, recording, and producing music, Logic Pro 8 is the heart of Logic Studio.

New features in Logic Pro 8 include:

- **Next-generation interface**, with a streamlined, single-window workspace
- **Simplified setup**, with professional templates for common activities and projects
- **Effortless multitrack recording**, including automatically generated take folders
- **Revolutionary Quick Swipe comping**, for quickly building the perfect track
- **Powerful audio editing**, including sample-accurate editing in the Arrange window
- **Comprehensive surround**, with multichannel tracks and busses up to 7.1
- **XSKey-free operation**, with a simple serial number replacing the USB dongle



Introducing MainStage



MainStage turns your Mac into a powerful live rig that lets you use your favorite gear to control software instruments and effects in a live performance. MainStage features:

- **Simplified user interface**, with a high-contrast view for use in live performance
- **Amazing sound for the stage**, with world-class Studio Instruments and Studio Effects
- **Flexible hardware setups**, using keyboards, knobs, faders, and pedals to control sounds
- **Flawless performance**, with seamless patch switching and an interactive display
- **Powerful templates**, offering a quick and easy way to set up your live rig

Soundtrack Pro 2



Powerful editing tools, flexible surround mixing, and an intuitive interface simplify audio post-production for film and video. Soundtrack Pro 2 features:

- **Intuitive interface**, including a multitrack Timeline and Waveform Editor
- **Advanced audio editing**, including sample-accurate, nondestructive waveform editing
- **Sound design**, featuring a layered Actions list for flexible sound effect creation
- **Dialogue tools**, with easy multitake compositing, intelligent find-and-fix, and more
- **Mixing for picture**, including support for stereo and surround mixes in the same project
- **Compatibility**, integrated with Final Cut Pro, including automatic version conforming

Studio Instruments



Logic Studio offers the largest set of instrument plug-ins available in a single box, including 40 incredible-sounding vintage, synth, and sampled instruments.

Upgraded instruments in Logic Studio include:

- **Ultrabeat**, enhanced with new beat-making features and over 1000 new drum sounds
- **EXS24 Editor**, redesigned and seamlessly integrated into the EXS24 Sampler
- **ES2**, now in True Surround, with a Macro view for easy access to key parameters
- **Sculpture**, now in True Surround, with surround panning and surround delay

Studio Effects



Studio Effects plug-ins range from vintage and modern compressors to distortion effects and amp models. Of the 80 professional Studio Effects plug-ins, 16 feature True Surround capability.

Studio Effects include:

- **Creative effects**, including Delay Designer and Space Designer, both in True Surround
- **Production effects**, including Surround Compressor for multichannel compression

Studio Sound Library



With the complete content from five Jam Pack collections, the entire sound library from Final Cut Studio 2, and enhanced content from Logic Pro 7, the Studio Sound Library offers unprecedented value. An intuitive new browser lets you quickly find the perfect sound.

The Studio Sound Library includes:

- **18,000 Apple Loops**, including 12,000 loops from five Jam Pack collections
- **5000 Foley, sound effects, and music beds**, including over 1000 options in surround
- **1300 EXS instruments**, including 248 instruments from five Jam Pack collections
- **2400 channel strip settings and plug-in settings**, for a wide range of high-quality sounds

Production Utilities

Logic Studio includes two production utilities from Logic Pro 7—WaveBurner, for mastering and authoring Red Book audio CDs, and the Apple Loops Utility.

Logic Studio includes two additional production utilities:

- **Compressor 3**, for encoding Dolby Digital Professional AC-3 files in 2.0 or 5.1 formats
- **Impulse Response Utility**, for recording impulse responses for use in Space Designer

For Creative Musicians Everywhere

With Logic Studio, you have everything you need to capture an initial idea and take it all the way through to final mastering or live performance—no matter what kind of music you make and no matter where you work.

In the studio

Logic Studio gives you the freedom to focus on your music rather than the mechanics of the software. All the high-quality sounds you need are at your fingertips, with a wide range of presets for instrument and effect plug-ins. Use familiar tools to quickly shape your own unique sound. Arrange your song with drag-and-drop ease and audition your arrangements as you swap out different sections. Experiment freely and intuitively to get just the sound you want, then refine your production all the way through final mastering.

On the stage

MainStage transforms your Mac into a streamlined live rig that offers unparalleled possibilities for producing exciting, original sound—whether you're at home, in a rehearsal space, or performing in front of an audience. Dynamically shape your sound as you perform, using the knobs, faders, pedals, and other controls on your favorite gear.

For the screen

Soundtrack Pro 2 and Logic Pro 8 provide everything you need to work in the world of audio post-production for film, video, and games. Compose your score in Logic Pro 8; use Soundtrack Pro 2 to edit dialogue, design sound effects, and complete the mix in cinematic surround.

On the road

Whether you're out on tour, collaborating far from home, or just traveling for a change of scene, you can continue to make music on the Mac. Whenever and wherever inspiration strikes, all you need is Logic Studio and a MacBook Pro to capture your ideas and turn them into music—it's like having a portable studio in your backpack. Quickly feel at home in any studio by using your own channel strip settings, plug-in settings, and key commands; just save them to your .Mac account from Logic Studio and access them in real time over the Internet.

In your style

Logic Studio puts a world of creative options at your fingertips, thanks to an open architecture that lets you use a wide range of audio interfaces, control surfaces, and performance hardware. You can also explore hundreds of third-party Audio Units instruments and effects and incorporate sounds from third-party applications such as Ableton Live and Propellerhead Reason. Because Logic Studio offers TDM/DAE support, you can use Logic Pro 8 as the front end to Digidesign hardware, instruments, and effects.

New in Logic Pro 8

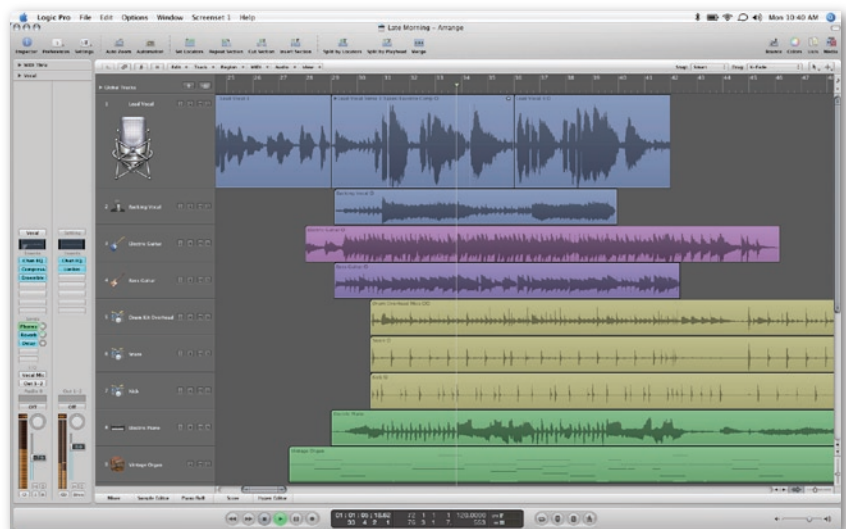
Powerful and approachable music production.



Logic Pro 8, Apple's professional music production application, provides musicians with the powerful, easy-to-use tools they need to write, record, edit, and mix. It features an interface that has been redesigned for fast, intuitive control, with all the key functions organized in a unified workspace. Time-saving recording and editing tools combined with end-to-end support for surround make Logic Pro 8 perfectly suited for everything from a scratch recording to a full-scale symphonic production in 7.1 surround.

New features in Logic Pro 8 include:

- Next-generation interface
- Simplified setup
- Effortless multitrack recording
- Revolutionary Quick Swipe comping
- Powerful audio editing features
- Comprehensive surround
- Network-based save and share
- XKey-free operation



Next-Generation Interface

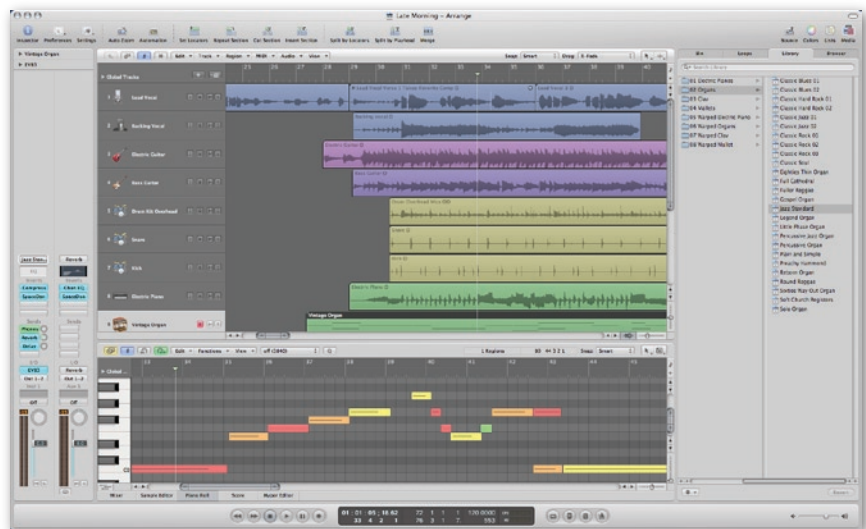
A new workspace features a single-window design with retractable panes, customizable toolbar, shortcut menus, built-in browsers, and dual channel strips. This streamlined layout eliminates clutter and lets you focus on your music.

Consolidated Arrange window

The Arrange window consolidates edit and browser windows. You can record multiple takes; cut, move, or stretch audio with sample accuracy; apply channel strip settings; automate a group fade; or drop chords onto your lead sheet—all from one central location, without managing multiple windows.

The Arrange window lets you selectively display three additional areas:

- **Editing**, horizontally tiled below the Arrange area; used for the Mixer, Sample Editor, Score Editor, Piano Roll Editor, and Hyper Editor
- **Media or Lists**, vertically tiled to the right of the Arrange (and editing) area; used to display media browsers and list-based editors
- **Inspector**, vertically tiled to the left of the Arrange (and editing) area; used to display region and track parameters as well as the new dual channel strips for the selected track

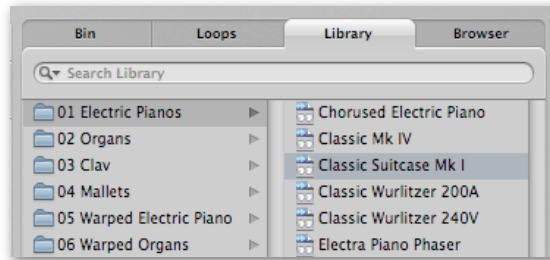


Built-in browsers

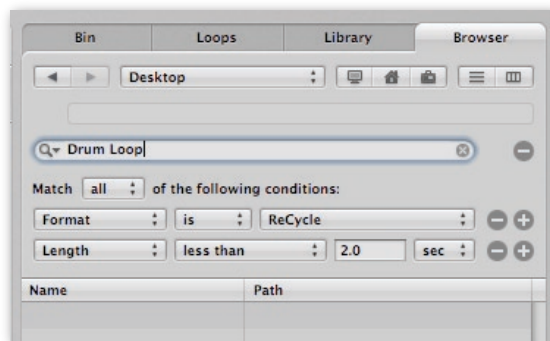
Built-in media browsers give you intuitive, rapid access to your content without opening additional windows or leaving the workspace. The Media area includes tabs for four media browsers, including the Loop Browser and the Audio Bin.

Two additional browsers are new to Logic Pro 8:

- **Library Browser**, for channel strip settings, plug-in settings, EXS instruments, and all possible MIDI destinations



- **File Browser**, including Spotlight search, for accessing any Logic-related file on your system or on any connected media volume—without going out to the Finder



Dual channel strips

The Inspector window features dual channel strips that provide streamlined access to all of the channel strips related to the selected track. The left channel strip lets you monitor and control the output and other settings for the current track. The right channel strip varies based on your selection in the left channel strip; click any Send or Output slot on the left to display the destination channel strip on the right. This feature allows you to access all of the channel strips used by a given track without opening the Mixer.



Optimized Mixer views

Two new options let you easily see the signal flow routing in the Mixer.

In the Arrange view, you can choose a setting—Add Signal Flow Channel Strips—to see not only the channel strips assigned to tracks, but also the auxiliaries and outputs used as send or routing destinations for each track.

In the new Single view, you see just the channel strip for the selected track, along with the auxiliaries and outputs used as send or routing destinations for that track. Focusing on the signal flow of one track at a time allows you to mix with greater efficiency and control.

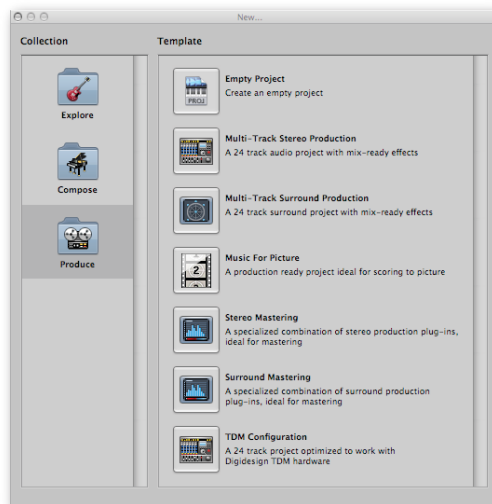


Simplified Setup

Logic Pro 8 lets you start making music right away, with production-ready templates, one-step track setup, dynamic channel strip creation, and seamless integration of ReWire-compatible applications such as Ableton Live and Propellerhead Reason.

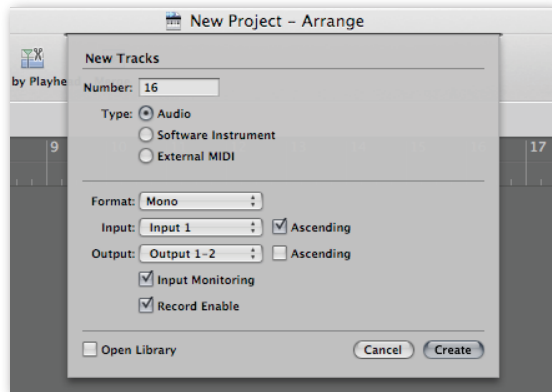
Production-ready templates

Start making music fast by choosing from a variety of templates designed for different music styles—such as electronic, hip-hop, orchestral, R&B, rock, and songwriter—and professional production scenarios ranging from multitrack stereo production to surround mastering. You can easily modify and save templates or create your own.



One-step track setup

Logic Pro 8 allows you to create and configure multiple audio, instrument, or external MIDI tracks from a single, simple setup window.



Dynamic channel strip creation

Logic Pro 8 streamlines recording and mixing by automatically creating channel strips for you as you work. Anytime you create a bus send, Logic Pro creates an auxiliary channel strip with that bus as its source. Similarly, if you add a multi-output software instrument, you can create preconfigured auxiliary channel strips with a single click.

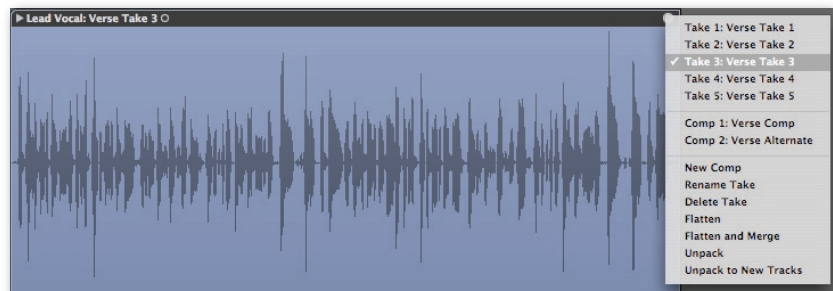
Streamlined ReWire support

Integrating ReWire-compatible applications with Logic Pro is dramatically streamlined. You can now manage all setup and configuration in the Arrange window, with no need to open the Environment or create special "ReWire Objects."

Open Ableton Live or Propellerhead Reason directly in Logic Pro, then select the instrument you want to play from the list that dynamically appears in the Browser. To monitor or process audio coming from a ReWire application, just select the outputs as the input source for any auxiliary channel.

Effortless Multitake Recording

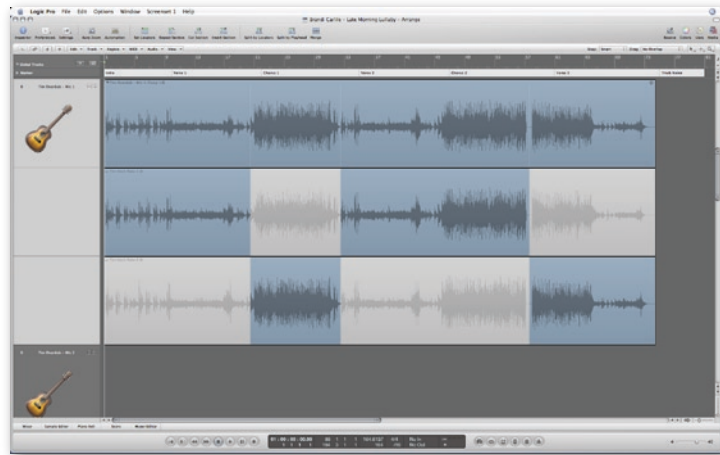
Logic Pro 8 offers a simple, flexible approach to multitake recording. When you record over existing material, your takes are automatically stored in a take folder. Expand your take folder at any time to see a graphical display of all your takes for easy auditioning and editing. You can move a take folder anywhere in your arrangement and edit it just as you would any other region.



Revolutionary Quick Swipe Comping

Quick Swipe comping dramatically streamlines the process of comping tracks. Rather than cutting, moving, and muting regions, all you have to do is click and drag to select the best sections of each take. This creates a perfectly seamless comp, complete with transition-smoothing crossfades.

Easily change your comp selections by clicking alternative sections in any take. You can save multiple comps and switch among them to pick the one you like best.



Powerful Audio Editing Features

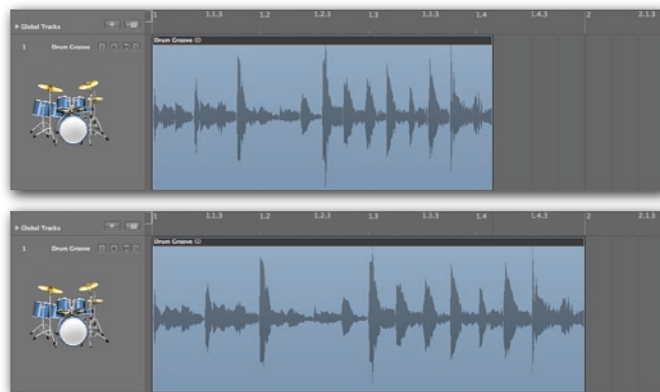
New editing features in the Arrange window allow you to work with greater speed and precision, without opening separate windows.

Snap-to-transient selection

Snap-to-transient selection lets you extend marquee selection borders to the next or previous transient. This feature is particularly useful for fast, efficient drum editing and sound replacement. Extend or reduce the length of the marquee selection by snapping the start or end point of the marquee to transients in audio regions, note on or note off positions in MIDI regions, or region start or end positions.

Graphically time stretch or compress audio

Logic Pro allows you to visually time stretch or compress an audio region directly in the Arrange area—without changing its pitch. Simply Option-drag the end point of the region. You can choose one of the time compression algorithms provided with Logic Pro or use third-party options such as Serato Pitch 'n Time or iZotope Radius.



Precise editing in the Arrange window

You can now edit waveforms directly in the Arrange window with the same precision previously available only in the Sample Editor. This is especially useful for maintaining phase alignment when making micro-adjustments to live recorded tracks.

Simultaneous edits with the Junction tool

Fine-tune the intersection of two regions by using the Junction tool to simultaneously resize two adjacent regions. Just use the Junction pointer and drag to the left or right; both regions will be resized, with no gap between them.



Comprehensive Surround

Logic Pro 8 offers end-to-end surround capabilities, allowing you to record, edit, mix, and encode projects in surround up to 7.1.

Multichannel file support

You can play, record, and process multichannel, interleaved audio files. Surround level meters let you monitor volumes for all channels within a single channel strip.

Multichannel bussing

Logic Pro supports end-to-end, multichannel signal routing. You can submix surround tracks or use sends to route audio to surround auxiliary tracks.

New Surround Panner window

The new Surround Panner window lets you use a graphical surround field to adjust track output signals to specific speaker positions in a Quad, LCRS, 5.1, 6.1, or 7.1 surround field. Level sliders and fields provide independent control of the Center and LFE channel levels. Additional parameters allow you to precisely control the separation between channels.



True Surround plug-in support

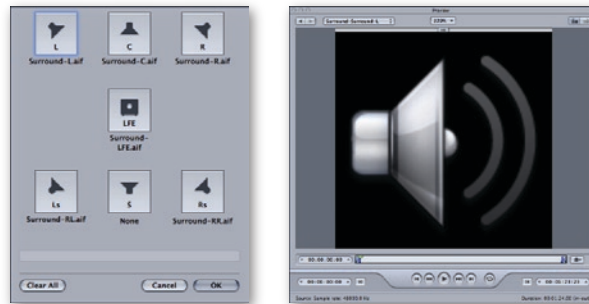
Many of the Studio Instruments and Studio Effects, including Space Designer and Delay Designer, are designed for True Surround. This means that all the processing for surround is handled in the plug-in, to provide particularly rich, immersive effects.

Multi-mono architecture

The multi-mono architecture in Logic Pro 8 lets you use any mono or stereo Logic Studio or Audio Units plug-in in surround, so you can take advantage of all your plug-ins when you create surround projects. For effect plug-ins, the multi-mono architecture offers options for creative processing on a per-channel basis.

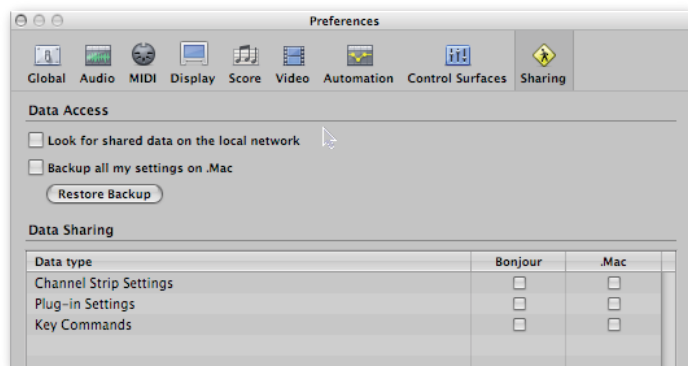
Surround encoding

Burn uncompressed audio directly to DVD-A or transfer bounced surround stems to Compressor for industry-standard Dolby Digital Professional AC-3 encoding in 5.1 surround. Use Compressor to preview your surround stems before encoding.



Network-Based Save and Share

Back up personal channel strip settings, plug-in settings, and key commands to your .Mac account for easy access from any computer connected to the Internet.¹ You can also select favorite settings to share across a local or Internet-based network or through your .Mac Public folder.



XSKey-Free Operation

A simple serial number eliminates the need for the XSKey dongle, freeing up a USB port for other uses and allowing you to work without extraneous hardware.

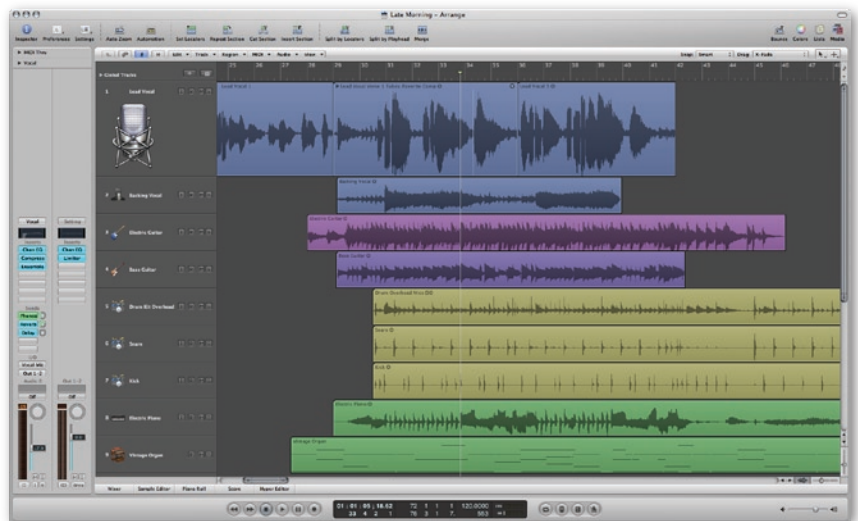
Additional Features in Logic Pro 8



Logic Pro 8 is a sophisticated, full-featured audio and MIDI application that provides all the tools you need to create professional-quality music productions. It allows you to record and edit audio and MIDI, add high-quality effects, and mix your music in stereo or surround. The final mix can be exported to one or more standard audio files or burned to an audio CD.

Logic Pro 8 offers a broad and deep feature set in a redesigned single-window workspace. Key features include:

- Ultimate writing studio
- Multitrack recording
- Precision editing
- Professional mixing
- Broad compatibility



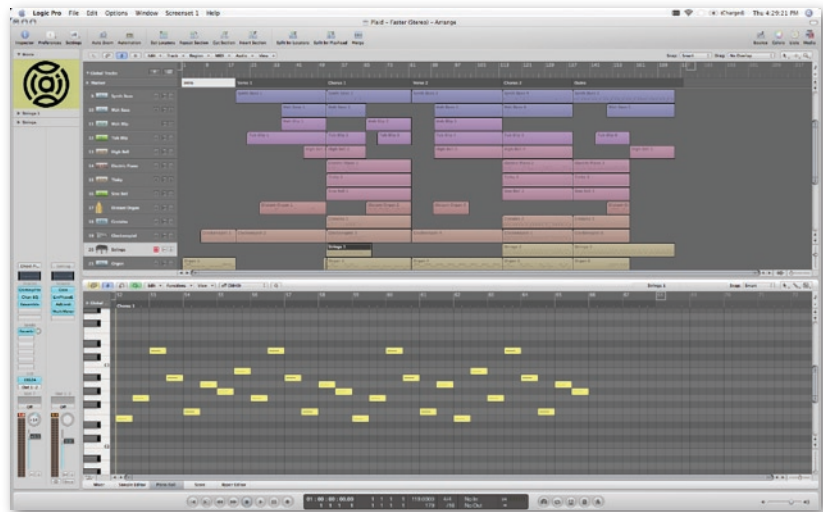
Ultimate Writing Studio

A professional collection of music creation and writing tools makes it easy to capture and develop your musical inspirations. Record multiple takes, quickly assemble the perfect comp, establish a groove with a selection of Apple Loops, and fill out the remaining parts in your composition with Studio Instruments. Key writing features include:

- Powerful MIDI creation
- Apple Loops
- Music notation
- Compose to picture

Powerful MIDI creation

With a rock-solid timing engine, exceptional quantization features, and a wealth of MIDI production tools, Logic Pro is the gold standard for creating and editing MIDI-based music. You can edit performance characteristics for each region independently while monitoring the results in real time.



Apple Loops

Build songs quickly by choosing from thousands of included royalty-free music loops that automatically conform to the tempo and key of your project. Embedded metatags characterize the instrument, genre, and mood for each loop, allowing you to quickly find the loops you want.

There are two types of Apple Loops: Real Instrument loops and Software Instrument loops. Software Instrument loops offer additional creative options by allowing you to edit the instrument, processing, or original MIDI performance. You can also use a Software Instrument loop as an audio loop.

Music notation

Logic Pro lets you transform MIDI performances into music notation in real time. Or, if you prefer, you can use Step Input to enter your notes one at a time. Create fully ornamented, professional scores using a complete set of tools, including comprehensive layout and print options, instrument transposition, guitar tablature, drum notation, and adaptive lyric input.

Late Morning Lullaby
by Brandi Carlile

1 *Intro guitar lick*

5

9 *Verse 1*

G Am Bm

soon as my eyes shut, a slide show beg- ins, yest- er- day is gone now and

13 Cm G Am

pan- ic sets in, with the weight up- on my chest, and a ghost up- on my back and a

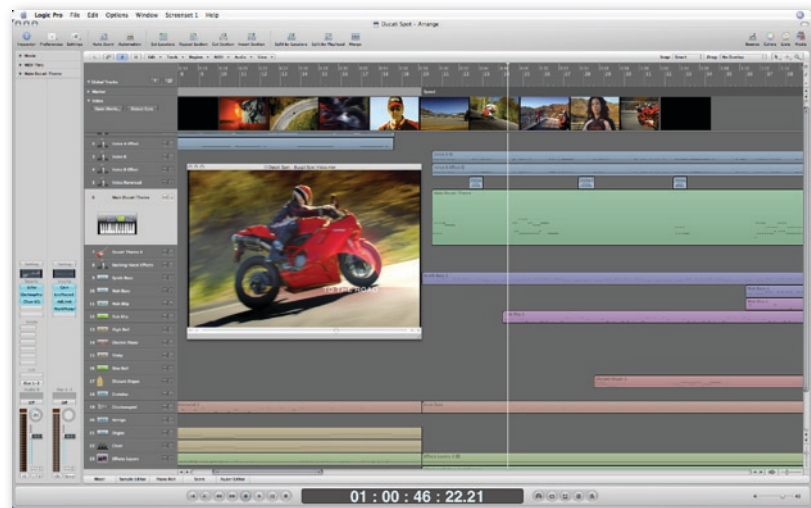
Bm C

17

numb- ing sen- sa- tion, of eve- ry thing I lack, it leaves me

Compose to picture

Dedicated music-for-picture features make scoring and sound design easy. View synchronized QuickTime movies directly within the interface or use a separate monitor with a range of output options, including Digital Cinema Desktop for high-definition playback. You can locate scene changes by scrolling through a thumbnail track or mark transitions automatically with the Create Scene Markers option.

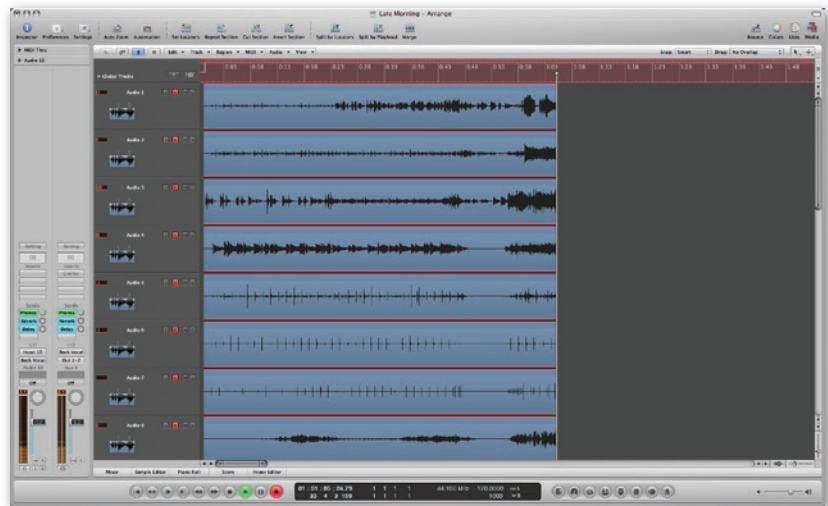


Multitrack Recording

You can use Logic Pro 8 to record anything from a quick demo to a large-scale commercial project. One-step track setup lets you create and record-enable multiple tracks with ease.

Auto-punch in and out based on marquee selections or punch in and out on the fly. You can use input monitoring to listen to or process incoming signals without the need for dedicated input channels—perfect for rehearsing before you record.

Support for the new Core Audio Format (CAF) lets you record extended-length projects of up to 6 hours at 96kHz.



Precision Editing

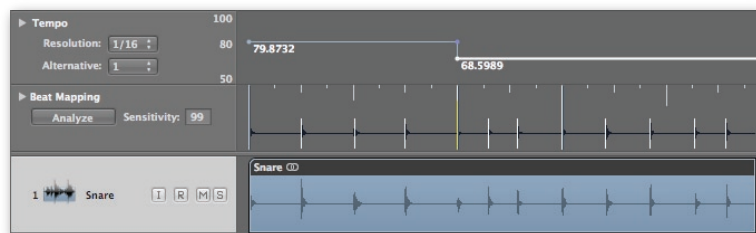
Audio editing features in Logic Pro 8 let you work with power and precision, using sample-accurate tools in the Sample Editor or directly in the Arrange window.

Destructive edits

You can perform destructive edits using the built-in editor or an external sample editor such as Soundtrack Pro 2. Destructive edits allow you to time stretch and pitch shift audio, change sample rates, extract MIDI grooves from the audio, and even quantize audio.

Graphic beat mapping

Easily conform any freely recorded audio or MIDI track to bars and beats using powerful beat-mapping features. You can create tempo tracks automatically, based on a guide track; or drag bar and beat guides to transients or MIDI notes within a region.



Professional Mixing

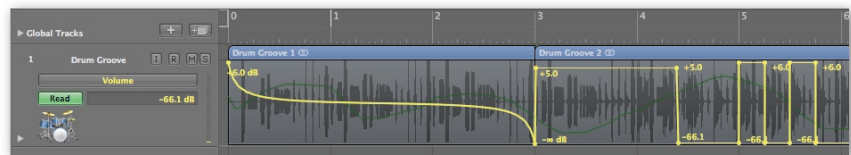
Complete your project with powerful mixing and automation tools that meet the demands of any size production.

Complete mixing desk

Create the perfect Mixer configuration with up to 255 discrete audio, software instrument, and auxiliary channels, along with up to 32 mix groups and as many output channels as your audio hardware provides. Each track supports 15 plug-ins and 8 pre-fader, post-fader, and post-pan, sends with full latency compensation to keep everything in perfect sync. Logic Pro 8 also lets you record busses and integrate outboard hardware into your mix.

Automation

Automate channel strip and plug-in parameters on the fly or set values manually for even greater precision. You can simultaneously view and edit automation for single or multiple tracks, including multiple parameters per track. Track grouping provides simultaneous writing and editing of automation for multiple tracks, and a curve tool helps create natural-sounding transitions.



Virtually limitless processing power

Distributed audio processing technology allows you to harness the power of multiple computers on a network, providing virtually limitless plug-in processing power.

Broad Compatibility

The open architecture of Logic Pro 8 offers enormous creative freedom to musicians by supporting a wide range of professional hardware and software options.

Software compatibility

Logic Pro 8 makes it easy to incorporate compatible third-party plug-ins and applications, as well as interchange project files with other applications.

- **GarageBand and Logic Express.** You can open GarageBand projects directly in Logic Pro and seamlessly move projects between Logic Pro and Logic Express.
- **Audio Units.** Continuously explore new creative options by incorporating a choice of hundreds of third-party Audio Units plug-ins for instruments and effects.
- **ReWire.** A new automated setup process lets you seamlessly incorporate ReWire-compatible applications such as Propellerhead Reason and Ableton Live.
- **File interchange formats.** Import and export XML, AAF, OMF, and OpenTL files for convenient round-trip interchange with Final Cut Pro and a wide variety of professional music applications and hardware.

Hardware compatibility

Logic Pro 8 gives you the freedom to choose the hardware that best suits your creative style and production requirements. Supported hardware includes:

- **Audio interfaces.** You can use any Core Audio-compatible audio interface, with an enormous range of options for the most modest to the most sophisticated setup.
- **Control surfaces.** Enjoy hands-on control when you record or mix by using one of over 30 supported control surfaces—from simple devices all the way up to high-end, console-style controllers. Plug-and-play simplicity lets you start working immediately.

TDM/DAE compatibility

Because Logic Studio offers TDM/DAE support, you can use Logic Pro 8 as the front end to Digidesign hardware, instruments, and effects.

MainStage

Introducing your new live rig.



Musicians are accustomed to using a rich palette of software instruments and effects as they write, record, edit, and mix their music, but it has been difficult to take the same sound to the stage. Artists have been forced to re-create their sounds using traditional hardware rigs or adapt software that is not designed for use in live performance.

Introducing MainStage, an application that makes it easy to use your favorite software instruments and effects in live performance. MainStage turns your Mac into a flexible live rig that includes a rich array of software instruments, powerful effects processing, and easy integration with standard hardware controllers.

Create new music in your studio or rehearsal space and use the same sounds on stage. Organize the sounds for your show with drag-and-drop ease. Dynamically shape your music as you perform, using the knobs, pedals, and faders on your favorite gear, with large-scale 3D graphics designed to show you just the information you need on stage.

MainStage dramatically expands the range of sounds you can use in your live music, with a breakthrough streamlined interface that lets you focus on performing.

MainStage features:

- Simplified user interface
- Amazing sound for the stage
- Flexible hardware setups
- Flawless performance
- Powerful templates



Simplified User Interface

MainStage features a stunning 3D interface created for the stage, providing just the information you need for your live show. Attractive, easy-to-read graphics are designed to deliver key information from a distance, regardless of the lighting conditions. Beautifully rendered, vector-based objects scale to match the resolution of any display.

MainStage offers a choice of two different screen views for live performance:

- **Perform mode.** In Perform mode, the workspace fills the entire MainStage window. The Toolbar is still visible so that you can switch modes using the Mode buttons or access other Toolbar items such as the Panic or Master Mute buttons, the Tuner, and the Activity Monitor. Perform mode also lets you easily switch among other applications during your performance.



Perform mode

- **Full Screen mode.** In Full Screen mode, the workspace fills your entire computer display, so your screen controls are as large as possible for maximum readability. Full Screen mode optimizes your display for live performance whenever you want to use MainStage exclusively while you play.



Full Screen mode

Amazing Sound for the Stage

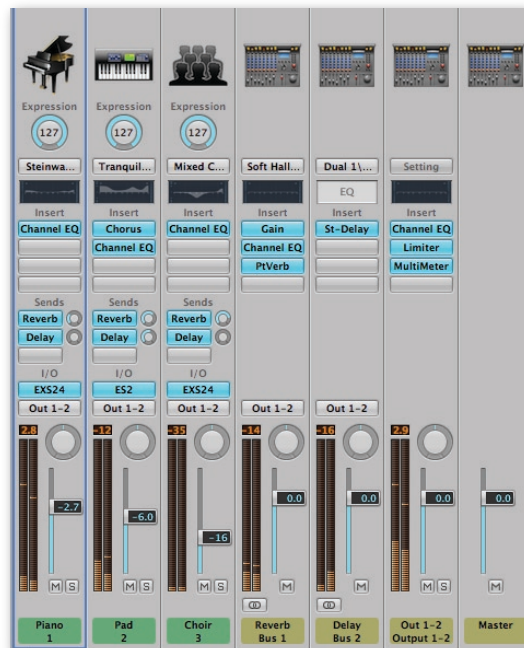
MainStage allows you to create sounds for the stage just as you would in Logic Pro, with a powerful browser that lets you quickly access channel strip settings and plug-in settings from the Studio Sound Library. You can also incorporate any Audio Units-compatible instrument or effect for an even greater range of options.



Familiar channel strips and routing

If you shape your sound in the studio using Logic Pro 8, you can easily open your channel strip settings in MainStage.

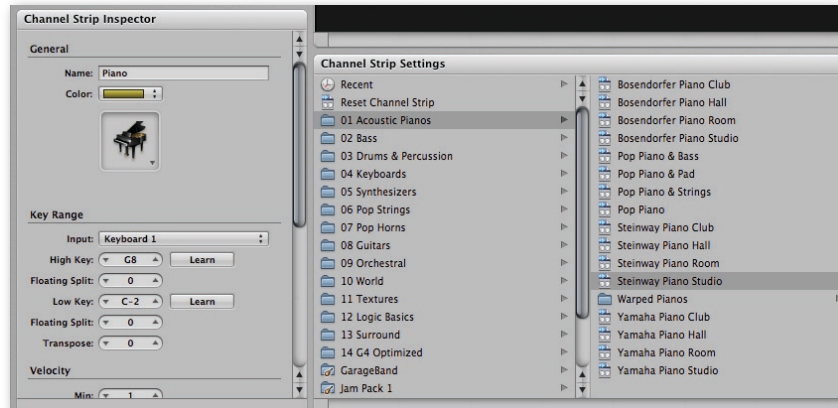
You can also create sounds directly in MainStage, using the same interface for channel strips, busses, and routing found in Logic Pro. Get started fast by using channel strip settings from the Studio Sound Library—just drag your selections from the built-in browser. You can save your channel strip settings for use in other patches or Logic Pro 8.



Patches

A patch is a container that can hold a single channel strip or a combination of channel strips. It is the fundamental building block in MainStage.

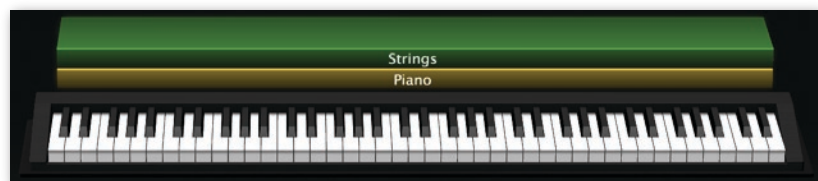
A key benefit of the patch is its ability to combine multiple channel strips in a single unit. Patches allow you to create and play breathtakingly original sounds that represent the equivalent of multiple tracks in Logic Pro 8. Crossfades between channel strips within the patch allow you to blend and switch between separate instrument sounds or complex effect rigs with a single controller move.



Keyboard layers and splits

MainStage offers keyboard players additional flexibility in combining and playing sounds through keyboard layers and splits.

Use layers to stack instruments for creating rich, combined sounds made from multiple channel strips. You can also build layers that trigger in specific velocity ranges for more dynamic performances.



Using splits, you can divide the keyboard into zones and play multiple instruments across a single controller. For example, one range of the keyboard could be used to play a piano, while the remaining keys are assigned to a bass.

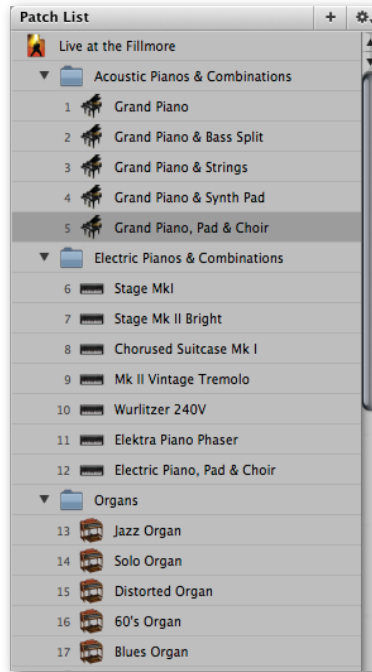
Floating splits offer even more power by dynamically adjusting split points. This feature lets you improvise without triggering adjacent sounds by mistake.



Organizing patches, sets, and concerts

You can organize patches in many different ways; for example, you could create a patch for each section of a song—such as a verse or chorus—for each song in a set, for an entire set, or for an entire performance. You can also group patches into sets to organize sections of your performance.

A concert is a collection of all the patches and sets you want to use in a given performance. Rearrange patches and sets with drag-and-drop ease. You can quickly move patches and sets from one concert to another using copy and paste.



Flexible Hardware Setups

MainStage makes it easy to set up your gear and control all aspects of your live show, with virtual onscreen controls that link to your hardware knobs, faders, and buttons in minutes. MainStage offers seamless support for all USB- and MIDI-equipped keyboards, control surfaces, foot pedals, drum pads, and other controllers.



Virtual hardware connections

MainStage streamlines working with hardware controllers by using a virtual version of each knob or fader—called a screen control—in your screen layout. Each hardware control is assigned to a screen control. This relationship doesn't change unless you use a different piece of hardware.

Your hardware controllers work through their virtual versions (screen controls) to adjust plug-in parameters and performance functions as you twist a knob or press a pedal. Parameters and functions are mapped to virtual screen controls on a patch-by-patch basis. This means that the same knob on your hardware controller could be used to control reverb in one patch and a software instrument in a different patch, without changing the physical setup.



Patch 1: Screen control mapped to EVD6 parameter



Patch 2: Screen control mapped to EVP88 parameter

Virtual mapping lets you quickly reassign controllers when your equipment changes. All you need is a one-to-one relationship between the screen controls and the knobs, faders, and other components on your hardware controllers.

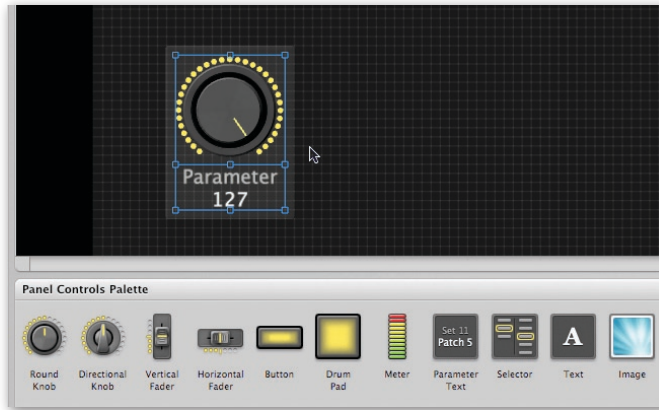
Assigning hardware and mapping parameters

Setting up hardware assignments and mapping parameters is a three-step process:

1. Create screen controls in Layout mode.
2. Assign hardware controls to screen controls (one time).
3. Map screen controls to plug-in parameters and performance functions for each patch.

Creating screen controls

The Layout mode allows you to quickly modify an existing layout or create your own from scratch—all with drag-and-drop ease. You can easily add or delete screen controls and drag each one to just the position you want. Click and drag screen controls to resize them as you fine-tune your layout.



Assigning hardware controls to screen controls

MainStage instantly recognizes many popular hardware controllers. It automatically assigns hardware knobs, faders, and other controller components to the screen controls in your layout.

For other devices, MainStage includes an intuitive Learn mode that lets you quickly assign each hardware control to a screen control in your layout. Just move the hardware control through its full range of motion. MainStage analyzes the signal and completes the hardware assignment for you.

The assignment of a hardware control to a screen control is a one-to-one relationship that doesn't change, unless you decide to use different hardware in your performance.



Mapping screen controls to parameters

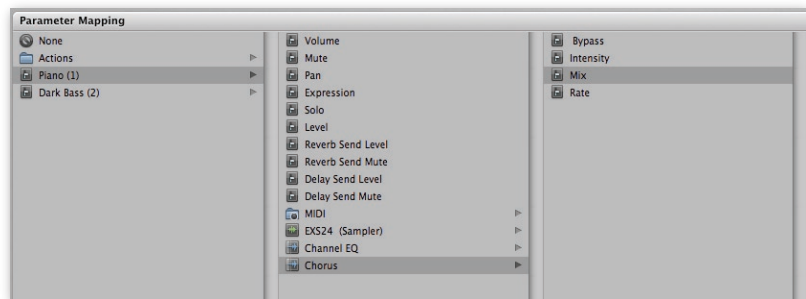
The next step in preparing a MainStage project is mapping screen controls to the parameters you want to modify when you are performing. You can map a single screen control to a different parameter in each patch. This virtual mapping offers considerable performance flexibility with a minimum number of hardware controls.

You can also map parameters at the concert level to control master volume and pan or modify concert-wide effects.

It's incredibly easy to map channel strip and plug-in parameters. Click the Map Parameter button to turn on automatic mapping, then click to select any screen control. To map a channel strip parameter, click the control for the parameter on the channel strip. To map a plug-in parameter, click the parameter in the plug-in interface. It's that simple.



Alternatively, you can select a screen control, then use the Parameter Mapping browser at the bottom of the Edit view to find and select a parameter. The Parameter Mapping browser is useful for selecting parameters that are not visible in the plug-in interface.



Flawless Performance

MainStage provides stability under even the most demanding conditions, so you can play live with confidence. With seamless patch switching and convenient performance tools like the Activity Monitor, MainStage gives you everything you need for a successful performance.

Seamless patch switching

Crossfade between complex guitar rigs or intricate keyboard configurations with a single controller move. Adjust settings and switch seamlessly between patches without disrupting sound output or sustained notes.

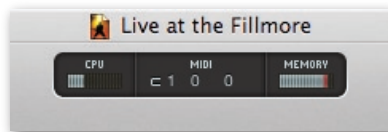
Tempo control

You can set the tempo for a concert and change it by selecting a patch or a set with its own tempo setting. You can also change the tempo in real time by tapping a new tempo, or have MainStage receive tempo changes from incoming MIDI messages.



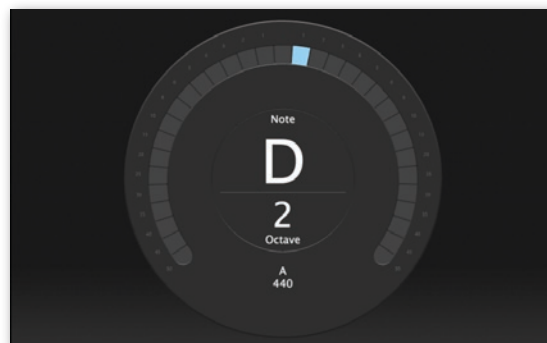
Activity Monitor

Use the Activity Monitor at the top of the window interface in Perform view to check MIDI inputs, processor usage, and memory allocation during your show.



Full-screen tuner

MainStage features a built-in tuner for guitars, basses, and other instruments.

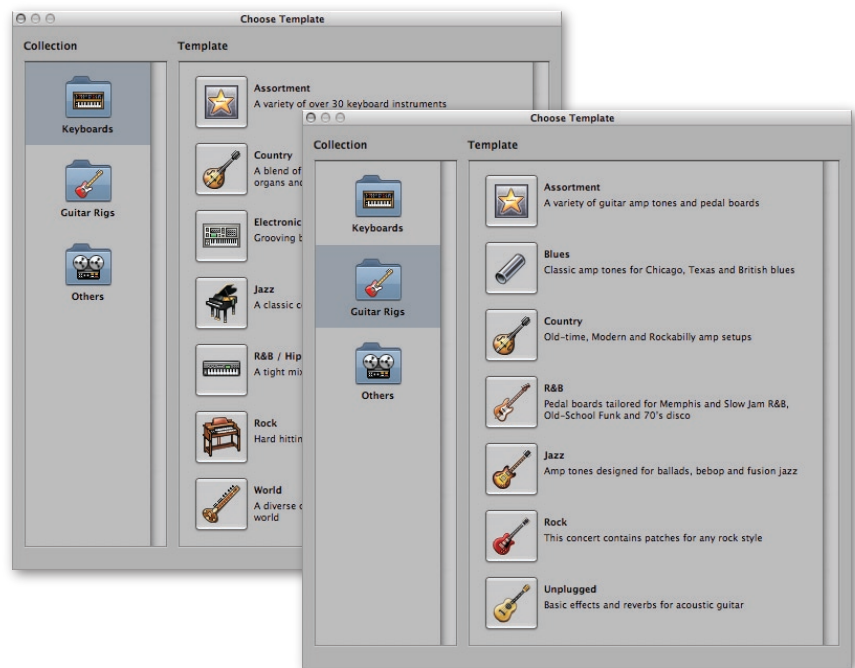


Powerful Templates

MainStage helps you quickly customize your live rig by offering a wide selection of templates designed for different instruments and performance styles. Each template includes a set of patches and a layout that are appropriate for that instrument and style. Patches include sounds made with high-quality Studio Instruments and Studio Effects.

Choose from templates for keyboards, guitar rigs, drums, and more, in styles ranging from country to jazz to hip-hop. There are also templates designed specifically for singer/songwriters.

You can customize any template and save it as your own. As you quickly become familiar with MainStage, you can even create templates from scratch.



Keyboard templates

Keyboard templates let you access and play any of the instruments in Logic Studio, including the vintage keyboard series; a range of superb synthesizers; and hundreds of beautifully sampled pianos, horns, and percussion and string instruments. Modify the template patches with your favorite third-party Audio Units plug-ins.

Guitar templates

Guitar templates make it easy to harness the power of Guitar Amp Pro, the premier Logic Studio guitar amp plug-in that features 11 amp models, 15 speaker cabinets, microphone controls, and a dedicated effects section. You can build the ultimate guitar rig by combining Guitar Amp Pro with other Studio Effects or third-party Audio Units plug-ins.

Onscreen objects in the Layout mirror your hardware pedal boards and foot switches, allowing you to control guitar rigs in MainStage with your favorite outboard gear.

Soundtrack Pro 2

The next wave in audio post.



Soundtrack Pro 2 offers unprecedented convenience and power for advanced audio editing as well as creating soundtracks for film and video. Fly through editing and mixing with an intuitive interface that combines the multitrack Timeline and Waveform Editor in a single view. Create immersive soundtracks with flexible surround tools. Easily move projects between Final Cut Pro and Soundtrack Pro, using simple round-trip collaboration features and the industry's first automatic conform process. With its familiar interface and intuitive tools, Soundtrack Pro opens the world of audio post-production to musicians.

Soundtrack Pro 2 features:

- Advanced audio editing
- Innovative sound design
- Dialogue and restoration tools
- Mixing for picture
- Broad compatibility

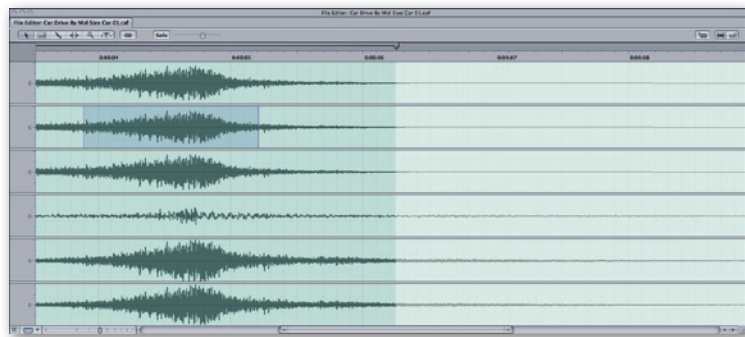


Advanced Audio Editing

Soundtrack Pro 2 makes it easy to edit anything—from individual audio files to large multitrack projects for film and video. The intuitive interface lets you work efficiently on common tasks and progressively disclose additional features when you need precise control. Sample-accurate, nondestructive audio processing allows you to freely experiment to get the sound you need and stay flexible until the final mix.

Intuitive multitrack environment

The multitrack Timeline is combined with the Waveform Editor in a single-window interface that streamlines the editing process. 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. Work with up to 24-channel files for efficient editing of mono, stereo, surround, and other multichannel files. You can view the multichannel Waveform Editor full screen when you want to make precise adjustments to a file.



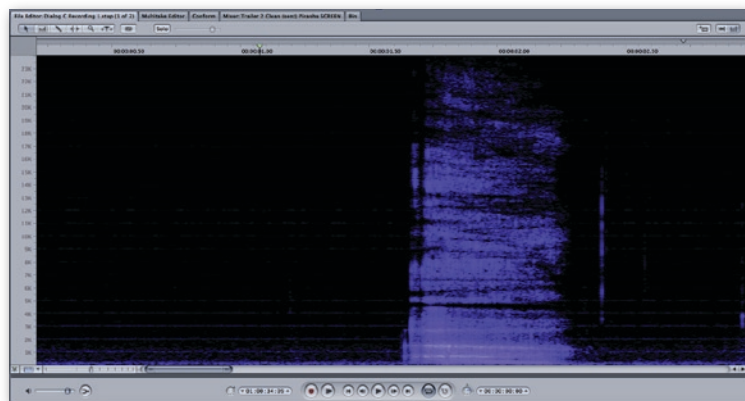
Nondestructive editing with actions

Soundtrack Pro allows you to edit your audio files nondestructively by keeping track of the actions you have performed on the file. The Actions tab shows a list of every edit, process, and effect you make to an audio file, with each step listed as a separate action.

Use the Actions list to modify, reorder, suspend, or delete any action. You can apply an action to an entire file or a selected part of the file. Because actions do not alter the saved audio file, you can adjust your settings at any time. If you want, flatten the actions and save the audio clip before further editing or mixing.

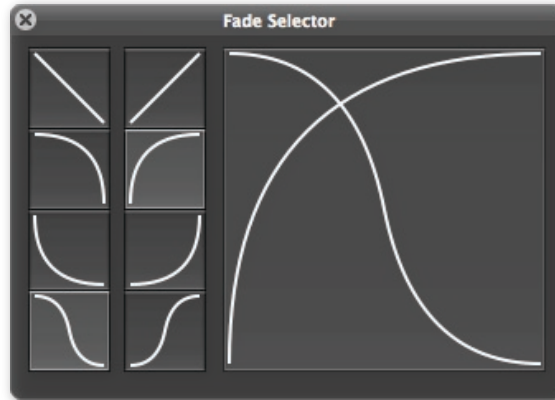
Spectrum view editing

The Spectrum view provides a different visual representation of audio based on frequency, with amplitude revealed through color intensity. Select portions of the audio frequency with pinpoint precision, then edit them without affecting other frequencies.



Fades and crossfades

You can lengthen or shorten fades by dragging fade boundaries in the multitrack interface. You can also choose to automatically generate crossfades for overlapping clips. Use the Fade Selector to choose and customize fade curves in a visual interface.

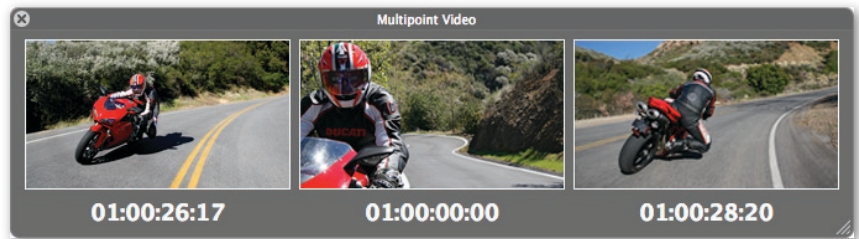


Scrubbing

Accurately locate significant points in the audio for placing edits. The tape-style Scrub tool lets you 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.

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.



Innovative Sound Design

Using the Studio Effects plug-ins and any of the 5000 Foley, sound effects, and music beds included in the Studio Sound Library, 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.

Professional audio effect plug-ins

You can sculpt exactly the sound you want using professional stereo and surround Studio Effects. Choose EQ, Compression, Reverb, or more extreme delay, distortion, and modulation effects. Soundtrack Pro also supports a wide variety of third-party Audio Units plug-ins.

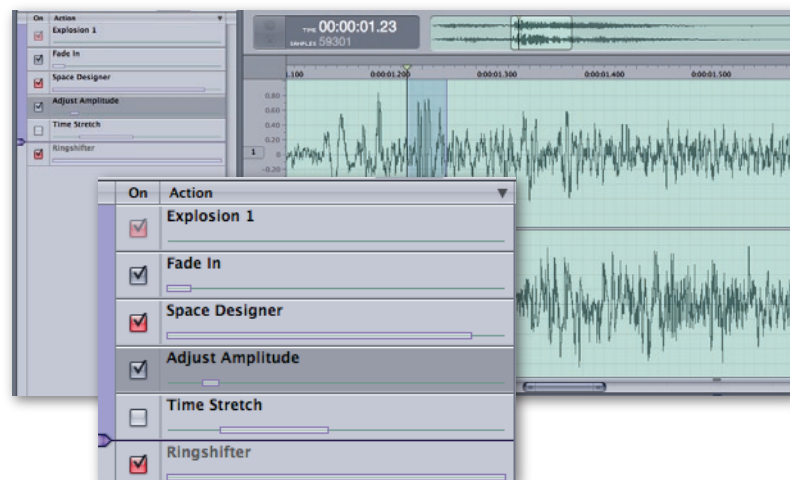


Extensive library of Foley, sound effects, and music beds

The Studio Sound Library includes a massive collection of royalty-free music beds and sound effects, with more than 1000 in full surround. These professionally produced and recorded elements make it easy to get started fast and keep quality high when you create a soundtrack. You can easily add third-party music and effect libraries when you want more options.

Action-based editing

Create distinctive sounds with ease using action-based editing in the Waveform Editor. Because the edits are nondestructive, you can experiment without worrying about 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.



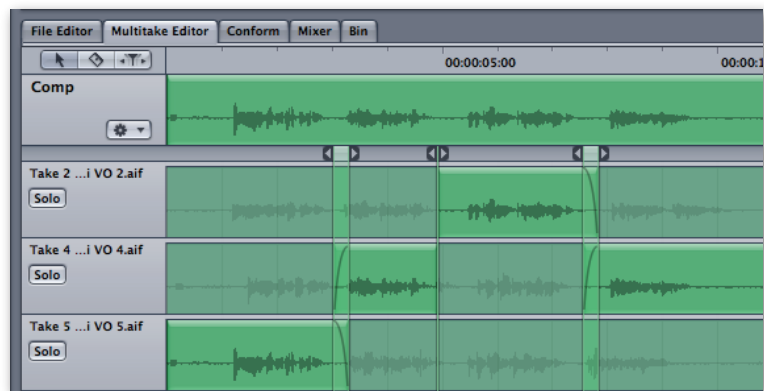
Dialogue and Restoration Tools

Most recorded speech requires improvement, whether it consists of dialogue spoken by actors, a spontaneous interview included in a documentary, or voiceover narration recorded in the studio. Soundtrack Pro includes a range of tools that allow you to improve dialogue quickly, easily, and with precision.

Advanced take management

Whenever you record voiceover or dialogue replacement (ADR) tracks, you need to capture multiple takes. Soundtrack Pro makes it easy to composite the best sections from all the takes to produce the final performance.

Use the Multitake Editor to view all the takes at once, then drag to select the best performance of words or phrases to include in the final composite. Soundtrack Pro automatically crossfades between takes for seamless playback. When you've finished your composite, you can move it anywhere and treat it as a single audio clip, while still accessing all of the original takes.



Lift & Stamp

Use the Lift & Stamp tool to quickly copy a set of effects or EQ characteristics from one clip and apply them to another, or save them as a preset for future use. The Lift & Stamp EQ matching technology in Soundtrack Pro 2 can make dialogue from different sources sound as if it were recorded at the same time using the same equipment.

Intelligent find-and-fix

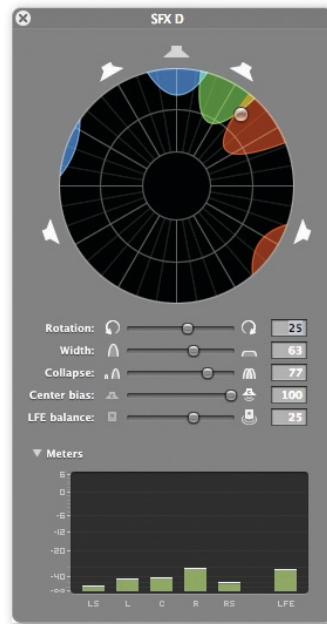
Repair field-recorded dialogue or restore old or damaged recordings quickly and easily. Soundtrack Pro 2 includes a set of audio tools that analyze an audio file for common problems—such as clicks and pops, hum, and phase issues—and fix them individually or in a single operation. You can also use advanced noise reduction features to remove background noise such as wind and traffic from field recordings.

Mixing for Picture

Soundtrack Pro 2 includes a powerful toolset for creating mixes for film and video projects, in both stereo and cinematic 5.1 surround. Save time and effort by creating simultaneous surround and stereo mixes in the same project.

Surround mixing

Soundtrack Pro 2 offers an intuitive and comprehensive set of tools for creating professional surround mixes. Create immersive soundtracks for your projects with discrete 5.1 mixing, bussing, and routing. An innovative surround panner dynamically represents how sound is panned in the surround field.



Effects, sound effects, and music beds in surround

You can use any of the True Surround–capable Studio Effects—including compressors, EQs, Space Designer, and more—as you mix. Multi-mono support allows you to use any mono or stereo plug-in in surround. You can also access more than 1000 royalty-free surround sound effects and music beds from the Studio Sound Library.

Broad Compatibility

Soundtrack Pro 2 allows you to 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. It is also seamlessly integrated with Final Cut Studio for easy round-trip collaboration with film and video editors.

OMF import and AAF import/export

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.

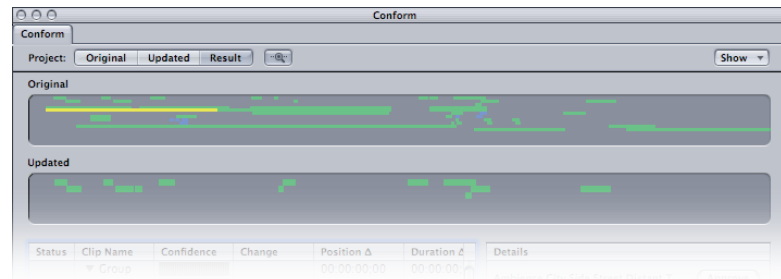
Core Audio–compliant interface support

Soundtrack Pro supports any Core Audio–compliant interface, which means that you can use the same audio interface for everything you do in Logic Studio.

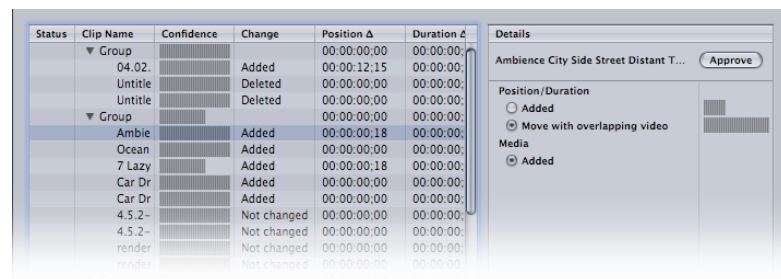
Final Cut Studio 2 integration

You can use Soundtrack Pro to instantly send audio clips—or an entire mix—between Soundtrack Pro and Final Cut Pro. If editorial changes are made in Final Cut Pro, use the Conform feature in Soundtrack Pro for automatic updating of your audio project.

The Conform feature compares the two versions of a Final Cut Pro project and highlights the changed audio clips in your Soundtrack Pro project. Instantly see the changed areas with a visual “map” that highlights differences between the original project and the incoming changes, or view the project with all the changes applied.



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.



Audition and choose which changes to accept, reject, or modify on an event-by-event basis or decide to accept all changes at once. When you accept a change, Soundtrack Pro repositions the audio clip to synchronize with the picture change or removes the clip if it is no longer needed.

Studio Instruments

Incredible-sounding instruments for Logic Studio.



Featuring 40 powerful, updated instrument plug-ins seamlessly integrated into Logic Pro 8 and MainStage, Studio Instruments provides the largest set of instrument plug-ins available in a single box. Updated instruments include an enhanced version of Ultrabeat, an improved EXS24 Sampler, and Sculpture and ES2 synths, both updated for True Surround.

Studio Instruments features:

- Ultrabeat
- EXS24 Sampler
- Vintage instruments
- Synth instruments, including Sculpture and ES2

Ultrabeat

Use the tone-shaping features in Ultrabeat to sculpt unique sounds from 25 drum voices, with new drum kits featuring more than 1000 new sounds. Full View drum grid editing and step automation give you more power than ever.

Use the drum grid editor to dial in the perfect groove with swing and accent controls, then trigger any of the 24 patterns live or drag them to the Arrange window in Logic Pro for further editing. Ultrabeat provides everything you need to create original beats from combinations of synthesized and sampled sounds.

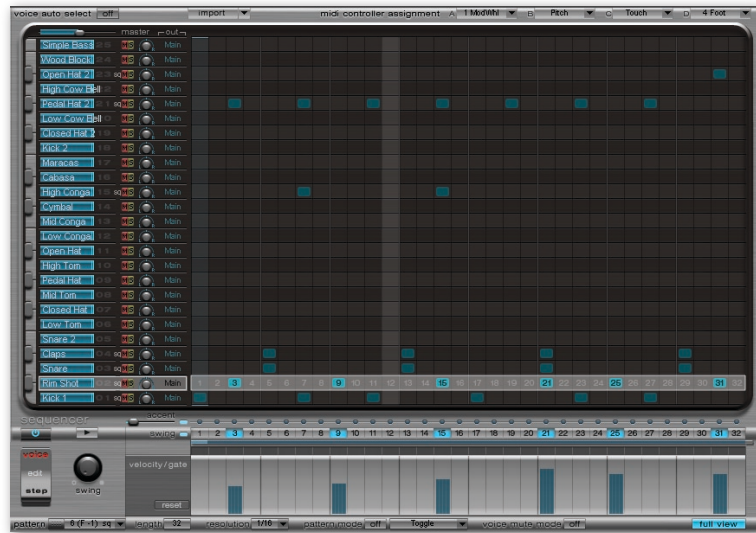


New sounds

Ultrabeat offers more than 50 new drum kits featuring 400 new drum patterns and over 1000 new synthesized, sampled, and hybrid drum sounds. You can import EXS drum kits directly into the program for even more creative options.

Full View drum grid editor

The Full View drum grid editing feature in Ultrabeat lets you see and edit all of the patterns for 25 drum voices simultaneously.



Step automation

Step automation allows you to shape the characteristics of the sound of each voice over time. Precisely adjust key parameters for each event in the sequence.

Built-in sound-shaping features

A rich palette of effects, filters, LFOs, and EQs lets you edit voices with extreme precision, from slight alterations of tonal character to radical changes. The multimode filter offers four different 12- or 24-dB filter types, providing a broad range of sound-shaping options.

Multiple outputs

Ultrabeat is a multi-output instrument that provides up to 16 outputs. Route individual outputs to separate auxiliary channels for discrete processing of each drum voice.

EXS24 Sampler

Choose from more than 1300 EXS instruments included in the Studio Sound Library and quickly build sampled instruments and sample libraries using the integrated, redesigned EXS Editor. The EXS24 Sampler lets you quickly incorporate sample-based sounds into your productions. Featuring sample-accurate timing, a robust synthesizer section, and support for sampled instruments of near-limitless size, the EXS24 Sampler also includes 16 individual outputs for discrete voice processing. Wide-ranging sample library support includes Akai, GigaSampler, SampleCell II, SoundFont2, and REX2.

Editing and playing

The EXS Editor boasts an intuitive interface that lets you view and graphically edit your sampled instruments. Tight integration between the EXS Editor and the EXS24 Sampler means fast transitions between editing and playback, so you can build instruments quickly with instant playback as you work.

Shaping your samples

Use built-in LFOs and envelopes to modulate virtually any parameter in the EXS24 Sampler. A separate multimode filter provides adjustable slopes, variable filter overdrive, and a fatness circuit that ensures excellent low-frequency response.



Vintage Instruments

Play fully modeled simulations of vintage keyboards, including classic organs, clavs, and electric pianos. Logic Studio offers amazingly real simulations of the Hammond B3, various Fender Rhodes and Wurlitzer pianos, and the Hohner Clavinet D6. All three instrument plug-ins rely on finely tuned modeling engines, so the quirks and character of the real instruments come through.

EVB3

The EVB3 flawlessly re-creates the characteristic warm sound of the Hammond B3 organ. Draw bars let you control both upper and lower manuals as well as pedal sounds, and specialized controls let you “age” your B3 with features like draw bar leakage and key crosstalk. An accurate model of a Leslie cabinet with rotor controls, cabinet configurations, and mic positions completes the classic sound.



EVD6

The EVD6 re-creates every subtle nuance of the classic Hohner Clavinet D6 through an advanced modeling engine. Controls for all the standard clav filters—along with pickup positions, distortion, modulation, and Wah models (including CryBaby and Morley)—put a percussive, growling monster at your fingertips.



EVP88

The EVP88 authentically reproduces the sweet, legendary sounds of Fender Rhodes, Wurlitzer, and Hohner electric pianos in every detail, resulting in a software instrument that sounds authentic and responds to every subtle playing nuance. Controls such as Drive, Phaser, Tremolo, and Chorus let you reproduce all the processing of classic electric piano sounds.



Synth Instruments

Produce beautiful synth beds and driving bass lines with an array of FM, subtractive, and analog-modeled synthesizers. Sculpture now includes True Surround features; the flagship ES2 synth now features surround panning and modulation effects as well as a simplified Macro view. An impressive range of synthesizer sounds offers even more richness, thanks to new surround capabilities and modulation effects.

Sculpture in surround

Create expressive and unusual sounds in mono, stereo, and full surround using an advanced component modeling instrument. New True Surround features allow you to animate sound through surround space. Based on component modeling technology, Sculpture allows you to create an infinite variety of synthetic and organic sounds.

Sculpture highlights include:

- **Surround.** New surround panning gives you an easy way to animate sound through surround space, while a new surround delay feature allows you to spread echoes across a surround field.
- **Organic sounds.** In Sculpture, sound generation is based on an advanced sonic model of a vibrating string or bar. Thanks to this modeling technology, sounds created in Sculpture retain their complex natural character and expressiveness.
- **Familiar interface.** Beyond specific component modeling parameters, Sculpture offers the classic ADSR (attack, decay, sustain, release) envelopes of traditional analog synthesizers. You can further customize sounds in the plug-in with a three-band EQ.



ES1

The ES1, a classic analog-style synthesizer, lets you create earthshaking basses, rich pads, textures, screaming leads, ultrasharp percussion, and exotic effects. The plug-in offers up to 16-voice polyphony; each voice features a main and sub oscillator to deliver the raw sounds that are shaped by the analog ES1 filter.



ES2

With the ES2 synthesizer, you can draw from a broad range of sounds, a comprehensive selection of synthesis techniques, and powerful modulation options to create radical sounds or nuanced pads. New surround panning and modulation effects give you a more immersive experience, while the Macro Only mode simplifies sound design by letting you manipulate multiple related parameters with just a few basic knobs.



ES2 in Macro mode



ES2 in Macro Only mode

EFM1

The EFM1 uses FM synthesis to re-create the classic synthesizer sounds of the 1980s. A simple interface provides accessible controls that make tweaking sounds a pleasure, or you can let the EFM1 create its own sounds randomly.



ES E

The eight-voice polyphonic 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

The ES M lets you design powerful basses and expressive lead sounds straight from the 1970s. Variable selection between sawtooth and rectangular waves and a biting slope characteristic of 24 dB give the ES M its distinctive analog sound.

ES P

Create the characteristic polysynth sounds of 1980s pop music with the polyphonic ES P. In addition to an oscillator, sub oscillator, and filter, the ES P offers an LFO for creating dynamic effects and an ADSR envelope generator for precise level control.

Studio Effects

Audio processing for Logic Studio.



Enhance music productions, live performances, and post-production projects with 80 professional effect plug-ins. Studio Effects now feature 16 True Surround effect plug-ins, including the new Delay Designer, a new surround version of Space Designer, and Surround Compressor.

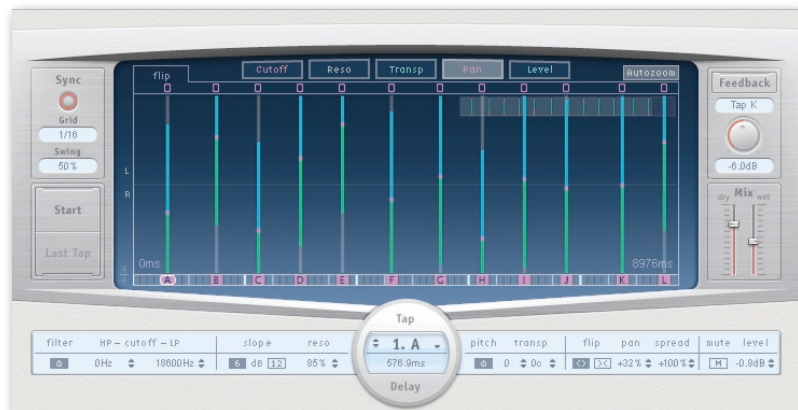
Highlights of Studio Effects include:

- New Delay Designer
- Space Designer, now in surround—with 138 new surround impulse responses
- Surround Compressor
- Guitar Amp Pro
- Production effects
- Creative effects
- True Surround effects

New Delay Designer

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.

Use Delay Designer for everything from a basic echo effect to an audio pattern sequencer. You can synchronize taps to your project tempo and create complex, evolving, moving rhythms using built-in pitch transposition and filtering. You can also set up numerous taps as “repeats” of other taps, with individual control over each repeat.



Unique delays made simple

A streamlined graphical interface and intuitive tap recording make it easy to develop creative and complex delay effects. Spontaneously create delay patterns by tapping on a MIDI input; Delay Designer records and analyzes your taps to create the pattern. Drag the control points on the bars to change settings for each tap.

Creative control

Filter, pan, and pitch controls allow you to generate morphing delay effects for each tap. A multimode resonant filter provides filtering on specific frequency ranges for even more interesting delay sounds. And swing-time delay makes taps sit in the groove.

True Surround processing

True Surround processing includes dedicated spatial controls that let you give each tap its own pan position in the surround field.

Space Designer, Now in Surround

Reproduce the reverberant qualities of some of the world's most distinctive locations in stereo or full surround—with over 130 new surround impulse responses. Space Designer is a state-of-the-art convolution reverb featuring built-in EQ controls and adjustable volume, filter, and density envelopes.



Convolution reverb

Convolution reverb effectively places your audio tracks within the acoustic spaces where the impulse responses were recorded, from a small wine cellar to a massive Gothic cathedral. Space Designer ships with a library of over 900 impulse responses, which can be further shaped via a comprehensive parameter set. You can also record your own impulse responses with the included Impulse Response Utility.

True Surround reverb

Now with True Surround support, Space Designer creates multichannel convolution reverb effects with all cross-reflection patterns in standard surround formats, including Quad, LCRS, 5.1, 6.1, and 7.1.

Impulse response files

Logic Studio ships with 73 new stereo impulse responses and 138 new surround impulse responses, all for use in Space Designer. Recorded at some of the world's most distinctive locations, these impulse responses provide a wealth of creative options for music and post-production. Explore the Space Designer Gallery to experience a few examples for yourself; visit www.apple.com/logicstudio/effects/#space.

Surround Compressor

The new 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.



Guitar Amp Pro

Guitar Amp Pro lets you play your guitar through faithful re-creations of classic amplifiers and speaker cabinets.



Amp modeling

Guitar Amp Pro features 11 amp models, 15 speaker cabinets, microphone controls, and an effects section for constructing the perfect guitar tone. And you can access more than 200 brand-new guitar channel strip settings made from scratch by world-famous musicians and sound designers.

Cabinets and springs

Guitar Amp Pro offers a wide range of legendary guitar amplifier sounds and a variety of speaker cabinets, which can be freely modified and combined. Effects such as vibrato, tremolo, and spring reverb faithfully model the hardware effects found in classic amps.

Not just for guitarists

Guitar Amp Pro allows you to use the amp, speaker, or microphone section independently. Fatten up your synth line with an overdriven UK 30W combo amp, or get creative with vocals by running them through a 1x10 speaker cabinet.

Production Effects

Fine-tune your audio production with a range of superb-sounding plug-ins. A new Surround Compressor lets you compress multichannel surround sources, and a redesigned Multipressor displays all controls for all bands in a single window. A wide range of plug-ins provides valuable everyday tools for adding the final polish to your music productions.

EQ

Fine-tune your audio production with professional EQ plug-ins like the eight-band Channel EQ, which features a graphical signal analyzer, and Linear Phase EQ, which offers 100 percent phase preservation across the frequency spectrum. Use Match EQ to acoustically conform the frequency output of two different audio signals, so your overdubs match the sound of your original tracks even if they were recorded in a different location with different gear.

Dynamics

Compressor includes a linked limiter and five independent circuit types that capture the feel of vintage and modern studio hardware; the new Surround Compressor features specialized controls for multichannel compression. The redesigned Multipressor plug-in allows you to discretely compress up to four separate frequency bands, and professional dynamics plug-ins like Adaptive Limiter, Noise Gate, and Enveloper further expand your ability to polish your mix or tweak your recordings.

Voice processing

Using the Pitch Correction plug-in, you can accurately and quickly tune vocals while preserving articulation and tonal color. Adjust the pitch of drums, speech, and vocal audio using the optimized settings in Pitch Shifter II.

Mastering tools

A complete set of mastering tools complements your EQ and dynamics effects. MultiMeter provides the ultimate set of professional metering and analysis tools, including an audio analyzer, correlation meter, and built-in goniometer. Surround MultiMeter offers additional parameters optimized for multichannel mastering. And Multichannel Gain features a simple interface for independently controlling the gain and phase of separate audio channels.

Creative Effects

Transform audio and create shifting fields of sound using advanced reverb, modulation, vintage, warped, and delay plug-ins.

Reverb

Add texture to instruments and vocals using synthesized reverb plug-ins such as AVerb, EnVerb, SilverVerb, GoldVerb, and PlatinumVerb. Or use Space Designer, the world's finest convolution reverb plug-in, to process audio in any channel configuration from mono to 7.1 surround.

Modulation

Fatten, twist, and modify audio with Chorus, Ensemble, Flanger, Microphaser, Modulation Delay, Phaser, Ringshifter, Scanner Vibrato, Spreader, and Tremolo. Most of the modulation plug-ins featured in Studio Effects offer True Surround processing for developing lush, multichannel results.

Vintage processing

Get classic sounds like analog warmth or thick fuzz with distortion effects modeled after legendary tube stomp boxes. Vintage Leslie speakers are modeled in the Rotor Cabinet effect emulation, which lets you adjust cabinet type and microphone positioning. Five carefully modulated circuits for Compressor and Surround Compressor simulate the world's most respected vintage hardware, and Fuzz-Wah combines distortion, compression, and auto-wah effects in a single plug-in.

Warped processing

Build classic 1970s sounds with Ringshifter, a combined ring modulation and frequency shifting plug-in. Transpose, robotize, and manipulate the character of monophonic audio with Vocal Transformer. Apply dramatic filter effects with the EVOC20 Filterbank, and twist vocals and instruments with the EVOC20 Track Oscillator.

Delay

Build basic or complex delay effects in stereo and surround using Delay Designer, a True Surround multi-tap delay featuring an innovative interface and tap recording. Use Tape Delay to create the special character and feedback behavior of classic tape-based delay effects boxes. Your creative delay options are rounded out by Echo, Sample Delay, and Stereo Delay.

True Surround Effects

Process multichannel audio using 16 True Surround effect plug-ins, including Chorus, Flanger, Microphaser, Modulation Delay, Phaser, and Tremolo. All of the other Studio Effects plug-ins work with Logic Pro 8 and Soundtrack Pro 2 in multi-mono, so you can use them in surround mixes.

Studio Sound Library

The ultimate sound library for Logic Studio.



Thousands of channel strip settings, royalty-free Apple Loops, sound effects, and EXS sampled instruments provide creative fuel for music creation, production, and performance. New surround content allows you to build beautiful, immersive productions.

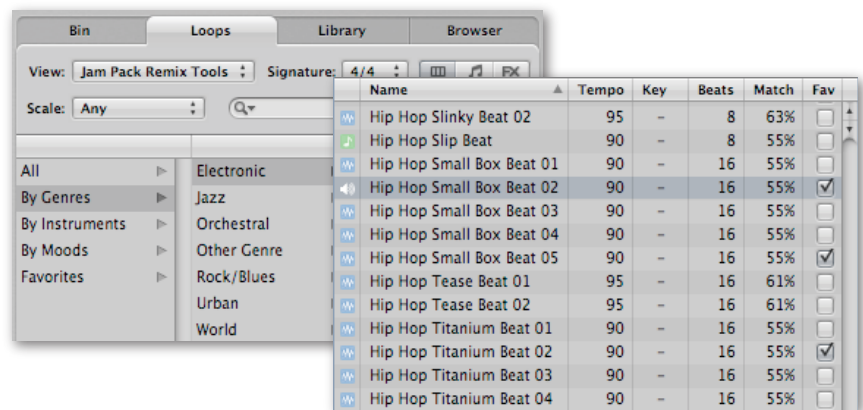
The Studio Sound Library comes with the complete content from five Jam Pack collections, featuring redesigned material that incorporates the professional sound quality of Studio Instruments and Studio Effects. Move your productions into surround using 600 surround channel strip settings and more than 1000 multichannel sound effects and music beds. The entire Studio Sound Library is optimized for efficient browsing, with updated names and tags to help you quickly find just the right Apple Loop, channel strip setting, or sound effect.

The Studio Sound Library consists of:

- Apple Loops
- Sound effects and music beds
- EXS instruments
- Channel strip settings
- Plug-in settings
- Surround impulse responses

Apple Loops

Build a rhythm, grab a melodic phrase, or sketch out an arrangement by choosing from 18,000 royalty-free Apple Loops; or create your own loops from any audio file by using the Apple Loops Utility included in Logic Studio. Apple Loops automatically change key and tempo to match your project, making it easy to create a groove or embellish your music.



Jam Pack collections

All of the content in the five Jam Pack collections included with the Studio Sound Library has been professionally redesigned for Logic Studio. The five Jam Pack collections include:

- **Jam Pack 1.** An eclectic mix of sounds to complement any style or music project, Jam Pack 1 includes a variety of percussion, string, and synth instruments.
- **Remix Tools.** Designed for electronic music producers who work in hip-hop, techno, trance, and R&B, Remix Tools offers beats, sound effects, synth sounds, bass lines, and the rhythms of classic Roland drum machines.
- **Rhythm Section.** Assemble a solid foundation of drums with sets of fills, grooves, and groove variations. Rhythm Section also provides dozens of playable instruments: 10 strings, 10 basses, and 10 drum kits.
- **Symphony Orchestra.** Arrange music with a full orchestra, from brass and percussion to strings and woodwinds. Create classical compositions or soundtracks, or add the power of a symphony to your pop, rock, and hip-hop songs.
- **World Music.** Recorded over the course of a worldwide expedition and featuring an unprecedented collection of world loops, ethnic percussion, exotic strings, and regional wood instruments, World Music captures the most authentic performances in dozens of countries, genres, and playing styles.

Two types of Apple Loops are included in the Studio Sound Library:

- **Real Instrument loops.** Also known as blue loops, Real Instrument loops integrate into your project as audio files and can be edited like any audio region.
- **Software Instrument loops.** Software Instrument loops, or green loops, give you more creative possibilities by making the instrument, effect, and original MIDI performance fully editable. You can also use Software Instrument loops as pure audio files, or blue loops, by adding them to an audio track.

Sound Effects and Music Beds

The Studio Sound Library includes 5000 sound effects and music beds taken directly from Final Cut Studio 2. Design immersive music and cinematic soundtracks with 1000 multichannel sound effects and music beds in surround.

EXS Instruments

The Studio Sound Library includes 1300 pristine-sounding EXS sampled instruments that you can play and process with the EXS24 Sampler or with third-party software samplers.

Jam Pack instruments

The EXS instrument collection features 248 sampled instruments from the five Jam Pack collections. Instruments include world-renowned acoustic pianos, studio drum kits, classic basses, and more, for a range of incredible sounds that can be used to complement any production.

Vintage and modern synths

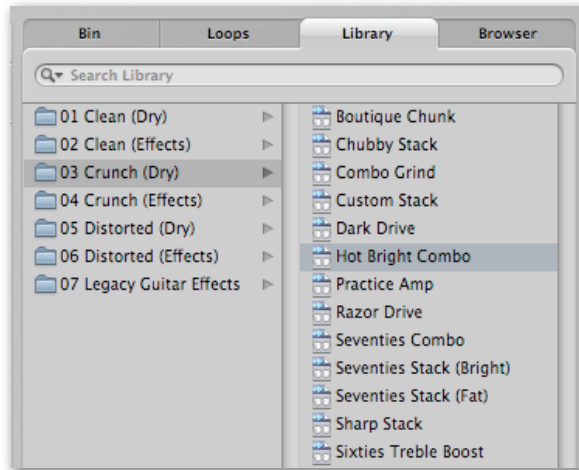
More than 350 synth instruments included in the Xtreme Analog and Xtreme Digital EXS instrument libraries deliver beautifully sampled synth sounds, ranging from old-school analog synthesizers to modern digital synthesizer sounds.

Compatibility

Create just the sound you want by using EXS software instruments with a variety of software samplers, including third-party plug-ins such as Kontakt and Structure. Load EXS drum kit instruments into Ultrabeat to explore additional options for creative playback, sequencing, and synthesis.

Channel Strip Settings

The Studio Sound Library offers a remarkable selection of 2400 professionally designed channel strip settings, each combining Studio Instruments and Studio Effects in a powerful plug-in chain. Of these channel strip settings, 600 are in surround, combining new True Surround Studio Instruments and Studio Effects plug-ins.



Plug-in Settings

Hundreds of new, professionally designed plug-in settings for Studio Instruments offer beautiful, expressive instrument sounds right out of the box. Every setting, or preset, changes the parameters of an instrument plug-in to produce one-of-a-kind sounds.

The Studio Sound Library also includes more than 700 settings designed for a wide range of Studio Effects, from amp modeling to dynamics and modulation.

Surround Impulse Responses

Apply reverb in full surround using one of 138 new multichannel impulse responses for Space Designer. Choose from a wide variety of unusual locations, ranging from an underground cave to the 69,000-seat Allianz Arena in Munich.

Production Utilities

Convenient tools for music, effects, and mastering.

Logic Studio includes convenient production utilities for mastering and authoring CDs, encoding AC-3 surround files, and creating impulse response files and Apple Loops.

Logic Studio production utilities include:

- WaveBurner
- Compressor 3
- Impulse Response Utility
- Apple Loops Utility



WaveBurner

WaveBurner, a CD mastering and authoring environment, is simple enough for quick turnaround demo discs yet sophisticated enough to deliver professional premasters and Red Book–standard CDs.

Intuitive design environment

WaveBurner includes a large waveform viewer; separate region, track, and plug-in panes; and advanced editing and navigation tools, all designed to allow you to master CDs quickly and accurately. Default key commands, zoom controls, and screen layouts are the same as those found in other Logic Studio applications.

CD mastering

WaveBurner is designed to let you master CDs using high-quality Studio Effects—including amp models, delays, distortions, dynamics, and filters. Add effects processing to specific regions or to the entire CD mix. Bounce individual regions as separate audio files or bounce the full mix with a single click. You can dither down final CD mixes using a selection of industry-standard POW-R algorithms.

Professional authoring tools

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. WaveBurner also lets you add detailed CD TEXT information, such as track names, artist names, and websites, for display on compatible CD players.



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.

Compressor lets you convert surround stems into Dolby Digital Professional AC-3 files. You can choose Dolby Digital Professional 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 Apple Loops Utility also allows you to embed descriptive information in the file. This additional metadata makes it possible for the file to appear along with meaningful related options when you browse Apple Loops in the Studio Sound Library.

The Apple Loops Utility reads both AIFF and WAV file formats. Use the utility to easily add and change tags. You can even batch tag sets of files with shared characteristics.

Product Details

Pricing and Availability

The U.S. retail price of Logic Studio is \$499. Owners of Logic Pro 5, 6, or 7 can purchase an upgrade for \$199; owners of Logic Express 6, 7, or 8 or Logic Audio 5 or 6 can upgrade to Logic Studio for \$299.² Contact your authorized Apple representative for education pricing. Upgrades are available only for retail versions.

Logic Studio is available worldwide in English, French, German, Spanish, Japanese, and Chinese. It can be purchased from the online Apple Store (www.apple.com/store), Apple retail stores, and Apple Authorized Resellers.

Package Contents

- DVD containing Logic Pro 8, MainStage, Soundtrack Pro 2, Studio Instruments, Studio Effects, WaveBurner 1.5, Compressor 3, Impulse Response Utility, Apple Loops Utility, QuickTime 7 Pro, and required content
- Six content DVDs containing Jam Pack collections, sound effects, surround music beds, EXS24 samples, and impulse response files
- Demo content DVD
- Printed and electronic documentation

System Requirements

Minimum requirements to install all applications

- Mac computer with a 1.25GHz or faster PowerPC G4 processor (PowerPC G5, Intel Core Duo, or Intel Xeon processor highly recommended)
- 1GB of RAM (2GB or more highly recommended)
- Display with 1024-by-768 resolution (1280-by-800 or higher recommended)
- Mac OS X v10.4.9 or later
- QuickTime 7.2 or later
- DVD drive for installation
- PCI Express, ExpressCard/34, USB, or FireWire audio interface recommended

Additional recommendations for Logic Pro

- At least 2GB of RAM for large EXS instruments
- USB musical keyboard (or suitable MIDI keyboard and interface) for instruments
- Logic Node requires a Mac computer with a PowerPC G5, Intel Core Duo, or Intel Xeon processor and Gigabit Ethernet

Additional recommendations for MainStage

- At least 2GB of RAM for large EXS instruments
- USB musical keyboard, control surface, or guitar pedal board (or suitable MIDI control device and interface)
- Standard graphics card in any Mac Pro, MacBook Pro, iMac with Intel Core Duo, Power Mac G5, or iMac G5

Surround requirements for Logic Pro and Soundtrack Pro

- Mac computer with dual PowerPC G5 processors or an Intel Core Duo or Xeon processor
- Multichannel audio interface

Available disk space

- 7GB to install all applications and required content
- Additional 39GB to install all optional content (large content packages can be installed on separate disk):
 - 10GB for Jam Pack collections
 - 16GB for sound effects
 - 6GB for surround music beds
 - 7GB for other optional content

Support

Logic Studio comes with 90 days of toll-free telephone support for installation, launch, and basic troubleshooting. For information about service and support products available from Apple, visit www.apple.com/support/products.

Tutorials

Get up to speed quickly by viewing approximately two hours of online video tutorials covering key features in Logic Studio. The training is ideal for Logic Pro users who want to expand their skills into new areas, as well as for musicians and producers who are new to any of the applications included in Logic Pro. Each tutorial movie demonstrates key product features, along with useful tips and shortcuts. To view the tutorials, visit www.apple.com/logicstudio/tutorials.

Training

The Apple Pro Training Program is designed to keep you at the forefront of Apple's digital media technology while giving you a competitive edge. Two levels of training and certification programs are available for Logic Studio.

Take instructor-led classes at an Apple Authorized Training Center

There are more than 250 Apple Authorized Training Centers worldwide. For more information, visit www.apple.com/software/pro/training.

Use self-study courses from the Apple Pro Training Series

The official Apple Pro Training Series courseware is published by Peachpit Press. For more information, visit www.apple.com/software/pro/training.

Become an Apple Certified Pro

On completion of the course material, you can become an Apple Certified Pro by taking the certification exam at an Apple Authorized Training Center. For details, visit www.apple.com/software/pro/training.

For More Information

For more information about Logic Studio,
visit www.apple.com/logicstudio.

¹The .Mac service is available to persons age 13 and older. Annual membership fee and Internet access required. Terms and conditions apply. ²Prices are Apple Store prices as of September 12, 2007, do not include taxes or shipping, are subject to change, and are listed in U.S. dollars.

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