audio

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games and movies like you are really there





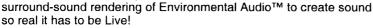


# Sound Blaster *Lige!*

Environmental Audio™ - So Real It HasTo Be Live!



Sound Blaster Live! introduces a new dimension of audio by including features and performance surpassing professional Hollywood-quality audio equipment. Sound Blaster Live! incorporates the superior



Sound Blaster Live! incorporates the superior surround-sound rendering of Environmental Audio <sup>™</sup> to create sound so real it has to be Live! With an amazing 256 voices of music synthesis and real-time audio enhancement, enjoy live concert-like music productions so dynamic you'll feel you're right in the middle of an orchestra.

The Sound Blaster Live! hardware-accelerated Environmental Audio Extensions <sup>™</sup> (EAX <sup>™</sup>) support new titles and offer an experience that goes way beyond 3D audio. Add to that the ability to enhance all your existing games and legacy audio with true digital processing, and it will blow your home theatre away!

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# Sound Blaster Las! Environmental Audio™ - So Real It Has To Be Live!





#### Features & Benefits

#### Hollywood-Quality Audio Re-creation

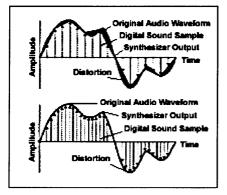
Sound Blaster Live! is designed with professional-quality synthesizers from E-mu Systems, Inc., highly acclaimed for its sampling and synthesis technologies used in Hollywood studios and renowned movie and music productions, including the making of several blockbuster movies. Together with the digital I/O, Sound Blaster Live! provides audio fidelity that rivals movie theaters with digital sound. On Sound Blaster Live!, we can achieve an average **Noise Floor** of **-120dB** (at rated conditions), a level unheard of in the PC industry.

#### **Powerful Audio Processing Engine**

The heart of Sound Blaster Live! is the EMU10K1 audio processor chip, which is the most powerful integrated music, audio and effects engine available. Every signal is processed at 32-bit, 48kHz using 8-point interpolation to smoothen the sound - instantly



improving any audio source. Besides advanced signal processing, the EMU10K1 also provides real-time effects including Reverb, Chorus, Flanger, Echo and Pitch Shifter, that rival a stand-alone effects processor worth US\$500.



E-mu's patented 8-point Interpolation Algorithm reproduces audio signals with new levels of fidelity, free from perceivable distortion. By taking multiple sample points of the sound source to generate the waveform, the audio reproduced is precise and almost no different from the actual sound.

#### **Environmental Audio**<sup>™</sup> **Enhances Existing Content**

Sound Blaster Live! lets users experience depth and realism beyond existing 3D



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audio. Sound Blaster Live! provides preset environments such as *Hall, Cave* or



Underwater that can be applied to your existing games and applications for incredibly true sound. You can be listening to your favorite music piece in the room at one moment, and in the concert hall the next. Sound Blaster Live! provides game environmental settings that can make your existing games come "alive" instantaneously.

#### **Multiple Speaker Output**

Sound Blaster Live! produces surround sound audio on the PC with built-in support for two or four analog speakers. Connecting Sound Blaster Live! to an additional pair of speakers such as PCWorks<sup>TM</sup>, or Creative's PCWorks
FourPointSurround allows users to enjoy



FourPointSurround allows users to enjoy compelling 3D audio on multiple speakers, overcoming the limitations of 3D audio on two speakers. Multispeaker output also allows users to position any audio devices

speaker output also allows users to position any audio devices such as CD Audio, WAV or MIDI anywhere within the speaker environment. For example, in a 3D game title, users have the option to position the CD soundtrack to the rear speakers such that there is music being played in the background. With the option of up to eight multiple speaker support in the near future, you are no longer limited in your 3D audio applications.

#### 256-Voice Music Synthesis

Sound Blaster Live! is capable of producing up to 256 voices. This remarkable 256-voice capability goes beyond the quality and performance available in most professional music equipment. With additional voices, Sound Blaster Live! delivers richer MIDI playback, simultaneous playback of more instrument notes, multi-layering of instruments to create better quality sound, and the creation of the "sustain effect".

Using host memory, you can choose from E-mu's 2MB, 4MB or 8MB SoundFont<sup>®</sup> professional-quality sample banks for music reproduction. Or use up to 32MB of memory for amazing SoundFont music fidelity.

Sound Blaster Live! is able to deliver all these without sacrificing CPU utilization because of its very effective hardware-accelerated processing engine.

#### Sound Blaster PCI Standard

With Sound Blaster Live!, you can be assured of near-perfect Sound Blaster compatibility on the PCI bus while enjoying all its benefits. This proprietory method solves the compatibility problem by using a combination of software and hardware wizardries. It works with the



existing MS-DOS® and Windows®-based titles, completely replacing your existing ISA sound card.

# Environmental Audio Extensions<sup>™</sup> (EAX<sup>™</sup>)/ Broad Driver Support

With Environmental Audio Extensions<sup>™</sup> (EAX), Creative has made it easier for any developer who wants to incorporate high-quality 3D audio environments into their titles. This was done with co-operation from Microsoft and other industry leaders. Sound Blaster Live! supports EAX, Microsoft DirectSound<sup>®</sup>, DirectSound3D and derivative technologies. Hundreds of software developers are working with the EAX technology and 30 titles supporting EAX are already in development. In fact, one of the hottest 3D games of 1998, Unreal<sup>™</sup> by Epic MegaGames, has already enabled support for Environmental Audio Extensions. Advanced architecture is ready for the coming generation of WDM, DLS, and 1394/Firewire devices.

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The Sound Blaster Live! hardware-accelerated Environmental Audio Extensions<sup>™</sup> (EAX<sup>™</sup>) support new titles and offer an experience that goes way beyond 3D audio. Add to that the ability to enhance all your existing games and legacy audio with true digital processing, and it will blow your home theatre away!

audio



# Sound Blaster Lige!

Environmental Audio™ - So Real It Has To Be Live!

### Unique Uses of Sound Blaster Live!™



- Record, edit and mix digital audio files
- Create digital audio multi-track recordings
- Compose and arrange a tune
- Produce your own remixes
- Play the keyboard on your PC with auto-accompaniment
- Learn how to play the guitar on a PC



- Add environments such as Concert Hall to enrich music
- Apply Creative Multi Speaker Surround sound to Video CD movies, AVI or MPEG movies
- Play all popular multimedia formats with an integrated multimedia player



- Enrich audio environments in existing 2D and 3D games
- Create your own environmental presets for PC games
- Play PC games (with EAX or DirectSound3D support) in multispeaker environments
- Supports 3D positional audio in PC games
- Near perfect Sound Blaster compatibility



- Have your E-mail or other documents read out to you
- Launch frequently used applications quickly and easily

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Environmental Audio™ - So Real It Has To Be Live!



#### Software Bundle

Bundled with Sound Blaster Live! are several compelling and useful software applications which will enhance your PC experience. You will find some of these applications neatly organized on the Creative Launcher. Click here to explore the software using a simulated Creative Launcher, or check out the listing below. The software bundle may differ depending on the region of purchase.

- Tools & Utilities
- Music
- Games

Hint: Click the images for a close-up view.

#### **Sound Blaster Live! Tools & Utilities**

#### **Creative Launcher**

A sleek task bar that quickly launches frequently-used applications, and provides preset Environmental Audio settings to enhance legacy game titles. Click here for a feel of what the Creative Launcher is like.

#### Creative AudioHQ<sup>™</sup>

A "One-Stop Control Shop" that allows convenient customisation and control of every aspect of Sound Blaster Live! : SoundFont, 3D audio, digital effects, audio mixer and Environmental Audio <sup>™</sup> settings.

### Creative PlayCenter<sup>™</sup>

An integrated multimedia player that allows you to play media files of any format. Environmental Audio <sup>™</sup> and Creative Multi Speaker Surround <sup>™</sup> buttons allow you to easily enhance all audio in the media you are playing with Environmental effects and multi-speaker surround experience.



#### **Sound Blaster Live! Demo**

This is an integrated demonstration that highlights the important features of Sound Blaster Live!, covering topics such as Environmental Music, Environmental Effects, Environmental Modeling and Environmental Positioning.

**Sound Blaster Live! Tour** 

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The Sound Blaster Live! Tour provides easy-to-follow Screencam movies which gives you a better insight into the uses of Sound Blaster Live! applications in the areas of Music, Games and Productivity. Learn how to use the Sound Blaster Live! to enhance your gaming or desktop music-making experience!

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#### Music



#### **Cubasis AV**

Using Cubasis AV, you can record up to 64 MIDI and 8 stereo Digital Audio tracks. The intuitive and easy-to-use tools let you effortlessly arrange and edit your recordings.

MIDI notes can be edited in detail allowing pitch, length, volume, attack and instrument sounds adjustement even during playback!

Cubasis AV's Score Editor allows you to copy and erase selected notes on the fly and make a hi-quality score print outs.

With Cubasis AV you can record singing, speech, guitar and other instruments as easily as if using a conventional tape recorder, but with all the advantages of digital technology: hi-quality sound, plus the ability to copy and move pieces of audio to exactly the right position in the song!

Cubasis AV, now featuring .AVI support also functions as "real" post-production software allowing you to set your digital video clips to music. Open a video, view it in one of the Cubasis AV windows, and run it in perfect sync with your music. Stop at the required place, underlay slamming doors with an explosion or two, or let those footsteps sound like a thunderstorm! Your creativity and imagination know no limits!

Thanks to our partnership with Steinberg, Cubasis AV shipping with SBLIVE! features direct soundfont access from the program's inspector tab.

### Sonic Foundry® Sound Forge XP 4.0™

A full-featured, powerful, easy-to-use, .WAV file editing program. Powerful editing features include cut and paste, echo, fade, amplification, reverse and more. You can even record and edit



digital audio files!

### Mixman™ Technologies Mixman Studio

Create your own music quickly and easily without any musical background. Choose sounds from the Mixman Soundisc Library or create your own .WAV files to use in the mix, then save them as SoundFont banks and MIDI files.



### Creative Rhythmania™

An interactive auto-accompaniment application that allows you to create music along with music sequencing presets.



#### Creative WaveStudio®

A powerful and easy-to-use .WAV file editing program that allows you to record and edit digital audio files, which you can then convert into SoundFonts! Editing features include cut and paste, echo, fade, amplification, reverb and more.



#### Creative Keytar™

An intuitive and highly interactive edutainment software for music beginners, with a virtual rhythm guitar console that enables you to pluck and strum any tune via the computer keyboard.

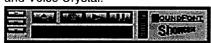


#### **Music Library**

Included in the Music Library are E-mu's 2MB, 4MB and 8MB GM banks, SoundFont sound samples and MIDI clips.

#### **SoundFont Showcase**

Sample SoundFont banks from SoundFont developers: Heavenly Music Productions, Hruska Audio Productions, SampleHeads, Sound Burst, Sonido Media, Time Signature and Voice Crystal.





#### **Games**



#### Unreal Full Edition EpicMegaGames®

The most anticipated game of 1998 is here. Unreal™ features a new 3D action game engine based on real environments. With full support for Environmental Audio Extensions, experience sounds that you could never imagine.

#### **Predefined Game Environment presets**

The predefined game environment presets in

Creative Launcher will help to enhance existing 3D games with Environmental Audio. Choose from more than 50 game environment settings which have been customized for popular existing game titles such as Quake II<sup>TM</sup>, Forsaken<sup>TM</sup> and Tomb Raider II<sup>TM</sup>!

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#### **Technical Specifications**

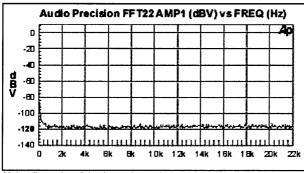
#### **Excellent Analog Audio Performance**

Our continuous uncompromising pursuit of perfect fidelity has allowed us to achieve an even higher level of analog fidelity that is unheard of in the industry.

	Rated Line Output	Full Scales Output
Line Output Dynamic	1.0 Vrms	1.40 Vrms
Frequency Response at - 1dB	10Hz to 44kHz	10Hz to 44kHz
Signal-to-Noise Ratio (A- weighted)	96 dB	100 dB
THD + Noise (A-weighted)	0.002%	0.002%

Noise Floor, with all inputs ON at rated power (at rated conditions):

Front channel	-115 dB
Rear channel	-130dB



Noise floor plot of the front channel

#### **Wave-Table Synthesis**

- E-mu<sup>®</sup> Systems EMU10K1<sup>™</sup> music synthesis engine
- 64-voice polyphony with E-mu's patented 8-point interpolation technology
- 192-voice polyphony PCI wave-table synthesis
- 48 MIDI channels with 128 GM & GS-compatible instruments and 10 drum kits
- Uses SoundFont<sup>®</sup> technology for user-definable wave-table sample sets; includes 2MB, 4MB and 8MB sets
- Load up to 32MB of samples into host memory for professional music reproduction

#### **Effects Engine**

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- E-mu Systems EMU10K1 patented effects processor
- Supports real-time digital effects like reverb, chorus, flange, pitch shifter or distortion across any audio source
- Capable of processing, mixing and positioning audio streams using up to 131 available hardware channels
- · Customizable effects architecture allows audio effects and channel control
- · Full digital mixer maintains all sound mixing in the digital domain, eliminating noise from the signal
- Full bass, treble, and effects controls available for all audio sources

#### **Environmental 3D Positional Audio Technology**

- User-selectable settings are optimized for headphones and two or four speakers
- Accelerates Microsoft<sup>®</sup> DirectSound<sup>®</sup> and DirectSound3D
- Support for Environmental Audio<sup>™</sup> property set extensions
   Creative Multi Speaker Surround technology places any mono or stereo sound source in a 360° audio space
- Creative Environments user-selectable DSP modes that simulate acoustic environments like Hall, Theater, Club, etc. on any sound source

#### Hollywood-Quality, 32-Bit Digital Audio Engine

- User-selectable bit rates from 8- to 16-bit
- User-selectable sample rates from 8kHz to 48kHz
- All sound sources are handled with 32-bit precision for highest quality output
- Analog and Digital I/O modes supported
- Hardware full-duplex support enables simultaneous record and playback at 8 standard sample rates
- Utilizes AC97 audio codec

#### **MIDI Interface / Joystick Port**

- Supports MPU-401 UART mode
- IBM<sup>®</sup> compatible 15-pin joystick port with analog support
- Support for digital and DirectInput<sup>™</sup> game devices

#### **On-Board Connectors**

- Microphone in
- Line in
- Line level out (front)
- Line level out (rear)
- Joystick port
- MPC-3 CD Audio in
- Auxiliary in
- · Digital CD in

- Telephone Ans. Device
- RCA S/PDIF in
- RCA S/PDIF out
- · Mini MIDI DIN in
- Mini MIDI DIN out
- Digital DIN out for future expansion to multispeaker systems

#### Works with the Following Standards

- Windows<sup>®</sup> 95
- Windows 98
- Windows NT 4.0
- General MIDI
- MPC-3
- Plug-and-Play
- Sound Blaster PCI
- Environmental Audio Extensions
- Microsoft DirectSound<sup>®</sup>, DirectSound 3D, and derivatives
- PCI 2.1 compliant

### **Minimum System Requirements**

- Pentium® class 133MHz or faster processor
- 16MB system RAM (32MB strongly recommended)
- •
- Open half-length PCI 2.1 compliant slot

Windows 95/98 or Windows NT 4.0

- Available bracket for Digital I/O Card (optional)
- Headphones or amplified speakers
- CD-ROM drive for software installation
- Requires a 166MHz or faster processor, microphone, and 32MB of RAM for speech recognition software

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Environmental Audio™ - So Real It Has To Be Live!

#### **Owner's FAQ**

Here are some Frequently Asked Questions for Sound Blaster Live! owners. The questions are grouped in the following categories:

- Audio HQ
- Creative Launcher
- Third Party Applications
- Digital Input/Output
- MIDI
- Mixer
- SoundFont
- Games
- Connectivity NEW!
- Others

If you still have general questions about Sound Blaster Live! and how you can better use its features and benefits, please don't hesitate to let us know.

#### **Audio HQ**

- There is no sound coming from my rear speakers. Why?
- When playing back audio devices, it seems that the sound output is unbalanced in 4-speaker configuration mode.
- How do I create my own game environments?
- I have used certain game environments for my existing games and feel that the effects are not obvious. How do I enhance the environmental effect?
- I want to use the Chipmunk / God-like setting. How do I use them?
- I cannot select the Audio CD / Line-in / Microphone in the Source tab of the Environmental Audio Control Panel.
   How do I set this so that I can apply various effects?
- I tried to use the Effects Configuration in the Environmental Audio applet. I routed (via the "Play into" option) one of the effects (e.g., Distortion, Pitch Shifter) to the Reverb effect but no reverb was applied.

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- I tried to add effects in the Environmental Audio applet but nothing showed up.
- The record function in the Mixer applet only allows me to record one source at a time. How do I record from more than one source? For example, I would like to record a song that uses MIDI and my voice using a microphone.
- I'm only interested in watching movies. How can Sound Blaster Live! benefit me?
- When playing back Karaoke VCD through PlayCenter, I can hear both the music and the vocal backup, how do I disable the backup vocal?

#### **Creative Launcher**

- What is the Creative Launcher?
- How do I add my commonly-used applications into **Creative Launcher?**
- Is there a quick way to go to the Sound Blaster Live! website?

#### **Third Party Applications**

- I am unable to have a conversation with Parrot using a microphone. What do I do?
- How do I input text commands in Prody Parrot. I tried clicking the text input icon but nothing happened.

#### Digital Input/Output

- What is the Sound Blaster Live! daughter board S/PDIF IN/OUT and onboard carrier frequency? Is it fixed at that frequency (e.g., 48 kHz)?
- I face certain problems when using the digital recording functions. Please advise.
- I can't get the CDROM S/PDIF to work.

S/PDIF does support 4 channels. Are all 4 channels sent out across the S/PDIF connector?

#### MIDI

- What are the effects that I can use in a MIDI sequencer?
- How many effects can I use simultaneously on the MIDI sequencer?

How do I use Environmental Audio or reverbs in my MIDI sequence? I could not add the effects by mapping to a MIDI controller in my MIDI sequencer.

- •
- How do I use 256 voices offered by Sound Blaster Live! ?
- There are three MIDI ports for Sound Blaster Live!
   Synthesizer. Can I play more than 32 voices for a single MIDI port?
- It seems as if the Environmental Audio control with the Sound Blaster Live! affects every sound source except MIDI. How do I apply Environmental Audio to my MIDI files?
- Where can I buy another MIDI cable? Why was there only one MIDI cable included when there are two MIDI ports?

#### Mixer

- Can we apply effects for both Microphone and Line In?
- About effects selection using PlayCenter.
- How do I apply effects on Microphone In?

#### SoundFont

- Do I need to buy RAM to use SoundFont on my Sound Blaster Live! ?
- •
- I have a problem loading more than 2 MB of SoundFont bank on to my existing computer system which has a configuration of 16 MB RAM on board. How do I load more SoundFont banks?
- •
- Where can I get Sound Blaster Live! Vienna SoundFont Studio?
- •
- The 32MB maximum size for SoundFonts looks bogus. I managed to load 80MB!
- •
- Do the PCI Wavetable voices also support SoundFonts?
- •
- When will Vienna be available?
- •
- Is it possible to obtain (for both my AWE64 and the Live) a general MIDI and/or GS bank of greater than 8MB?NEW!
- •
- Can the memory upgrade board designed for AWE 64GOLD work with Sound Blaster Live!?NEW!
- •
- Does the 8 Mb General MIDI SF Bank sound the same as the 8 Mb GM Bank on AWE64 Gold? (The SoundFont Bank that follows an E-mu SF CD which is included when you buy a memory module) NEW!

#### Games

- Is environmental effects available for games that run under DOS mode?
- •
- I can't get my Microsoft Sidewinder Pro 3D joystick to work with Sound Blaster Live!
- •
- I have a problem with the retail version of Unreal.

Everytime I try to access the Advanced Options, Unreal will give me a General Protection Fault.

#### Connectivity

- Will the Sound Blaster Live interface with my PC-DVD Encore Dxr2 system? If so, how will it interface and how will it enhance my audio?NEW!
- I would like to know what the TAD connector is for and how we can use it? Can I use my modem as an answering machine even if it doesn't have voice capabilities?NEW!
- I have 2 CD-ROMs on my PC. How can I hear CD audio from both of them?NEW!

#### Others

- What is I<sup>2</sup>S connector used for?
- Is I<sup>2</sup>S similar to S/PDIF out?
- Out of memory error occurred when PlayCenter is launched.
- Do I need to remove other sound cards before I install the Sound Blaster Live! in my system?
- Which are the IRQs and DMA channels that Sound Blaster Live! use?
- How do I experience Dolby Digital surround on Sound Blaster Live!?new!
- Will Sound Blaster Live! provide "AC3 pass-thru" for software DVD playback so that I can connect my card to an external Dolby Digital decoder or the DeskTop Theater 5.1?NEW!
- Will I be able to use my Sound Blaster to provide "AC3 bypass" so that I can connect my DVD Encore to it? This allows me to decode Dolby Digital playback from my external Dolby Digital decoder as well as have the option to tap digital audio output from Sound Blaster Live! without having to switch connections. NEW!
- I already have an expensive home theater surround setup. Is there a way I can use my existing setup with Sound Blaster Live! to experience both 3D positional audio games and Environmental Audio without changing my setup?NEW!
- Since Sound Blaster Live! only offers near perfect Sound Blaster compatibility, can I keep my existing Sound Blaster 16/32, AWE32/64 in my system to get 100% Sound Blaster compatibility?NEW!
- Is true multitrack recording possible with the Sound

Blaster Live? Will I be able to record a guitar and a bass at the same time to separate tracks?NEW!

 Can I have both the EMU APS card and Sound Blaster Live! installed in the same system?NEW!

•

 Will the Sound Blaster Live! play music CDs through four speakers?NEW!

•

Does Sound Blaster Live! provide an internal amplifer?

•

Can Sound Blaster Live! run on a Cyrix 6x86?NEW!

•

#### **Audio HQ**

There is no sound coming from my rear speakers. Why?

Possible solutions:

- A. Check to see if your speaker setup is correctly configured. You may have forgotten to configure your speakers correctly or may have left the previous setting to 2 speaker playback while auditioning the demos in Sound Blaster Live! Experience. Configure this in the Speaker applet found in the AudioHQ group. Set to "4 speakers".
- B. Make sure that the rear speakers are connected to the main card's Rear Out jack.
- C. If you are playing sound from one of these sources:
  - CD Audio
  - Line In
  - TAD
  - Auxiliary (AUX)
  - Microphone

Make sure that the check box of the source being play is unmuted, that is, enabled in Creative Mixer's Play Control view.

D. If you have changed environments, go to the Record Control view of Creative Mixer and make sure that the check boxes of your active sources are selected.

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When playing back audio devices, it seems that the sound output is unbalanced in 4-speaker configuration mode.

Ensure that your speakers are properly placed so that the sound output is balanced. There is a possibility that one or more of the audio devices (WAV, CD Audio, MIDI) are being positioned within the speaker environment in the Speaker Applet, thus causing the imbalance. This could happen if your previous setting was using a Game Environment found in the Environments tab, and you

continued to use this same setting for other media playback.

Go to the Environments tab and set to "No Effects" or use another neutral preset such as "Multi-speaker Normal". Alternatively, you can go to the Speaker applet in the AudioHQ group and choose another appropriate setting.

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#### How do I create my own game environments?

To create your own game environments, you need to use both the Speaker and Environmental Audio applets located in the AudioHQ group. The Environmental Audio applet or control lets you create your environment by choosing various reverb presets. If you are an advanced user, consider creating your own environments from scratch by adjusting the various parameters. The Speaker applet lets you position the various audio devices. In a typical game, the sound effects are often in .WAV format while the background sound track is often either in MIDI or CD audio. You can therefore position these devices within your speaker environment. For example, you can position the music tracks toward the rear speakers to create "background" music.

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I have used certain game environments for my existing games and feel that the effects are not obvious. How do I enhance the environmental effect?

Preferences for the individual environment settings for games will vary from individual to individual. Some like the sounds "wet" (processed) while others prefer them "drier" (less processed). To adjust the amount of reverb to the desired level, launch the Environment Audio panel in the AudioHQ group and set the Main Reverb amount according to your preference.

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### I want to use the Chipmunk / God-like setting. How do I use them?

Ensure that a microphone is connected to your PC. Enable the microphone in the Mixer applet in the Play Control view. Next launch the Speaker applet in the AudioHQ group. You can choose to modify your voice output in real time using the Environmental Audio panel. If you want to record the output, select the 'What U Hear' device in the Record Control view in the Mixer applet.

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I cannot select the Audio CD / Line-in / Microphone in the Source tab of the Environmental Audio Control Panel. How do I set this so that I can apply various effects?

What appears in the Source tab is determined by your settings in the Speaker applet. These devices are grouped together (according to AC97 specification) and can be found in the icon with an "Arrow down" indicator, within the Panning Source box near the bottom of the Speaker Applet. The selected device will appear in the form of an icon. Right-click this icon and change the setting if needed. You will then see the setting reflected in the Source tab of the Environmental Audio panel.

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I tried to use the Effects Configuration in the Environmental

Audio applet. I routed (via the "Play into" option) one of the effects (e.g., Distortion, Pitch Shifter) to the Reverb effect but no reverb was applied.

To use the effects configuration effectively, you must ensure that the main setting (in the Master tab) of your effects should be set to a desired level (and not 0%). If reverb was not applied, it is most probably that your main reverb amount was set at a negligible level. You also need to ensure that the various individual effects amounts of the relevant source (in the Source tab) should be set to 100% if you intend to apply the effect to that source.

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## I tried to add effects in the Environmental Audio applet but nothing showed up.

You have used up the maximum number of effects available. You are allowed to apply up to four simultaneous effects. This includes the default Reverb and Chorus effects. Hence, you can add up to two new effects. Once you exceed this number, you will not be allowed to add any more effects.

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The record function in the Mixer applet only allows me to record one source at a time. How do I record from more than one source? For example, I would like to record a song that uses MIDI and my voice using a microphone.

- In the Record Control view of the Mixer applet, select the check box of the EAR ("What U Hear") icon.
- Back in the Play Control view of Mixer, unmute or enable the sources you want to record. Note: Except for CD Audio, Line In, TAD, Auxiliary (AUX), Microphone (which you can select only one at a time), unmute all the sources for recording at the same time!

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### I'm only interested in watching movies. How can Sound Blaster Live! benefit me?

Let us look at your needs. Sound Blaster Live! comes with Creative PlayCenter, an integrated player that plays all popular multimedia formats. If you are playing a video CD, you can choose CMSS (Creative Multi Surround Speaker) technology to add surround sound to your movies. This is particularly effective if you are using multiple speakers. In the near future, Sound Blaster Live! will let you experience Dolby Digital (AC-3) through an additional device, which will be available soon.

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When playing back Karaoke VCD through PlayCenter, I can hear both the music and the vocal backup, how do I disable the backup vocal?

Use your mouse to right-click in the Karaoke Video window and select Properties. Change channel 1, 2 or both for the mode that you desire.

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# **Creative Launcher What is the Creative Launcher?**

Creative Launcher allows you to organize your desktop and launch Creative applications quickly. There is no need to search from the Start menu to launch these applications. Just select your favorite application from Creative Launcher and click it. You can also add your favorite application to Creative Launcher.

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### How do I add my commonly-used applications into Creative

To add a new item or application:

- 1. Right-click the group tab to which you want to add a shortcut
- Click Insert Item on the Groups menu. The Group Properties dialog box appears.
- 3. Click the New Item button
- 4. Browse through the folders and select the desired shortcut. The Shortcut Properties dialog box appears.
- Click the OK button to close the Shortcut Properties dialog box. The new shortcut will be displayed in the list box.
- 6. Repeat steps 3 through 5 to add more shortcuts
- Click the OK button on the Group Properties dialog box to apply the changes to Launcher
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#### Is there a quick way to go to the Sound Blaster Live! website?

Yes, it is only a click away. From your Creative Launcher, click the Environmental Audio logo. It will launch your default Internet browser and bring you to the Sound Blaster Live! website. You can also visit the Creative Zone website when you click the Creative logo, which is on the left of Creative Launcher.

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#### **Third Party Applications**

I am unable to have a conversation with Parrot using a microphone. What do I do?

As Prody Parrot uses voice recognition, you must enable the record mode for Microphone in the Mixer applet. Go to the Record Control view of the Mixer applet and enable (select) the Microphone device there.

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How do I input text commands in Prody Parrot. I tried clicking the text input icon but nothing happened.

Click SHIFT and ESC simultaneously to bring up the text input box.

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### **Digital Input/Output**

What is the Sound Blaster Live! daughter board S/PDIF IN/OUT and onboard carrier frequency? Is it fixed at that frequency (e.g., 48 kHz)?

It can support inputs at 44.1, 32 & 48 kHz but outputs at 48 kHz only. There's a sampling rate converter within to convert the input carrier frequencies to the base 48 kHz.

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I face certain problems when using the digital recording functions. Please advise.

Please download the latest driver that opens up more functionality for S/PDIF In and S/PDIF Out recording.

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I can't get the CD-ROM S/PDIF to work.

Check the following:

- · Make sure the volume is turned up
- Check that the CD cable is connected correctly using the CD S/PDIF
- · Ensure that the Digital CD option is enabled on the Mixer
- Is your CD-ROM S/PDIF out working?
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S/PDIF does support 4 channels. Are all 4 channels sent out across the S/PDIF connector?

Sound Blaster Live! supports only Stereo PCM Audio Format in the S/PDIF output.

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#### **MIDI**

#### What are the effects that I can use in a MIDI sequencer?

These are the effects from which you can select: Reverb, Chorus, Echo, Flanger, Pitch Shifting, Auto-Wah, Ring Modulator, Distortion and Vocal Morpher. In each addition, there are also different parameters or settings for you to fine-tune the individual effects.

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## How many effects can I use simultaneously on the MIDI sequencer?

Sound Blaster Live! can have at any one time two Environmental Audio effects (parallel or serial) implemented when using MIDI. The effects should first be loaded via the Environmental Audio applet. You can adjust the effects parameters via the Environmental Audio applet and also through the Cakewalk sequencer via the event list.

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How do I use Environmental Audio or reverbs in my MIDI sequence? I could not add the effects by mapping to a MIDI controller in my MIDI sequencer.

You can use a maximum of two simultaneous effects in your MIDI sequence. This is done in the MIDI tab of the Environmental Audio applet. By default, Reverb and Chorus effects are accessible via MIDI controller 91 and 93 respectively. To use another effect such as Distortion, you first need to unmap one of these and then assign that effect to any of the available MIDI controllers. Set the effect amount and parameters to your preference in the Environmental Audio applet. You can control the level of effects in the event list of your MIDI sequencer. A value of 127 indicates that you want the full amount as set in the Environmental Audio panel to be applied to the MIDI track.

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#### How do I use 256 voices offered by Sound Blaster Live! ?

Ensure that your MIDI output device is set to the following: Port 1: Sound Blaster Live! synth Port 2: Sound Blaster Live! synth Port 3: Creative Software synth 64 hardware voices (using EMU's patented 8-point interpolation) are offered by Sound Blaster Live! while the rest of the 192 PCI voices are produced from the PCI Wavetable Synth. You can use up to 32 channels (32 simultaneous instruments) to play from Sound Blaster Live! synth. This utilizes all 64 voices. For the Creative Software Synth, you can use up to 16 simultaneous instruments with 192 PCI wavetable voices.

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There are three MIDI ports for Sound Blaster Live! Synthesizer. Can I play more than 32 voices for a single MIDI port?

Yes. Sound Blaster Live! allows you to use up to 64 hardware voices even on a single MIDI port. The additional port is offered to you so that you have more MIDI channels to use.

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It seems as if the Environmental Audio control with the Sound Blaster Live! affects every sound source except MIDI. How do I apply Environmental Audio to my MIDI files?

Go to the MIDI tab in the Environmental Audio Control where you can assign effects to your MIDI tracks via Controller messages.

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Where can I buy another MIDI cable? Why was there only one MIDI cable included when there are two MIDI ports?

The MIDI cable can be purchased separately from Creative at a later date. The rationale for bundling only one MIDI cable is that not all buyers are necessarily musicians. Most musicians will use the MIDI DIN cable for MIDI out functions.

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#### Mixer

#### Can we apply effects for both Microphone and Line In?

Only one input source can be selected for effects to take place.

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#### About effects selection using PlayCenter.

When an effect is selected using PlayCenter, it will not go off even after you quit from PlayCenter. Select No Effects before you quit.

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#### How do I apply effects on Microphone In?

To apply effect on Mic IN, do ensure Mic IN is selected in SB Live! Mixer, Playback and Record Control views. Since the effects are generated from EMU10K1, only during recording will it pass through the EMU10K1. Next, go to the Environmental Audio applet in AudioHQ. at the same time, select Mic In source from the Speaker applet in AudioHQ. To record Mic In with effects, select "What U Hear" in SB Live! Mixer Record Control view.

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#### **SoundFont**

### Do I need to buy RAM to use SoundFont on my Sound Blaster Live! ?

Sound Blaster Live! uses the computer system RAM to load SoundFont. If your computer system has more RAM (e.g., 64 MB and above), more SoundFont banks can be loaded via the SoundFont applet.

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I have a problem loading more than 2 MB of SoundFont bank on to my existing computer system which has a configuration of 16 MB RAM on board. How do I load more SoundFont banks?

Launch your SoundFont applet and click the Options tab. Slide the SoundFont Cache level to the desired allocation for your SoundFont to be loaded.

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#### Where can I get Sound Blaster Live! Vienna SoundFont Studio?

Vienna SoundFont Studio will be made available soon. Meanwhile, owners of Sound Blaster Live! can download E-mu Systems' SoundFont Librarian from the 'Downloads' section.

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## The 32MB maximum size for SoundFonts looks bogus. I managed to load 80MB!

While you can load large SoundFonts in the SoundFont applet, only 32MB of samples can be accessed or used at any one point in time.

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#### Do the PCI Wavetable voices also support SoundFonts?

The PCI Wavetable voices do not support SoundFonts.

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#### When will Vienna be available?

Vienna Editor for Sound Blaster Live! will be available in September.

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## Is it possible to obtain (for both my AWE64 and the Live) a general MIDI and/or GS bank of greater than 8MB?

The commercial banks currently available are 8 MB in size. However, with the Sound Blaster Live!'s increased RAM capacity to load larger Soundfonts, we do not rule out the possibility that larger GM/GS SoundFont banks would be made available by EMU, Commercial SoundFont Developers and music individuals in the near future.

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### Can the memory upgrade board designed for AWE 64GOLD work with Sound Blaster Live!?

The Sound Blaster Live! uses your PC's host memory to store SoundFonts, so you won't need to purchase memory upgrade modules if you need more memory. The maximum memory you can use for SoundFonts in Sound Blaster Live is 32MB.

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Does the 8 Mb General MIDI SF Bank sound the same as the 8 Mb GM Bank on AWE64 Gold? (The SoundFont Bank that follows an E-mu SF CD which is included when you buy a memory module)

Yes, the 8MB GM/GS/MT32 Soundfont that is bundled with the Sound Blaster Live! is the same one as bundled with the memory module and AWE64Gold.

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#### **Games**

### Is environmental effects available for games that run under DOS mode?

Environmental effects are applicable only for games run under DOS box, not DOS mode.

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### I can't get my Microsoft Sidewinder Pro 3D joystick to work with Sound Blaster Live!

Creative is working with Microsoft on this issue.

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I have a problem with the retail version of Unreal. Every time I try to access the Advanced Options, Unreal will give me a General Protection Fault.

This is a known issue. Refer to Epic's website for the latest updates.

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#### Connectivity

Will the Sound Blaster Live interface with my PC-DVD Encore Dxr2 system? If so, how will it interface and how will it enhance my audio?

You can tap the digital output (CD digital) from PC DVD Encore and produce high quality digital audio. With CD digital (as opposed to the regular analog CD Audio), you will get flawless digital sound. This means that your music and game experience are enhanced. If you do not have an AC3 decoder, and want to experience surround sound on your 4 speakers, choose the CMSS Movie mode feature in the speaker applet (Audio HQ).

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I would like to know what the TAD connector is for and how we can use it? Can I use my modem as an answering machine even if it doesn't have voice capabilities?

The TAD Connector is for connecting to an internal modem with voice capabilities. To use your modem as an answering machine, you will need a voice-capable modem with appropriate software.

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I have 2 CD-ROMs on my PC. How can I hear CD audio from both of them?

2 CD-audio connects are offered on Sound Blaster Live!: CD Audio and CD-SPDIF (CD Digital ouput). The CD SPDIF and CD Audio inputs are independent of each other, so you can run 2 separate CD-ROMs, one using the CD SPDIF and the other using the normal CD Audio connector. You can then control the volumes of the 2 CD-ROMs separately. You can also opt to connect the 2nd CD-ROM drive's audio output to the Sound Blaster Live!'s AUX input connector.

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#### **Others**

#### What is I<sup>2</sup>S connector used for?

I<sup>2</sup>S stands for Inter-IC Sound, an Industry Standard which accept digital input from another digital output source, such as Creative's CT7160 MPEG 2 decoder card, where a digital out connector is built on board.

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#### Is I<sup>2</sup>S similar to S/PDIF out?

No, they are not similar. I<sup>2</sup>S connector have 4 input pins, whereas S/PDIF only has 2 input pins. In addition, I<sup>2</sup>S supposed to have much higher and better bandwidth compared to S/PDIF.

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#### Out of memory error occurred when PlayCenter is launched.

This will happen when SB Live! is changed from one PCI slot to the other. As when that is done, all effects in Environments will be blanked off. To obtain back the environmental effects, reinstall SB Live! experiences and software drivers.

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## Do I need to remove other sound cards for Sound Blaster Live! to work in my system?

Technically speaking, two cards can co-exist in the same system. However, you may encounter some compatibility problems. For this purpose, we recommend that you keep only one card in your system.

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### Which are the IRQs and DMA channels that Sound Blaster Live! use?

Sound Blaster Live! does not use DMA channels. As for IRQs, it will use any available IRQ assigned by the operating system.

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### How do I experience Dolby Digital surround on Sound Blaster Live!?

Dolby Digital is a separate functionality from Sound Blaster. Although Sound Blaster does not perform AC3 decoding, you can still enjoy surround sound on your multiple speaker setup using the CMSS Movie Mode.

CMSS uses binaural synthesis to create surround sound by crosstalk cancellation (using HRTF implementation). Since surround formats such as Dolby Digital and Dolby ProLogic content have binaural characteristics, CMSS is able to achieve the spatial effect when playing material that is encoded in these formats.

If you are playing software DVD that has Dolby Digital content, select the CMSS Movie mode feature in the speaker applet (Audio HQ). This allows you to experience surround sound on your 4 speaker setup.

If you are using DVD Encore, you should connect the Encore to an AC3 decoder to experience full surround. If you do not have a consumer AC3 decorder / receiver, you can purchase the affordable DeskTop Theater 5.1 which will be made available from Creative.

If you do not wish to invest in an AC3 decoder, you can still experience surround on your existing 4 speaker setup. Choose the CMSS Movie mode feature in the speaker applet (Audio HQ) for a very cost effective surround solution that allows you to hear your movie on four speakers.

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Will Sound Blaster Live! provide "AC3 pass-thru" for software DVD playback so that I can connect my card to an external Dolby Digital decoder or the DeskTop Theater 5.1?

Yes, this is being considered. Creative is working on providing such a solution.

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Will I be able to use my Sound Blaster to provide "AC3 bypass" so that I can connect my DVD Encore to it? This allows me to decode Dolby Digital playback from my external Dolby Digital decoder as well as have the option to tap digital audio output from Sound Blaster Live! without having to switch connections.

A solution is currently being explored and we will let you know of the outcome in the near future.

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I already have an expensive home theater surround setup. Is there a way I can use my existing setup with Sound Blaster Live! to experience both 3D positional audio games and Environmental Audio without changing my setup?

Yes you can. A solution will be made available in the near future.

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Since Sound Blaster Live! only offers near perfect Sound Blaster compatibility, can I keep my existing Sound Blaster 16/32, AWE32/64 in my system to get 100% Sound Blaster compatibility?

Yes, you can. You may however encounter potential resource/allocation issues (IRQ & DMA channels).

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Is true multitrack recording possible with the Sound Blaster Live? Will I be able to record a guitar and a bass at the same time to separate tracks?

This feature is currently not supported. We are exploring this feasibility.

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Can I have both the EMU APS card and Sound Blaster Live! installed in the same system?

Yes, you should be able to do so without any problems.

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Will the Sound Blaster Live! play music CDs through four speakers?

Yes, with the Sound Blaster Live!, you can play any device (CD Audio, Wave, MIDI etc) through 4 speakers. You can also position the device anywhere within the 4 speakers, e.g. you can set your CD

Audio to play through the rear speakers. Ensure that you enable the CD audio record mode in the mixer applet (record view).

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#### Does Sound Blaster Live! provide an internal amplifer?

Sound Blaster Live! does not have an internal amplifier onboard. The card is designed to be used with powered speakers as this provides a higher quality of audio output compared to having an internal amplifier onboard.

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#### Can Sound Blaster Live! run on a Cyrix 6x86?

Yes. This will be supported in the next Sound Blaster Live! driver update in September.

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audio

Surround sound
Speaker Promotion

# Sound Blaster *Lye!*

Environmental Audio™ - So Real It Has To Be Live!

### What the reviewers are saying...

- "The Environmental Audio Extensions really give (GT Interactive's) Unreal that special boost ... All in all if you want the best Audio Visual experience on the PC you need a Sound Blaster Live!"
  - Visit Planet Unreal for the full review.
- "What would best describe the Sound Blaster Live! ... Monumental. You might even say that the Sound Blaster Live! is to audio what butter is to popcorn. Take away the butter and all you have left is stale movie theater popcorn." See it at PC Audio Review
- "There is little to hate about this card, in fact, it is very difficult not to love it...With the pledged support of many game developers keen on delivering new games with EAX support, and the possibilities of improvements like the inclusion of AC3 decoding, the Live! will not only be the ultimate choice for gamers but it will also be very appealing to audiophiles as well."
  Visit Hardware One for the full review.
- "This is without a doubt the best card I have had the opportunity to review. I feel quite comfortable awarding this card the 3DsoundSurge \*Surge Of Approval\* and our highest score ever of 9.5/10. If you are looking for a new sound card and four speakers are in your plans, then definitely take a close look at the Sound Blaster Live!"
  - For the full review visit 3D Sound Surge.
- "The Live! added a new dimension to gaming that few others can only come close to matching. When playing a game that supports positional audio it can send chills up your spine...The overall sound this card produces is superb and far superior to anything on the market now."
  - See the full review at Battle-Zone Games Network.
- "The Sound Blaster Live! is ... the only audio card right now that can ... deliver environmental audio so real it has to be Live! While Aureal currently has A3D and the developing Vortex2, they produce 3D audio by means of the physics and geometrics of a given environment. It does not take into consideration the value of what the gamer wants to hear ... Truly awesome performance ... you have no reason to hesitate. Creative Labs really has changed PC audio forever."

"If you own a Voodoo2 card, you're probably the type who should get a Sound Blaster Live!"
Go to Cool-Info for the full review.

Visit these sites for impressions of Sound Blaster Live! and Evironmental Audio:

### Sound Blaster

- Features and Benefits
- Unique Uses
- Bundled Software
- Technical Specifications
- FAQ
- Where to Buy
- Reviews
- Central SB Live! WebSite

#### sound products

- ▶ Sound Blaster Live!
- Sound Blaster Live!
  Value
- Sound Blaster 16 PCI

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