

Getting Started

Creative Sound Blaster Live! Creative Audio Software

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Version 2.00

April 1999

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Version 2.0, June 1998

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Notice for Canada

CAUTION: This device is intended to be installed by the user in a CSA/TUV/UL certified/listed IBM AT or compatible personal computers in the manufacturer's defined operator access area. Check the equipment operating/installation manual and/or with the equipment manufacturer to verify/confirm if your equipment is suitable for user-installed application cards.

ATTENTION: Ce carte est destiné à être installé par l'utilisateur, dans un ordinateur compatible certifié CSA/TUV/UL ou listé IBM AT, à l'intérieur de la zone définie par le fabricant. Consulter le mode d'emploi ou le fabricant de l'appareil pour vérifier ou confirmer si l'utilisateur peut y installer lui-même des cartes périphériques.

Notice for the USA

FCC Part 15: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, this notice is not a guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician.

CAUTION: To comply with the limits for the Class B digital device, pursuant to Part 15 of the FCC Rules, this device must be installed in computer equipment certified to comply with the Class B limits.

All cables used to connect the computer and peripherals must be shielded and grounded. Operation with non-certified computers or non-shielded cables may result in interference to radio or television reception.

Modifications

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the device.

This apparatus complies with the Class "B" limits for radio interference as specified in the Canadian Department of Communications Radio Interference Regulations.

Cet appareil est conforme aux normes de CLASSE "B" d'interférence radio tel que spécifiée par le Ministère Canadien des Communications dans les règlements d'interférence radio.

Compliance

This product conforms to the following Council Directive:

- Directive 89/336/EEC, 92/31/EEC (EMC)

Declaration of Conformity

According to the FCC96 208 and ET95-19

Name: ***Creative Labs Inc.***

Address: ***1901 McCarthy Boulevard
Milpitas, CA. 95035
United States
Tel: (408) 428-6600***

declares under its sole responsibility that the product

Trade Name: ***Creative Labs***

Model Number: ***CT4620/CT4660***

has been tested according to the FCC / CISPR22/85 requirement for Class B devices and found compliant with the following standards:

EMI/EMC: ANSI C63.4 1992, FCC Part 15 Subpart B

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesirable operation.

Ce matériel est conforme à la section 15 des règles FCC.

Son Fonctionnement est soumis aux deux conditions suivantes:

1. Le matériel ne peut être source D'interférences et
2. Doit accepter toutes les interférences reçues, Y compris celles pouvant provoquer un fonctionnement indésirable.

Supplementary:

CT4660 is an optional add-on board for CT4620. It's providing SPDIF In/Out, and MIDI In/Out to any external device.

***Compliance Manager
Creative Labs, Inc.
April 28, 1998***

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Introduction

The Complete Digital Audio Creation System

Sound Blaster Live! is Creative's most advanced digital audio system. It combines hardware, software and peripherals to provide the industry's most comprehensive music and sound creation product for the PC. Sound Blaster Live! offers the highest-fidelity audio, enabling musicians and content creators to produce and play back professional quality sound in a variety of formats. The robust connectivity of Sound Blaster Live! allows you to simultaneously connect multiple digital and analog devices, including keyboards, DAT decks and other music gear. The superior 3D positional sound and effects rendering that Environmental Audio provides, creates real-life multidimensional sound and multitextured acoustical environments for the most incredible 3D audio experience ever in games, music and other applications.

Whether you are a musician, sound designer, or hardcore gamer, Sound Blaster Live! is the ultimate solution in PC audio technology.

System Requirements

For Creative software, your card requires at least:

- Genuine Intel® Pentium® class processor:
133 MHz for Windows 95/98, 200 MHz for Windows NT 4.0
- Intel or 100% compatible motherboard chipset
- Windows 95, 98 or Windows NT 4.0
- 16 MB RAM for Windows 95/98 (32 MB RAM recommended),
32 MB RAM for Windows NT 4.0
- 65 MB of free hard disk space
- Open half-length PCI 2.1 compliant slot

- Headphones or amplified speakers (available separately)
- CD-ROM drive required for software installation

Sound Blaster Live! Value gives you an estimate of the hard disk space required when you select it on the installation screen. Included applications may need higher system requirements or microphone for basic functionalities. Refer to the documentation for individual applications for details.

Live!Ware Benefits

Your Investment Is Protected as you have less of a likelihood of finding your audio card obsolete shortly after purchasing it. Through Live!Ware, new features and applications are always made available for you to experience the latest technology and to extend the life of your card.

The Value and Experience Increases Over Time as Live!Ware continues to deliver new capabilities and enhancements. Each upgrade will “rejuvenate” your audio card, allowing you to experience new functionality. It is as if your audio card is “reborn”.

Your Card Is Up To Date because the latest Live!Ware upgrades are only a download away. When new standards and capabilities emerge, your hardware is ready for it—just download the functions and the card becomes up-to-date!

Before You Begin

The README file on the installation CD-ROM contains information and changes not available at the time of printing. Read the file before you continue.

Getting More Information

See the online *User's Guide* for MIDI specifications and connector pin assignments, as well as instructions on using the various applications in your audio package.

Where To Go From Here ...

- Installation instructions: Chapter 1, “Knowing and Installing Your Cards”
- Connectivity reference diagrams: Chapter 1, “Knowing and Installing Your Cards”
- Learning about the bundled applications:
 - Chapter 4, “Using Sound Blaster Live!”
 - Chapter 5, “Additional Sound Blaster Live! Applications”
 - Chapter 6, “To Do This ... Use These Applications”

Other Recommendations

- ❑ For an overview of the features of your card, launch the Sound Blaster Live! Experience program.
- ❑ View the contents of the Demo CD for additional demonstrations, libraries and other software.
- ❑ Visit the *www.sblive.com* site for more information, content and Live!Ware updates.

Document Conventions

The following typographical conventions are used throughout this document:

bold

Text that must be entered exactly as it appears.

italic

Title of a book or a placeholder, which represents the information you must provide.

UPPERCASE

Directory name, file name, or acronym.



The notepad icon indicates information that is of particular importance and should be considered before continuing.



The alarm clock designates a caution or warning that can help you avoid situations involving risk.

Knowing and Installing Your Cards

This chapter is organized as follows:

- ❑ On the Audio Cards
- ❑ Installing the Cards and Related Peripherals
- ❑ Positioning Your Speakers
- ❑ Connecting Creative PC-DVD

On the Audio Cards



A jack is a one-hole connecting interface whereas a connector consists of many pins. Some connectors here may not be available on your card. Refer to the online *User's Guide*, "Hardware Information", for details on connector pin assignments.



Line Out and Rear Out jacks can be used simultaneously to power 4.1 channel speaker systems, for example, PCWorks™ FourPointSurround™ from Cambridge SoundWorks.

Your audio card has these jacks and connectors which allow you to attach other devices:

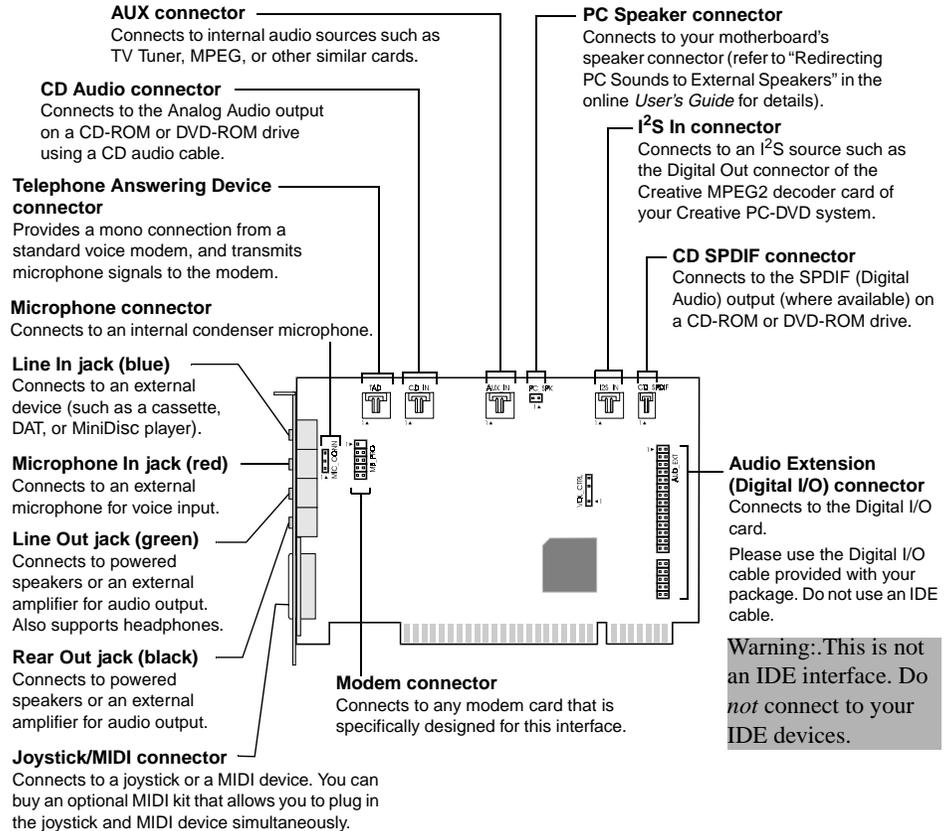


Figure 1-1: Jacks and connectors on the Sound Blaster Live! card.



It is recommended that you use the MIDI In connector of the Digital I/O card to connect a MIDI input device and thus dedicate the Joystick/MIDI connector on the Sound Blaster Live! card to joystick use. You can use only one of the MIDI input ports of the connected cards at a time.

Your Digital I/O card has these jacks and connectors which allow you to attach other devices:

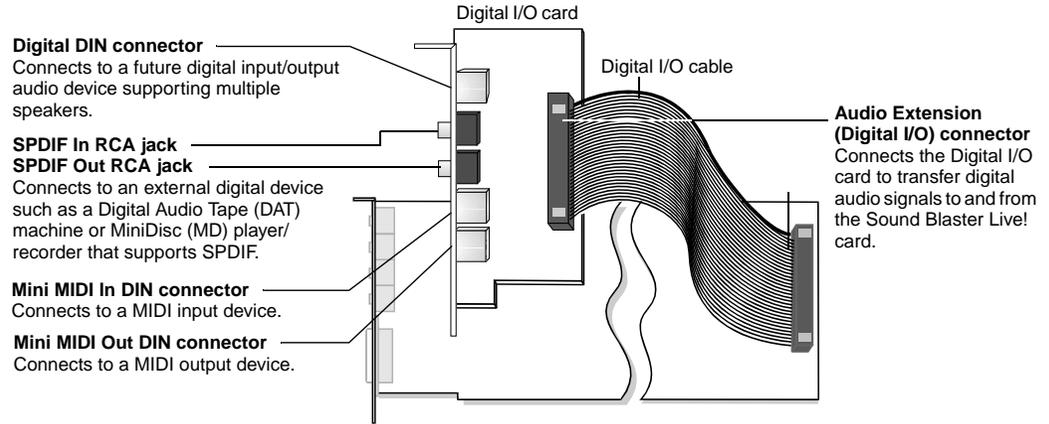
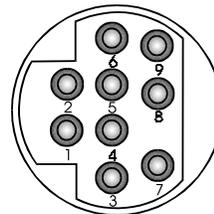


Figure 1-2: Jacks and connectors on the Digital I/O card.



Pin	Name	Description
1	GND	Ground
2	GND	Ground
3	MIDI_IN	MIDI Input
4	SPDIFO#2	SPDIF Out signal
5	SPDIFO#1	SPDIF Out signal
6	SPDIF_IN	SPDIF In signal
7	MIDI_OUT	MIDI Output
8	SPDIFO#0	SPDIF Out signal
9	SPDIFO#3	SPDIF Out signal

Figure 1-3: Digital DIN jack: 9-pin connector (cross-sectional view).

Installing the Cards and Related Peripherals



Do not force the audio card into the slot. If it does not fit properly, gently remove it and try again.



Make sure there is sufficient space between the Digital I/O card and the adjacent card (especially if it is an ISA card) such that the cards do not touch.



The joystick connector on your audio card is identical to that on a standard PC game control adapter or the game I/O connector. You can connect any analog joystick with a 15-pin D-shell connector or any device compatible with the standard PC joystick. To use two joysticks, you need a Y-cable splitter.

1. Switch off your system and all peripheral devices.
2. Touch a metal plate on your system to ground yourself and to discharge any static electricity, and then unplug the power cord from the wall outlet.
3. Remove the cover from your system.
4. Connect the Digital I/O card to the audio card using the Digital I/O cable, as shown in Figure 1-2.
5. Remove the metal plates from two unused PCI expansion slots in your system and put the screws aside, to be used later. If you have only one unused PCI expansion slot, then you must have at least an unused bracket on your computer casing to accommodate the PCI-oriented Digital I/O card.
6. Align the Sound Blaster Live! card with the vacant PCI expansion slot. Press the card gently and evenly into the slot as shown. Ensure that the card sits firmly inside the PCI expansion slot.
7. Secure the card to the expansion slot with a screw.
8. Place the metal bracket of the Digital I/O card into an unused bracket on the computer casing.
9. Secure the card to the casing with a screw.

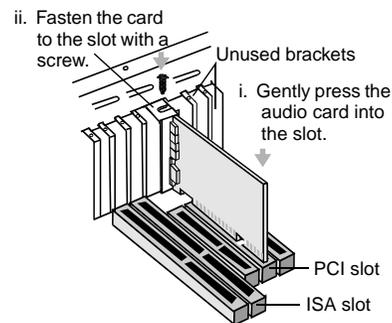
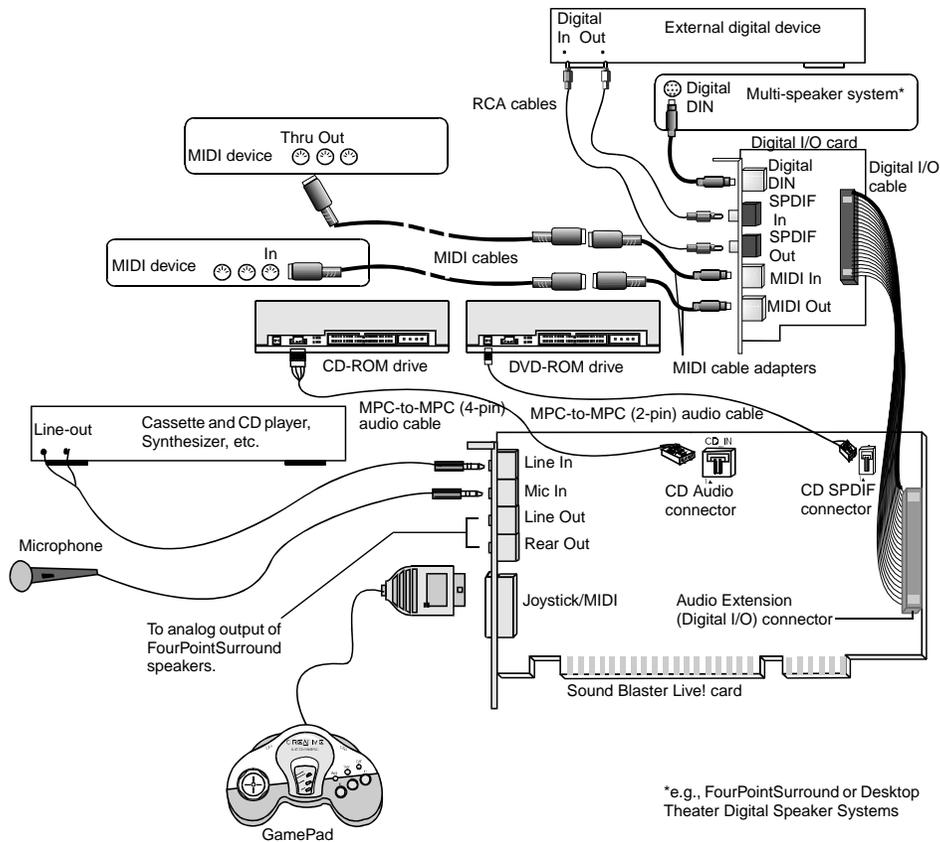


Figure 1-4: Securing the audio card to the PCI expansion slot.

10. To learn how to connect to other devices, see Figure 1-5.
11. Replace the cover onto your system.
12. Plug the power cord back into the wall outlet, and switch on the system.



- ❑ The SPDIF In jack on the Digital I/O card does not support Dolby Digital (AC-3 compressed SPDIF) formats. Therefore, do not connect it to the AC-3 SPDIF Output of your Encore Dxr2 card or consumer DVD player; otherwise, you might not get any sound.
- ❑ If you are playing games in Windows 95/98 MS-DOS mode (that is, pure DOS mode), you must:
 - Make sure the CD In connector and the Analog Audio connector of the CD-ROM or DVD-ROM drive are connected.
 - In addition, if you get distorted audio, do not connect the CD SPDIF connector to the Digital Audio connector of the CD-ROM or DVD-ROM drive.
- ❑ If you connect to the Digital Audio and Analog Audio connectors of the same CD-ROM or DVD-ROM drive, make sure in Surround Mixer, you do not unmute CD Audio and CD Digital at the same time.



*e.g., FourPointSurround or Desktop Theater Digital Speaker Systems

Figure 1-5: Connecting other devices.

Positioning Your Speakers

If you are using four speakers, place them such that they form the corners of a square with you exactly in the center (as in Figure 1-6) and that they are angled toward you. Make sure the computer monitor is not blocking the path of your front speakers. You may want to adjust the relative positions of the speakers until you get the audio experience you like best. If you have a subwoofer, place the unit in a corner of the room for the best bass experience.

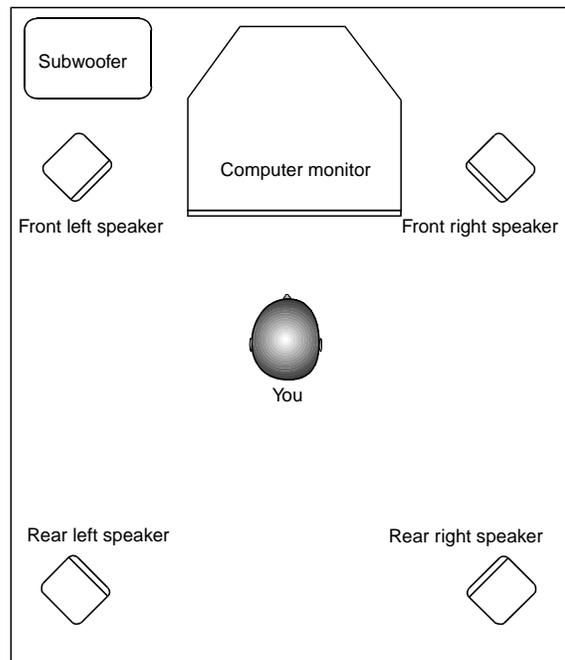


Figure 1-6: Recommended speaker positions for the 4-speaker configuration.

Connecting Creative PC-DVD

When you are playing your DVD movies or games:

- ❑ If your Encore Dxr2, Encore Dxr3 or MPEG2 decoder card is connected to an external Dolby Digital (AC-3) decoder such as DeskTop Theater 5.1, either:
 - Disconnect the Sound Blaster Live! card's Aux In connector from the decoder card's Audio Out connector (Highly recommended),
OR
 - Mute Aux In in Surround Mixer (for more details, see "Surround Mixer" on page 4-4).

- ❑ If your decoder card is *not* connected to an external Dolby Digital (AC-3) decoder, it is recommended that you:
 1. Connect the Sound Blaster Live! card's Aux In connector to the decoder card's Audio Out connector.
 2. Select (that is, unmute) Aux In in Surround Mixer.
Note: You may need to select this configuration when playing certain DVD games with Dolby Digital video clips.

- ❑ If you get distorted or no audio at all (Reason: Your CD-ROM or DVD-ROM drive does not fully comply to SPDIF specifications), you must:
 1. Make sure there is a connection between the Sound Blaster Live! card's CD In connector and the Analog Audio connector of the CD-ROM or DVD-ROM drive.
 2.
 - In Windows:
In Surround Mixer, unmute the CD Audio device and mute the CD Digital device.
 - In Windows 95/98 MS-DOS mode (that is, pure DOS mode):
Do not connect the CD SPDIF connector to the Digital Audio connector of the CD-ROM or DVD-ROM drive.

- ❑ If you connect to the Digital Audio and Analog Audio connectors of the *same* CD-ROM or DVD-ROM drive, make sure that in Surround Mixer you do not unmute CD Audio and CD Digital at the same time.

To open the mixer, bring your pointer to the top of the screen to display Creative Launcher, click the AudioHQ tab, and then click the Mixer icon.

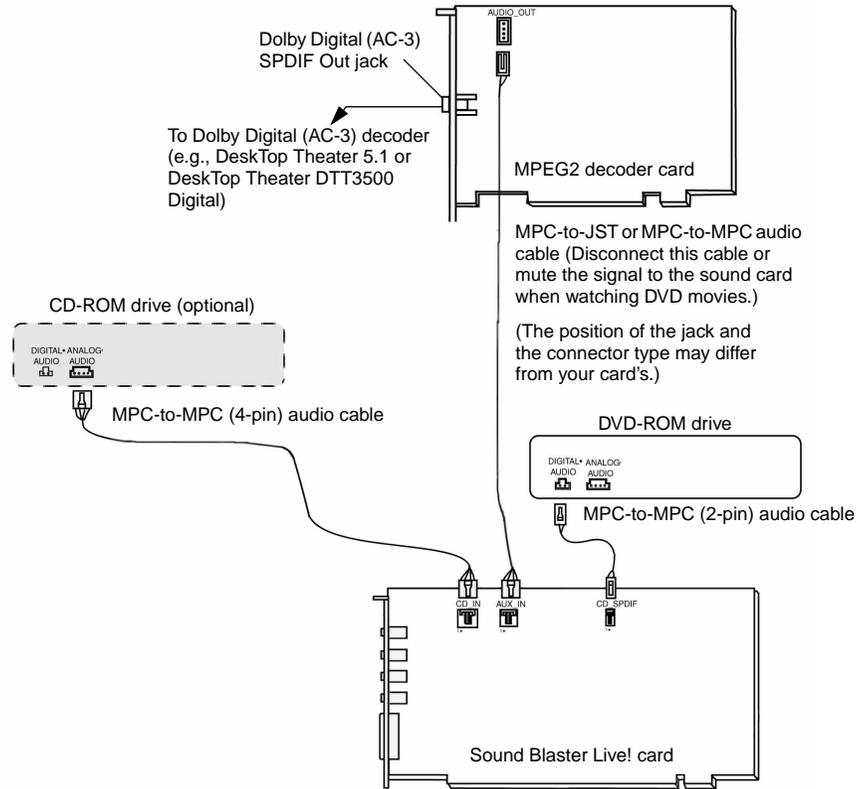


Figure 1-7: Connecting Creative PC-DVD.

Installing Software in Windows 95/98

This chapter shows you how to install the audio software in Windows 95/98 after installing your card. It consists of the following sections:

- Setting Up the Audio Drivers
- Installing the Applications
- Using Sound Blaster Live!
- Configuring Your Speakers
- Experiencing Sound Blaster Live!
- Uninstalling the Applications
- Reinstalling the Audio Drivers From the Installation Disc
- Playing Legacy Games

Setting Up the Audio Drivers

You need device drivers to control the components on your audio card. After you have installed the card and switched on your system, Windows 95/98 automatically detects the components, and then either installs the drivers automatically or prompts you for the drivers. You may encounter the following messages, which may not be in the sequence shown.

- ❑ If a message similar to Figure 2-1 appears, just take note of it and wait for the next message.



Figure 2-1: Message box indicating the detection of a device.

- ❑ If a dialog box similar to Figure 2-2 appears, click the Driver From Disk Provided By Hardware Manufacturer option, and then click the OK button.
- ❑ If the **Install From Disk** dialog box or a dialog box similar to Figure 2-3 appears:
 1. Insert the installation disc into your CD-ROM drive and select the drive.
 2. If there is a Specify A Location check box, make sure it is selected and clear the other check boxes.
 3. Click the Browse button and select the folder **AUDIO\Language\WIN95DRV** where *Language* is the language of the software that you want to install.



Figure 2-2: Driver installation dialog box where the Windows default driver option is not available.

4. Click the OK button.
The required files are copied to your hard disk.

□ If a dialog box similar to Figure 2-4 appears:



Figure 2-4: Update Device Driver Wizard dialog box when driver cannot be found.

1. Click the Other Locations button.
2. At the Select Other Locations dialog box, click the Browse button and select the folder **AUDIO\Language\WIN95DRV** where *Language* is the language of the software that you want to install.
3. Click the OK button, and then click the Finish button.
Some of the required files are copied to your hard disk. However, an error message stating that a file (2GMGSMT.SF2 or otherwise) cannot be found also appears.
4. Click the OK button.
5. At the Copying Files dialog box, click the Browse button and select the folder **AUDIO\Language\WIN95DRV** where *Language* is the language of the software that you want to install.
6. Click the Open button, and then click the OK button twice.
The file is copied to your hard disk.



Figure 2-3: Windows 98 Add New Hardware Wizard dialog box.

- ❑ If a dialog box similar to Figure 2-5 appears, click the Next button, and follow the instructions on the screen to complete the installation of the driver.
- ❑ If a Version Conflict message box appears about VJOYD.VXD and MSJSTICK.DRV, click the Yes button to keep the files.



Figure 2-5: Update Device Driver Wizard dialog box at start of installation.

Installing the Applications

1. If your installation disc is already in your CD-ROM drive, eject the disc and insert it again.
The disc supports Windows AutoPlay mode and starts running automatically. If not, see “Problems Installing Software” on page D-1.
2. Follow the instructions on the screen to complete the installation

Using Sound Blaster Live!

Every bundled application provides online help to guide you along when you use it.

For the latest updates and drivers, further information, value-added tips, tricks and plug-ins, check the SB Live! owners' website frequently at <http://www.sblive.com>

A fast way of getting to the website is to click the right-most button (the Environmental Audio icon) on Creative Launcher.

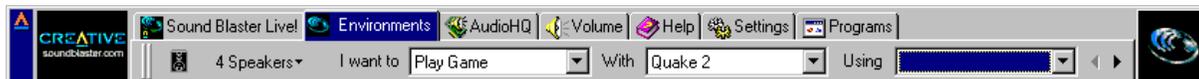


Figure 2-6: Creative Launcher.

Creative Launcher is a one-stop shortcut to quickly start your applications and get to the Creative and the SB Live! owners' websites. To display Launcher, bring your pointer to the top of the screen.

Creative PlayCenter allows you to play most types of media—multimedia files (MIDI, Wave, MP3, etc.), audio CDs, and video CDs—using a single player! There is no need to use different players to play different media types. Just insert or select your media and PlayCenter will do the rest.



Figure 2-7: Creative PlayCenter.

To run PlayCenter, bring your pointer to the top of the screen to display Creative Launcher, click the Sound Blaster Live! tab, and then click the PlayCenter icon.

Configuring Your Speakers



If you have a 4-speaker configuration (2 in the front, 2 in the rear), and there is no sound coming from the rear speakers, open the Sound Blaster Live! Speaker applet to change to the correct speaker output setting.

Experiencing Sound Blaster Live!

1. Bring your pointer to the top of the screen to display Creative Launcher, click the AudioHQ tab, and then click the Speaker icon. Surround Mixer appears.
2. In the Environment deck of Surround Mixer, make sure that the value in the Speakers group corresponds to the number of speakers you are using. For example, if you are using two pairs of speakers, select the “4 Speakers” option; if you leave the value as “2 Speakers”, there will be no sound from your rear speakers.
3. Using Creative PlayCenter or Windows Media Player, open a Wave file in your computer and play it. In the Environment deck of Surround Mixer, click the Test button under Speakers.
You should hear the selected sound being played. If you do not, see “Problems With Sound” on page D-2.

Congratulations! You have successfully installed Sound Blaster Live! To enhance your experience, it is highly recommended that you run SB Live! Experience. It demonstrates the many wonderful experiences Sound Blaster Live! can give you.

- To run SB Live! Experience, bring your pointer to the top of the screen to display Creative Launcher, click the Sound Blaster Live! tab, and then click the SB Live! Experience icon.

Uninstalling the Applications



Quit the audio card's applications before uninstalling. Applications that are still running during uninstallation will not be uninstalled.



Some applications may share files with other Windows applications. If so, the uninstallation program will prompt you when it tries to delete these files. Do not delete the files unless you are sure that you do not need to use them.

The Windows Uninstall feature allows you to cleanly remove applications and to reinstall them to correct problems, change configurations, or make version upgrades.

To uninstall the applications:

1. Click the Start button, point to Settings, and then click Control Panel.
2. Double-click the Add/Remove Programs icon.
3. In the Add/Remove Programs Properties dialog box, select the target programs including Sound Blaster Live!, and then click the Add/Remove button.
4. Follow the instructions on the screen to uninstall.

Reinstalling the Audio Drivers From the Installation Disc

You may want to reinstall the audio drivers if you think they have been corrupted.

To do so:

1. Insert the installation disc into your CD-ROM drive.
2. Run the UPDDR95.EXE program from the **AUDIO***Language***WIN95DRV** folder of your CD-ROM drive, where *Language* is the language of the software that you want to install. The updating process may take a while. When the progress indicator box disappears, the update is complete.

Playing Legacy Games

For more information, see Appendix B, “SB Emulation in MS-DOS/ Windows 95/98”.

Installing Software in Windows NT 4.0



You cannot install more than one Sound Blaster audio card of the same type on your computer.

Installing the Software

Setting Up Joystick Drivers in Windows NT 4.0

This chapter shows you how to install the audio software in Windows NT 4.0 after installing your card. It consists of the following sections:

- Installing the Software
- Setting Up Joystick Drivers in Windows NT 4.0
- Using Sound Blaster Live!; Configuring Your Speakers
- Reinstalling the Audio Drivers From the Installation Disc
- Removing Unused Sound Blaster Drivers

The software installation in NT 4.0 includes the installation of audio drivers.

1. Insert the installation disc into your CD-ROM drive.
The AutoPlay screen appears.
 2. Follow the instructions on the screen to complete the installation.
-
1. Log on to your computer as Administrator.
 2. Click the Start button, point to Settings, and then click Control Panel.
 3. Double-click the Multimedia icon, click the Devices tab, and then click the Add button.
 4. In the List of Drivers box of the Add dialog box, select Unlisted Or Updated Driver, and then click the OK button.

5. Insert the Windows NT 4.0 CD-ROM which contains the JOYSTICK.SYS file into the CD-ROM drive.
6. In the Install Driver dialog box, type
E:\DRVLIB\MULTIMED\JOYSTICK\X86
if E:\ is the CD-ROM drive letter, and then click the OK button.
7. In the Add Unlisted Or Updated Driver dialog box, click Analog Joystick Driver, and then click the OK button.
8. In the Microsoft Joystick Configuration dialog box, click the OK button.
9. Restart your computer when prompted.

Using Sound Blaster Live!; Configuring Your Speakers

See “Using Sound Blaster Live!” on page 2-5 and “Configuring Your Speakers” on page 2-6. They also apply in Windows NT 4.0.

Reinstalling the Audio Drivers From the Installation Disc

You may want to reinstall the audio drivers if you think they are corrupted.

To do so:

1. Insert the installation disc into your CD-ROM drive.
2. Run the UPDPCINT.EXE program from the **AUDIO\Language\NT4DRV** folder of your CD-ROM drive, where *Language* is the language of the software that you want to install.
3. Restart your computer when prompted. You may be prompted to restart more than once.
4. If a Windows NT 4.0 Service Control Manager error message appears, see “Resolving I/O Conflicts” on page D-7.

Removing Unused Sound Blaster Drivers

You may want to remove unused Sound Blaster ISA and PCI audio drivers after you have removed the cards from your computer. To remove the drivers, use the procedure in the previous section, “Reinstalling the Audio Drivers From the Installation Disc”.

Using Sound Blaster Live!

Sound Blaster Live! is supported by a full range of applications to help you get the absolute most from the audio card. The software most important to the operation of your audio card is the Sound Blaster Live! group:

- Sound Blaster Live! Experience
- Creative Launcher
- Surround Mixer
- AudioHQ
 - SoundFont Control
 - Device Controls
 - Creative Keyboard
 - Sound Graph
 - Environmental Audio Control
 - AutoEA
- Vienna SoundFont Studio
- Wave Studio
- Creative Keytar
- Creative Rhythmania
- Creative PlayCenter

- ❑ Creative Recorder
- ❑ Creative MiniDisc Center

Additional software included with Sound Blaster Live! is described in Chapter 5, “Additional Sound Blaster Live! Applications”.

Sound Blaster Live! Experience

Sound Blaster Live! Experience presents an interactive introduction to Sound Blaster Live!.

To run SB Live! Experience, display Creative Launcher, click the Sound Blaster Live! tab, and then click the SB Live! Experience icon. On the opening screen, click to select the topic that interests you.

Creative Launcher

Creative Launcher allows you to organize your desktop and open Creative applications quickly.



Creative Launcher is installed at the top of your screen. If it does not appear, move your mouse pointer to the top of the screen and Launcher should appear. Creative Launcher consists of the system menu icon (the Creative logo at the top left corner), the website icon, group tabs, and the group items. The Environmental Audio icon is on the right.

The Environments tabbed page offers a “one-touch” Super-Environment setting which you can use to quickly configure your card. The presets are arranged intuitively:

“I want to” [perform a task] “With” [this setting] “Using” [my favorite application or title]

The Readme file on that page offers a comprehensive description on how to perform this “one-touch” setting. Click the right-arrow on the right until you can see the Readme icon; then click it.

Options

To set the options for the Launcher:

1. Click the System Menu icon on Launcher, and then click Properties. The Properties dialog box appears.
2. Select or clear the desired options.
3. Click the OK button to apply the changes to the Launcher.

Groups

You can place three types of items in Launcher:

- Subgroups
- Shortcuts
- Plug-ins

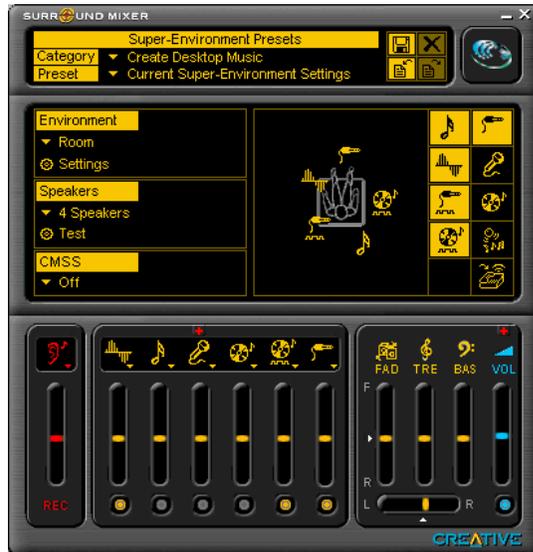
A *subgroup* is an item within a group that may contain more items.

A *plug-in* is a Creative software module that is integrated into Launcher. Examples are the Volume Control Plugin and the Command Line Plugin.

The installation creates a number of group tabs in Launcher that may contain shortcuts to Creative applications such as PlayCenter and Control Panel. It may also contain shortcuts to other applications for your hardware settings, volume control, help files, or demonstration programs by Creative.

For details on managing groups and items in Launcher, see its online help.

Surround Mixer



Creative Surround Mixer is the nerve center for these tasks, after you have specified the speaker output:

- ❑ Testing your speakers;
- ❑ Combining and manipulating sound from various audio input sources: mixing them;
- ❑ Setting environment presets, with an option to set the Environmental Audio effects;
- ❑ Specifying the CMSS mode, and the audio input source positions. CMSS is a Creative patent pending technology that expands stereo or mono sources to multi-point speakers.

Best of all, you can save endless combinations of these settings as super-environment presets for the selected speaker output! A super-environment preset, when selected, is your passport to a one-step automatic configuration of speakers, mixer and effects for whatever you want to do: play a particular game, record to a particular medium, record or play in a particular style—each style having its unique set of positions of audio input sources.

Surround Mixer consists of three decks:

❑ **Preset deck**

It is always the top deck. In the upper left corner is the Surround Mixer title: clicking it displays the system menu. At its right is the button: clicking it switches the Surround Mixer among its three views; the tooltip indicates the next view when the button is clicked.

The Preset deck allows you to select a super-environment preset, save new ones, delete unwanted presets, and import and export presets.

❑ **Environment deck**

The Environment deck allows you to specify the speaker output, position audio sources within that speaker configuration space, perform a speaker test, select the (audio-only) environment, with an option to fully define an environment.

❑ **Mixer deck**

The Mixer deck allows you to do mixing of sounds from various audio input sources when recording and when playing.

For details on what you can do in Surround Mixer, explore the Help file.

AudioHQ

AudioHQ can be accessed from Creative Launcher or by opening the Programs menu from the Windows taskbar: click the Start button, point to Programs, point to Creative, point to Sound Blaster Live!, and then click AudioHQ. You can also access the AudioHQ menu by clicking the AudioHQ icon located at the bottom right corner of your Windows desktop. AudioHQ uses the familiar Windows group to display the icon for each utility:



AudioHQ contains several control utilities that allow you to view, audition, or set up the audio properties of one or more audio devices on your computer.

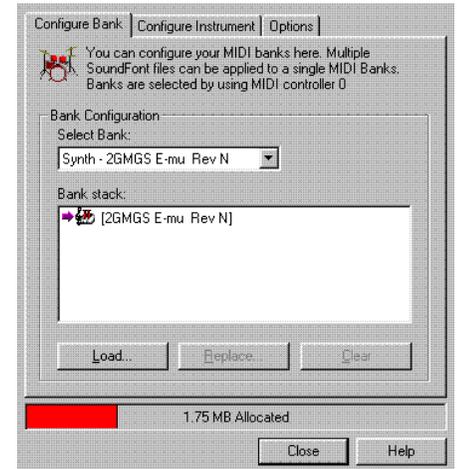
SoundFont Control

Creative SoundFont Control allows you to configure MIDI banks with SoundFont files and instruments, as well as set the caching algorithm and space.

Configure a MIDI Bank

To configure a MIDI bank:

1. In SoundFont Control, click the Configure Bank tab.
2. In the Select Bank list, select the MIDI bank to configure.
3. Click the Load button and load the SoundFont file you want to the MIDI bank. The latest file loaded always appears at the top of the Bank Stack box. The top of the stack is indicated by an arrow.
4. To replace a SoundFont file, click the file and then click the Replace button.
OR
Double-click the file, and select the replacement.
5. To clear a bank from the stack, select the bank and then click the Clear button. A variation bank can only be cleared by clearing its main bank.
6. Repeat Steps 3, 4 or 5 as required.



By stacking a SoundFont file instead of replacing one with the other, you may return to the original sounds or use the new selection.

You can “spot” hide particular instruments by loading one or more SoundFont files on top of the original.

When you clear a SoundFont file, you remove the latest configuration of the main bank and any variation banks, including the latest configuration of instruments on the Configure Instrument tabbed page.

Configure an Instrument



Setting the maximum amount of cache memory for SoundFont files does not mean setting aside or reserving the space. The space can still be used by your computer or other files, if needed.

To configure an instrument:

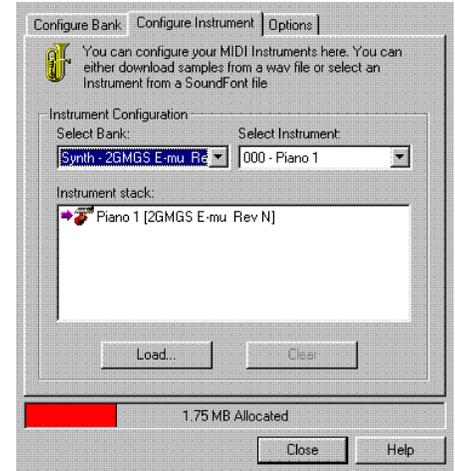
1. In the SoundFont dialog box, click the Configure Instrument tab.
2. In the Select Bank list, select the bank whose instruments you want to configure. You can select any bank.
3. In the Select Instrument list, select the instrument to configure.

In the Instrument Stack, you may see an instrument entry although you did not load an instrument on this page. The instrument can be found in a bank loaded on the Configure Bank tabbed page.

4. Click the Load button and load a SoundFont or single-instrument (for example, .WAV) file.

The last file loaded always appears at the top of the Instrument Stack with an arrow pointing to it.

5. To clear an instrument from the stack, select the instrument and then click the Clear button.
6. For faster processing of SoundFont files, the files are loaded into memory. You need to set the maximum amount of cache memory your SoundFont files can occupy, so that your system performance does not suffer from insufficient memory. You can also set the caching algorithm for a balanced system performance.



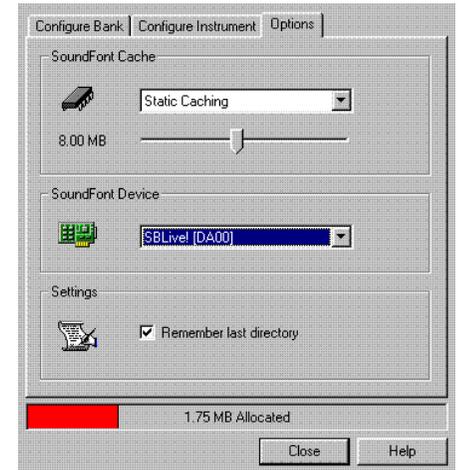
SoundFont Caching

To specify the caching algorithm:

- On the Options tabbed page of the SoundFont Control dialog box, select an algorithm from the SoundFont Cache list.

To set the amount of cache for SoundFont files:

- On the Options tabbed page of the SoundFont Control dialog box, move the SoundFont Cache slider to set the amount of cache.



SoundFont Device

To change the SoundFont device

- On the Options tabbed page of the SoundFont dialog box, select the new device from the SoundFont Device list.

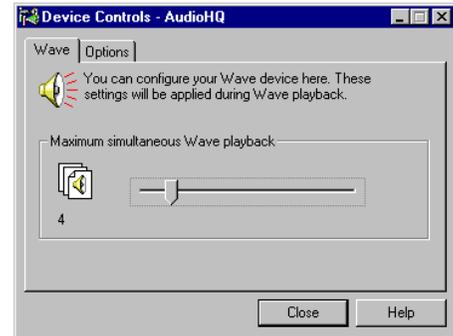
Device Controls

Device Controls allows you to configure for audio playback the audio devices that allow multiple simultaneous Wave playback sessions. For example, you can play five Wave tracks at the same time and enjoy the sounds from them all.

Playback Sessions

To set maximum simultaneous Wave playback sessions:

- On the Wave tabbed page, drag the Maximum Simultaneous Wave Playback slider to the right to set a higher number of Wave playback sessions, or to the left to set a lower number of simultaneous playback sessions.



Sound Device

To select the sound device to configure:

- On the Options tabbed page, click the device you want to configure from the Sound Device list.
The device is immediately selected.



Creative Keyboard

Creative Keyboard allows you to play musical notes on various instruments much like a composer would play notes on a piano (or other instrument) while creating or arranging music. To edit the sound, use Vienna SoundFont Studio or another sound editor.

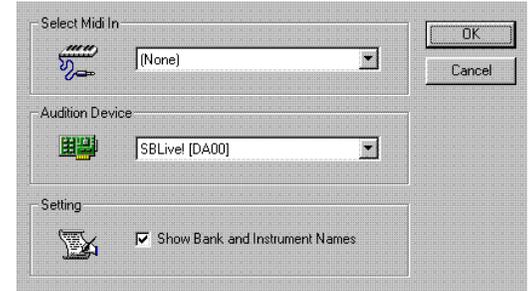
MIDI Input

To select a MIDI input device:

1. In the Select MIDI In box in the Options dialog box, click the correct MIDI port.
2. Click the OK button.

You can now use the external MIDI input device to test your sound creation.

You can use external MIDI input devices to audition your MIDI banks and instruments. First, connect a MIDI input device to your audio card and then select that device in Creative Keyboard.



Test an Instrument

To test an instrument:

1. In Creative Keyboard, click the bank and the instrument you want.
2. Click the keys on the keyboard to test the sound. If you have an external MIDI input device, you will probably find it easier to use it instead.

Tips

- To select multiple notes to play simultaneously, use your right mouse button to click the keys, which will be marked by black dots.
- To release the keys, right-click them one by one, *or* click the All Notes Off button for simultaneous release.
- To slide across the keyboard, drag the mouse.
- If the playback's sustain is too long, click the All Notes Off button.

To test instruments with MIDI controllers:

1. In Creative Keyboard, click the MIDI controller you want to use.
2. Specify a value in the Controller Value box or drag the slider to the value.
3. Click the keys on the keyboard to test the sound. If you have an external MIDI input device, it may be easier to use.

If you do not like the effects on your instrument, click the Reset Controllers button to set the MIDI controllers to their default values.

If the playback is sustained too long, click the All Notes Off button.

To silence all MIDI sustain sounds:

- In Creative Keyboard, click the All Notes Off button.
All the black points on the keyboard are removed.

Sound Graph

Creative Sound Graph complements the record panel of Surround Mixer's Mixer deck by giving a graphical view of the sounds mixed for recording.

There are three display modes:

- VU Display Mode
displays the playback signal levels of the left and right channels.
- Scope Display Mode
displays the amplitude-to-time relationship between the playback signals.
- Spectrum Display Mode:
 - *Logarithmic spectrum* displays the normal frequency spectrum of the recording signal in logarithmic form, that is, non-linear. The frequency bands are 250 Hz, 375 Hz, 750 Hz, 1 kHz, 2 kHz, 3 kHz, 4 kHz, 6 kHz, 8 kHz, 10 kHz, 12 kHz, 14 kHz, 16 kHz, and 18 kHz.

- *Fine grain spectrum* displays the normal frequency spectrum of the recording signal linearly. Its range is 160 Hz to 12 kHz, with a frequency interval of about 86 Hz, and is very detailed. (This mode is the *fine grain* version of the *spikes* spectrum mode.)
- *Spikes spectrum* displays the normal frequency spectrum linearly. Its range is 160 Hz to 12 kHz, with a frequency interval of about 86 Hz, and is very detailed. (This mode is the *spikes* version of the *fine grain* spectrum mode.)

Double-click the center of Creative Sound Graph to switch to the next display mode.

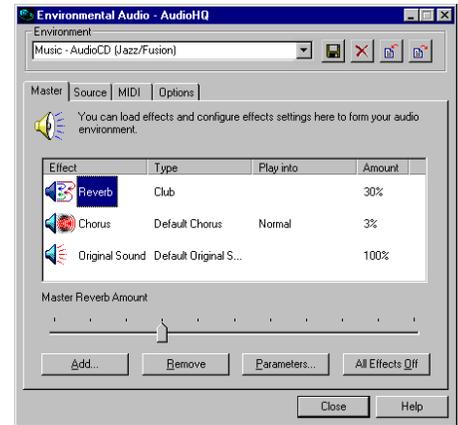
Click the buttons labeled 1, 2 or 3 on Creative Sound Graph to switch to the Logarithmic Spectrum Mode, Spikes Spectrum Mode, or Fine Grain Spectrum Mode, respectively.

Environmental Audio Control

Environmental Audio Control allows you to configure the EMU10K1 effects engine. It allows you to specify to a low level the components that make up the audio elements that in turn make up an environment. An environment is the modeling of a real-world experience. We have provided some entertainment, gaming and concert hall environments to get you started with. Environmental Audio Control can be also be accessed from Creative Surround Mixer.

Learn from the online help how to:

- Configure master effects
 - Add to or remove effects from an environment
 - Specify the effect type
 - Specify the degree or amount of the effect
 - Edit an effect all the way down to its parameters or building blocks



- Configure source effects, that is, set the amount of the effects to apply on an audio source.
- Configure MIDI playback effects
- Export an environment to a file
- Import an environment

AutoEA

AutoEA stands for Automatic Environmental Audio. More precisely, this applet allows you to specify for any audio application which super-environment preset to automatically associate with the currently active speaker output. For the automatic super-environment to work, AutoEA must be active or at least minimized.

Associating a super-environment

For each audio application on your computer, you can specify the super-environment that will be automatically associated with it, for each speaker output configuration. For example, when playing a MiniDisc using Creative PlayCenter, you may want to associate different super-environments for the speaker outputs "Live!Surround" and "4 Speakers".

1. In the Application list, select the audio application with which to associate a super-environment for a particular speaker output. If the application is not in the list, click the Browse button to browse for and open the application.
2. In the Speaker Output box, click the speaker output to configure.
3. In the Linked Super-Environment box, click the super-environment preset you want to associate with this application/speaker-output combination. This combination trio are automatically set.
4. If you want AutoEA to monitor this application's activity, clear the Do Not Monitor This Application check box. If you check it, AutoEA will not configure the super-environment for that application even when the application is started.

For other functions, refer to its Help file.

Vienna SoundFont Studio

For those of you new to desktop music, Vienna SoundFont Studio is just what you need to produce your first masterpiece. This is a professional sampler that allows you to create any sounds you want (saved as SoundFont banks), and edit them in any way you wish! For those musicians who are already familiar with the Vienna SoundFont Studio, you have even more reason now to stay put in your studios. This latest version of Vienna SoundFont Studio (Version 2.3) makes creating SoundFonts easier than ever. With this new version, you can:

- Double-click a sample and the assigned Wave editor will automatically be started to edit the sample.
- Assign up to 4 MIDI controller bars to send real time controller messages to your MIDI synth.

For beginners, a good place to start would be to take a microphone, plug it in to your Sound Blaster Live! card, and sample your voice. Even if you just say 'hello'. Using Vienna SoundFont Studio, you can create an instrument and place the sample to allow you to pitch-shift your voice up and down the keyboard. The next thing to do would be to try to apply articulation like Filter, or any type of effects to actually change your voice. Once you discover the power of SoundFont technology, you will be amazed at the sound design possibilities available.

Wave Studio

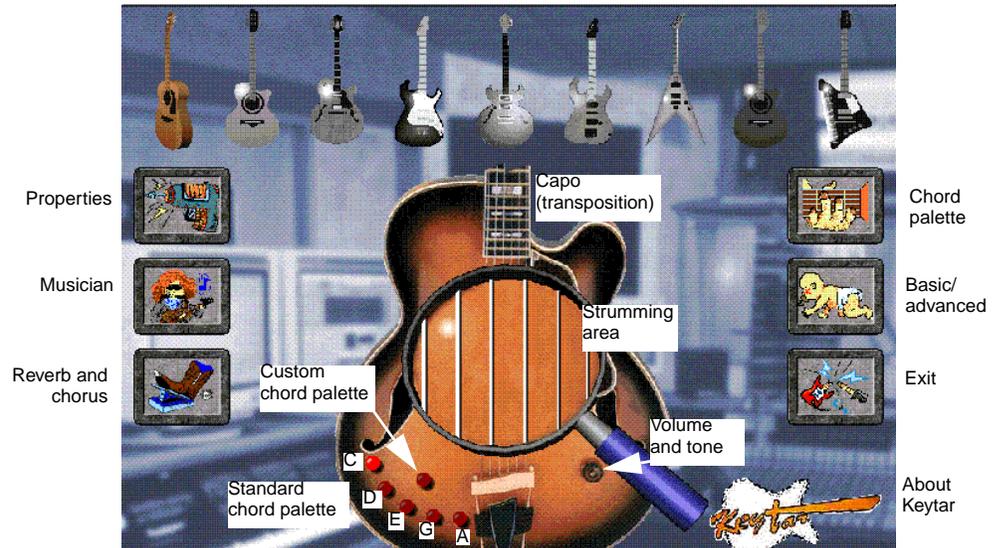
WaveStudio is a Windows-based application that allows you to perform the following sound editing functions easily:

- Play, edit, and record 8-bit (tape quality) and 16-bit (CD quality) Wave data. Enhance your Wave data or create unique sounds with various special effects and editing operations such as rap, reverse, echo, mute, pan, cut, copy, and paste.
- Open and edit several Wave files at the same time.
- Import and export raw (.RAW) data files.

See the online help file for details.

Creative Keytar

With Creative Keytar, an easy-to-use and highly interactive edutainment software for beginners, you can turn your multimedia computer into a virtual rhythm guitar system immediately. Click a picture at the top of the screen to choose your favorite guitar. Press a function key (F1, ..., F12) to activate a chord, and you can start strumming or plucking your favorite tune, all in a matter of seconds or minutes.



You only need to hold the chord with one hand until it is time to change the chord and use the other hand to strum or pluck the strings according to a tune's rhythmic variation. Just rhythm, no need to worry about notes. You only need to know and memorize chord fingerings.

Learn how to use Keytar from its online help.

Creative Rhythmnia

Creative Rhythmnia lets you create a MIDI file, choosing from a professional set of backup rhythms and instruments.



Creative Rhythmnia easily allows you to:

- Perform with auto-accompaniment in Rhythm mode:
 - Four-part Rhythm section
 - Preset backing styles
 - Interactive backing arrangement
 - Chord Palette system
 - SoundFont support
- Choose between two Keyboard types: PC (QWERTY) keyboard or MIDI keyboard connected to your PC.

Rhythmania is essentially pattern-based software:

- ❑ You play a Pattern to provide auto-accompaniment for your melody playing.
- ❑ You create or modify a Pattern by building or changing it Section by Section in Rhythm mode.
- ❑ Then, you combine a Pattern and a melody to create a Sequence in Sequencer mode.

For details on how to use Rhythmania, see its online help.

Creative PlayCenter

PlayCenter allows you to play most types of media—multimedia files (MIDI, Wave, MP3, etc.), audio CDs, and Video CDs—using a single player. Just insert or select your media and PlayCenter does the rest.



The new SoundFont Association feature allows you to autoload SoundFont banks used by MIDI files such that you can experience the power of SoundFont technology seamlessly.

To run PlayCenter, bring your pointer to the top of the screen to display Creative Launcher, click the Programs tab, and then click the PlayCenter icon.

For details on how to use PlayCenter, see its online help.

Creative Recorder

Recorder allows you to record sounds or music from various input sources like the microphone or Audio CD, and save them as Wave (.wav) files.

For details on how to use Recorder, see its online help.



Creative MiniDisc Center

Creative MiniDisc Center is an application that allows you to play back known audio format or compact discs for recording to digital recorders such as DAT players, especially for MiniDisc (MD) recorders.

With MiniDisc Center, you can

- create a personal album of your favourite songs, each of which may be in a different audio format.
- insert a preset amount of silence interval period automatically between each track.
- play back your personal album and record to your MD recorder.



Additional Sound Blaster Live! Applications



The applications included with Sound Blaster Live! are upgraded from time to time; your set of applications may be slightly different from the ones described here.

Cakewalk Express Gold

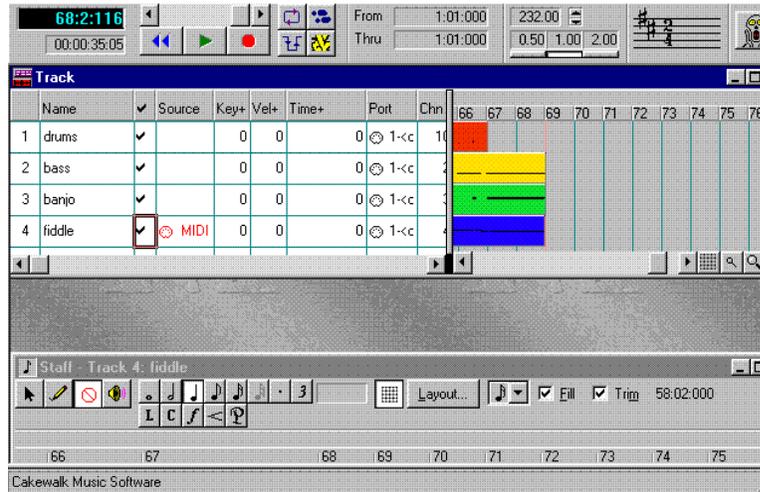
Sound Blaster Live! can best be appreciated through some of the advanced software that makes maximum use of the audio card's features. To assist you in exploring these features, Creative has assembled an assortment of applications that demonstrate and allow you to explore the limitless potential of Sound Blaster Live!.

Cakewalk uses your computer and sound card to turn you into a composer, music publisher, and performer, all in one. With Cakewalk, you can easily create music with any instrument, even your voice. Then you can edit and rearrange it, print it, and play it back, all from your PC!

While using Cakewalk, you can get context-sensitive help—help about what you're currently working on—at any time. Press the F1 function key, or, press the Help button on any dialog box. The help system displays and takes you directly to the relevant topic. *Technical Reference*—the last item on the Cakewalk's help screen—provides detailed descriptions of functions and commands.



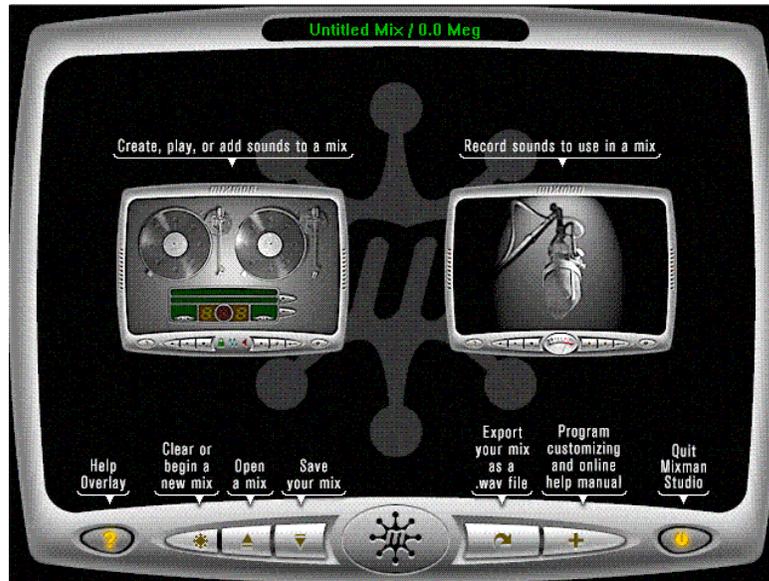
Computers can process music and sound information in two different forms: MIDI and Digital Audio. MIDI is the standard by which computers communicate with sound cards, keyboards, and other electronic instruments. Musical Instrument Digital Interface (MIDI) refers to the type of cables and plugs used to connect computers and instruments, and the language they use to talk to one another. MIDI gives a computer the ability to tell an instrument which notes to play, which voice to use, and many other things that make music, music.



Mixman Studio

Mixman Studio is a powerful tool that enables you to create original, CD-quality music. At your option, you may choose tracks from a variety of musical styles—combine, layer, and perform the tracks to create music. Use Mixman Studio to control up to 16 tracks of digital audio at the same time. You can add music to multimedia presentations, video projects, websites, even make custom tapes and CDs!

Mixman Studio is designed to be easy enough to start making music immediately. To help you more easily learn Mixman Studio, a series of step-by-step tutorials is included online. Once you master the basics, challenge yourself with Mixman Studio's advanced features—unlock your creative potential!



Soft Karaoke (Tune1000)

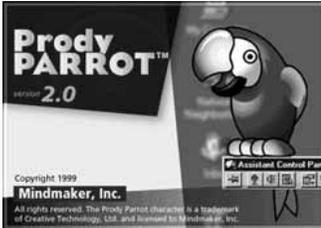
Soft Karaoke is a straightforward and easy to use application for karaoke. Just install the application, plug in your microphone to the computer, and you are ready to sing. It offers many popular tunes to sing along, both for children and adults.

The range of songs offered is so wide that it covers all types of music available; jazz, pop, hip-hop, rock-and-roll and so on, featuring songs from many famous and popular artistes, from the 70s to the 90s. There are also songs available for all occasions: Christmas, birthdays, farewells and so on. Furthermore, you can go to Soft Karaoke's Web site at www.tune1000.com to update you database and download new songs.

Soft Karaoke also lets you change the tempo as well as the key of any of the song to suit your voice range, just like a karaoke machine. It will definitely bring your family and friends hours of entertainment.



Prody Parrot



Prody Parrot is an intelligent assistant who both serves and entertains you. Prody Parrot inhabits your desktop, swooping from here to there, resting on dialog boxes and windows. He performs commands and launches applications for you, and also displays his personality by cracking jokes and singing songs.

You can give Prody Parrot commands in five ways:

- Voice commands: For example, after you train Prody Parrot, just say “e-mail” to launch your e-mail software.
- Keyboard commands: For example, after you train Prody Parrot, you can press the L key to insert a letterhead into a Microsoft Word document.
- Mouse movements: For example, after you train Prody Parrot, write an “I” with your mouse pointer to start your Internet browser.
- Icon drag-and-drop: For example, after you train Prody Parrot, drag an icon of a guitar onto Prody Parrot to open the CD Player program.
- Commands List: For example, double-click “hello” in the Commands window to greet Prody Parrot.

Prody Parrot can perform four types of actions for you:

- Run applications for you in Windows.
- Execute macros for you, consisting of any combination of keyboard and mouse actions.
- Speak to you with informative messages or entertaining remarks.
- Exhibit visible behavior in animated action sequences.

Prody Parrot communicates to you in three ways:

- By speaking to you, using state-of-the-art speech synthesis.
- By displaying a text balloon.
- Through body language, such as closing his eyes to show that he is sleepy, or scratching his head to indicate he did not understand your command.

You can extend Prody Parrot’s skills by training him to understand your commands and to perform the corresponding action when a command is recognized. For your convenience, all the primary commands for many Windows applications are pre-trained for voice and keyboard input.

The Prody Parrot software has the following key features:

Feature	Allows You To
Intelligent Assistant Functionality	Make Prody Parrot your assistant: Tell you the time, navigate the Web for you, start a letter, and open your most-used programs.
Entertaining Animated Character	Have Prody Parrot tell jokes, make comments, ask to be fed, and fly around your desktop.
Multiple Input and Output Options	Issue commands in five ways—through speech input, keystroke combinations, mouse gestures, double-clicking commands, and dragging icons. Prody Parrot also gives you feedback in three ways: through text, speech, and animation.
Customizable Program Options	Choose when your assistant works and when he plays. Teach Prody Parrot what to say and adjust the quality of his voice.
User-specific Settings	Store the commands and actions that you configured or trained. Users sharing the same computer can have their individual way of using Prody Parrot.
Pretrained Commands and Actions	Use Prody Parrot for a new application instantly. Prody Parrot extracts and loads menu items from any Windows program and immediately knows how to perform the associated actions.
Trainable Behavior	Teach Prody Parrot to respond to your commands in custom ways, such as running applications, executing macros, speaking or displaying messages, and performing animated action sequences.

Feature	Allows You To
Speech Recognition and Speech Synthesis	Use natural, continuous speech to issue commands, without any training. Then, hear Prody Parrot respond in high-quality synthetic speech, with a voice that you can customize to your liking.
Mouse Gesture Recognition	Communicate with Prody Parrot using mouse movements. For example, draw a check mark to start your Internet browser.
E-mail Notification	At regular intervals, or on demand, Prody Parrot will check for new messages in your e-mail accounts, then tell you how many messages have arrived, who they are from, and what they are about. You can easily define what information about the mails you want to hear upon notification.
News, Sports and Weather Updates	Prody Parrot will get the latest news or weather information—or scores for certain sporting events—from the Internet. He can read this information aloud to you while you perform other tasks, or he can show it to you in your Internet browser.
Web Navigation	Prody Parrot enables you to navigate the Internet by voice. Simply say the name of any hyperlink, and he will take you to the referred Web page, with no training required.
Dr. Sbaitso	Play seven Java games in Prody's playground with Prody Parrot's comments and sound effects.

To open Prody Parrot Help or User's Guide:

1. Click the Start button on the Windows taskbar, point to Programs, and then point to Prody Parrot Package.
2. Click either of the following:
 - Prody Parrot Help
 - Prody Parrot User's Guide, a PDF file

TextAssist

TextAssist is a reader agent that empowers your computer with the ability to synthesize human voices and read online text aloud. With TextAssist it is easy to start, stop, pause, or resume a reading session.



TextAssist has the following key features:

Feature	Allows You To
Synthesized speech output	Have your computer read text aloud.
Predefined and user-defined voices	Choose between the predefined voices, change the parameters of the voices, or create voices.
Special text filters	Define the reading manner of the program, whether it should read signs, embedded or quoted text, or the header of e-mail messages.
Adjustable reading styles	Define the reading style of the program—pause after every word, read punctuation marks and math symbols, etc..
Exception dictionaries	Define special pronunciation for exceptional words, such as abbreviations.
Application-specific settings	Set different parameters for each application.

TextAssist has numerous advanced features including:

- Voice Editor: You can select from numerous predefined male and female voices, or customize a new voice to your liking.
- Dictionary Editor: You can add words that require special pronunciation to the TextAssist dictionary.

- ❑ Application-Specific Settings: You can configure TextAssist to automatically adapt itself to different applications in your Windows environment.

To open TextAssist Help or User's Guide:

1. Click the Start button on the Windows taskbar, point to Programs, and then point to TextAssist.
2. Click either of the following:
 - ❑ TextAssist Help
 - ❑ TextAssist *User's Guide*, a PDF file that opens automatically in Acrobat Reader.

VoiceAssist

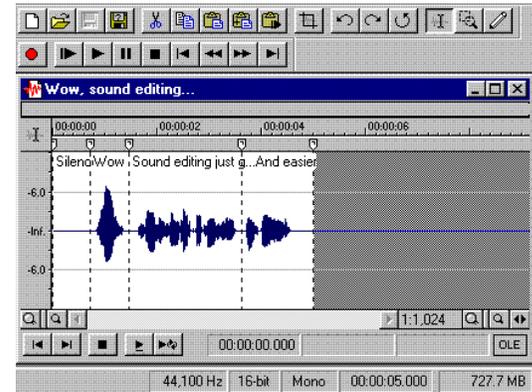
VoiceAssist is a command and control agent that allows you to navigate the Windows environment and run applications by using voice and keyboard commands, or by double-clicking commands in the Commands window. For example, you can say “e-mail” to launch your e-mail software, press the L key to insert a letterhead into a Microsoft Word document, or double-click the Minimize command in the Commands window to minimize the active window on your desktop. VoiceAssist automatically trains itself to recognize your commands, so that you can perform an almost limitless number of tasks with a minimum of effort.

VoiceAssist acts as an intelligent assistant that runs in the background, monitoring your input. Whenever you open a program or window, VoiceAssist automatically extracts the available menu commands. When you open your Web browser, for example, VoiceAssist loads all commands available for that program. You can then execute a command by saying its name into the microphone, typing its name into the keyboard input box, or double-clicking the command in the Commands window.

You do not have to train VoiceAssist to recognize your commands. If you want to retrain the program to recognize a different input, however, it is easy to do so. You can also quickly train VoiceAssist to execute complex macros (a series of actions executed by a single command).

Sound Forge XP

With Sound Blaster Live!, Sound Forge XP gives you the ability to record, edit, and process professional-quality digital audio files. Sound Forge XP supports an extensive set of file formats—Microsoft Video for Windows (AVI), RealMedia (RA, RM), and Active Streaming Format (ASF) files using Microsoft NetShow—allowing you to develop audio for training and business presentations, Web content, musical recordings, computer games, and digital video productions.



Three methods of obtaining help functions online are included in the Sound Forge XP program:

- Select Contents on the Help menu or press the F1 key. Either action opens the help table of contents from which you can search by topic or get information about using online help.
- In a dialog box, press the Help button or the F1 key to obtain information about the current dialog box.
- Press the F1 key while selecting a menu item to obtain information about the selected command.

Half-Life Day One



Half-Life Day One is an OEM version of the game Half-Life, which has full Environmental Audio support and won the honours of “Best PC Game” in the Best of E3 Show Awards from Unified Gamers Online. Its storyline, created by an award-winning horror novelist, puts you in a realistic world where players need to think smart to survive.

You are Gordon Freeman, a young research associate working in the Black Mesa Federal Research Facility, where a top secret project is undergoing. Your world turns into a nightmare, when one day, a routine test assigned to you goes wrong. The gate to another dimension opens, where humans have never seen and been. Suddenly, monsters lurk everywhere, coming from the other side. Your mission is to enlist the help of traumatized scientists and guards, fight your way up to the surface and save the world. Be warned that things can be unpredictable.

Thief: The Dark Project



Thief: The Dark Project is the latest first-person perspective, 3D fantasy action-adventure game from Looking Glass Technologies, which supports Environmental Audio. Using Looking Glass’ proprietary Dark Engine, which features a full 6-D engine, raycast lighting, realistic physics modeling, motion-capture biped movement, photo-realistic textures, and unique “Act/React” environment simulator, it is the next generation in computer role-playing simulation.

In the game, you play the role of Garrett, a thief hired to steal an artifact. Rather than resort to pure killing, sometimes you need to use stealth, surprise and cleverness to outwit your enemies and achieve your aims. Advanced artificial intelligence includes creatures with “hearing” capabilities, which react to sounds in the environment—you need to step lightly across the stones and look for carpeted areas to sneak past enemies.

You will move through environments like abandoned churches, sewers, dark streets, mansions, and catacombs, where Environmental Audio makes your environment so real and your game-play so exciting. You need to develop new skills and improvise tactics to survive, as you encounter enemies, set traps, and engage in combat with both man and beast.

Unreal



Unreal™ (Special Edition) has full support for Environmental Audio. It features a 3D action game engine based on environments—fully realized worlds more elaborate than any dungeons or cities you have experienced before. Unreal is a *next-generation* game that takes 3D gaming to a new level of realism.

Although you can rely solely on your keyboard to move around in and interact in Unreal’s 3D universe, using both the keyboard and mouse simultaneously gives you much more fluid and responsive control. Use the mouse to control your rotational movement and aiming to achieve a degree of precision and speed that keyboard-only controls cannot match. The keyboard is best for easy lateral and forward/backward movement, and for jumping.

For more information, system requirements, troubleshooting, and performance-enhancement tips, see the online README.TXT file for Unreal.

Alien Vs Predator



This Time There’s No Escape

Choose to play as Colonial Marine or Predator and prepare for the ultimate deep-space battle. You’ll need to master each character’s unique weapons and abilities to stay alive in this heart-pounding, first-person action adventure. Play single player against the deadliest creatures in the galaxy or set up your own interspecies wars in multiplayer mode!

There’s more than enough extraterrestrial combat when “Alien” and “Predator” combine to give you the terror action movies are made of.

FOX Interactive’s AvP combines elements from the films “Alien” and “Predator” for a hardcore game of survival. Choose one of two first-person gaming perspectives and experience a completely different 3D world of fright. The Predator, the ultimate hunter, is armed with wrist blades, a shoulder cannon, and other savage energy and projectile weapons. Choose to be the Colonial Marine and use your military training and heavy ordnance to stay alive.

AvP is fueled by an entirely new 3D engine and allows you to progress through the game with total freedom of movement. AvP also includes multi-player capabilities so you can battle it out online.

MYTH II: Soulblighter



Sequel to the award-winning original...

Released in November 1997, “Myth: The Fallen Lords” is a revolutionary title in the strategy genre, and has won top honors from every major publication in the industry.

It gives gamers, for the first time, a strategy game set in a truly 3D world—one that focuses exclusively on fast-paced, realistic and bloody battle. Some of its numerous awards include:

- Game of The Year, by Computer Games Strategy Plus
- Strategy Game of The Year, by Computer Gaming World
- Best Real-Time Strat. Game, by PC Gamer
- Best Game of 1997, by MacWorld Eddy Awards
- Best Strategy Game, by Computer Game Developers Assn.
- PC Games “A” List, by PC Games Magazine

Twice as good: Soulblighter returns...

Myth II: Soulblighter boasts numerous improvements to the game engine and added features that improve gameplay.

In Myth II destruction reigns supreme. Castle walls will crumble under a barrage of Dwarven mortar fire. Drawbridges will lower before your besieging army. Flaming arrows will rain down from battlements, lighting the ground beneath you. Dark wizards will hurl deadly sorceries at your ranks, scattering even your bravest warriors.

Myth II: Soulblighter is a unique strategy game, set in a 3D world of dangerous alliances and ancient evil, where all beings tremble before the wrath of Soulblighter, cruelest and most cunning of the evil Fallen Lords.

To Do This ... Use These Applications

Sound Blaster Live! offers you digital entertainment, multimedia playback, and gaming. The following reference tables point you to the applications that will help you achieve your goals.

Content Creation

Advanced Content Creation	Applications
Multi-track recording	Cakewalk Sound Blaster Live! lets you create a home music studio. It bundles software that lets you put together your own productions consisting of multiple music tracks from a MIDI Synthesizer (internal or external), your guitar or external musical instrument (Line In), a digital device (SPDIF), or a microphone.

Advanced Content Creation	Applications
MIDI Sequencing	<p>Cakewalk Create desktop music on your Sound Blaster Live!. Hook up a MIDI controller keyboard to the MIDI/Joystick port and you instantly have a high quality (up to 8 MB GM) synthesizer with the this software. The bundled sequencing software lets you create your own music compositions and arrangements.</p>
Notation Transcription	<p>Cakewalk The bundled software offers you features that let you record your own music and transcribe it into musical notations for you. You can even print your own music score.</p>
Sampling / Sample Editor	<p>Vienna SF Studio Sound Blaster Live! is an excellent sampler that allows you to record any sound effects or sample loops and then use them as a MIDI instrument—all using Vienna SF Studio. You can also edit existing musical instruments or what we call SoundFonts.</p>
Digital Hard Disk Recording	<p>Sound Forge/Creative WaveStudio With these software, you can do digital recording and editing (16-bit, 48 kHz) on your PC with Sound Blaster Live! by connecting any SPDIF compatible device such as a DAT deck (and selecting CD Digital in Creative Surround Mixer).</p>

Advanced Content Creation	Applications
Multiple Effects Processing/Creation	<p>Creative Surround Mixer/Environmental Audio applet Sound Blaster Live! comes with a variety of effects that are programmable. You can literally create thousands of reverb and other special effects in the Environmental Audio applet, which can be accessed from Creative Surround Mixer.</p>
SoundFont Production & Playback	<p>Vienna SF Studio/Cakewalk With Creative's SoundFont technology, you have limitless sound creation possibilities for use with your own music. Create your own SoundFont banks in Vienna SF Studio and then use them in your bundled MIDI sequencer.</p>

Content Creation	Applications
Music Creation For Non Musicians	<p>Mixman Studio Mixman Studio provides an easy means for you to create your own music., even if you are not trained in playing any musical instrument.</p>
Sound Libraries	<p>1,000 SF Instruments bundled Sound Blaster Live! bundles many SoundFont banks which contain instruments you can use. These can be found on one of the installation CDs. Use Vienna SF Studio to organize the instruments into your own customized banks.</p>

Content Creation	Applications
Voice Processing/Effects	<p>Creative Surround Mixer/Environmental Audio applet</p> <p>If you are thinking of singing vocals on your Sound Blaster Live!, you would probably want to enhance your voice, or even add special effects. You can do this with the Environmental Audio applet, which can be accessed from Creative Surround Mixer.</p>
Real Audio™ conversion for use on Internet	<p>Sound Forge</p> <p>If you are doing content creation for the Web, use this software to convert your audio productions into the popular Real Audio streaming format.</p>
Record audio/effects	<p>Creative Recorder</p> <p>Creative Recorder provides an easy means to record any audio source without worrying about your mixer settings. You can also record audio along with Environmental Audio effects.</p>

Multimedia Playback

Multimedia Playback	Applications
DVD	To play back DVD movies on your Sound Blaster Live!, you must first have a DVD-compatible CD-ROM drive. Next, you must have a software DVD solution that is available from Creative. For the full DVD experience, you may want to purchase Cambridge SoundWorks' DeskTop Theater 5.1 or a Dolby Digital (AC-3) decoder. See Figure 1-7 on page 1-9.
Video CD	You can play a Video CD on Sound Blaster Live! using the bundled Creative PlayCenter. To enhance your movie experience, enable CMSS (Creative Multi Speaker Surround) to get surround effects on 4 speakers.
Wave/CD Audio	Use Creative PlayCenter to play back files in both Wave and CD Audio formats. WAV is the format for digital audio files on the Windows operating platform. CD Audio is played back from an audio compact disc on your CD-ROM drive.
MIDI	MIDI (*.MID) is a music format used by musicians that is played back from the internal synthesizer on the Sound Blaster Live! card. You can use Creative PlayCenter to play back MIDI files or use the MIDI sequencer bundled with your card. To achieve the best quality, load the 8MB GM bank in the SoundFont applet found in the AudioHQ group.
SoundFont MIDI	Many musicians have created music files that use exotic or non-regular instrument (non General MIDI compliant). These instruments are stored in SoundFont banks. Such MIDI files can be played back from Creative PlayCenter. The bundled CD contains many examples of MIDI demos that use high quality SoundFont banks.

Digital Entertainment

Multimedia Playback	Applications
MP3	Creative PlayCenter supports/plays MP3 files automatically. If not, download Windows Media Player from Microsoft's website.

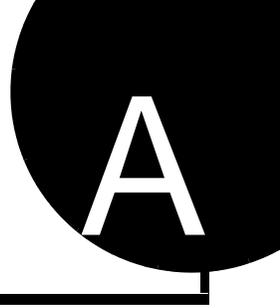
Digital Entertainment	Applications
Watch Surround Movies	If you want to enjoy high quality movie entertainment, ensure you have good speakers. If you have 4 speakers connected to your Sound Blaster Live! card, enable the CMSS feature on the PlayCenter when you watch movies. For DVD movies, it is recommended that you purchase Creative PC-DVD Encore's solution as well as the Cambridge SoundWorks' DeskTop Theater 5.1.
Play Customized Albums	With your Sound Blaster Live! card, you can compile your own albums containing your favorite music using the bundled Creative PlayCenter; whether they are in CD Audio, WAV or even MIDI format.
Play Guitar	Your Sound Blaster Live! card lets you play the guitar on your PC. With the bundled Creative Keytar, you can literally transform your computer keyboard into a guitar. And strum, using your mouse!
Play Keyboard Music With Auto-Accompaniment/One-Man Band	You need not invest in a musical keyboard to be a one-man-band. The bundled Creative Rhythmania lets you play music on your computer keyboard.

Digital Entertainment	Applications
Sing Karaoke	Your Sound Blaster Live! card bundles a Soft Karaoke™ solution that lets you sing Karaoke on your PC. Connect a microphone to your card and have fun. Additional songs can be downloaded from the Web.
Text-To-Speech	How about a talking parrot to chat with you? Your Sound Blaster Live! card bundles a software called Prody Parrot that will certainly entertain you. You can also have your Sound Blaster Live! card transform text to speech using the bundled TextAssist application.
Voice Recognition	Your Sound Blaster Live! card allows you to enjoy voice recognition on your PC. Give commands to your PC and control applications using your voice using the bundled VoiceAssist application.

Gaming Reference

Games	Applications
EAX1.0 Support and above	Enjoy the many Environmental Audio titles by top game developers that immerse you realistic environments. Go to www.sblive.com for a full list of compatible titles.
DirectSound3D Support	DirectSound3D (DS3D) games are supported on your Sound Blaster Live!card. You can hear sounds positioned in 3D space that enhance your game experience.

Games	Applications
A3D 1.0 Support	Your card translates A3D calls into DirectSound3D, meaning that you can enjoy A3D games.
Sound Blaster Compatibility	Your card provides you with exceptional Sound Blaster compatibility so that you can continue to play the thousands of popular DOS games already in the market.
Environmental Presets For Legacy/Existing Games	You can still enjoy Environmental Audio effects even if your game does not have Environmental Audio support. Your card bundles over 50 presets for use with existing games. These can be accessed from Creative Launcher. You can also associate effects individually with your favorite games. Launch the AutoEA applet.
Customized environments for non-3D audio games	You can create customized environments for your non Environmental Audio games using the Environmental Audio Control panel, which can be accessed from Creative Surround Mixer.



General Specifications

This section lists the specifications of your cards.

Features

PCI Bus Mastering

- PCI Specification Version 2.1 compliant
- Bus mastering reduces latency and speeds up system performance

EMU10K1

- Advanced hardware accelerated digital effects processing
- 32-bit digital processing while maintaining a 192 dB dynamic range
- Patented 8-point interpolation that achieves the highest quality of audio reproduction
- 64-voice hardware wavetable synthesizer
- Professional-quality digital mixing and equalization
- Up to 32 MB of sound RAM mapped to host memory

Stereo Digitized Voice Channel

- True 16-bit Full Duplex operation
- 16-bit and 8-bit digitizing in stereo and mono modes
- Playback of 64 audio channels, each at an arbitrary sample rate
- ADC recording sampling rates: 8, 11.025, 16, 22.05, 24, 32, 44.1 and 48 kHz
- Dithering for 8-bit and 16-bit recording

- AC '97 Codec Mixer
- Mixes EMU10K1 audio sources and analog sources such as CD Audio, Line In, Microphone, Auxiliary, TAD and PC Speaker
 - Selectable input source or mixing of various audio sources for recording
 - 16-bit Analog-to-Digital conversion of analog inputs at 48 kHz sample rate
- Volume Control
- Software record and playback control of Master, Digitized Voice, and inputs from MIDI device, CD Audio, Line, Microphone, Auxiliary, TAD, PC Speaker, I²S (PC-DVD), SPDIF, Wave/DirectSound device, and CD Digital (CD SPDIF)
 - Separate bass and treble control
 - Front and Rear Balance control
 - Muting and balance control for individual playback sources
- Creative Multi Speaker Surround™ (CMSS™)
- Multi-speaker technology
 - Professional-quality panning and mixing algorithm
 - Independent multiple sounds can be moved and placed around a listener

Connectivity

Sound Blaster Live! card

Audio Inputs

- One line-level analog Line input via stereo jack on rear bracket
- One mono Microphone analog input via stereo jack on rear bracket
- CD_IN line-level analog input via 4-pin Molex connector on card
- AUX_IN line-level analog input via 4-pin Molex connector on card
- TAD line-level analog input via 4-pin Molex connector on card
- CD_SPDIF digital input via 2-pin Molex connector on card, accepting sampling rates of 32, 44.1 and 48 kHz
- Zoomed Video I²S digital input via 4-pin Molex connector on card

Audio Outputs

- Two line-level analog outputs via stereo jacks on rear bracket, Front and Rear Line-Outs
- Stereo headphone (32-ohm load) support on Front Line-Out

Interfaces

- D-Sub MIDI interface for connection to external MIDI devices. Doubles as Joystick port
- MB_PRO 2x5 pin header
- MIC_CONN 1x3 pin header
- VOL_CTRL 1x4 pin header
- PC_SPK 1x2 pin header

Digital I/O card

Audio Inputs and Outputs

- Digital-DIN connector for digital input and output
- SPDIF digital input via RCA jack on rear bracket. SPDIF consumer-interface compliant
- SPDIF digital output via RCA jack on rear bracket. IEC958 consumer electronics compliant
- Mini-DIN for MIDI_IN on rear bracket
- Mini-DIN for MIDI_OUT on rear bracket

SB Emulation in MS-DOS/ Windows 95/98

This appendix is organized as follows:

- ❑ Background
- ❑ Understanding the Installation Program in Windows 95/98
- ❑ Understanding the System Resource Settings
- ❑ Understanding the Environment Variables
- ❑ Determining Resources
- ❑ Selecting the Best Audio Options in a Game
- ❑ MS-DOS Mode Utilities

Background

Legacy games in the market have been designed for only MS-DOS. SB Live! supports MS-DOS games. There are two ways to play MS-DOS games:

❑ **From the MS-DOS box in Windows 95/98**

This is the recommended method.

To open the box:

- Click the Start button on the taskbar of Windows 95/98, point to Programs, and then click MS-DOS Prompt.

❑ **In the Windows 95/98 MS-DOS mode**

There could be times when you do not want to or cannot run a game from the MS-DOS box. The game may be incompatible with Windows 95/98, or there is insufficient system resources to play the game with Windows 95/98 loaded. In such cases, use the MS-DOS mode, in which only the real-mode portions of Windows 95/98 are loaded.

To restart the system in MS-DOS mode when you are already in Windows 95/98:

1. Click the Start button on the taskbar, and then click Shutdown.
2. Click the Restart The Computer In MS-DOS Mode option button, and then click the OK button.

To start the system in MS-DOS mode at system startup:

1. At startup as Windows 95/98 is loading, hold the F8 key.
2. At the startup menu, choose the Command Prompt Only option, and then press <Enter>.

Understanding the Installation Program in Windows 95/98

The installation program modifies your AUTOEXEC.BAT and CONFIG.SYS files.

The AUTOEXEC.BAT File Settings

The installation program adds the following statements to the AUTOEXEC.BAT file:

```
SET CTSYN=C:\WINDOWS  
SET BLASTER=A220 I5 D1 H5 P330 T6  
C:\PROGRA~1\CREATIVE\SBLIVE\DOSDRV\SBEINIT.COM
```

The first two statements set up the environment variables for your audio card. For an explanation of the variables, see “Understanding the Environment Variables” on page B-6.

The third statement runs the SBEINIT.COM driver. SBEINIT.COM is the SB Live! MS-DOS driver. It is required for the SB Live! card to function properly under MS-DOS mode. The syntax for the statement is as follows:

```
<SB Live! path>\SBEINIT.COM
```

SBEINIT.COM requires that the HIMEM.SYS and EMM386.EXE files are loaded. If needed, the installation program adds the necessary HIMEM.SYS and EMM386.EXE lines to your CONFIG.SYS file, creating the file if it is not present.

On the rare occasion a program does not work with expanded memory, simply add the NOEMS parameter to your memory manager. For example:

```
DEVICE=C:\WINDOWS\EMM386.EXE NOEMS
```

if C:\WINDOWS is your Windows directory.

You may load this driver into high memory in the AUTOEXEC.BAT file, even though the default is not. For example:

```
LOADHIGH=C:\PROGRA~1\CREATIVE\SBLIVE\DOSDRV\SBEINIT.COM
```

Do not remove the memory manager altogether. Do not attempt to load SBEINIT.COM into high memory when using the NOEMS option if SBEINIT.COM fails to run SBELOAD.EXE or SBECFG.EXE.

In the rare case that an MS-DOS game will not work with a memory manager, you will not be able to use the SB Live! card with the game.

The CONFIG.SYS File Settings

The installation program adds the following statements to the CONFIG.SYS file:

```
DEVICE=C:\WINDOWS\HIMEM.SYS  
DEVICE=C:\WINDOWS\EMM386.EXE
```

Understanding the System Resource Settings



If your card encounters a conflict with a peripheral device, you may need to change its resource settings. For details, see “Resolving I/O Conflicts” on page D-7.

When any resource setting is changed, make sure that the environment variables (see “Understanding the Environment Variables” on page B-6) reflect the changes as well. You can view your system environment by typing **SET** at the DOS prompt.



In the following tables, the preferred values are in bold.

This section explains the following software SB emulation resources—not hardware resources—of your card:

- Input/Output (I/O) Addresses
- Interrupt Request (IRQ) Line
- Direct Memory Access (DMA) Channel

Input/Output (I/O) Addresses

I/O addresses are communication areas used by your computer's central processor to distinguish among various peripheral devices connected to your system when sending or receiving data.

Table B-1: Possible default input/output (I/O) addresses.

Device	Default I/O Address Range
SB interface	220H to 22FH 240H to 24FH 260H to 26FH 280H to 28FH
MPU-401 UART MIDI interface	300H to 301H 310H to 311H 320H to 321H 330H to 331H
Stereo music synthesizer	388H to 38BH

Interrupt Request (IRQ) Line

An IRQ line is a signal line that a device uses to notify your computer's central processor that it wants to send or receive data for processing.

Table B-2: Possible default interrupt request (IRQ) line assignment.

Device	Default IRQ Line
SB interface	5, 7, 9, 10

Direct Memory Access (DMA) Channel

A DMA channel is a data channel that a device uses to transfer data directly to and from the system memory.

Table B-3: Possible default direct memory access (DMA) channel assignment.

Usage	Default DMA Channel
First DMA channel	0, 1, 3
Second DMA channel	5, 6, 7

Understanding the Environment Variables

Environment variables are used to pass hardware configuration information to the software in your system. For MS-DOS, your audio card includes the following:

- CTSYN Environment Variable
- BLASTER Environment Variable

CTSYN Environment Variable

The CTSYN environment variable points to the location of the CTSYN.INI file, which usually resides in the Windows directory. The syntax for this variable is as follows:

```
CTSYN=path
```

where path is the location of the CTSYN.INI file.

BLASTER Environment Variable

The BLASTER environment variable specifies the base I/O address, IRQ line, and DMA channels of the SB interface. Its syntax is:

```
BLASTER=A220 I5 D1 H5 P330 T6
```

The parameters in the command are as follows.

This

Parameter	Specifies
Axxx	SB interface's base I/O address.
Ix	IRQ line used by the audio interface.
Dx	First DMA channel used by the audio interface.
Hx	Second DMA channel used by the audio interface.
Pxxx	MPU-401 UART interface's base I/O address.
Tx	Card type. <i>x</i> must be 6.

Determining Resources

To find the current SB Live! SB16 Emulation resources in Windows 95/98:

1. Click the Start button, point to Settings, and then click Control Panel.
2. In the Control Panel window, double-click the System icon.
3. In the System Properties dialog box, click the Device Manager tab.
4. Double-click Creative Miscellaneous Devices, and then double-click Creative SB Live! SB16 Emulation.
5. Click the Resources tab.

You can use the information in the resource list to help you configure MS-DOS games for use with the SB Live! card.

The resource list may show three entries of "Input/Output Range" and two entries of "Direct Memory Access". They correspond to the sequence of entries in Table B-1 and Table B-3. If the number of entries do not match, a good estimate of the identity of the device is its I/O address or DMA channel.



The MS-DOS driver SBEINIT.COM must be running for SBECFG.EXE to work properly.

Selecting the Best Audio Options in a Game

To find the current SB Live! SB16 Emulation resources in MS-DOS mode:

1. Switch to your SB Live! DOS driver directory, that is:
C:\PROGRA~1\CREATIVE\SBLIVE\DOSDRV
2. Type **SBECFG** and then press <Enter>.

Some older games may have difficulty detecting the SB Live! card at certain resource settings. Typically, these games would expect the card to be at a fixed set of resources and would fail to load if those resources are not detected. If you have older MS-DOS games that do not work properly, try changing the SB Live! SB16 Emulation configuration. Use the following as a guide:

Problem: Sound Blaster emulation is not recognized.

Resource: Try switching the SB Emulation IRQ between 5 and 7, use DMA channel 1, use SB interface port 220.

Problem: The MPU-401 emulation is not recognized.

Resource: Try using Port address 330.

Most MS-DOS-based games that provide sound have some procedure for audio setup. These procedures generally present you with a list of popular audio cards or audio devices from which to choose.

The methods used by games to present audio options can vary greatly. Some may present a single choice that corresponds to a particular audio device, that is, Sound Blaster, Sound Blaster 16, Roland Sound Canvas, and so on. Others will provide an option for music and digital audio separately; for example, General MIDI music with Sound Blaster digital audio. In such a case, there are often two separate menus to configure.

Some games allow you to set the MIDI port address and IRQ for music and sound. Make sure that these settings correspond to the values displayed by SBECFG.EXE or the Resources tabbed page of the Creative SB Live! SB16 Emulation Properties dialog box.

There are games that offer MPU-401/Roland (General MIDI or MT-32/LAPC-1) as an option. Often these games allow you to set the MIDI port address. Make sure that they match the MIDI address in the Resources list on Resources tabbed page of the Creative SB Live! SB16 Emulation Properties dialog box. The same values can be found under “MPU-401 (General MIDI, Roland MT-32/LAPC-1) Emulation”, displayed by SBECFG.EXE in MS-DOS mode. Remember to enable the MT-32 MIDI patch with the SBEMIXER program if you select Roland MT-32 or LAPC-1 for music.

Music Options

Most MS-DOS games offer a menu choice for sound when they start up. If you have a choice between General MIDI and MT-32, always choose General MIDI, since it will provide you with the best sound quality. If you need to use MT-32, you must first switch from the General MIDI instrument set (the default) to the MT-32 instrument set using SBEMIXER. Be sure to switch back to the General MIDI set when you are finished using the MT-32 instrument set.

Digital Audio Options

SB Live! supports Sound Blaster, Sound Blaster Pro, Sound Blaster 16, and Adlib digital audio emulation. If an application provides all these as options, specify the choices in this order:

1. Sound Blaster 16
2. Sound Blaster Pro
3. Sound Blaster
4. Adlib

MS-DOS Mode Utilities

The SB Live! card includes a few MS-DOS utilities. These utilities require the SB Live! DOS driver SBEINIT.COM to be loaded.

SBECFG.EXE

Use the SBECFG.EXE utility to obtain the hardware settings and the status of the SB Live! card. Typing **SBECFG.EXE** at the command prompt displays the following hardware settings:

- PCI Hardware Settings: Port, IRQ

- Sound Blaster Emulation: Port, IRQ, DMA
- MPU-401 Emulation (GM, Roland MT-32/LAPC-1) Emulation: Port
- Adlib Emulation: Port

The emulation settings appear only if they are enabled.

SBEMIXER.EXE

Use SBEMIXER.EXE to change the volume levels of the MPU-401 instrument set used on the SB Live! card. You can use SBEMIXER.EXE from the command line—useful for advanced users who want to set up batch files with particular volume levels—or within the SBEMIXER screen. The settings for SBEMIXER.EXE are independent of the Creative Mixer settings in Windows 95/98.

To set SBEMIXER values in the command line:

At the DOS prompt, type the SBEMIXER command in a single line. Its syntax is:

```
SBEMIXER [/S:x] [/W:x] [/C:x] [/M:x] [/?]
```

where square brackets [] denote optional parameters, and:

This

Parameter	Specifies
/S:x	Synth volume. <i>x</i> can be a value from the range 0 to 127.
/W:x	Wave volume. <i>x</i> can be a value from the range 0 to 127.
/C:x	CD audio volume. <i>x</i> can be a value from the range 0 to 127.
/M:x	Synth MT-32/LAPC-1 mode. For <i>x</i> , 0 is Off, 1 is On.
/?	View a short description of the parameters.

An example of an SBEMIXER command is

SBEMIXER /S:64 /W:120 /C:50 /M:0

which corresponds to “set the synth volume to 64, the Wave volume to 120, the CD audio volume to 50, and turn off the Synth MT-32/LAPC-1 mode”.

To set SBEMIXER values within the Mixer screen:

- At the DOS prompt, type
SBEMIXER

The interactive editor mode allows you to change the mixer settings with the mouse, <Tab>, <PgUp>, <PgDn>, or arrow keys.

Use the Save button to save the settings for the next session.

SBESSET.EXE

Use SBESSET.EXE to manually configure SB resources or disable SB Emulation. By default, SB Emulation in DOS follows the Windows settings. For example, if you disable SB Emulation in Windows, in the next boot to DOS SB Emulation in DOS is disabled. Under rare circumstances you may need to manually reconfigure DOS SB Emulation, for example, if there is a conflict in DOS before it can boot to Windows. SBESSET.EXE is run from the command line.

To set SBESSET values in the command line:

At the DOS prompt, type the SBESSET command in a single line. Its syntax is:

```
SBESSET [-Axxx] [-Ix] [-Dx] [-Hx] [-Pxxx] [-dx] [-wx]
```

where square brackets [] denote optional parameters, and:

This

Parameter Specifies

-Axxx	SB interface's base I/O address.
-Ix	IRQ line used by the audio interface.
-Dx	First DMA channel used by the audio interface.
-Hx	Second DMA channel used by the audio interface.
-Pxxx	MPU-401 UART interface's base I/O address.
-dx	SB Emulation mode. For x, 1 is Off, 0 is On.
-wx	Set x to 1 to use the Windows-assigned resource configuration. Set x to 0 to use (your) user-assigned resource configuration.



See "Understanding the System Resource Settings" on page B-4 for a list of the possible values.

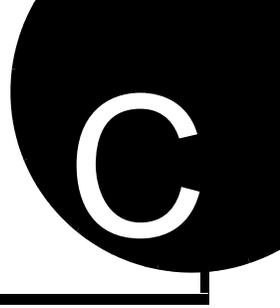
An example of an SBESSET command is

SBESSET -A240 -I5 -D3 -w0

which corresponds to “set the SB interface’s base I/O address to 240, the IRQ line used by the audio interface to 5, the First DMA channel used by the audio interface to 3, and use the Windows-assigned resource configuration”.

SBEGO.EXE

Use this to confirm whether SB16 Emulation is properly installed and working.



Changing Audio Card Settings

You might want to disable interfaces that you are not using to free up resources, for example, when you do not have enough IRQ lines.

This appendix is organized as follows:

- Enabling/Disabling Gameport Joystick Interface
- Enabling/Disabling Other Features

Enabling/Disabling Gameport Joystick Interface

The Gameport Joystick interface on your audio card can be enabled or disabled in Windows 95/98.

To enable or disable the interface in Windows 95/98

1. Click the Start button, point to Settings, and then click Control Panel.
2. In the Control Panel window, double-click the System icon.
3. In the System Properties dialog box, click the Device Manager tab.
4. Double-click Sound, Video And Game Controllers, and then select Creative Gameport Joystick.
5. Click the Properties button.

6. In the Properties dialog box:

If you have an Original Configuration (Current) check box:

- To enable the interface, make sure that the check box is selected.
To disable it, clear the check box.

If you have a Disable In This Hardware Profile check box:

- To enable the interface, clear the check box.
To disable it, make sure that the check box is selected.

7. Click OK to restart Windows and for the change to take effect.

When the Gameport Joystick interface is disabled, the entry in Device Manager has a red cross.

Enabling/Disabling Other Features

In Windows 95/98 and Windows NT 4.0

To open an AudioHQ applet from the Sound Blaster menu

To open an AudioHQ applet from Creative Launcher

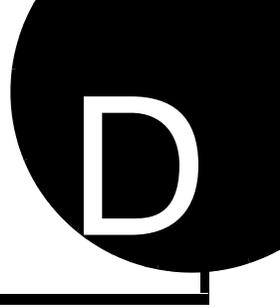
Use the applets under Creative AudioHQ to enable or disable features such as Stereo Enhancement Effect.

Click the Start button on the taskbar, point to Programs, point to Creative, point to Sound Blaster Live!, and then click AudioHQ.

Check out the applets within the AudioHQ window.

Click Creative Launcher at the top or bottom of your computer screen, and then click the AudioHQ tab.

Check out the applets indicated by the icons in the second row of Launcher.



Troubleshooting

Problems Installing Software

This appendix provides tips for solving problems you may encounter during installation or normal use.

In Windows 95/98, the installation does not start automatically after the CD-ROM is inserted.

The AutoPlay feature in your Windows 95/98 system may not be enabled.

To start the installation program through the My Computer shortcut menu:

1. Double-click the My Computer icon on your Windows desktop.
2. In the My Computer window, right-click the CD-ROM drive icon.
3. On the shortcut menu, click AutoPlay and follow the instructions on the screen.

To enable AutoPlay through Auto Insert Notification:

1. Click the Start button, select Settings, and then click Control Panel.
2. In the Control Panel window, double-click the System icon.
3. In the System Properties dialog box, click the Device Manager tab and select your CD-ROM drive.
4. Click the Properties button.
5. In the Properties dialog box, click the Settings tab and select Auto Insert Notification.
6. Click the OK button to exit from the dialog box.

Problems With Sound

There is unexpected excessive environmental sound or effects when an audio file is being played.

The last selected preset is an inappropriate environment for the current audio file.

To switch to an appropriate environment:

1. Open Environmental Audio control applet.

OR

Display Creative Launcher. It is found at the top or bottom of your screen (you may have to bring your pointer to the edge of the screen to display Launcher). And then click the Environments tab.

2. In the Environment list, select “No effects” or an appropriate environment.

No sound from the headphones.

Check the following:

- The headphones are connected to the Line Out jack.
- In the Environment deck of Surround Mixer, make sure that the Speaker entry is Headphones.

In a 4-speaker configuration, there is no sound from the rear speakers.

Check the following:

- The rear speakers are connected to the audio card’s Rear Out jack.
- If you are playing sound from one of these sources:
 - CD Audio
 - Line In
 - TAD
 - Auxiliary (AUX)
 - Microphone



If your record source is “What U Hear”, then of these five sources you can unmute only one at a time. Therefore, you can get sound from the rear speakers only from the unmuted source.

To solve the problem:

1. In Surround Mixer's Mixer deck, make sure the check box of the source being played is unmuted, that is, enabled.
2. Select the same source as the record source.

For example, if you are playing DVD games or movies, make sure in Surround Mixer you unmute the Auxiliary device and select the Auxiliary device as your record source. For more details, see Figure 1-7 on page 1-9.

- If you have changed environments, go to Surround Mixer and make sure that your active sources are unmuted.

No sound from the speakers.

Check the following:

- First, check that you have connected your speakers to your card's output. Second, check that you have unmuted the correct source in Mixer deck. If both these conditions have been met and you still do not get any sound, click the red plus sign above the VOL control and check whether the Digital Output Only check box is selected. If it is, you are in the Digital Output Only mode and so must connect to digital speakers to hear the sound from your audio card. See the section on Digital Output Only in Surround Mixer's online help for more information.

No audio output when playing digital files such as .WAV, MIDI files or AVI clips.

Possible causes:

- The speaker volume knob (if any) is not set properly.
- The external amplifier or speakers are connected to the wrong jack.
- There is a hardware conflict.
- The Speakers selection in the Environment deck of Surround Mixer is incorrectly selected.

- The Original Sound sliders in either the Master and Source tabbed pages of the Environmental Audio applet are set at or near 0%.

Check the following:

- The speakers' volume control knob, if any, is set at mid-range. Use Creative Mixer to adjust the volume, if necessary.
- The powered speakers or external amplifier are connected to the card's Line Out or Rear Out jack.
- No hardware conflict between the card and a peripheral device. See "Resolving I/O Conflicts" on page D-7.
- The Speakers selection in the Environment deck of Surround Mixer corresponds to your speaker or headphone configuration.
- The Original Sound sliders in either or both the Master and Source tabbed pages of the Environmental Audio applet are set to 100%.

No audio output when playing CD-Audio.

OR

No audio output when playing DOS games that require a CD-ROM.

To solve this problem:

- Make sure the Analog Audio connector on the CD-ROM drive and the CD In connector on the audio card are connected.

Panning a source sometimes turns off its sound

Sometimes when I pan an analog audio input source to the left or to the right, the sound from that source will go off.

Cause: Digital Output Only mode and conflicting left-right balances in two mixers

This occurs when you are in the Digital Output Only mode and the source's left-right balance in a software mixer application other than Surround Mixer (for example, the Windows Volume Control application) is at the opposite end compared to the position to which you have panned the source in the Environment deck of Surround Mixer. For example, the CD Audio balance in Windows Volume Control is on the left but in Surround Mixer you have panned the CD Audio to the right.

To solve this problem:

- Open that other mixer, and center the balances for all the audio input sources. This ensures that your analog sources will not turn silent when you pan them in Surround Mixer.

Problem with Surround Mixer

Unwanted change of mixer settings with every change of super-environment presets.

To solve this problem:

- Dissociate the mixer settings.
 1. In the Preset deck, click the Surround Mixer title in the upper-left corner. The system menu appears, with a command Dissociate Mixer Settings.
 2. To dissociate mixer settings, make sure the command is checked.

Insufficient SoundFont Cache

There is insufficient memory to load SoundFonts.

This may occur when a SoundFont-compatible MIDI file is loaded or played.

Cause: There is insufficient memory allocated to SoundFonts.



The trade-off of a smaller SoundFont file is its lower sound quality.

Problems With Joystick



Do not attempt to make changes to the BIOS unless you have experience with system software.

To allocate more SoundFont cache:

- On the Options tabbed page of the SoundFont Control applet, move the SoundFont Cache slider to the right.

The amount of SoundFont cache you can allocate depends on the system RAM available.

If there is still insufficient system RAM available:

- On the Configure Banks tabbed page of the SoundFont Control applet, select a smaller SoundFont bank from the Select Bank box.
The smallest SoundFont bank available is 2 MB (2GMGSMT.SF2).

The joystick port is not working.

The audio card's joystick port conflicts with the system's joystick port.

To solve this problem:

- Disable the audio card's joystick port and use the system port instead. For details, see "Enabling/Disabling Gameport Joystick Interface" on page C-1.

The joystick is not working properly in some programs.

The program may use the system processor timing to calculate the joystick position. When the processor is fast, the program may determine the position of the joystick incorrectly, assuming that the position is out of range.

To solve this problem:

- Increase your system's 8 bit I/O recovery time of the BIOS setting, usually under the Chipset Feature Settings section. Or, if available, you may adjust the AT Bus speed to a slower clock. If the problem persists, try a different joystick.

Resolving I/O Conflicts

Conflicts between your audio card and another peripheral device may occur if your card and the other device are set to use the same I/O address.

To resolve I/O conflicts, change the resource settings of your audio card or the conflicting peripheral device in your system using Device Manager in Windows 95/98.

If you still do not know which card is causing the conflict, remove all cards except the audio card and other essential cards (for example, disk controller and graphics cards). Add each card back until Device Manager indicates that a conflict has occurred.

To resolve hardware conflicts in Windows 95/98:

1. Click the Start button, point to Settings, and then click Control Panel.
2. In the Control Panel window, double-click the System icon.
3. In the System Properties dialog box, click the Device Manager tab.
4. Under the Sound, Video And Game Controllers entry, select the conflicting audio card driver—indicated by an exclamation mark (!)—and click the Properties button.
5. In the Properties dialog box, click the Resources tab.
6. Make sure that the Use Automatic Settings check box is selected, and click the OK button.
7. Restart your system to allow Windows 95/98 to reassign resources to your audio card and/or the conflicting device.



You can also refer to the Troubleshooting section in the Help file of Windows 95/98.

Problems in Windows NT 4.0

A Service Control Manager error message appears with one or more other error messages at system restart.

This occurs after you remove an audio card from your computer after you have successfully installed the Sound Blaster Live! card. Windows is trying to match the drivers to the removed audio card.

To solve this problem:

1. Log on to your computer as Administrator.

2. Click the Start button, point to Settings, and then click Control Panel.
3. Double-click the Multimedia icon, and then click the Devices tab.
4. In the list, remove from under these entries
 - Audio Devices
 - MIDI Devices And Instrumentsthe items other than
 - Audio for Creative SB Live!
 - MIDI for Creative SB Live!
 - MIDI for Creative S/W Synth
5. Click the OK button to close the dialog box.
The drivers are removed.

Problems with Encore DVD Player

The Encore DVD Player is not launched when a DVD disc is inserted into the drive.

To solve this problem:

1. In the Windows system tray, right-click the Disc Detector icon, and then click Properties.
2. On the General tabbed page of the Creative Disc Detector dialog box, make sure that Enable Disc Detector check box is selected.
3. Click the Players tab.
4. Select the DVD Disc entry and then click the Select Player button.
5. In the Players Properties dialog box, click the Browse button.
6. Browse to C:\Program Files\Creative\PC- DVD Encore and double-click the entry **ctdvdply**
The Name box now displays the entry *ctdvdply*.
7. Click the OK button twice to close.

Now when you double-click the Disc Detector icon, the Encore DVD Player is launched.