



Release 1.0

AirHorn® Users Manual



Windows XP

HOME / PRO

EDITION

Brinston Sound Images



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Getting Started

1. Introduction

AirHorn® is a Microsoft¹ *Windows XP* program application developed to address the increased demand to enhance operation realism for the all-scale model railroad enthusiast. Using common off-the-shelf home computers or laptops and common sound files available from multiple sources, with the ability to record and use custom recorded sound files, **AirHorn®** can be used to play virtually any model railroad sound in real-time to enhance the railroading experience from a simple speaker set up around the layout. Nothing could be simpler!



Using sound perspective of where the sound is coming from as the point-of-view of the observer from some distance, **AirHorn®** adds a fully integrated sound system to a free-lance or prototype railroad layout that is simple and economical to set up and use, requiring a minimum of investment or technical know-how. Simple and realistic - Hear what you've been missing!

The following screen represents the basic sound scheme and sample files included with the installation of **AirHorn®** when first installed. Many more sounds (*.mp3* format) are available from the BSI download site.



¹ © 2006 Microsoft Corporation

2. Basic Features

- Scalable and customizable, independent of railroad track or control, **AirHorn®** eliminates the hassle of complex wiring over/under the layout.
- Use for all model railroads, in all scales (Z, N, HO, O and G) regardless of whether you are using traditional analog (DC) block or DCC control platforms.
- Presents a simple user interface without PC programming experience, letting users enjoy the product and resulting experience. If you can type a key, you can use the program.
- Use of non-proprietary sound files increases adaptability to multiple layout applications and diversity of operations through widespread sharing of sounds and encourages sharing sounds. *.mp3*, *.wma* and raw *.wav* file formats supported.
- Up to 20 sounds can be assigned and played from the user interface on the display console, including setting looped or continuous sound output and volume on any or all channels.
- Multiple channel sound capability to playback simultaneous sounds, even on a 2-speaker system. Takes advantage of 2.1, 4.1 5.1 and 6.1 speaker systems and multiple Windows-compatible sound cards for scalable dimensioning of sound and added realism with scalability.
- Sounds can be individually controlled for volume and balanced between both speakers or panned left and right or directed to multiple sound cards and individual speakers (if equipped).
- User-defined and supplied sounds can be organized into groups or themes on the display interface using a soundscape “scheme”. Each sound scheme, with user-defined key assignments, can be uniquely saved and called up as needed from the display console, making operations-oriented layouts even more realistic, real-time and customizable for the industry or operation modeled.
- Record your own sounds for a custom or prototypical experience or use the sound schemes included with the application and from the web site. Many more sounds are available from the Web.
- Sound clips can be pre-played in options panel before assignment.
- Virtually any key on keyboard/keypad or USB-keypad can be used to trigger sounds of any duration – from seconds to minutes or hours.
- Multiple sound files can be assigned to play sequentially to one key. Files can be played in any order or dynamically re-ordered as part of the program.
- Sounds continue to play in background regardless of what Windows applications are running in the foreground, so your PC can do more.

Brinston Sound Images (BSI) provides support and current version release updates and patches to the program via the web site at (www.brisntonsound.com) will be made available regularly. Registered users will be able to download new versions for modest upgrade fees. Watch for BSI news regularly by logging into the site and checking out what is new.

3. System Requirements

Minimum

Operating System: Windows XP Home Edition

Processor: Intel Pentium II

Memory: 128MB

Hard Disk Drive: 2GB hard drive with at least 250Mb of free space

Video: Any Windows-compatible video card

Sound: Any Windows-compatible sound card

Speakers: Self-powered stereo speakers (at least 10W) or 2.1 speaker system (includes sub-woofer)

Modem: an Internet Service Provider

Ideal

Operating System: Windows XP Professional Service Pack 2

Processor: Intel Pentium 4

Memory: 512MB

Hard Disk Drive: +40GB hard drive with at least 250Mb of free space

Video: Any Windows-compatible video card

Sound: Multiple Dolby 5.1 Windows-compatible sound cards

Speakers: Multiple Dolby 5.1 speaker systems (powered)

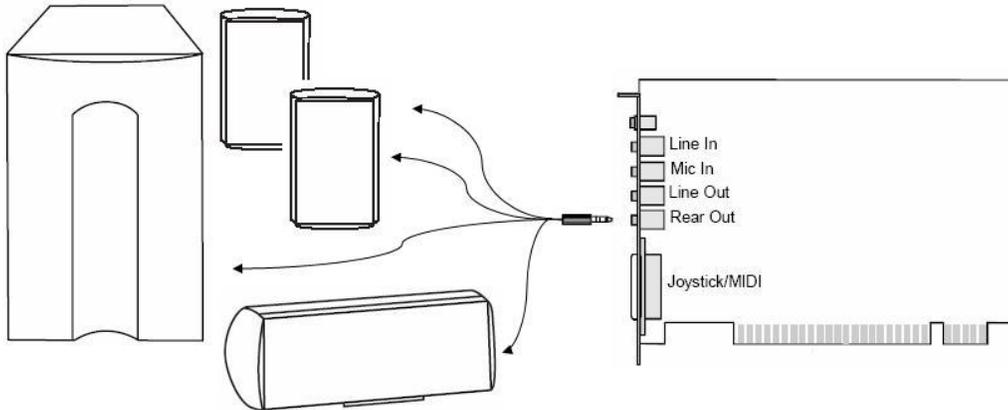
Broadband Internet Connection

USB: 1 or more USB 2.0 port(s) for X-Keys external key stick or pad option

4. PC and Laptop Speaker Set Ups

a. Simple System Setup – PC

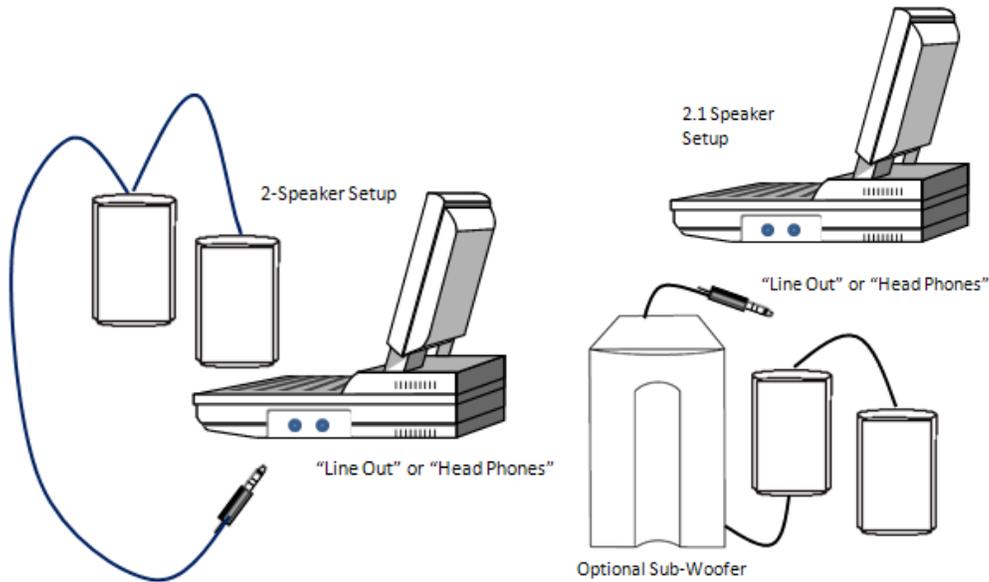
Probably the simplest set up is to use the sound card that came with the PC. Even these basic systems are capable of supporting 2-speakers and a sub-woofer (recommended), suggested to reproduce those really deep base tones from running locos or thunderstorms.



Subwoofer and/or center channel speakers are optional. Refer to the installation manuals for your speakers and/or sound card for connection details.

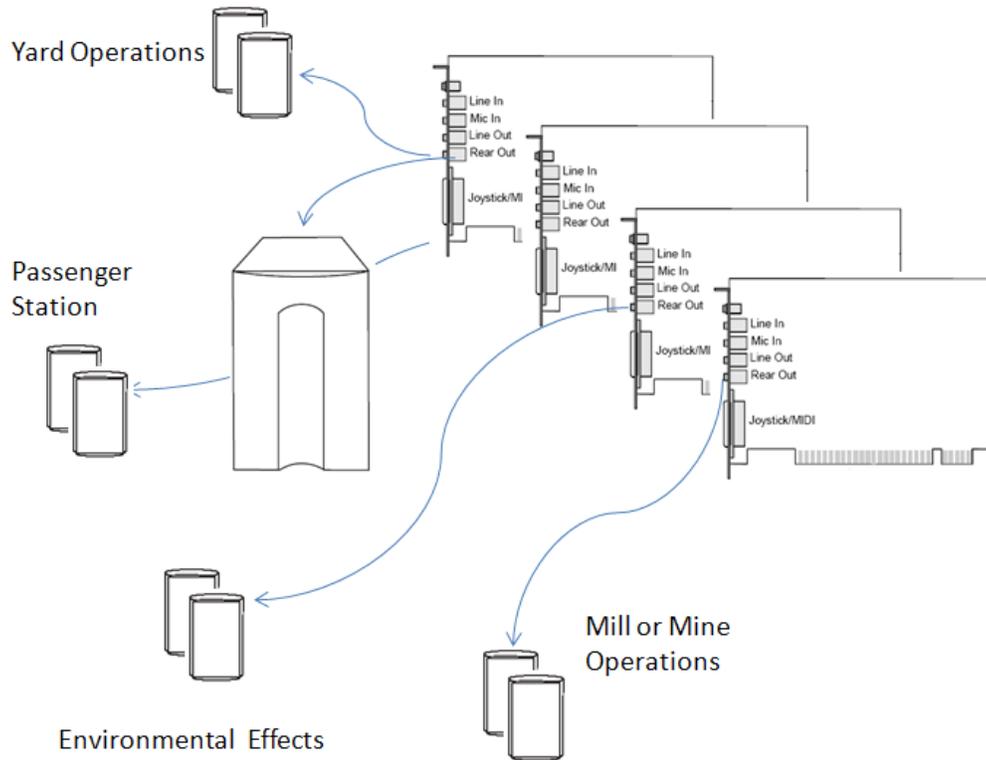
b. Simple Setup with Laptop

Virtually all laptops have at least a 1/8" (3.5mm) external headphone jack and many of the newer ones feature 5.1 sound outputs, making them ideal machines to drive sound systems with multiple speakers. Alternatively, adding Dolby 5.1 PCMCIA or USB supported sound cards to the laptop is quite easy and affordable.



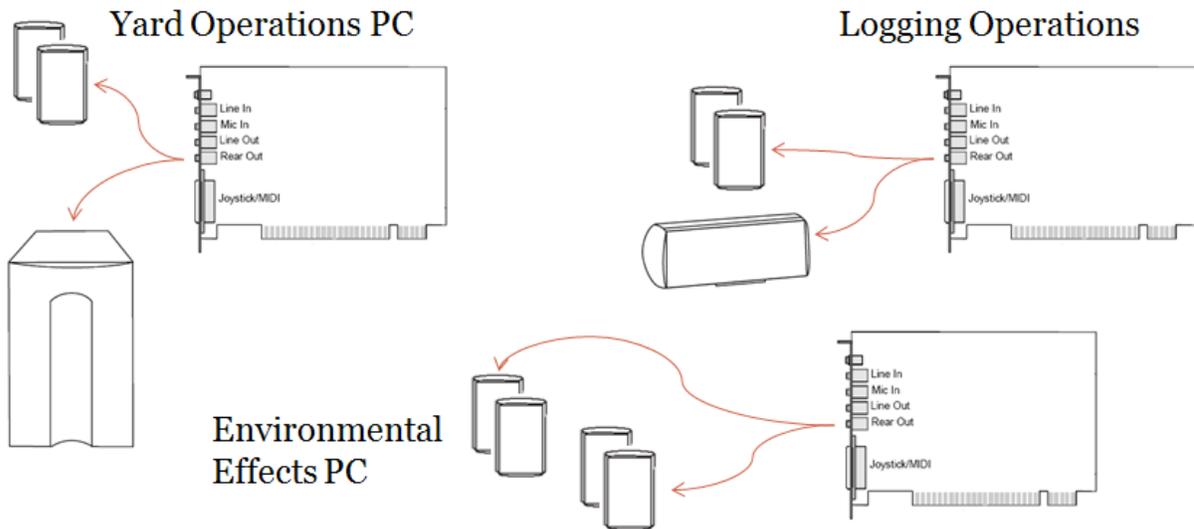
c. Centrally Managed, Multi-site Sound with (4) Sound Cards in One PC

For those that are comfortable with opening up the PC and have had some experience in adding PCI-Expansion cards may be interested in adding multiple PCI-Compatible sound cards to the layout. Each sound card may be used in a “sound zone” to increase the level of controlled sounds to particular parts of the layout or to add more speakers on larger layouts with centralized control.



d. Distributed Layout (Multiple PC's) Control System

Scaling **AirHorn®** is easy if you have multiple PC's you can use to run copies of the program or want to be close up to the action when activating sounds or need scalability beyond the 20-soundscheme capability provided by a single installation of **AirHorn®** on a machine. As for the above system configuration "C", each sound card-equipped PC may be used in a "sound zone" to increase the level of controlled sounds to particular parts of the layout or to add more speakers on larger layouts.



5. Program Setup and Installation

Installation of the program is done in one or two parts, using individual setup files, making upgrades easier and less time consuming. The order in which they are run is not important. The first installer file contains the **AirHorn®** program, licensing information, folder structure, a basic sound scheme and a small sample (20) of available **.mp3** sound files for the computer. If you chose to download additional sound libraries, a second installer file contains the expanded sound files. BSI recommends that the program be installed first, followed by additional library installation(s).

Each setup program will issue a number of prompts during the installation process. Unless you have a reason to override the defaults, it is strongly recommended that you accept the installation default settings, by clicking or pressing OK, Yes, or Next, as appropriate.

- Start your **Windows XP®** machine normally.
- To install **AirHorn®** from a distribution CD-ROM, insert the CD-ROM into an available CD or DVD drive. The autorun capability of **Windows** will start the setup program. If it does not, select the **Run...** option from the taskbar **Start Menu** and type:

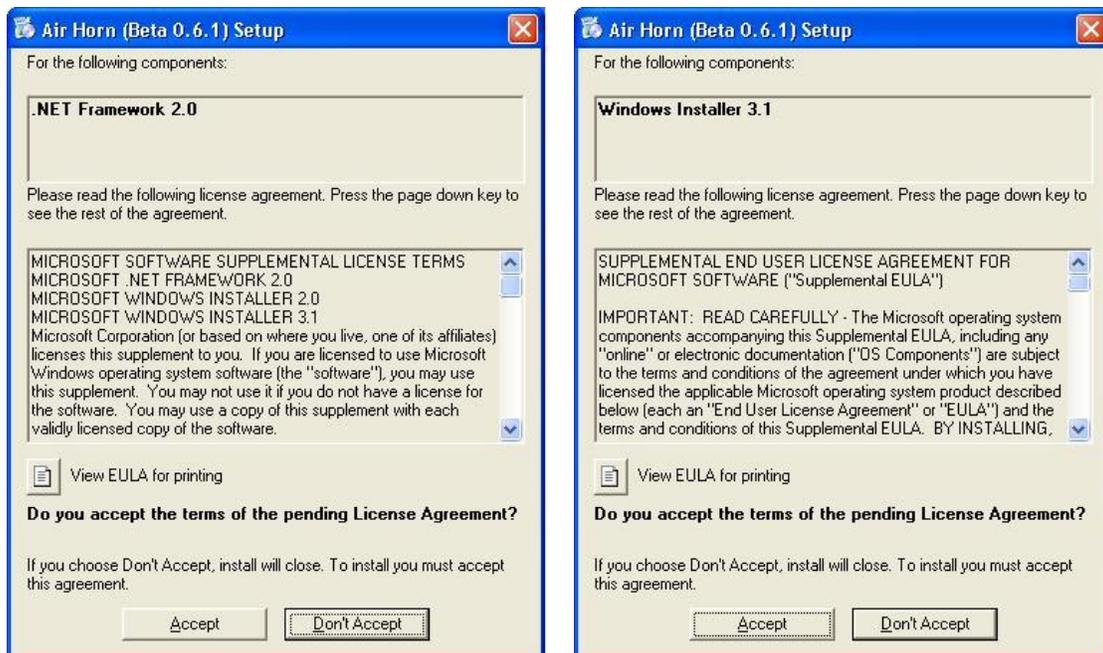
D: AirHorn Setup

replacing **D:** with your CD-ROM drive.

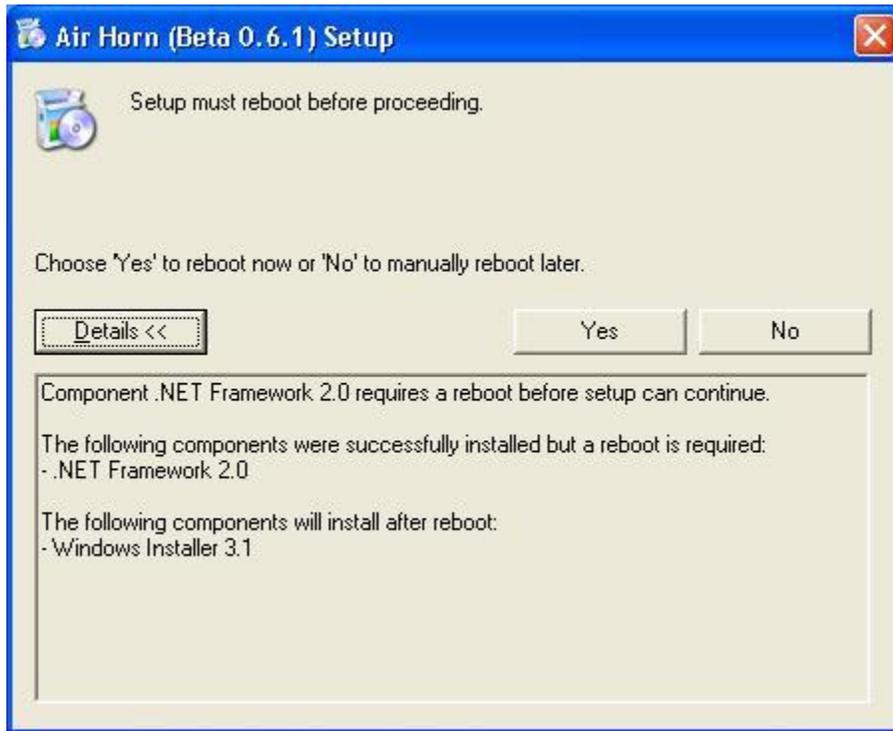
- If you downloaded the program from the web, locate the file **AirHorn® Setup.MSI** in the directory where you downloaded it and double click on (or press **Return**) **AirHorn® Setup**.
- The program is installable on any drive (*Windows Program Files Air Horn* and *My Documents Air Horn* for the default folders) and uses less than 50Mb of disk

space for the basic program and anywhere from 50 to 250MB depending on the quantity and formats of the sound files downloaded. Don't change the default settings unless you have a good reason to do so. The default path is *C:\Program Files\Brinston Sound Images\AirHorn*

- Follow the prompts in order to complete installation and chose to accept the license agreement terms.
- At this time, the Windows XP installation on the machine may be updated to include Microsoft Installer 3.1, DirectX 9.0c and .NET support required by the **AirHorn®** program. The install time varies considerably from one machine to the next and can be as long as 20-min. Web access is not necessary for these steps (but recommended) and a reboot may be required. The message: “**Please**



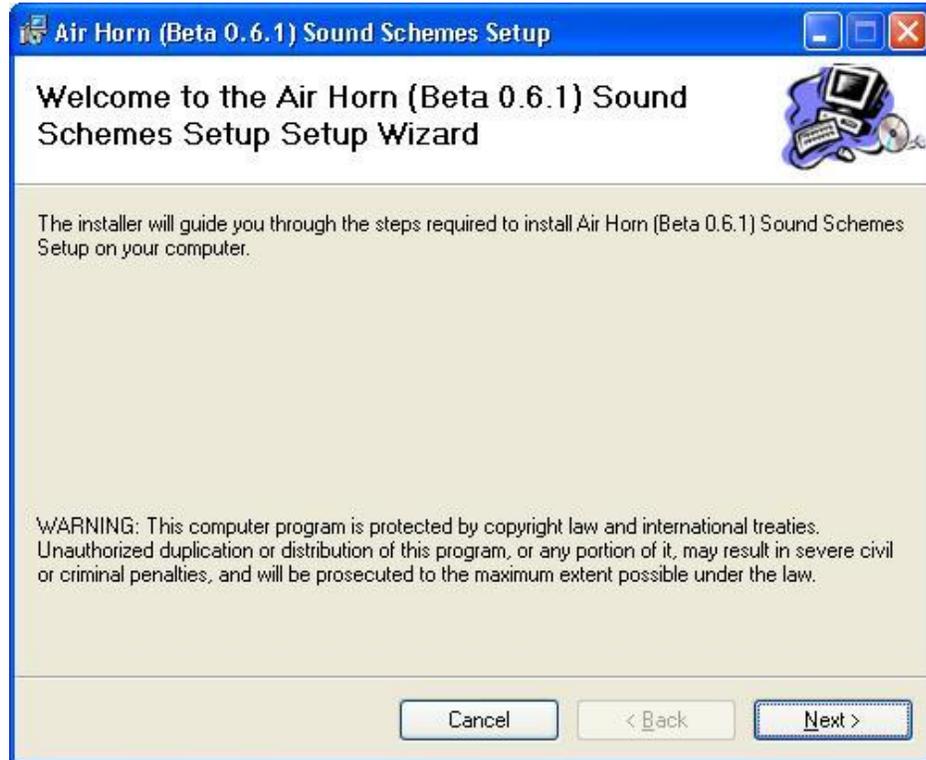
use Windows Update to check for any critical updates to the .NET Framework.” may appear and it's always a good idea to periodically check for and install updates.



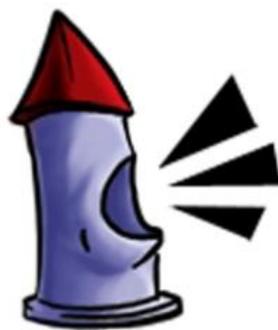
- Once the reboot has completed, the program will initiate the install.



- Next, repeat the previous steps to locate and activate the file *AirHorn® Sound Schemes Setup.MSI* in the directory where you downloaded it or the drive where your CD-ROM is loaded. The default path is *C:\Program Files\Brinston Sound Images\AirHorn Sound Schemes Setup*



- Run the file by double-clicking on it or by selecting it and pressing **Return**.
- Once installation is complete click on the Start menu on the Windows® taskbar and choose **Programs > Brinston Sound Images > AirHorn** to start the program.
- Upon first running the software, a splash screen will appear requesting input for the license key, described below in the next chapter.



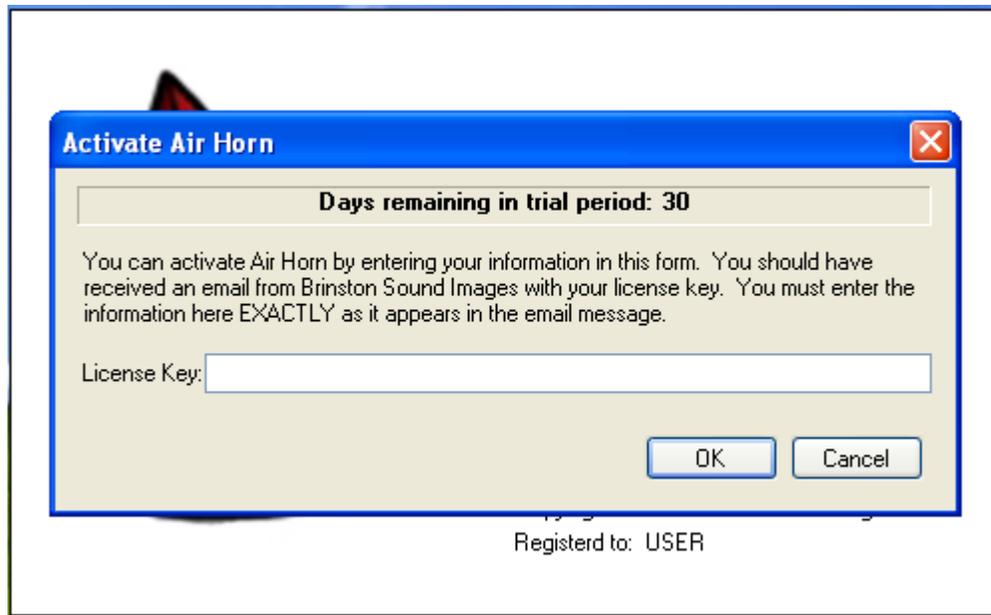
Air Horn

Version 0.6 Build 2612
Copyright © Brinston Sound Images 2007
Registered to: Morrisburg Model Railroad Club

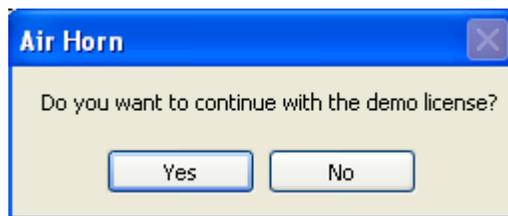
6. License Key

When you download the program for the first time, you will be presented with an activation window set for entering license information or you may proceed in a program demonstration mode. **AirHorn®** is distributed to be installed into a demo mode by default. This mode of operations requires no interaction with BSI in order to operate with full capability of the software for the trial period. The software is designed to operate for 30 days from the installation date, and then will simply cease to operate when the demo interval has expired.

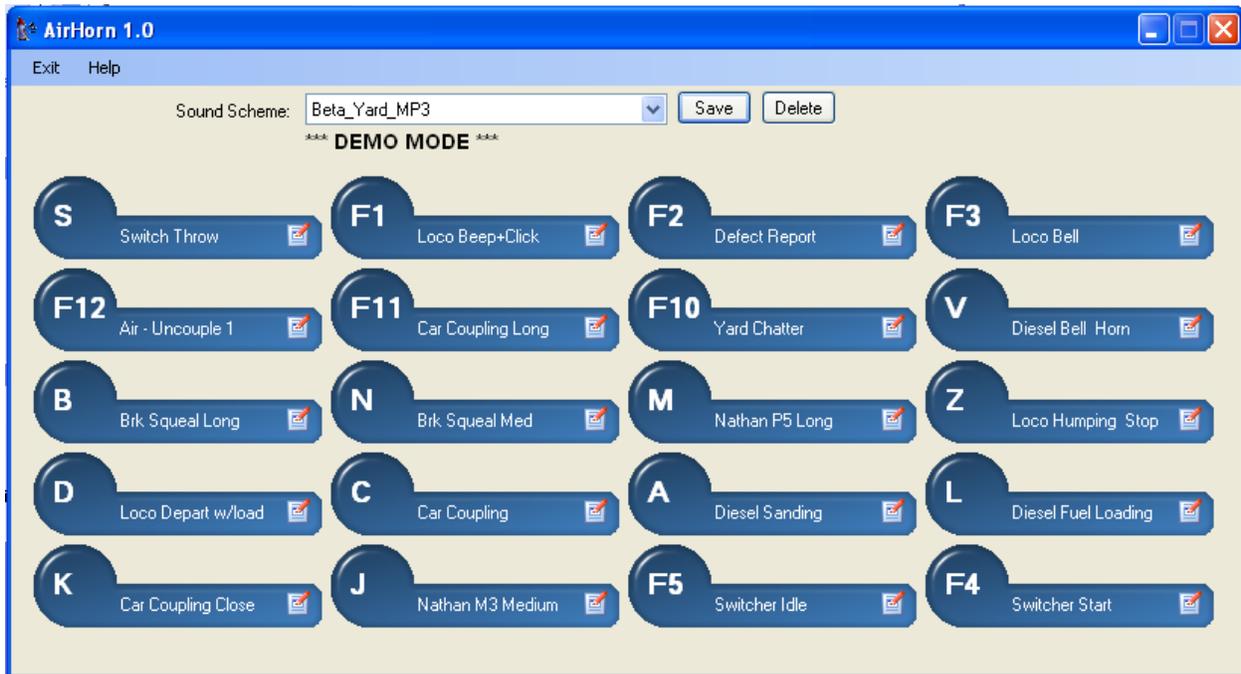
On first run, the program will look into a hidden location on the hard disk drive for a valid license key file. If no key is found, a dialogue box will be presented to the user so they can either enter a valid license key, or continue into Demo Mode.



If the user selects demo mode, a key will be generated that encrypts the word DEMO and the current date. This key will be saved into a license key file.



Each time the application runs, it will look for the license key. If it finds a DEMO



license key, it will decrypt the original install date and compare it to the current date. If it has been more than 30 days since install, then the application will notify the user that the demo period has expired and that they can obtain a valid license key from the BSI web site (<http://www.brinstonsound.com>). It will also have a field that a valid key can be typed or copied into.

If the demo period is still valid, a dialogue will still appear requesting the insertion of a valid license key. Users can either enter a key which was purchased, or dismiss the dialogue to continue with the demo period. Once the registration process is completed over the internet (web), and registered users receive their license key via email, they can enter it into the application to register it. This can be done either using the demo mode dialogue at program startup, or by clicking the registration menu item under the Help menu.



7. Uninstalling Air Horn®

Use Windows to uninstall the program from *Start > Settings > Control Panel > Add or Remove Programs*. Once the list has been populated with the programs installed for the machine, scroll down to the **AirHorn®** program and select *Remove*.

Once the action is complete, repeat the process for **AirHorn® Sound Schemes** program.

Since the license key file was not written to the PC by the installer, then the uninstaller should be able to uninstall the application and leave the key in place. If attempts to defeat the demo mode by uninstalling and re-installing the program, **AirHorn®** will automatically pick up the pre-existing demo license key and will deny access and execution of the program.

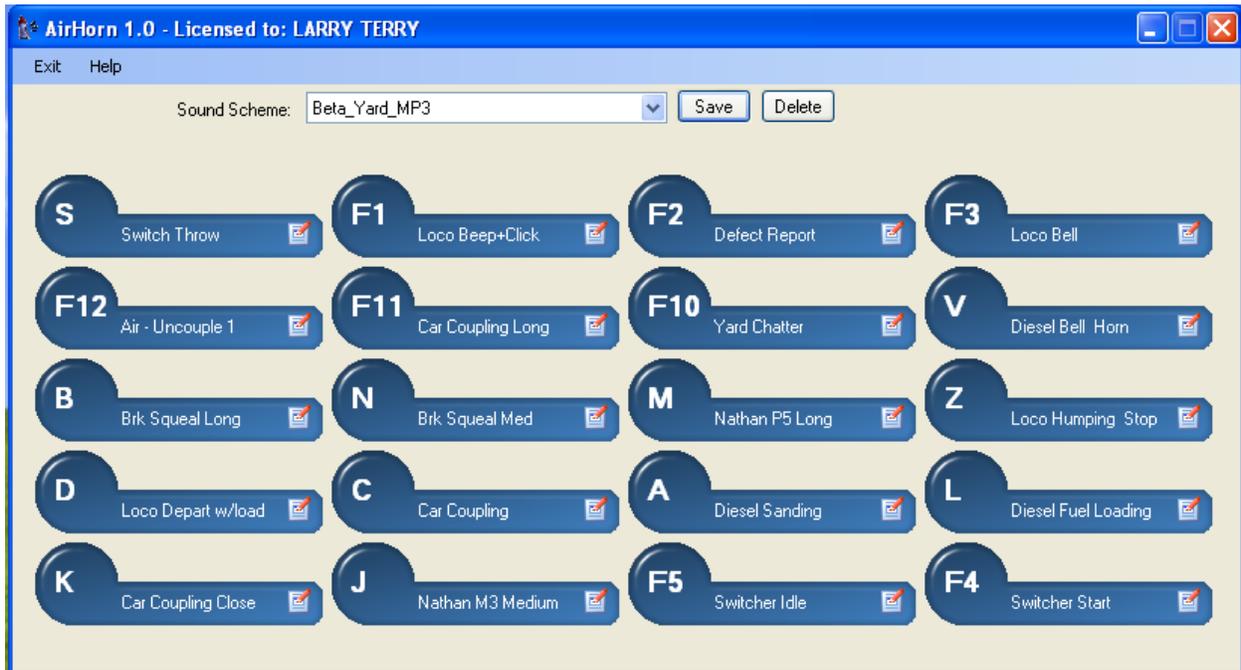
If you have previously contacted Brinston Sound Images for a license key over the WEB, manually enter or copy the license key exactly as it appears in the email you received; else, press OK to continue. Upon receiving the key, restart **AirHorn®** or click on *Help>Register AirHorn®* to enter the license key.

If you did not enter a license key, you will be reminded every time you start **AirHorn®** to enter the key, unless the 30-day trial period has expired.

Program Interface

Once the program has started, you will be presented with the main menu. Depending on the CD or downloaded version installed, the main menu may show blank semaphore-shaped sound activation keys or may be populated with a default sound scheme. This can easily be changed and new schemes quickly saved. The next time you load **AirHorn®**, the *new* default scheme will load automatically.

8. Main Interface



Main Menu

Exit

Mouse click on  or Exit, exits the program.

Help

Within the help menu are two options - *Register AirHorn®* and *About*. *Register AirHorn®* allows you to enter the registration information as detailed in the section License Key above. The *About* Dialog shows the splash screen shown on startup which displays the version number, copyright information, and the registered user of **AirHorn®**.

Sound Scheme Selection Box

User-defined and supplied sounds can be organized into groups or themes on the display interface using a soundscape “scheme”. Each sound scheme, with user-defined key assignments, can be uniquely saved and called up as needed from the display console, making operations-oriented layouts even more realistic and customizable for the industry or operation modeled.

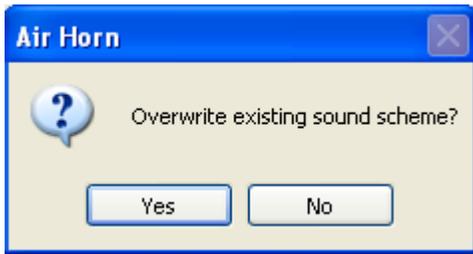
Sounds played back make use of the popular .mp3 or .wma formats for flexibility and choice of sounds from a wide variety of sources. The native .wav format (desirable) is also supported for playback and editing, but due to the heavy disk storage requirements for this “raw” sound format, distribution of .wav files will not be provided as part of the download package (see note below in Section 9). The sound scheme can support mixed formats, selectable for each of the 20 sound activation semaphores in the main program window.

Select a previously saved sound scheme, a sample scheme included with the program or <new> from the drop down dialog box. If <new> is selected, type in a description or name for the new scheme. Previously saved schemes cannot be renamed or deleted from the program. See Windows Help for editing or modifying files and folders.



Save Current Sound Scheme Button

Saves the current soundscape to the selected scheme. This will overwrite the old scheme and replace it with the new soundscape.



Delete Current Sound Scheme Button

Deletes the current scheme and loads the next available scheme.

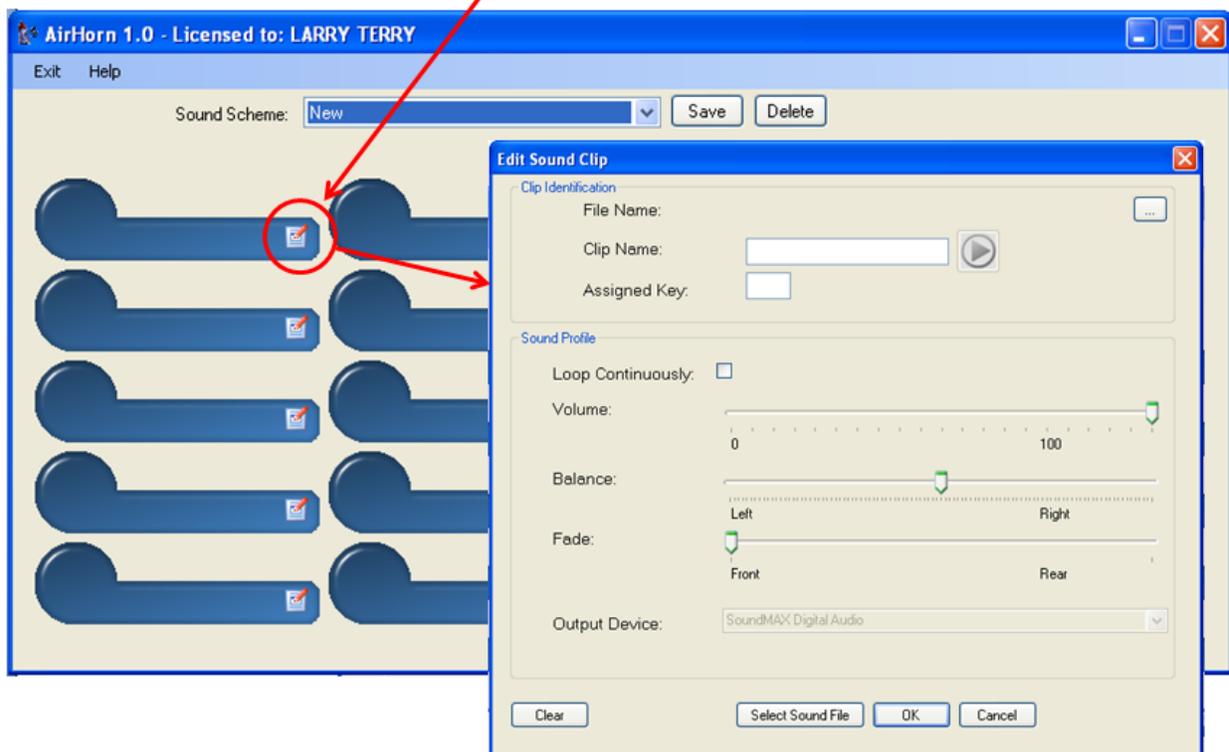
Sound Button

Plays the selected sound clip when left-clicked. Displays the Clip Name as set in the Sound Clip Dialog box (described below) as well as the hotkey currently assigned to the sound.

Edit Sound Button

Opens the Sound Clip Dialog box (described below) allowing you to edit the sound clip associated with the linked sound button.

Click on this icon to activate the Edit Sound Clip dialogue

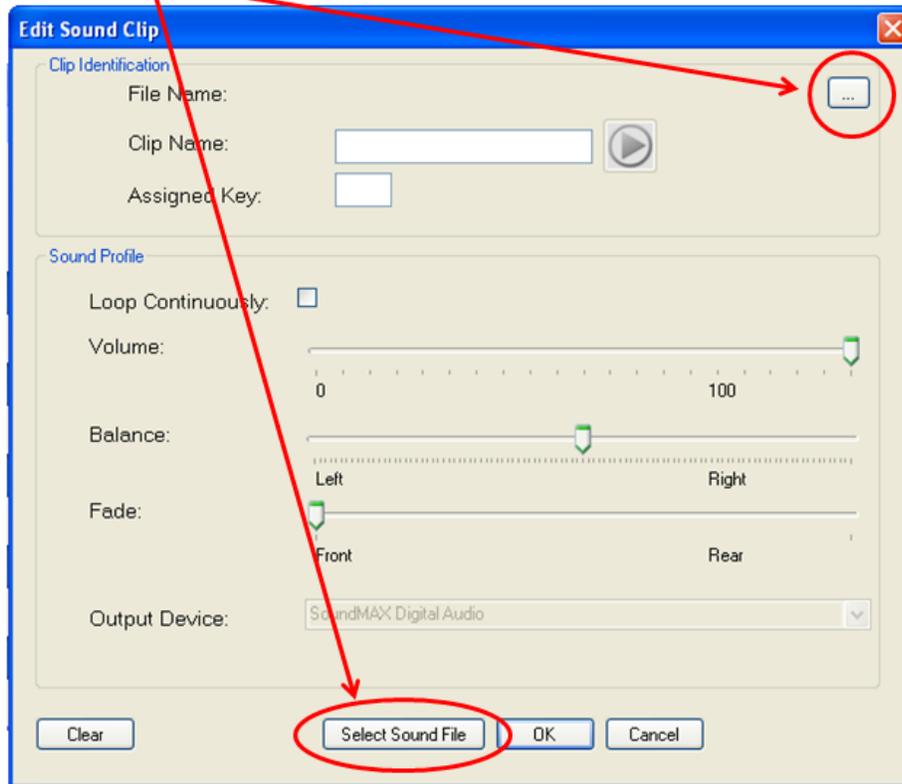


9. Sound Clip Dialog

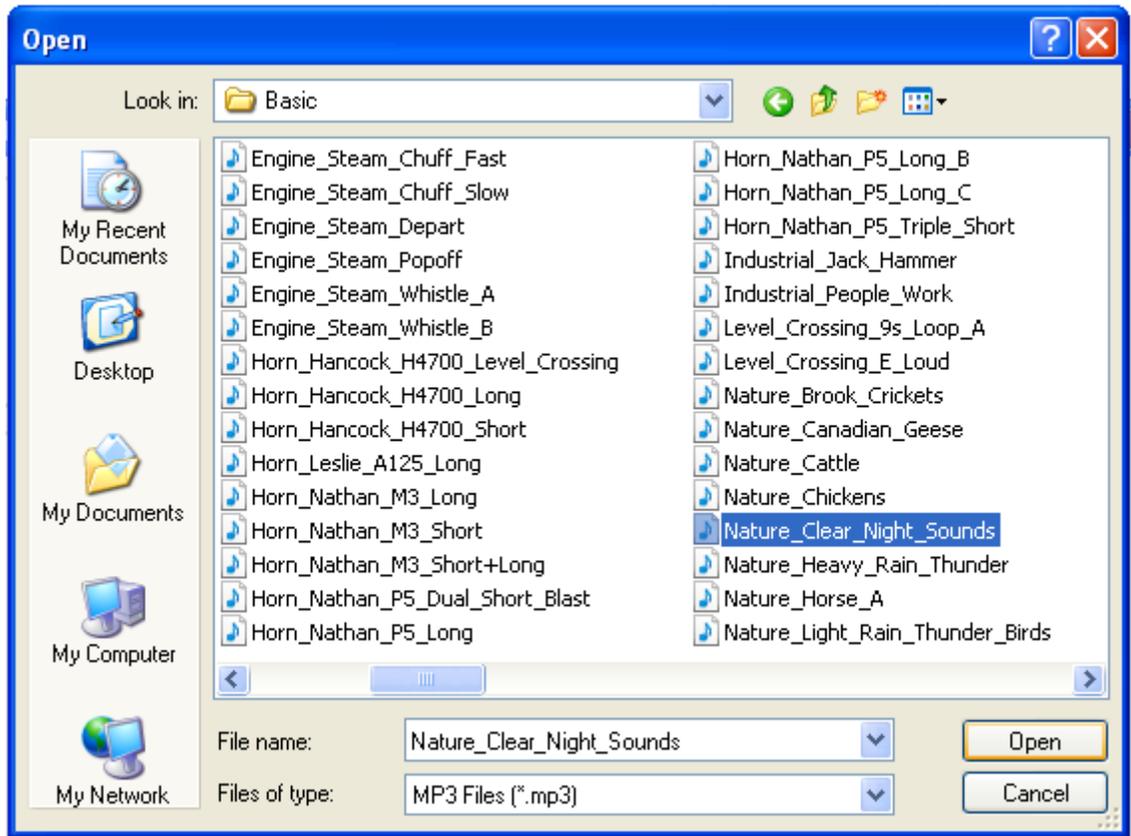
File Name Selection

Displays the full location of the file to be selected. Click on Select Sound File or the box in the upper right hand corner with the ellipses to select a sound file from the library.

Click on either of these icons to select a sound clip from the library files locations



Find Sound Clip



AirHorn® is capable of playing *.wav*, *.wma* or *.mp3* file types. Files supplied with **AirHorn®** are stored as *.mp3* format for efficient size and download speed. Other formats may be obtained by registering the program with BSI (www.brinstonsound.com) over internet and downloading accordingly.

BSI provides a suite of license-free *.wav*, and *.mp3* format sound libraries to registered users.

Using this same site, users are encouraged to upload their custom recordings for other registered users to enjoy.

Using the program installation default settings, the sound files are installed in a folder labeled *Library/Sound_Schemes_MP3*. By selecting the folder, an extensive list of sound files can be selected, previewed or assigned to an activation key.

New sounds may be added to the default library or new folders may be added to keep sound files organized as needed. The library of sounds included with the downloaded version of **AirHorn®** includes 20 various sounds already set up in a scheme titled *<Basic_MP3>*, so you can get started playing sounds immediately after installing the

program and experiment with the program features and options. Appendix A1 lists the files supplied with the program download. Many more sounds are downloadable from the BSI Website without registering the program, but the full power **AirHorn®** is unleashed when the program is registered and access to an even larger sound library, custom sounds, including other file formats suitable for editing.

The “File List” window displays and recalls file display formats for easy identification of file names. The program will recall where you last imported a sound file from and the format selected.

Note: For best sound reproduction from the program, the raw or *.wav* format is best. Compressing sounds into *.mp3* or *.wma* may have undesired effects on sound reproduction, and although quite annoying, is a consequence of saving disk space. This annoyance is most notable in sounds used for looping, usually detectable when the sound ends and begins again anew. Whenever possible and when hard disk space allows, use the *.wav* format for sound storage and be prepared for the huge amount of storage space required for raw sound formats. The results will be worth the extra storage space.

Clip Name

17-character File Name maximum limit for the semaphore activation button appearing in the main screen.

Preview Sound Button

Plays the currently selected sound. Click once to play. Preview only applies if a sound has already been selected.

Assigned Key to Play Sound

Assigns a key on the keyboard to function as a “hotkey” to play the currently selected sound. Almost any key on the keyboard may be used simply by pressing the desired key when the selection box is active. The key stroke will be recorded when the scheme is saved.

Note: *F10 and F4, as well as the more obvious ESC, Shift, Enter, CTRL, FN, ALT, Cap Lock, TAB, ←↑→↓, are Windows or specific PC reserved keys and should not be used as sound activation keys, as they may cause erratic behavior or operation of the program and/or the PC.*

Loop Check Box

Clicking this box sets the currently selected sound to loop continuously until the sound is stopped through manual selection of the activation button from the main menu.

Loop Continuously:

Volume Slider Bar

Adjusts the volume of the sound. Using the mouse, position over the downward-pointed slider knob and while keeping the left mouse button depressed, move the knob along the axis of the bar to adjust the volume level property.



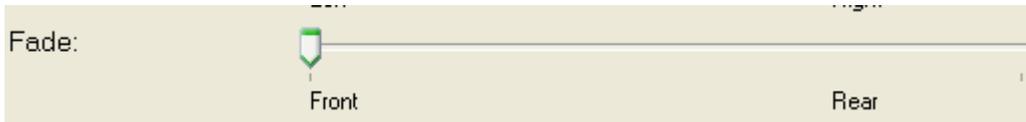
Sound Balance Slider Bar

Adjusts the left/right speaker volume balance of the sound which allows for sounds to either favour the left or right channel speaker. Using the mouse, position over the downward-pointed slider knob and while keeping the left mouse button depressed, move the knob along the axis of the bar to adjust the balance level property.



Sound Fade Slider Bar

Adjusts the front/back speaker volume balance of the sound which allows for sounds to either favour the front or back channel speaker(s). This functionality only exists with 5.1 or 7.1 Surround Sound speaker systems. Using the mouse, position over the downward-pointed slider knob and while keeping the left mouse button depressed, move the knob along the axis of the bar to adjust the fade level property.



Output Device Selection

Selects the output device for which the sound is to be played through. If you have a single sound card the default will be selected and the box will be grayed out.



If you have multiple sound cards, you may leave it on the default or select a different sound card using the drop box to the right. To verify if you have more than one audio card, from Windows follow and double click **Start>Control Panel>Sounds and Audio Devices** and select the **Audio** properties tab as shown below. Dropping the **Default** device drop box with the mouse, you may be able to scroll through playback devices and



adjust unique features of the device.

Warning: Generally, as for all windows functions, avoid “playing” with these settings if you are not comfortable with the features potentially affected or are an in experienced Windows user, as unreliability or loss of performance may result.

Clear All Dialog Boxes

Clears the dialog of all data previously captured on screen. If you save the scheme at this point, previously saved data for this entry will be overwritten.

Accept Changes

Accepts all changes made to the sound clip and closes the dialog box.

Cancel Changes

Cancels all changes made to the sound clip and closes the dialog box.

10. *Editing Sounds*

BSI does not endorse or recommend a sound editor for use with user-recorded sounds. However, several users have had success with a freely available (open-source) version of a sound editor, **Audacity**, included with the **AirHorn®** program that you may find useful. BSI does not provide support for sound editors, commercially available or in the open-source public domain. Sounds are typically edited in their raw or *.wav* format. For more information, please visit <http://www.audacity.sourceforge.net> for more information. The information below is re-printed from the referenced WEB site above.

About Audacity

Audacity is a free, easy-to-use audio editor and recorder for Windows, Mac OS X, GNU/Linux, and other operating systems. You can use Audacity to:

- Record live audio.
- Convert tapes and records into digital recordings or CDs.
- Edit Ogg Vorbis, MP3, and WAV sound files.
- Cut, copy, splice, and mix sounds together.
- Change the speed or pitch of a recording.
- And more! See the complete [list of features](#) below.

About Free Software

Audacity is free software, developed by a group of volunteers and distributed under the [GNU General Public License \(GPL\)](#).

Free software is not just free of cost (like “free beer”). It is free as in freedom (like “free speech”). Free software gives you the freedom to use a program, study how it works, improve it, and share it with others. For more information, visit the [Free Software Foundation](#).

Programs like Audacity are also called open source software, because their source code is available for anyone to study or use. There are thousands of other free and open source programs, including the [Mozilla](#) web browser, the [OpenOffice.org](#) office suite, and entire [Linux-based operating systems](#).

Features

This is a list of features in Audacity, the free audio editor. For more information on how to use these features, go to the [help pages](#).

○ *Recording*

- Audacity can record live audio through a microphone or mixer, or digitize recordings from cassette tapes, vinyl records, or minidisks. With some sound cards, it can also capture streaming audio.
- Record from microphone, line input, or other sources.
- Dub over existing tracks to create multi-track recordings.
- Record up to 16 channels at once (requires multi-channel hardware).
- Level meters can monitor volume levels before, during, and after recording.

○ *Import and Export*

- Import sound files, edit them, and combine them with other files or new recordings. Export your recordings in several common file formats.
- Import and export WAV, AIFF, AU, and [Ogg Vorbis](#) files.
- Import MPEG audio (including MP2 and MP3 files) with [libmad](#).
- Export MP3s with the optional LAME encoder library.
- Create WAV or AIFF files suitable for burning to CD.
- Import and export all file formats supported by [libsndfile](#).
- Open raw (headerless) audio files using the “Import Raw” command.
- Note: Audacity does not currently support WMA, AAC, or most other proprietary or restricted file formats.

○ *Editing*

- Easy editing with Cut, Copy, Paste, and Delete.
- Use unlimited Undo (and Redo) to go back any number of steps.
- Very fast editing of large files.
- Edit and mix an unlimited number of tracks.

- Use the Drawing tool to alter individual sample points.
- Fade the volume up or down smoothly with the Envelope tool.
- ***Effects***
 - Change the pitch without altering the tempo, or vice-versa.
 - Remove static, hiss, hum, or other constant background noises.
 - Alter frequencies with Equalization, FFT Filter, and Bass Boost effects.
 - Adjust volumes with Compressor, Amplify, and Normalize effects.
 - Other built-in effects include:
 - Echo
 - Phaser
 - Wahwah
 - Reverse
- ***Sound Quality***
 - Record and edit 16-bit, 24-bit, and 32-bit (floating point) samples.
 - Record at up to 96 KHz.
 - Sample rates and formats are converted using high-quality resampling and dithering.
 - Mix tracks with different sample rates or formats, and Audacity will convert them automatically in realtime.
- ***Plug-Ins***
 - Add new effects with [LADSPA plugins](#).
 - Audacity includes some sample plugins by [Steve Harris](#).
 - Load VST plugins for Windows and Mac, with the optional [VST Enabler](#).
 - Write new effects with the built-in [Nyquist](#) programming language.
- ***Analysis***
 - Spectrogram mode for visualizing frequencies.
 - “Plot Spectrum” command for detailed frequency analysis.
- ***Free and Cross-Platform***
 - Licensed under the [GNU General Public License \(GPL\)](#).

- Runs on Mac OS X, Windows, and GNU/Linux.

11. **Frequently Asked Questions**

Where can I find more sounds to use with AirHorn®?

After successful software registration, you can find more sounds on the Brinston Sound Images website, <http://www.brinstonsound.com>. Also, there are several user groups that distribute sounds, not mention several commercially available sound libraries. Also, personal sound recordings can be made and imported into **AirHorn®**.

Additional sounds for **AirHorn®** may be obtained via:

- The BSI web site, following successful program registration, with access to the original .wav files. BSI encourage the user community to post personal recordings on the site for others to enjoy and maintains a list of links for railfan sounds that are compatible with **AirHorn®**;
- The Internet (or WEB);
- Audio sound effects can be purchased from:
<http://audiosparx.com/sa/display/cat.cfm> or from **Fantasonics™**

Please be aware of copyright and digital rights management for sounds you decide you want to use.

Can I record my own sounds?

Yes, you can record and import your own sounds into **AirHorn®** using either raw .wav or .mp3 or Microsoft .wma formats. Use raw .wav formats for best playback results.

Why do some sounds in .mp3 or .wma sound different or don't work as well as from the raw sound format used by my sound editor?

For best sound reproduction from the program, the raw or **.wav** format is best. Compressing sounds into **.mp3** or **.wma** may have undesired effects on sound reproduction, and although quite annoying, is a consequence of saving disk space. This annoyance is most notable in sounds used for looping, usually detectable when the sound ends and begins again anew. Whenever possible and when hard disk space allows, use the **.wav** format for sound storage and be prepared for the huge amount of storage space required for raw sound formats. The results will be worth the extra storage space.

Where can I find out more about sound techniques for my layout?

Fantasonics™ Engineering offers realistic scale sound recordings (Scale Magic™) for modest cost that can easily be used with **AirHorn®**. For those railfans that are interested in the science of scale sound, the site also has a very detailed manual (Scale Magic™ CD soundtrack owner's manual) that more than adequately discusses the use of scale sounds,

and building sounds into the layout, speaker placement, acoustics, etc... They can be found at www.fantasonics.com.

Where can I get the AirHorn® program?

You can get the program from the Brinston Sound Images website, <http://www.brinstonsound.com>. A free 30-day full trial version of **AirHorn®** is available for download, as are instructions for software registration and additional sound files access.

Is the AirHorn® program OpenSource?

No. **AirHorn®** was developed for commercial purposes by BSI and use proprietary and licensed software elements built into the program. If development of additional interfaces are desired and not part of BSI's product roadmap, licensing the development software is an option. Contact Sales@brinstonsound.com for further information or inquires.

Can the program use external trigger devices?

As of yet, no, **AirHorn®** cannot use external triggers to activate sounds; however, this functionality is being evaluated and may be available in a later release. Adding remote USB or PS-2 -based keyboards and keypads is certainly supported natively by **AirHorn®**. Near term program updates will feature support for X-Keys by P.I. Engineering (www.piengineering.com), the makers of *RailDriver™* train simulator controller.



Will the program run on a Mac or Linux system?

No. As of yet, **AirHorn®** only runs on Windows® XP or Vista® operating systems; however, the new Intel-based Apple® computers running *BootCamp* would theoretically be able to run **AirHorn®** but this functionality is untested and unendorsed by Brinston Sound Images at this time.

Can I use the program on multiple machines on my layout?

The nature of the licensing design chosen by BSI is meant to curb rampant piracy, and BSI want to restrict the application's use to a single, licensed, user. Therefore, the user

may re-use their license key to install on other computers. The registered user's first and last names are prominently displayed on the splash page every time **AirHorn®** starts. This will hopefully reduce the appeal for people to give away their license keys to other, non-registered users. Low-cost licensing for club layouts are available from the BSI WEB site to enable all of the club members to use a copy of the program for personal and club use to minimize collective cost to the club members. In this case, the software program is licensed to the club at registration time and support is provided to club members.

Appendices

A1: Basic_MP3 Sound Scheme Files Supplied with AirHorn® 1.0

- *Nature_Light_Rain_Thurnder_Birds.mp3*
- *Industrial_Jack_Hammer.mp3*
- *Urban_Big_Dog_Barking.mp3*
- *Engine_Diesel_Dynamic_Brake_Cycle_Short.mp3*
- *Horn_Nathan_M3_Long.mp3*
- *Operation_Radio_HotBox_Detection_B.mp3*
- *Engine_Long_Startup_Sequence_Idle.mp3*
- *Engine_Idle_Following_Long_Startup_Sequence.mp3*
- *Engine_Steam_Depart.mp3*
- *Engine_RS18_Warm_Start_2.mp3*
- *Engine_RS18_Idle_2.mp3*
- *Engine_RS18_Reverse_Bell_Horn.mp3*
- *Level_Crossing_E_Loud.mp3*
- *Horn_Hancock_H4700_Long.mp3*
- *Rail_Hiball_Clack_A.mp3*
- *Yard_Diesel_Fueling_Sequence.mp3*
- *Yard_Car_Coupling_Short.mp3*
- *Nature_Canadian_Geese.mp3*
- *Nature_Seagulls.mp3*
- *Yard_Manual_Switch_2.mp3*

A2: Copyright and Trademarks

AirHorn® User Guide

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