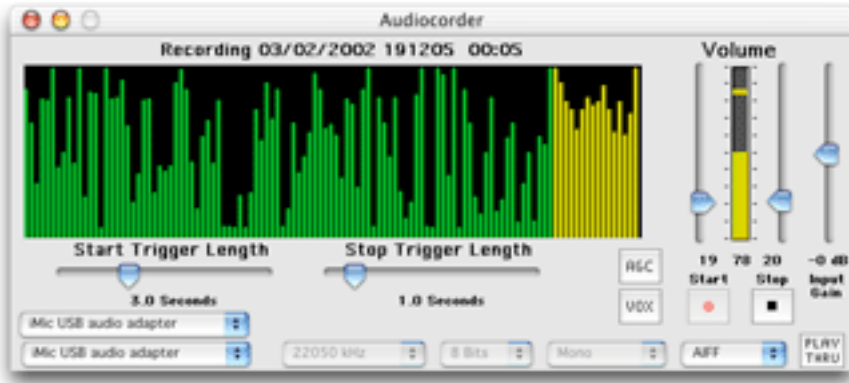


Audiocorder

Audiocorder Version 3.7.1 March 30, 2003



Notes

Thanks for giving Audiocorder a try. Please read through these brief instructions, so you'll be able to fully utilize Audiocorder's features. Please also take a moment to read the section of registering your copy of Audiocorder.

Requirements

A Macintosh with built in sound input, or a USB sound input device. The sound input device must be capable of recording at 44.1 kHz, 16 bits, mono or stereo. If not, Audiocorder will not work properly. Some of the more basic USB microphones cannot record at 44.1 kHz, resulting in a chipmunk like recording. The Griffin iMic USB mike works fine.

If you have a 68K Macintosh, please download and use version 2.0.2. Please note that this version has been frozen in development due to system limitations, and doesn't have all of the features described.

The standard (PPC) version should run on MacOS 9 and greater, and may run on previous versions. Otherwise, download version 2.0.2.

The Mac OSX (Carbon) version requires Mac OS X. There were numerous sound input problems with early versions of Mac OS X.

Please also note that the ability to record telephone calls from the internal modem is not available with the OSX version. This is due to limitations caused by Apple, if you'd like to be able to do this - please ask Apple to allow setting the modem as an input source!

Introduction

Audiocorder allows you to record sound using your Mac.

You can do this several ways:

Audiocorder can be used to automatically start recording sound to a disk file. The recording process is triggered when the volume exceeds an initial threshold, for a specified minimum amount of time. It then continues to record until the volume drops below a second threshold for a minimum amount of time.

Audiocorder can also be used as a manually operated recorder. You use pushbuttons, just like on a "real" recorder, to start and stop recording.

In addition, Audiocorder can start and stop recording at scheduled times. Up to 50 recording

periods may be scheduled in advance. Think of it like a VCR.

You can also use Audiocorder to record telephone calls, if your Macintosh has an internal modem connected to your phone line. **[Not available on MacOSX version]**

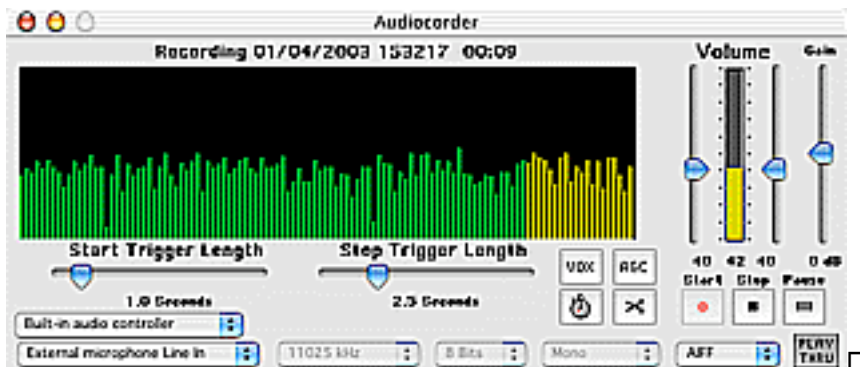
Each sound file is stored in AIFF format, a Macintosh standard sound format, or as a Windows WAVE file. The audio can be sampled at 11, 22 or 44 kHz, with 8 or 16 bit resolution, either monophonic or stereo (depending on your particular Mac's hardware capabilities). The name of each file contains the date and time (down to seconds) the recording began.

Start Up

When you first launch Audiocorder, you'll see the Audiocorder window. You'll see a moving bargraph, showing the audio volume levels being recorded (if there's anything to record!)

You'll most likely want to select which audio input device and source to use, along with some other settings. These are explained in the following pages.

Audiocorder Window



The main window contains a volume indicator, five slider controls, five or six buttons, and a bar graph showing past volumes, as well as six popup menus.

Volume Indicator

This shows the current volume, which can range from 0 to 100%. It is one of three colors:

Green: Audiocorder is not recording.

Yellow Audiocorder is currently recording.

Red: The volume is too loud, and some of the sound may be clipped, resulting in distortion. Lower the volume control on your radio, or whatever is the source of the audio signal, or adjust the input gain slider.

Manual Recording

There are two buttons in the lower right corner, under the volume sliders. One (on the left) has a red dot, and allows you to manually start recording, regardless of the volume level. The other (on the right) has a black square, and stops a manually started recording.

You can also use the menu commands under the File menu to start stop recording, or their keyboard shortcuts.

When in VOX mode, the stop button will also stop recording. If the volume is above the start threshold, then a new recording will of course start immediately.

Play Thru

You can enable or disable play-thru by using the button in the lower right corner. Play-thru causes the input sound to be played through your Mac's speakers. Note that not all Macs support play thru, and not all USB devices do either. Under OSX, plau thru does not appear to work with USB microphones.

AGC

This enables AGC - Automatic Gain Control, which adjusts the input gain based on the audio volume. Not all Macintosh models support AGC, so it may have no effect on your Mac.

Telephone Line [Not implemented in the Mac OSX version]

The telephone line button instructs Audiocorder to pick up the phone line, and allows you to record telephone calls. See the section further down detailing this.

Scissors - Stop/Start Recording

When clicked, this button will stop the current recording, and start a new recording. This is ideal for manually breaking an album or CD into individual tracks. This button is only enabled when you're recording.

Volume Operated (VOX) Recording

The VOX button enables or disables VOX recording. When enabled, recording will start and stop as controlled by four slider controls, as explained below.

Slider Controls

The **Input Gain** slider control can be used to adjust the input volume level, over a small range (as allowed by your Macintosh model)

There are four slider controls which are used to set the conditions that cause Audiocorder to start or stop recording:

Start Volume: When the audio volume exceeds this threshold (for a minimum amount of time, see below), recording begins.

Stop Volume: When the audio volume is below this threshold (for a minimum amount of time, see below), recording ends.

Start Trigger Length: This sets the minimum amount of time (in seconds) the volume must exceed the Start Volume setting for recording to begin. This could be used to reject short bursts of noise, which would otherwise start a recording.

Stop Trigger Length: This sets the minimum amount of time (in seconds) the volume must drop below the Stop Volume setting for recording to end. This could be used to allow for short periods of low volume (such as between words), which would otherwise stop a recording.

When you quit Audiocorder, your settings are preserved, and will be used the next time you run the program.

Bar Graph

This shows the volume level over the last minute, one second per bar. Each bar is either green or yellow, depending on whether or not Audiocorder was recording at that time. It can be used to see what the average volume level is, and assist you in setting the Start and End volumes.

Input Source

You can select the input source (such as internal microphone, modem, external input, etc) from the popup menu in the lower left corner of the Audiocorder window.

Input Device

You can select the input device (such as built in audio, an external USB microphone, etc) from the popup menu located just above the input source menu.

Sampling Rate

This is the number of samples that are recorded per second. Faster sampling rates sound better, but take up more disk space. 44100 Hz is the sampling rate used by audio compact discs. 22050 and 11025 Hz rates are also available, they have lower audio quality, but also produce smaller files.

Sample Size

This is the number of bits used to represent each sound sample. 16 bits (used by audio compact discs) sounds best, but takes twice as much disk space as 8 bits.

Mono / Stereo

Specifies whether the recorded sound should be monophonic or stereo.

Please note that you cannot change the sampling rate, size, or mono/stereo while recording.

File Format

You can selected AIFF or WAVE file formats. AIFF files are used on the Macintosh, and are ideal for using later to burn CDs. WAVE files are commonly used on Windows systems.

Selecting The Folder To Store Recordings

By selecting **Select Storage Folder...** from the **File** menu, you can choose the folder in which Audiocorder saves AIFF recording files. Highlight the folder of interest, and click on Select (or Choose under MacOS 8 or 9).

File names

Each recording is saved as a separate file, with a filename depending on the date and time the recording begins.

A typical automated file name is:

Recording 04-07-2001 191453

This means that the recording was made on 4-7-2001, starting at 19:14:53 (or 7:14:53 PM).

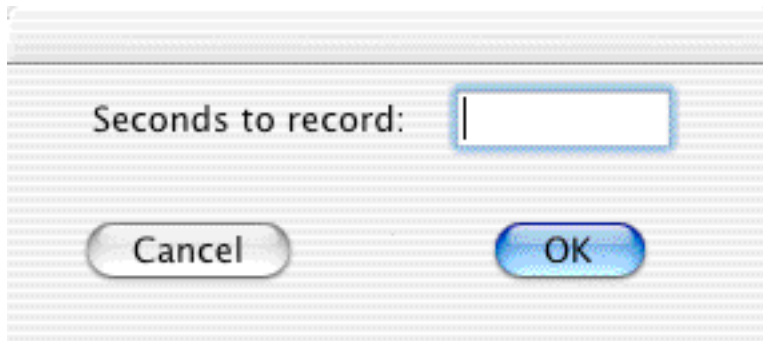
You can always rename a file in the Finder, after recording it.

If you prefer to have multiple recordings saved to one file, select **Record To One File As...** from the **File** menu. Enter the name for the recording file. All subsequent recordings are saved to this file, with each new recording appended to the end. Select **Stop Recording To One File** to resume saving each recording to it's own time stamped file.

Timed Recording

You can tell Audicorder to record for a specified length of time, and then stop recording.

Click on the button with a picture of a stopwatch, and you will be prompted to enter the number of seconds of audio to record:



Enter the number of seconds, click OK, and Audicorder will then start recording, and automatically stop when that number of seconds of audio has been recorded.

Scheduled Recording

It's possible to Audiocorder to automatically start and stop recording at scheduled times, rather than based on the volume level. To do so, you simply need to create a schedule, and tell Audiocorder to use that schedule.

If you name that schedule file STARTUP, and place it in the same folder as Audiocorder, it will automatically be opened when Audiocorder starts up.

To create a schedule, select new Schedule from the File menu. Each schedule can have up to 50 entries in it. Each entry tells Audiocorder when to start and stop recording. To create an entry, push the New Entry button, and fill out the requested information. Please note that times are entered in the 24 hr (military) format, and dates are entered in the American format of month/day/year.

You can edit an existing entry by double clicking it. You can delete an entry by selecting it, and then clicking on the Delete Entry button.

To pick a schedule file, select Open Schedule from the File menu. Choose the file. The Recording Schedule window will be displayed, showing the recordings that will take place. Next to each recording is a status, which is one of the following:

Queued - The recording is scheduled to occur at the indicated time.

Recording - The recording is occurring now.

Recorded - The schedule has already been recorded.

Skipped - The date and time of the entry is earlier than time the schedule was opened, so it wasn't possible to make the recording, and it was skipped.

The schedule is a text file, created with Simple Text or another text editor, but not with a word processor, unless you've saved the file as a text file. If you'd like to create a schedule by hand, you can do so. The format of the file is as follows:

Each scheduled recording is listed on one line. The date and time that the recording begins, and then ends, are on that line. For example, to start recording at 5:30 pm on November 7, 1999, and stop recording at 5:45 pm on November 7, 1999, the line would look like this:

```
11/7/1999 1730 11/7/1999 1745
```

You can have up to 50 such lines in your file, allowing for up to 50 recordings to take place. The recording filename follows the standard Audiocorder format. It's important to make sure that scheduled recordings are listed in chronological order.

It's also important to make sure that each line ends with a return.

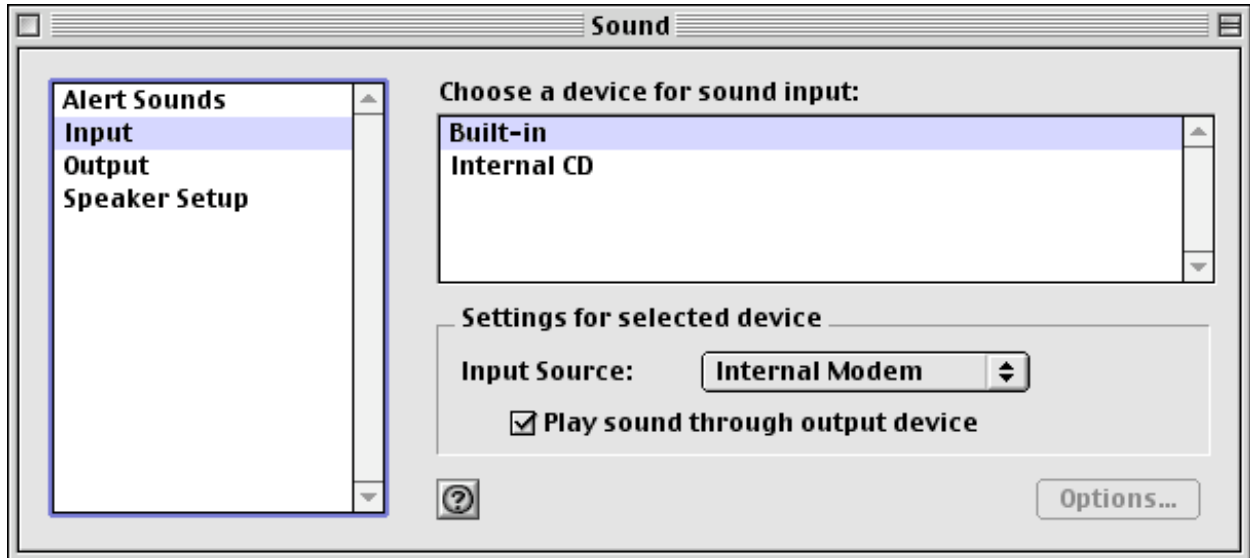
Schedule Window:



□

Recording Telephone Calls [Not available in MacOSX version]

If you have an internal modem, and it is connected to your phone line, you can use Audiocorder to record phone calls. Select the Internal Modem as the input source in the popup menu in the lower left corner of the Audiocorder window, or before starting Audiocorder, go to the Sound control panel, and select Internal Modem as the Input Source. You can also select Play sound through output device, if you'd like to hear the phone call in your Mac's speaker as well as record it:



Then start Audiocorder. When you want to record a call, click on the button with a telephone symbol on it. Audiocorder will then tell the modem to pick up the phone line. You can then manually record, or use the automated recording, to actually start and stop the recording process. When done, click on the phone button again, and Audiocorder will release the phone line. Please note that clicking on the phone button only tells the modem to pick up the phone line, it doesn't actually start the recording process.

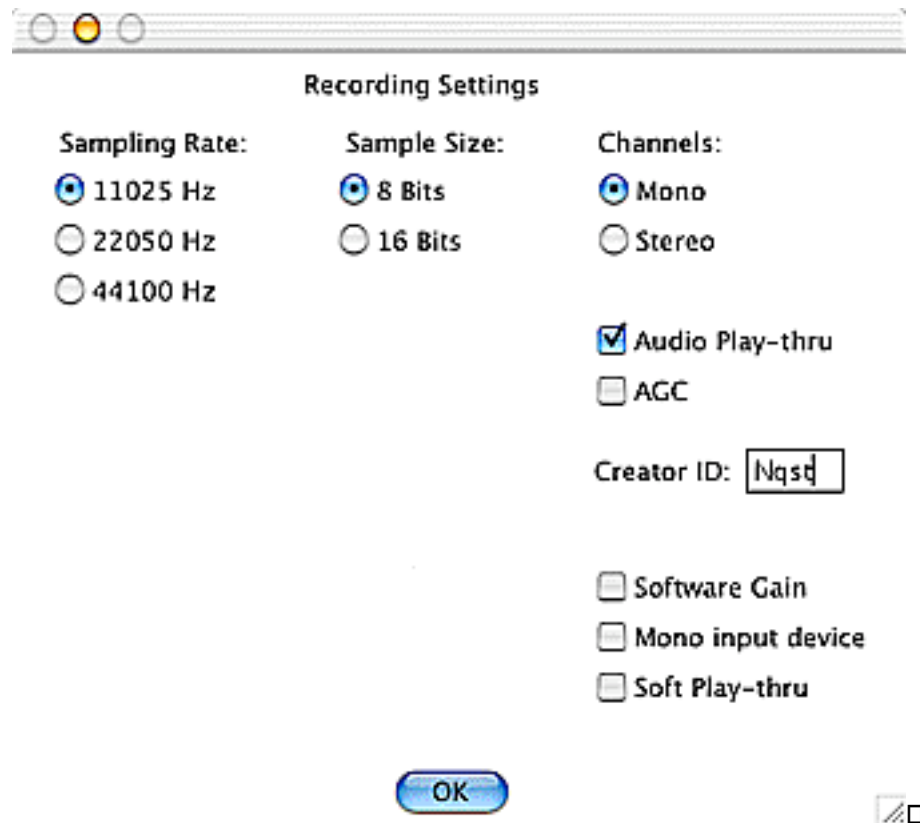
You may want to restore your Sound control panel after you quit Audiocorder, if you want to be able to record off of the microphone input later. (You have to quit Audiocorder to be able to change the sound input device in the control panel)

If you don't see the telephone button, make sure that you have Check For Modem enabled in the Recording Settings, and your Macintosh actually has an internal modem capable of routing audio as the input device. For example, this will not work on the iBook, as the sound from the internal modem is not available for recording. Apparently this is also the cause on certain G3 desktop models. This is a hardware problem, and cannot be fixed with software!

Please be sure to check with your local laws regulating the legality of recording telephone conversations!

Recording Settings

By selecting **Recording Settings...** from the **File** menu (or Preferences under OS X), you can choose the sampling rate, word size, etc. These are much more easily chosen by using the pop-up menus on the main Audiocorder window. You can also select the creator ID for sound files, which allows you to specify which application should be launched if you double click on the sound file icon. You'll be presented with a display similar to this one:



These are the values you can select:

Sampling Rate

This is the number of samples that are recorded per second. Faster sampling rates sound better, but take up more disk space. 44100 Hz is the sampling rate used by audio compact discs.

Sample Size

This is the number of bits used to represent each sound sample. 16 bits (used by audio compact discs) sounds best, but takes twice as much disk space as 8 bits.

Channels:

Specifies whether the recorded sound should be monophonic or stereo.

Audio Play-thru:

When enabled, sound from the input device will be played through your Mac's speakers. Note that this is usually only an option for recording off the microphone or built-in devices, sound from the CDROM drive normally always plays through anyway. You may also need to open your Sound Control Panel, and select the box to play sound through the output device on certain Mac models. On later versions of MacOS, this has no effect, play thru must be selected from the Sound control panel.

AGC:

Enables Automatic Gain Control. When selected, the input level is automatically adjusted depending on the average volume level. Note that this feature may not function on some Mac models. On later versions of MacOS, this has no effect, AGC must be selected from the Sound control panel, if it is available at all.

Creator ID:

Sets the Creator ID for recording files. When a recording file is double clicked, the Creator ID is used by the MacOS to select which application to run to open the file. This allows you to chose which program should play any recording files produced by Audiocorder.

Software Gain:

When clicked, the input gain slider will be used to amplify the signal in software. The actual hardware gain, if any, is set to one. This is useful for recording from input devices that do not support variable gain, such as the iMic presently under OS X. Since the amplification is being done in software, the dynamic range will be reduced, and the quality will suffer as the input sound level is lower and more gain is used.

Mono Input Device:

Make sure this is selected if a monophonic input device is being used. Many USB microphones fall into this category. In incorrectly selected/not selected, garbled recordings will result. If your recordings seem to be too fast (double speed, high pitched) you probably have this enabled when it shouldn't be.

Soft Play-thru:

Some Mac models don't support play-thru. Enabling this feature will make Audicorder play back the audio as it is recorded, with a slight delay.

Playing Back Recording

You can play back your recordings by selecting **Play Recording File** from the **File** menu.

Select your file from the Open File dialog, and playback will automatically begin. You'll also see a small window like this:



The five buttons are (in order from left to right):

Rewind Clicking this will rewind the playback.

Play Clicking this will start (or re-start) playback

Pause Clicking this will pause playback. Clicking Play will re-start playback from where it was paused.

Stop Clicking this will stop playback. Clicking Play will re-start playback from where the playback stopped.

Fast Forward Clicking this will fast forward the playback.

The slider in the lower right adjusts the playback volume.

The two numbers under the playback indicator show the elapsed time, and total recording length, in Hours:Minutes:Seconds.

Applescript Commands

You can control most of Audiocorder's features using Applescript. Below is a brief description of each scripting command available:

Filename: Specify name of single file to record to

Filename file specification -- *FSSpec for file*

StopRecordingToOneFile: Go back to recording to timestamped filenames

StopRecordingToOneFile

PlayFile: Play a recorded file

PlayFile file specification -- *FSSpec of recording file to play*

PlayThru: 0 to disable playThru, 1 to enable

PlayThru integer

StartVolume: 0-100 volume to start VOX recording

StartVolume integer -- *0-100*

StopVolume: 0-100 volume to stop VOX recording

StopVolume integer -- *0-100*

Agc: 0 to disable AGC, 1 to enable

Agc integer -- *0 to 1*

Record: Start recording

Record

Vox: 0 to disable VOX, 1 to enable

Vox integer -- *0 or 1*

StopTime: 0-10 seconds VOX stop time

StopTime integer -- *0-10*

StartTime:

StartTime integer -- *0-10*

Unpause: stop pause, re-start recording

Unpause

SampleRate: 11025, 22050, or 44100 Hz

SampleRate integer

SampleSize: 8 or 16 bits

SampleSize integer

SampleCh: 1 (Mono) or 2 (Stereo)

SampleCh integer

SetDevice: Set audio input device

SetDevice string

SetSource: Set audio input source

SetSource string

GetDevices: Get a comma delimited list of all devices

GetDevices

Result: string

GetSources: Get a comma delimited list of all sources for the active device

GetSources

Result: string

Format: AIFF or WAVE

Format string

GetDevice: Get name of current sound input device

GetDevice

Result: string

GetSource: Get name of current sound input source

GetSource

Result: string

StopRecording: Stop Recording

StopRecording

Pause: Pause Recording

Pause

GetVolume: Returns current volume, 0-100

GetVolume

Result: integer

GetRecordingTime: Get current recording time (length) in seconds

GetRecordingTime

Result: integer

GetStatus: Returns recording status - OFF or ON or PAUSED

GetStatus

Result: string

Gain: 0-100 Audio input gain

Gain integer -- *gain setting 0-100*

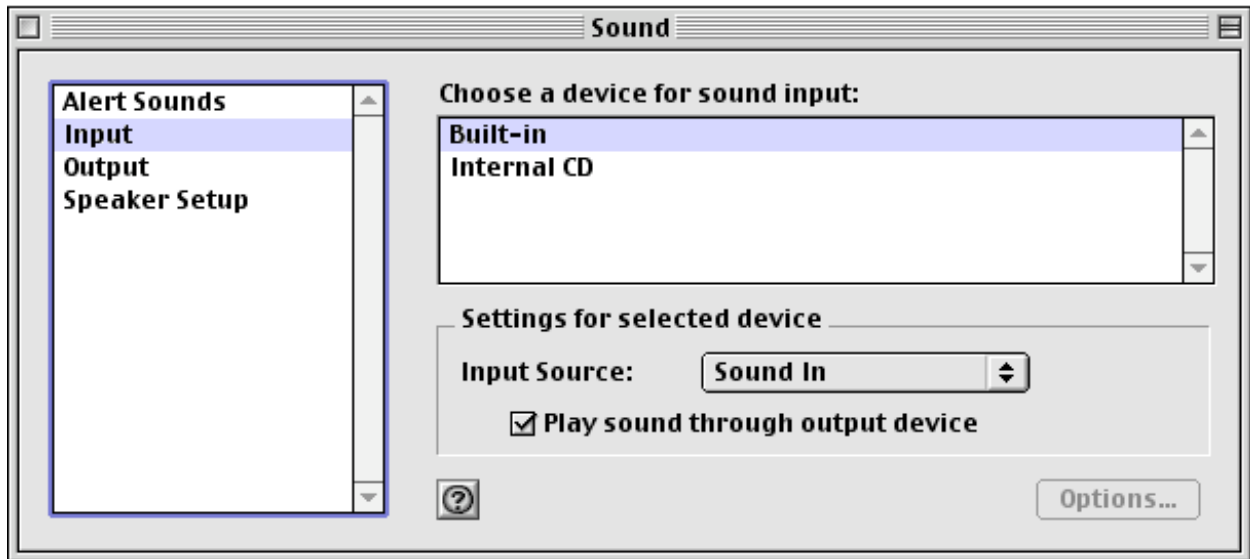
TimedRecording: Start a timed recording

TimedRecording integer -- *seconds*

Troubleshooting

If the recording sounds garbled, check to make sure that you have virtual memory turned off, especially on slower systems.

If running in MacOS 9 or earlier, you may also want to make sure that you have the Input correct settings in the Sound control panel. You probably want to select the Sound In or External Mic source.



Please see the next chapter of this document for information on registering your copy of Audiocorder, which will remove the reminder message at the beginning of each recording.

Registering

Audiocorder is distributed as shareware. If you find Audiocorder useful, please register your copy. When you register, Audiocorder will not prepend a short reminder message in every audio file recorded. You can register your copy of Audiocorder online, by visiting:

<http://www.blackcatsystems.com/register/audiocorder.html>

We're allowing you, the user, to determine how much to pay us for your copy of Audiocorder. You decide how useful Audiocorder is to you, and pay us that amount. Doesn't that sound fair?

Please note that Audiocorder is in no other way crippled. If you can't make a recording, or the recording sounds garbled, then there is a problem preventing Audiocorder from properly running on your system. Registering it won't fix this problem!

Your registration entitles you to all upgrades of Audiocorder released within one year of your registration. So you'll get all the new features and any bug fixes.

By registering your copy of Audiocorder, you'll help support my efforts to develop newer versions, and the features available. I'd like to be able to continue developing new versions of Audiocorder, so that we Mac users won't be forced to abandon the Macintosh for the wintel platform.

If you want to use Audiocorder on multiple computers, you'll need to register a copy for each computer. If you'll be using Audiocorder on many computers, you may want to take a look at our site licensing options, which can save you a great deal of money.

When you register you'll receive a registration code, by email.

Thanks again for giving Audiocorder a try.

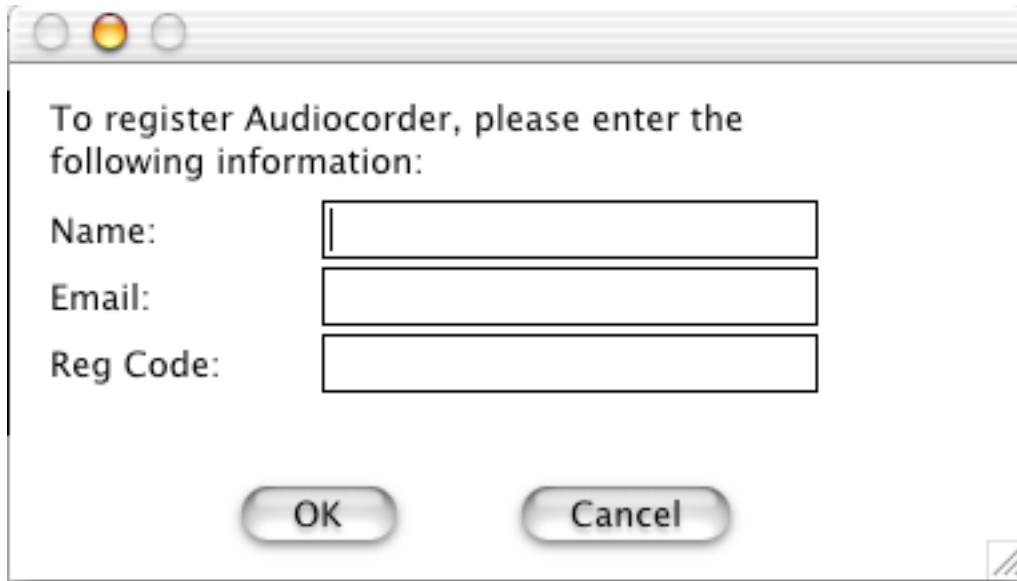
Black Cat Systems
PO Box 2293
Westminster, MD 21158
USA

email: audiocorder@blackcatsystems.com

Web: <http://www.blackcatsystems.com/software/audiocorder.html>

Entering Your Registration Code

When you register Audiocorder, you'll receive an email containing your registration code. Select **Register...** from the **File** menu, and enter the code into the window that appears, along with your Name and Email address (optional):



A screenshot of a registration dialog box for Audiocorder. The window has a title bar with three standard macOS window control buttons (red, yellow, green). The main content area contains the text: "To register Audiocorder, please enter the following information:". Below this text are three vertically stacked text input fields. The first field is labeled "Name:", the second is labeled "Email:", and the third is labeled "Reg Code:". At the bottom of the dialog box, there are two buttons: "OK" on the left and "Cancel" on the right. A small square icon with diagonal lines is located in the bottom right corner of the dialog box.

□

Audiocorder Version History

3.7.1 March 30, 2003

Fixed a bug that prevented more than 30 items in recording schedule
Added Applescript commands for timed recording.

3.7.0 February 6, 2003

Added timed recording
Changed / to - in filenames
Fixed a bug where selecting record to one file didn't bring up a Save As dialog.

3.6.2 December 31, 2002

Fixed a bug with Applescript

3.6.0 November 3, 2002

Added scissors button
Playback includes fast forward and rewind buttons, shows elapsed time, volume slider.

3.5.0 October 6, 2002

Added Applescript support
Added pause button to pause recordings
Added scissors button to manually split tracks
Now supports mono input devices (like microphones)

3.4.0 July 21, 2002

Added menu commands and keyboard shortcuts to start/stop manual recording.

3.3.1 April 30, 2002

Misc bug fixes.

3.3.0 March 9, 2002

Release version.

3.3.0b2 March 2, 2002

1. Addition of schedule window
2. Ability to play back recordings added

3.3.0b1 February 10, 2002

1. Several bug fixes

3.2.1 January 1, 2002

1. Remind message in unregistered version could sound garbled

3.2.0 January 1, 2002

1. Many OSX user interface improvements
2. Ability to change input device selection from the main window
3. Ability to save in WAVE format
4. AGC from the main window
5. Faster updates to the volume indicator

3.1.0 August 25, 2001

1. Popup menus added to easily change various settings
2. Ability to change sound input source from within Audiocorder.

3.0.0 May 13, 2001

1. Carbon support for MacOSX.

2.0.2 January 15, 2001

1. Better support for older versions of MacOS.

2.0.0 January 2, 2001

1. Can now record telephone calls from the internal modem.

1.9.9 September 29, 2000

1. Recording files are now hidden until the recording is finished.
2. Gain value is now displayed under the slider.

1.9.8 August 8, 2000

1. Added the ability to select the folder in which Audiocorder saves AIFF files.

1.9.7 July 2, 2000

1. Audiocorder now requires the recording settings to be confirmed if unregistered (to verify they are done the first time the program is run).
2. VOX now defaults to off when Audiocorder is first run.

1.9.6 June 30, 2000

1. Fixed a bug where Audiocorder would crash with a Type 4 (Divide By Zero) error if it was run for the first time, and a recording was made before the sound input settings were set.

1.9.5 June 27, 2000

1. Automatically opens schedule called STARTUP if it exists.
2. Doesn't open Recording Settings dialog on launch.

1.9.1 May 15, 2000

1. Bug fix - play-thru did not work on all Mac models.

1.9.0 May 6, 2000

1. Added ability to play AIFF files.

1.8.0 April 1, 2000

1. Added ability to select sound input device.
2. Added ability to set creator ID for recording files.
3. Added ability to change recording settings while Audiocorder is running.
4. Start/Stop buttons are correctly highlighted when in VOX mode.
5. Changed format of filenames to display the date first for better sorting in Finder.
6. Length of recording now correctly displayed for stereo mode.
7. Gracefully exit if the sound input device is already open from another application.

1.7.0 March 9, 2000

1. Added Input Gain.
2. Added VOX button to disable automatic recording.

1.6.1 January 30, 2000

1. If a sound is recording when Audiocorder is quit, it will now finish writing to the file before quitting.

1.6.0 December 12, 1999

1. Added AGC selection.
2. Fixed a bug which caused the very first part of some recordings to not be recorded.

1.5.0 November 11, 1999

Added scheduled recordingd.
Added manual start/stop recording.

1.3.1 October 8, 1999

Added Audio Play-thru.

1.3.0 September 25, 1999
Added stereo recording.

1.2.1 May 30, 1999
Fixed bugs with 16 bit recording, and recording at 11 and 44 kHz.

1.2.0 May 29, 1999
Added ability to record at different rates and sample sizes.

1.1.0 May 16, 1999
Added ability to save multiple recordings into one file.

1.0.0
Initial Release

Software License Agreement

This is a legal agreement between you and Black Cat Systems, covering your use of Audiocorder (the "Software"). Be sure to read the following agreement before using the Software. **BY USING THE SOFTWARE (REGARDLESS IF YOU HAVE REGISTERED THE SOFTWARE OR NOT), YOU ARE AGREEING TO BE BOUND BY THE TERMS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO THE TERMS OF THIS AGREEMENT, DO NOT USE THE SOFTWARE AND DESTROY ALL COPIES IN YOUR POSSESSION.**

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