

# AudioSplit

AudioSplit is a Windows application that can combine audio files and split the resulting output file into segments with a specified duration. It provides a flexible naming system for the output files.

AudioSplit was developed for use by the USA National Park Service and National Forest Service to process long audio files of wildlife sounds (such as birds and toads) captured by wildlife recorders.

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## Features

- Combine one or more audio files of various types into one stream.
- Split audio files into segments of a specified length.
- Name the output files based on a file name template that can be either date and time based or sequentially numbered.
- Optionally exclude sounds recorded during specified hours of the day. Excluded files are not deleted, but are moved to an Exclude folder.

## Requirements

- Requires Windows 7 or later.
- Requires the 64-bit version of Windows.

## Installation

- Go to the AudioSplit [latest release](#) page and download AudioSplit\_x.y.zip (where x.y is the version number).
- There is no install program. Unzip the files into a folder, and run AudioSplit.exe.

## Usage

The screenshot shows the AudioSplit application window. At the top, there's a title bar with the application name and standard window controls. Below the title bar, there's a section for 'Input files' with a 'Browse...' button, a 'Clear' button, and up/down arrow buttons next to a red number '2'. An 'About' button is also present. The main area is a table with two columns: 'File Name' and 'Duration'. It contains four rows of audio files, with the first row highlighted in blue. Below the table, there are various settings: 'Start date and time' (4/30/2020, 10:12:00 AM), 'Total duration' (20:01:38:11), checkboxes for 'Split into files of length' (4 Days, 0 Hours, 1 Minutes, 0 Seconds), 'Start files on the hour' (5), and 'Exclude data between' (6:00:00 AM to 6:00:00 PM). There are also fields for 'Output folder' (S:\Toad Call Data 2020\RRRD05\RRRD05\_20200430\_101200\Hourly\), 'Exclude folder' (S:\Toad Call Data 2020\RRRD05\RRRD05\_20200430\_101200\Hourly\Exclude\), 'Output format' (wav), 'Channels' (Stereo), 'File name template' (RRRD05\_@yyy@MM@dd\_@HH@mm@ss), and 'Example file name' (RRRD05\_20200430\_101200.wav). A 'Write log file' checkbox is also present. At the bottom, there's a 'Run' button and a red number '14'.

	File Name	Duration
▶	S:\Toad Call Data 2020\RRRD05\RRRD05_20200430_101200\Raw Data\REC001.WAV	6.05:07:51
	S:\Toad Call Data 2020\RRRD05\RRRD05_20200430_101200\Raw Data\REC002.WAV	6.05:07:50
1	S:\Toad Call Data 2020\RRRD05\RRRD05_20200430_101200\Raw Data\REC003.WAV	6.05:07:50
	S:\Toad Call Data 2020\RRRD05\RRRD05_20200430_101200\Raw Data\REC004.WAV	1.10:14:37
*		

Start date and time: 3 4/30/2020 10:12:00 AM Total duration: 20.01:38:11

☒ Split into files of length: 4 Days: 0 Hours: 1 Minutes: 0 Seconds: 0

☒ Start files on the hour 5

☒ Exclude data between: 6 7:00:00 AM to 6:00:00 PM

Output folder: ☒ Auto S:\Toad Call Data 2020\RRRD05\RRRD05\_20200430\_101200\Hourly\ Browse..

Exclude folder: ☒ Auto S:\Toad Call Data 2020\RRRD05\RRRD05\_20200430\_101200\Hourly\Exclude\ Browse..

Output format: 8 wav ☐ Remove Xing header 9

Channels: 10 Stereo

File name template: 11 RRRD05\_@yyy@MM@dd\_@HH@mm@ss ? 12

Example file name: RRRD05\_20200430\_101200.wav

☐ Write log file 13

Run 14

1. The **Input files** table contains the list of files to be processed. Use the **Browse** button to select the input files, or manually enter the path and file name. In the Open Files dialog you can select multiple files by holding down the ctrl or shift key while you click with the mouse. Use ctrl+A to select all files in a folder.
2. Files are processed in the order listed. Use the **up** and **down** arrow buttons to change the order of the files for processing.
3. Set the **Start date and time** of the first file. This will be used to name the output files.
4. Check the **Split into files of length** checkbox to split the combined input files into output files (segments) with the specified length.
5. Check the **Start files on the hour** checkbox to start files on the hour. You should set the split length to be 1 or more hours, with zero for the minutes and seconds. The first file will be a "catch-up" file of length less than an hour, and subsequent files will start on the hour.
6. Check the **Exclude data between** checkbox to specify certain files are to be excluded. Specify a time range for each day to exclude.

Output files that fall completely within this time range will be moved to the Exclude folder (they are *not* deleted).

The exclude time can be during the day (such as 7 am to 7 pm -- 0700 to 1900) or overnight (such as 7 pm to 7 am -- 1900 to 0700).

7. Specify the **Output** and **Exclude** folders.

If the **Auto** checkbox is checked, the associated folder is automatically set. For Output, the automatic folder is a folder named Hourly on the same level as the first file in the input files list. For example, if the first input file is S:\ToadCalls\Raw Data\REC001.wav, the automatic output folder would be S:\ToadCalls\Hourly.

For Exclude, the automatic folder is a folder named Exclude that is underneath the output folder. For example, if the output folder is S:\ToadCalls\Hourly, the automatic exclude folder would be S:\ToadCalls\Hourly\Exclude.

8. Set the **Output format** to the type of output file desired. You can produce WAV, FLAC, MP3, or AIF files.

AudioSplit always decodes the input files and re-encodes the output files, even if the input and output formats are the same. This may produce a small loss of audio quality if you are re-encoding a compressed format such as mp3, but it is necessary in order to get accurate times for the recordings.

9. If the **Remove Xing header** option is checked, mp3 files will be written without an Xing header frame. This option only applies to mp3 files and is normally off. Check this option if you are performing further processing with a program that cannot process the Xing header.
10. If you are processing stereo files, set **Channels** to "Stereo" to process both channels, or select "Left" or "Right" to extract only one channel of the audio.
11. The **File name template** is used to name the output files. You can use these variable substitution symbols in the file name template:

Symbol	Meaning
@yyyy	4 digit year
@yy	2 digit year
@MM	Month
@dd	Day of month
@HH	Hour (24 hour format)
@hh	Hour (12 hour format)
@mm	Minutes
@ss	Seconds
@tt	AM/PM indicator
@0	Sequential file number starting with 0
@00	2 digit sequential file number starting with 0
@000	3 digit sequential file number starting with 0
@1	Sequential file number starting with 1
@01	2 digit sequential file number starting with 1
@001	3 digit sequential file number starting with 1

For sequential file numbers, you can include additional leading zeros to force the numbers to have additional digits.

Example 1:

RRRD-01\_@yyyy@MM@dd\_@HH@mm@ss

will produce a a set of filenames like this:

RRRD-01\_20190408\_152300.wav  
RRRD-01\_20190408\_160000.wav  
RRRD-01\_20190408\_170000.wav

Example 2:

BirdSong\_@001

will produce a set of filenames like this:

BirdSong\_001.mp3  
BirdSong\_002.mp3

BirdSong\_003.mp3

12. The **help** (question mark) button next to the Filename template will open a help window that lists the variable substitution symbols.
13. If desired, check the **Write log file** option. This will save a log file in the output folder. The log file contains messages produced by the audio processing program (ffmpeg) while processing the files.  
You normally will not need to enable the log file, but it may be useful if there are problems processing the recordings.
14. Click the **Run** button to begin processing.

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