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Requirements

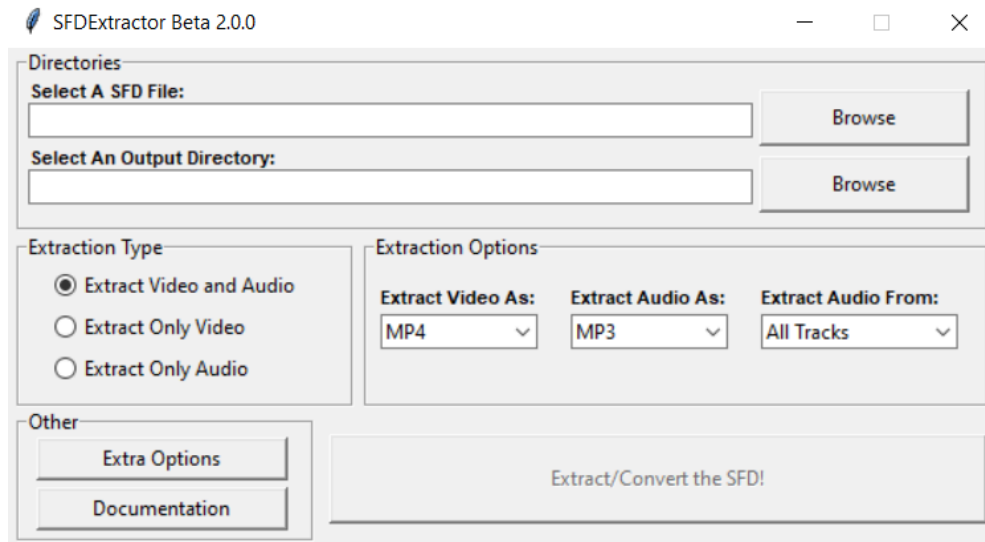
- A x64/64-bit PC, required for FFmpeg to run.
- FFmpeg (this will be automatically installed and set up by the programs if you don't already have it)

SFDExtractor

This program is intended for ripping (and splitting) the video and audio track(s) from Sofdec video files, or “SFD” files for short. It also converts them to more modern and widely compatible formats by default.

Program Overview

Main Window



This is the main window of the program. On this window, you have the option to switch settings for the Extraction Type, and what format you want the extracted files to be in, as well as what audio track to extract from. Below, you can find brief descriptions of the options.

Extraction Type

This section allows you to change what is extracted with the SFD, such as only extracting the video, or only extracting the audio. The default is to extract both video and audio.

Extraction Options

Extract Video As:

This dropdown box will allow you to extract the video in one of the selected formats. The options currently available are MP4, AVI, and MPEG. The default is MP4, as it's the most widely compatible of the three.

Extract Audio As:

This dropdown box will allow you to choose what format the audio is extracted in. The options available are MP3, WAV, and ADX. The default is MP3, as it's the most widely compatible of the three.

Extract Audio From:

This dropdown box will allow you to extract audio from specific tracks if you need to. If you don't know how many tracks an SFD has, it's best to leave it at "All Tracks".

Extra Options Window

Extra Options

Additional FFmpeg Settings

- ☐ Use -bitexact for audio
- ☐ Extract audio in mono
- ☐ Extract extra video track
- ☐ Show FFmpeg output

CRF Value: 01

Video Bitrate: 150000

Audio Bitrate: 320k

Video Codec: libx264

Video Resolution: Same as Video

QoL Settings

- ☐ Use SFD directory for output directory
- ☐ Extract SFD to folder
- ☐ Automatically overwrite files

Misc. Program Settings

- ☐ Delete selected SFD after extraction
- ☐ Don't re-encode video (use -c:v copy)

This is the Extra Options window. In this window, various additional FFmpeg settings can be modified. The settings for Video Codec and Video Bitrate vary depending on the Extract Video As option in the main window. More options may be added in future updates. Brief descriptions of the options are down below.

FFmpeg Settings:

Use -bitexact for audio:

Forces FFmpeg to use "-bitexact" instead of a value in Audio Bitrate.

Extract audio in mono:

Forces FFmpeg to export audio as mono (1 channel) instead of stereo (2 channels).

Extract extra video track:

Forces FFmpeg to extract a 2nd video track in the SFD if it exists.

Show FFmpeg output:

Forces FFmpeg output to be displayed.

CRF Value:

This box allows you to change the Constant Rate Factor in FFmpeg. Any value from 1 to 51 can be put into this box.

Video Bitrate:

This box allows you to change the extracted video's bitrate in FFmpeg. The default is 150000. The options available vary depending on the Video file type chosen in the Extract Video As box, found on the main window of the program.

Audio Bitrate:

This box allows you to change the extracted audio's bitrate in FFmpeg. The default is 320k.

Video Codec:

This option allows you to choose a video codec for the output video. The options available vary depending on the Video file type chosen in the Extract Video As box, found on the main window of the program.

Video Resolution:

This option allows you to change the output resolution of the video.

QoL Settings:**Use SFD directory for output directory:**

Sets the output directory to the same one as in the input SFD file.

Extract SFD to folder:

Creates a folder in the output directory and extracts the SFD file to that folder.

Automatically overwrite files:

Automatically overwrites files if they already exist in the output directory.

Misc. Program Settings:**Delete selected SFD after extraction:**

Deletes the SFD file selected in SFDE extractor after it's extracted.

Don't re-encode video (use -c:v copy):

Extracts the video using FFmpeg's -c:v copy command, skip re-encoding it.

Q&A

Q: The video extracted is stretched or squished. Why is this?

A: This is due to the video dimensions from the SFD file, as SFDE extractor doesn't touch the dimensions of the video file. Some games (especially those on Dreamcast and GameCube) had their videos squished in the SFD file, and then expanded to the correct size in game to save space. To fix this, you'd need to open the extracted video in a video editor and correct its size.

SFDCreator

This program is intended for creating your Sofdec video files, or “SFD” files for use in various games.

Program Overview

Main Window

SFDCreator V1.0.0

Input Files

Video File: [Browse](#)

Audio for Track 1: [Browse](#)

Audio for Track 2: [Browse](#)

☐ Use Audio from Input Video ☐ Use Track 1 Audio for Track 2

Output File

SFD Filename: Output Directory: [Browse](#)

Video Resolution: Video Framerate: Video Bitrate: Scale/Crop Settings:

SFD Version/Muxer: ?

Other

[Extra Options](#) [Open GitHub Repo](#)

[About Program](#)

[Documentation](#)

[Create the SFD!](#)

This is the main window of SFDCreator. Here, you'll find the main options you'll need to create an SFD file. More options can be found by clicking on the Extra Options button. Documentation can be accessed in the same way, by clicking the Documentation button. Below, you'll find brief descriptions of the options on the main menu, and what they do.

Input File Options

Use Audio from Input Video

This checkbox allows you to use the audio from the input video.

Use Track 1 Audio for Track 2

This checkbox allows you to copy any input audio from track 1 to track 2.

Output File Options

Video Options

Video Resolution

This dropdown menu will allow you to change the resolution of the output SFD. The options in the dropdown menu are written in the format of 4:3 width/16:9 width x height (resolution). The following options are available in the menu:

- Same as Video
- 320/426 x 240 (240p)
- 480/640 x 360 (360p)
- 640/848 x 480 (480p)
- 960/1280 x 720 (720p)
- 1440/1920 x 1080 (1080p)

Additionally, if none of these options are what you need, you can type a custom resolution in the format of width x height (i.e. "1920 x 1080", 1920 being the width and 1080 being the height).

Video Framerate

This dropdown menu allows you to change the framerate of the output SFD. The following options are available in the menu:

- 24
- 29.97
- 30
- 59.97
- 60

Do keep in mind that it's best to not go above what the framerate of the original input video is.

Video Bitrate

This box allows you to change the bitrate of the output video. Unlike the other video options, this does not have a dropdown menu, instead, you must type the value into the box. The default value is 80M, as it creates a near identical output. If you don't need to change this, or don't know what to put it at, it's best to leave it at its default.

Scale/Crop Settings

This dropdown menu allows you to select various options for scaling/cropping the video to either 4:3 or 16:9. A list of the possible options with an example image from Sonic Unleashed is below. Brief descriptions of each option is available above each image example. Do note that you can't have "Same as Video" selected if you wish to use these options.

None (No change to video, can also be 4:3 to 4:3):

This option will make it so no crop or scale is applied to the output video.



Crop (16:9 to 4:3):

This option will cut the left and right side of the video to fit a 4 by 3 (or 4:3) aspect ratio.



Scale (16:9 to 4:3):

This option will put black bars on the top and bottom of the video to make it fit into a 4:3 aspect ratio.



Squish (16:9 to 4:3):

This option will squish the video to make it fit into a 4:3 aspect ratio.



Scale (4:3 to 16:9):

This option will stretch the video to make it fit into a 16:9 aspect ratio.



Audio Options

Audio Bitrate

This box allows you to change the bitrate of the audio in the output video. Similarly to the Video Bitrate option, you must type the value into the box. The default value is 320k. If you don't need to change this, or don't know what to put it at, it's best to leave it at its default.

Audio Hz/Audio Sample Rate

This box allows you to change the bitrate of the audio in the output video. Similarly to the previously mentioned Audio Bitrate option, you must type the value into the box. The default value is 44100. If you don't need to change this, or don't know what to put it at, it's best to leave it at its default.

Audio Channel Type

This drop down menu allows you to change the number of channels of the audio in the output video. The following options are available in the menu:

- Stereo (2 channels)
- Mono (1 channel)

If you don't need to change this, or don't know what to put it at, it's best to leave it at its default.

Output SFD Options

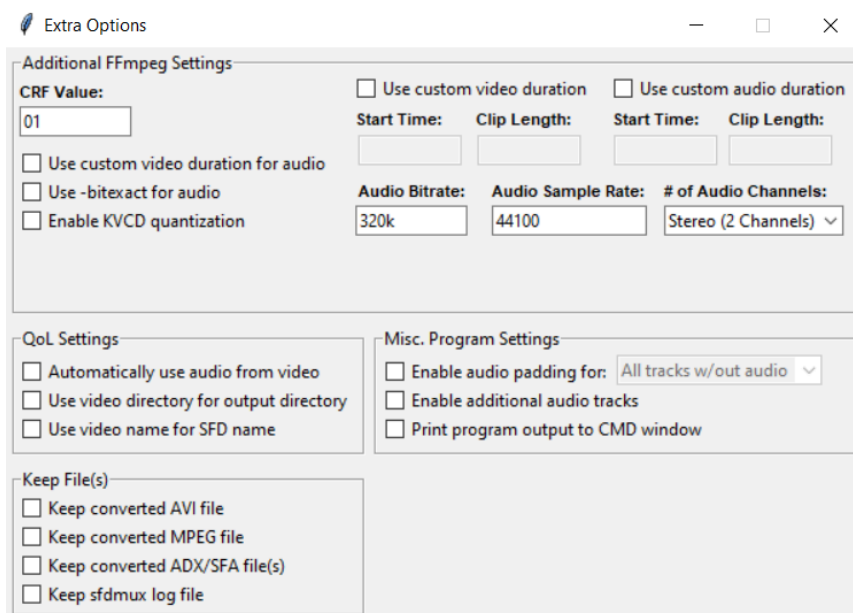
SFD Filename:

This option allows you to set a custom filename for the SFD.

SFD Muxer/Version:

This option allows you to change which version/muxer to use to create the SFD. If you're unsure which one to select, hover over the question mark icon, and click the "Determine SFD Version" button.

Extra Options Menu



The screenshot shows a window titled "Extra Options" with a standard Windows-style title bar (minimize, maximize, close buttons). The window is divided into several sections:

- Additional FFmpeg Settings:**
 - CRF Value:** A text box containing "01".
 - ☐ Use custom video duration
 - ☐ Use custom audio duration
 - Start Time:** and **Clip Length:** text boxes (empty).
 - ☐ Use custom video duration for audio
 - ☐ Use -bitexact for audio
 - ☐ Enable KVCD quantization
 - Audio Bitrate:** A text box containing "320k".
 - Audio Sample Rate:** A text box containing "44100".
 - # of Audio Channels:** A dropdown menu showing "Stereo (2 Channels)".
- QoL Settings:**
 - ☐ Automatically use audio from video
 - ☐ Use video directory for output directory
 - ☐ Use video name for SFD name
- Misc. Program Settings:**
 - ☐ Enable audio padding for: A dropdown menu showing "All tracks w/out audio".
 - ☐ Enable additional audio tracks
 - ☐ Print program output to CMD window
- Keep File(s):**
 - ☐ Keep converted AVI file
 - ☐ Keep converted MPEG file
 - ☐ Keep converted ADX/SFA file(s)
 - ☐ Keep sfdmux log file

This is the Extra Options window. Here, you can change some FFmpeg settings, keep files created when muxing the SFD, use some QoL settings and toggle some other program settings.

FFmpeg Settings

CRF Value:

This box allows you to change the Constant Rate Factor in FFmpeg. Any value from 1 to 51 can be put into this box.

Use -bitexact for audio:

Forces FFmpeg to use "-bitexact" instead of a value in Audio Bitrate.

Enable KVCD quantization:

Enables KVCD quantization, which can allow for smaller SFD file sizes by slightly reducing quality and compressing the video. Helpful for downsampling SFDs for use on Dreamcast CDIs. More details can be found [here](#).

Use custom video duration for audio:

This box copies the value in the custom video duration box to the custom audio duration box, making the files equal in length.

Use custom video/audio duration:

This option allows you to clip the video you're encoding from a certain start time to a certain length. For example, the start time could be 0:00, and the clip length could be 0:02, meaning the video starts at 0:00 and ends at 0:02.

Keep File(s)

These options allow you to keep files used when creating the SFD. Do note that if any one of these are checked, the selected files will be moved to the same location as the SFD file when created.

QoL Settings

Automatically use audio from video:

Automatically inputs audio from the input video file.

Use video directory for output directory:

Sets the output directory to the same one as the input video.

Use video name for SFD name:

Sets the SFD name to the input video's filename.

Misc. Program Settings

Enable audio padding for:

Allows padding audio to be placed onto certain tracks. Intended to be used when needing to get a certain audio file into a certain track. (ex. Sonic Adventure 2, where the English track is audio track 2, but you don't want the Japanese audio to exist).

Enable additional audio tracks:

Enables additional audio tracks on the main window, allowing up to 4 tracks to be added into the SFD.

Print program output to CMD window:

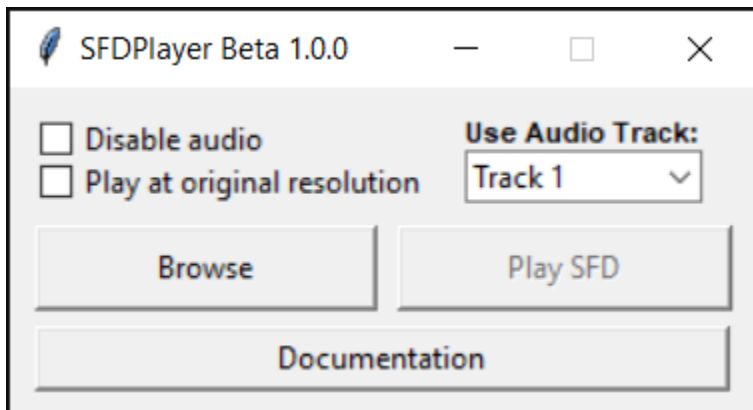
Prints FFmpeg, legaladx and any SFD muxer's output to the CMD window.

SFDPlayer

This program is intended for viewing Sofdec video files.

Program Overview

Main Window



This is the main window of SFDPlayer. You can find brief descriptions of the options below.

Use Audio Track

This dropdown menu will allow you to choose the audio track you want played with the SFD.

Disable Audio

This option will disable audio playback for the SFD.

Play At Original Resolution

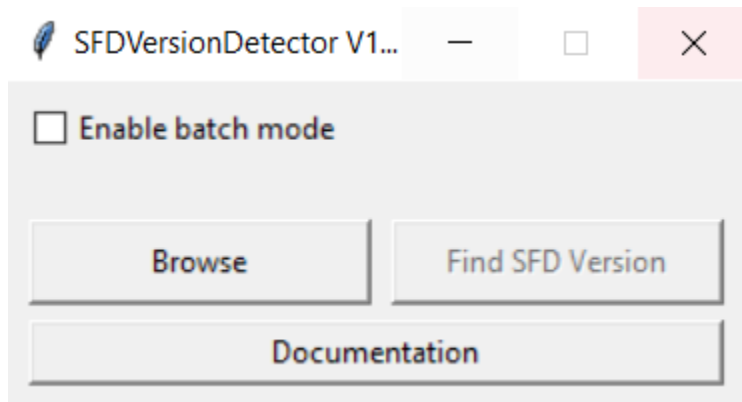
This option will display FFplay's window at the original video's dimensions, instead of scaling it down to fit a specific box size.

SFDVersionDetector

This program can be used to determine the version of SFD file/muxer needed to create the file.

Program Overview

Main Window



This is the main window of SFDVersionDetector. You can find brief descriptions of the options below.

Enable Batch Mode

Enables batch detection, or selecting a folder containing SFD files instead of just a single file.

CMD commands

SFDVersionDetector is currently the only program in SofdecVideoTools to support command line support. Below is a list of the commands that can be used.

- file = file/directory - make sure to put " " around your filepath.
- no_gui - Disables the GUI, required for CMD to not open program GUI
- version_only - only prints version and name of SFD, in format NAME: VERSION
- disable_done_text - disables the "Done, press any key to exit..." input
- disable_updater - Disables the updater from running on the current command

Example command: SFDVersionDetector.exe -file "D:\SFD" -no_gui -disable_done_text

Credits + Other Information

If you come across any issues (bugs, crashes, etc) or have suggestions, please either:

- Leave an issue on the GitHub repo; the issue page can be found [here](#).
- OR
- Leave a comment on the GameBanana page, which can be found [here](#).

If you're experiencing an issue, make sure to specify how to replicate it if possible, and any other important information, such as error messages.

Program licenses/Credits

FFmpeg is licensed under the [GNU Lesser General Public License \(LGPL\) version 2.1 or later](#).

For more details, please see [this page](#). Copyright (c) [2000-2024] FFmpeg developers

[SFDmux](#) (used in SFDCreator and part of [CryTools](#)) is created by [ThisKwasior](#). The license for it can be found [here](#).

[SFD_Muxer](#) is created by [nebulas-star](#). The license for it can be found [here](#).

SFDMUX V1.0.7 is from the SEGA Dreamcast Katana SDK.

legaladx is taken from [video2dreamcastdisc](#), and is licensed under the BSD 3-Clause License. It's license can be found [here](#).

wget is licensed under the GNU General Public License Version 3.0, which can be found [here](#). More info on wget can be found [here](#).

And finally, thank you to those who reported bugs, and/or gave suggestions for the programs!