# **SFDCreator**

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

# Requirements

- A x64/64-bit PC, required for FFmpeg and FFprobe to run.
- FFmpeg & FFprobe (see Setup Instructions if you don't already have it)
- Video editor\*
- VLC (optional, but recommended since Windows Media Player can't play SFD files + can show MPEG video as corrupted, even when it really isn't)

\*Optional, but highly recommended to do what you need to with the video before creating the SFD, as SFDCreator doesn't have built-in tools for modifying something such as the length of the video.

# **Setup Instructions**

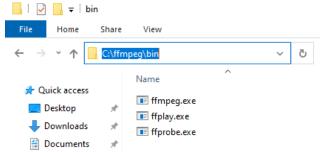
To set up SFDCreator, you'll need to download FFmpeg, specifically the file "ffmpeg-master-latest-win64-gpl.zip" from <a href="https://github.com/BtbN/FFmpeg-Builds/releases">https://github.com/BtbN/FFmpeg-Builds/releases</a>. Once FFmpeg is downloaded, extract the archive to wherever you'd like it to be on your PC.

Next, you have *two* options: You can either add the folder containing ffmpeg.exe and ffprobe.exe to PATH, or just drag and drop both ffmpeg.exe and ffprobe.exe into the "lib" folder in SofdecVideoTools. Below will show you how to add FFmpeg to PATH, specifically on Windows 10.

### Option 1 (Recommended): Adding FFmpeg to PATH

In the search bar on the bottom left, type "PATH" (without the quotes), and you should see something like this appear.





Next, hit enter. You should see a window titled "Environment Variables" pop up. Find PATH under the User Variables section. (If you can't see it under User Variables, check under the "System Variables" section). Click on PATH in the list, and then click Edit. Next, click "New" on the right side. Then head back over to File Explorer, and copy and paste the file path by clicking the area highlighted in blue. Copy it using Ctrl + C, and then add back over to the PATH window.

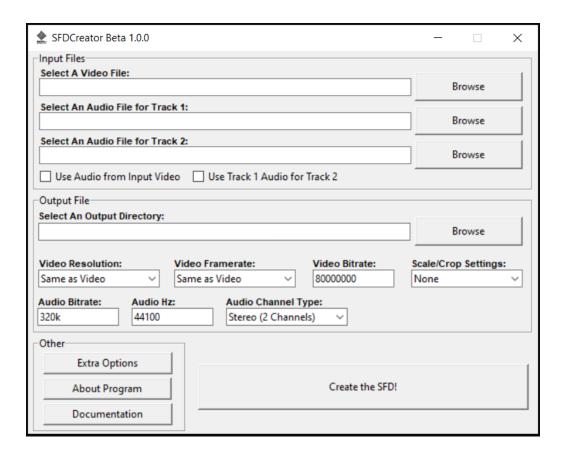
Now, paste the file directory using Ctrl + V, and click "Ok". You've now added FFmpeg to PATH. If you want to test that everything is working, type CMD in the search bar, open a command prompt window and

type "ffmpeg". If you see text at the top that is something along the line of "ffmpeg version (version number here)" appearing in the command prompt window, it's working!

If you get an error along the lines of "This version of C:\ffmpeg\bin\ffmpeg.exe is not compatible with the version of Windows you're running", your PC unfortunately is not able to run these programs.

# **Program Overview**

## **Main Window**



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 drop down menu are written in the format of 4:3 width/16:9 width x height (resolution). The following options are available in the menu:

- 320/426 x 240 (240p)
- 480/640 x 360 (360p)
- 640/848 x 480 (480p)
- 960/1280 x 720 (720p)

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 80000000, 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.

### 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.



#### Stretch (4:3 to 16:9):

This option will stretch a 4:3 video to fit in 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.

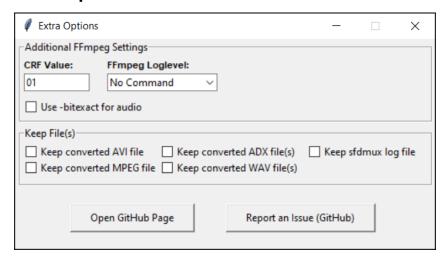
## **Audio Channel Type**

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.

## **Extra Options Menu**



This is the Extra Options window. Here, you can change some FFmpeg settings, as well as whether to keep converted files made in the process of creating a SFD file. If any of the keep file options are checked, those files will be moved to the same location as the SFD file when created.

#### **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.

#### FFmpeg Loglevel:

Forces FFmpeg to use a specific loglevel (loglevel being what is shown on the command prompt window).

#### Use -bitexact for audio:

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

# **Credits + Other Information**

#### **Credits:**

ThisKwasior - Creator of SFDmux

FFmpeg team + other contributors - Without FFmpeg and FFprobe, these SFD programs wouldn't exist! Firebow59 - Creator of the SFDExtractor and SFDCreator GUIs

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.