

# SFDExtractor

This program is intended for ripping 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 (unless “Dump as Raw Files” is selected in the program).

## Requirements

- A x64/64-bit PC, required for FFmpeg to run.
- FFmpeg (see Setup Instructions if you don’t already have it)
- VLC (optional, but recommended if using MPEG or AVI as the export format, since Windows Media Player sometimes displays MPEG files as corrupted.)

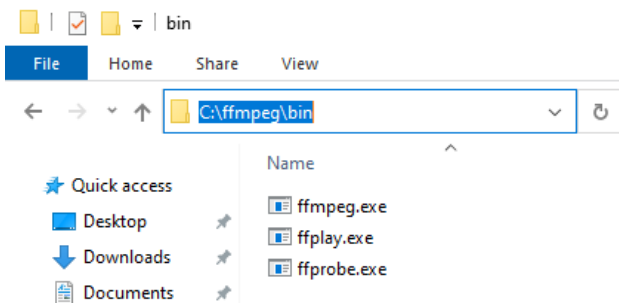
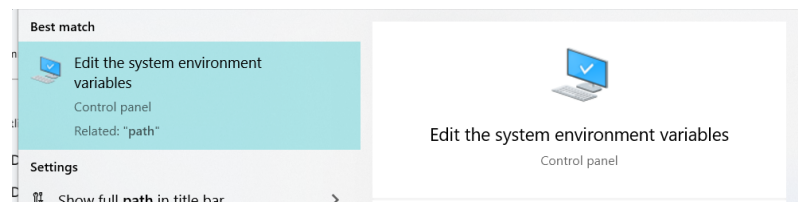
## Setup Instructions

To set up SFDExtractor, you’ll need to download FFmpeg, specifically the file “ffmpeg-master-latest-win64-gpl.zip” from <https://github.com/BtbN/FFmpeg-Builds/releases>. 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 ffmpeg.exe to PATH, or just drag and drop it 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.



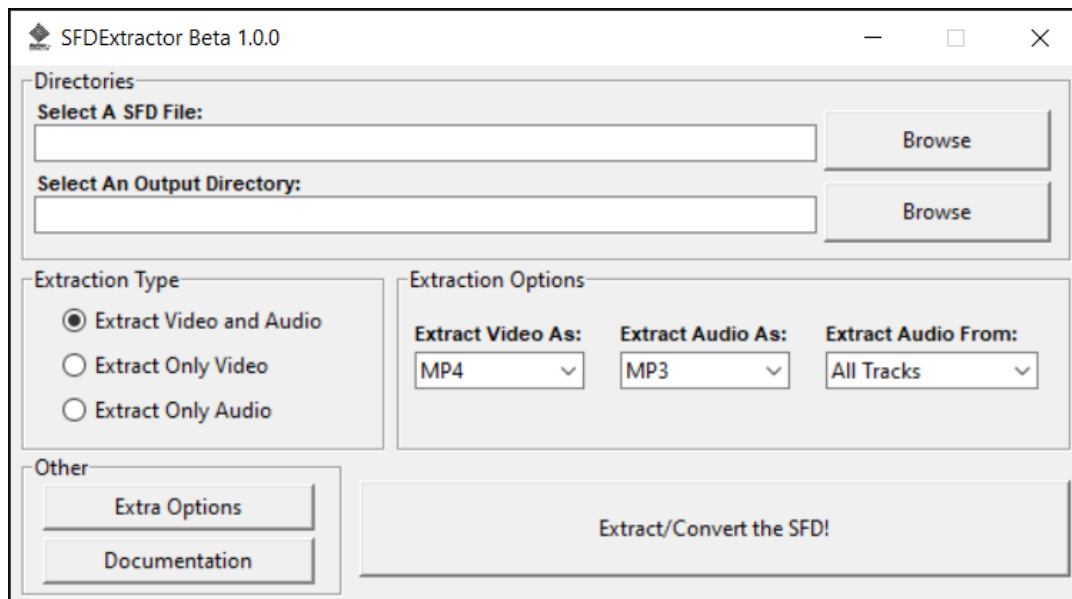
Next, hit enter. You should see a window titled “Environment Variables” pop up. Find PATH under the User Variables section. (If you can’t see it under User Variables, check under the “System Variables” section). Click on PATH in the list, and then click Edit. Next, click “New” on the right side. Then 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 lines 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 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 tracks 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.

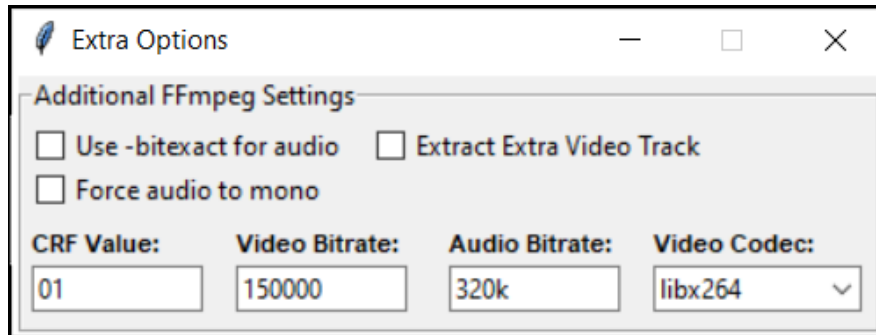
#### Extract Audio As:

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



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.

### Use -bitexact for audio:

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

### Force audio to 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.

### 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.

## Q&A

**Q:** When I extract an SFD file, it shows “Stream mapping” errors for the audio in the command prompt window. What does this mean?

**A:** This usually means that the SFD doesn’t have audio in the mentioned track (0:a:0 being track 1, 0:a:1 being track 2, etc), and thus it won’t be extracted. All tracks that are present in the SFD should still be extracted, even if this error appears.

**Q:** The video exported 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 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.

## Credits + Other Information

### Credits:

FFmpeg team + other contributors - Without FFmpeg and FFprobe, these SFD programs wouldn’t exist!

Firebow59 - Creator of the SFDE extractor 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.