FFmpeg Basics

Multimedia handling with a fast audio and video encoder

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Links

Book homepage: http://ffmpeg.tv
Facebook: http://ffmpeg.tv/facebook
Twitter: http://twitter.com/FFmpeg
YouTube: http://youtube.com/FFmpegTv

Brief Contents

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Introduction

Welcome

Dear reader,
welcome to the book that will try to make you familiar with many interesting features of the FFmpeg project. Its quality indicates several FFmpeg users:

- Facebook, the largest social network, handles videos from users with ffmpeg tool
- Google Chrome, popular web browser, uses FFmpeg libraries for HTML5 audio and video support
- YouTube, the biggest video sharing website, converts uploaded videos with ffmpeg.

The book's focus is to explain the basic video editing like resizing, cropping, padding, denoising, overlay, etc., but included are instructions for more complex processing and experiments.
The chapter Digital Audio describes how to convert and create audio, advanced sound processing is in the chapters Batch Files and Advanced Techniques.

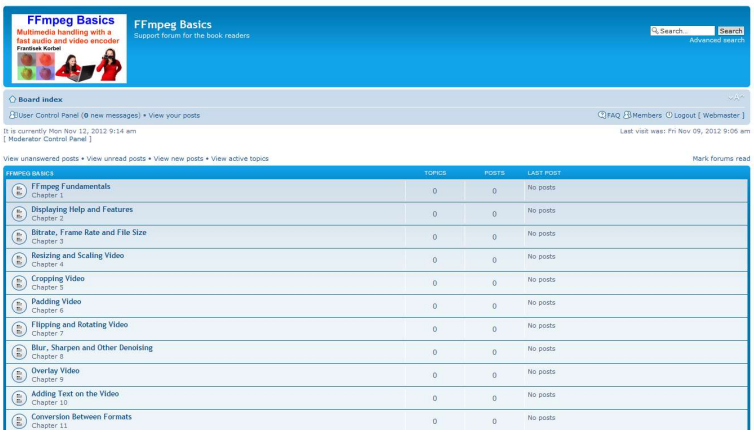
First steps

The first step is to download FFmpeg binaries, if not already done, the details are in the first chapter or on the dedicated website. Many Linux distributions already have FFmpeg tools installed or advanced users can compile their own binaries.
The first chapter contains basic information about FFmpeg project and how to simplify the work with its tools. If already familiar with these data or if it looks too technical for the start, you can move to the second chapter and start to enter various ffmpeg commands.
Please note, that many commands in this book are simplified to illustrate the currently explained feature and some parameters are omitted, especially in conversions, the details are in the chapter Conversion Between Formats.

Dedicated website

For the book was created a special website on **ffmpeg.tv** that contains:

- book index, table of contents and description of the book
- examples from the book in the video format, videos are located in the particular chapters
- user forum to discuss the book topics and various ideas
- list of found errors (errata)
- contact form
- 40 last articles from 6 FFmpeg mailing lists (constantly updated)



Conventions

Text that should be entered on the command line is printed in a serif proportional typeface, for example:

```
ffmpeg -i input.mpg -q 1 output.avi
```

The part of the command that should be replaced with a particular text is printed in italics, for example:

```
ffmpeg -i input -vf mp=denoise3d -s vga output
```

The console output is printed in a sans serif proportional typeface:

```
Muxer avi [AVI (Audio Video Interleaved)]:
    Common extensions: avi.
    Mime type: video/x-msvideo.
    Default video codec: mpeg4.
    Default audio codec: mp3.
```

The blue caret ^ indicates that the command is too long to be printed on one line in the book and continues on another, but on computer it remains a 1-line command, for example:

```
ffplay -f lavfi -i color=c=white ^
-vf drawtext=fontfile=/Windows/Fonts/arial.ttf:text=Welcome
```

Please note a space between the word **white** and ^ in the previous example, the space indicates that there will be space also on the command line. This form of notation is required in the batch files that will be explained in the chapter Batch Files.

Important

Many examples in the book are simplified to explain the current item, so some parameters are omitted and used are defaults, details are in the chapter Conversion Between Formats.

Common omitted options include bitrate, codec, frame rate, etc.

For a better orientation the book contains a colored differentiation of FFmpeg elements like the filters, devices, sources and other items.

Colored differentiation of devices, filters, etc. related to audio and video	
audio only	
video only	
both audio and video	

Please note

FFmpeg tools and libraries are often updated and some commands used in the book or other information will be changed.

Please visit www.ffmpeg.tv for the list of updated items.

e-mail: book@ffmpeg.tv

Your feedback is important

Many options and parameters of FFmpeg tools cannot be described in the book with about 200 pages and your opinion what can be improved and included in the next edition is welcome.

Please before sending a query by e-mail, visit www.ffmpeg.tv and search on the forum or FAQ, it will prevent repeated questions and in some cases it will provide instant help.

Thank you very much and best wishes.