

咸鱼Jay

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FFmpeg介绍与编译

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FFmpeg

FFmpeg是一套可以用来记录、转换数字音频、视频，并能将其转化为流的开源计算机程序。采用LGPL或GPL许可证。它提供了录制、转换以及流化音视频的完整解决方案。它包含了非常先进的音频/视频编解码库libavcodec，为了保证高可移植性和编解码质量，libavcodec里很多code都是从头开发的FFmpeg在Linux平台下开发，但它同样也可以在其它操作系统环境中编译运行，包括Windows、Mac OS X等。这个项目最早由Fabrice Bellard发起，2004年至2015年间由Michael Niedermayer主要负责维护。许多FFmpeg的开发人员都来自MPlayer项目，而且当前FFmpeg也是放在MPlayer项目组的服务器上。项目的名称来自MPEG视频编码标准，前面的"FF"代表"Fast Forward"。多媒体视频处理工具FFmpeg有非常强大的功能包括视频采集功能、视频格式转换、视频抓图、给视频加水印等。

FFmpeg核心模块

libavformat

用于各种音视频封装格式的生成和解析，包括获取解码所需信息以生成解码上下文结构和读取音视频帧等功能；音视频的格式解析协议，为 libavcodec 分析码流提供独立的音频或视频码流源。

libavcodec

用于各种类型声音/图像编解码；该库是音视频编解码核心，实现了市面上可见的绝大部分解码器的功能，libavcodec 库被其他各大解码器 ffdshow，Mplayer 等所包含或应用。

libavfilter

filter（FileIO、FPS、DrawText）音视频滤波器的开发，如水印、倍速播放等。

libavutil

包含一些公共的工具函数的使用库，包括算数运算 字符操作；

公告



侧边栏代码

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最新随笔

1 流媒体通信中RTP/RTCP在项目中的应用



libswresample

原始音频格式转码。

libswscale

(原始视频格式转换) 用于视频场景比例缩放、色彩映射转换; 图像颜色空间或格式转换, 如 rgb565,rgb888 等与 yuv420 等之间转换。

libpostproc+libavcodec

## FFmpeg编译

ndk最新的发布版是r17, 如果只能找到r16的下载地址, 那只要把这个地址中的16改成17就可以了

<https://baike.baidu.com/item/ffmpeg/2665727?fr=aladdin>

FFmpeg是一个开源的音视频处理程序, 也可以把它看成一个用于处理音视频的库。如果需要在Android中使用这个库, 那就需要进行交叉编译。

从官网下载FFmpeg的源码:

```
1 wget https://ffmpeg.org/releases/ffmpeg-4.0.2.tar.bz2
```

下载完成后使用 tar 工具解压:

```
1 tar xvf ffmpeg-4.0.2.tar.bz2
```

解压出来后进入ffmpeg解压目录, 可以看到里面有各种文件、文档。需要关注的是 **configure** 文件。这个文件本身就是一个shell脚本, 作用为生成 **makfile** 文件, 然后使用 **make** 执行。

使用 **configure --help** 命令可以查看 **configure** 命令的一些参数说明。

使用 **./configure --help > configrue.txt** 可以把 **configure** 命令的参数说明导出到 **configrue.txt** 文件中

下面是交叉编译shell脚本内容:

```
1 #!/bin/bash
2 #这里定义变量, 后续会使用
3 #TOOLCHAIN 变量指向ndk中的交叉编译gcc所在的目录
4 TOOLCHAIN=$NDK_ROOT/toolchains/arm-linux-androideabi-4.9/prebuilt/darwin-x86_64
5 #FLAGS与INCLUDES变量 可以从AS ndk工程的.externativeBuild/cmake/debug/armeabi-v7a/build.ninja中拷贝, 需要注意的是**地址**
6 FLAGS="-isystem $NDK_ROOT/sysroot/usr/include/arm-linux-androideabi -D__ANDROID_API__=21 -g -DANDROID -ffunction-sections -funwind-tables -fstack-protector-strong -no-canonical-prefixes -march=armv7-a -mfloat-abi=softfp -mfpu=vfpv3-d16 -mthumb -Wa,--noexecstack -Wformat -Werror=format-security -std=c++11 -O0 -fPIC"
7 INCLUDES="-isystem $NDK_ROOT/sources/cxx-stl/llvm-libc++/include -isystem $NDK_ROOT/sources/android/support/include -isystem $NDK_ROOT/sources/cxx-stl/llvm-libc++abi/include"
8
9 #此变量用于编译完成之后的库与头文件存放在哪个目录
10 PREFIX=./android/armeabi-v7a2
11
12 #执行configure脚本, 用于生成makefile
13 #--prefix : 安装目录
14 #--enable-small : 优化大小
15 #--disable-programs : 不编译ffmpeg程序(命令行工具), 我们是需要获得静态(动态)库。
16 #--disable-avdevice : 关闭avdevice模块, 此模块在android中无用
17 #--disable-encoders : 关闭所有编码器(播放不需要编码)
18 #--disable-muxers : 关闭所有复用器(封装器), 不需要生成mp4这样的文件, 所以关闭
19 #--disable-filters : 关闭视频滤镜
20 #--enable-cross-compile : 开启交叉编译(ffmpeg比较**跨平台**, 并不是所有库都有这么happy的选项)
21 #--cross-prefix: 看右边的值应该就知道是干嘛的, gcc的前缀 xxx/xxx/xxx-gcc 则给xxx/xxx/xxx-
22 #disable-shared enable-static 不写也可以, 默认就是这样的。
23 #--sysroot:
```

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## 积分与排名

积分 - 44152

排名 - 36626

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```
24 #--extra-cflags: 会传给gcc的参数
25 #--arch --target-os : 不给不行, 为什么给这些值?
26 ./configure \
27 --prefix=$PREFIX \
28 --enable-small \
29 --disable-programs \
30 --disable-avdevice \
31 --disable-encoders \
32 --disable-muxers \
33 --disable-filters \
34 --enable-cross-compile \
35 --cross-prefix=$TOOLCHAIN/bin/arm-linux-androideabi- \
36 --disable-shared \
37 --enable-static \
38 --sysroot=$NDK_ROOT/platforms/android-21/arch-arm \
39 --extra-cflags="$FLAGS $INCLUDES" \
40 --extra-cflags="-isysroot $NDK_ROOT/sysroot" \
41 --arch=arm \
42 --target-os=android
43
44 #上面运行脚本生成makefile之后, 使用make执行脚本
45 make clean
46 make install
```

### 我的脚本示例

```
1 #!/bin/bash
2
3 #执行生成makefile的shell脚本
4 PREFIX=./android/armeabi-v7a2
5
6 NDK_ROOT=/home/zuojie/android-ndk-r17c
7
8 CPU=arm-linux-androideabi
9 TOOLCHAIN=$NDK_ROOT/toolchains/$CPU-4.9/prebuilt/linux-x86_64
10
11 FLAGS="-isystem $NDK_ROOT/sysroot/usr/include/arm-linux-androideabi -
12 D__ANDROID_API__=21 -g -DANDROID -ffunction-sections -funwind-tables
13 -fstack-protector-strong -no-canonical-prefixes -march=armv7-a -
14 mfloat-abi=softfp -mfpu=vfpv3-d16 -mthumb -Wa,--noexecstack -Wformat
15 -Werror=format-security -O0 -fPIC"
16
17 INCLUDES="-isystem $NDK_ROOT/sources/android/support/include"
18
19 # \ 换行连接符
20 ./configure --prefix=$PREFIX \
21 --enable-small \
22 --disable-programs \
23 --disable-avdevice \
24 --disable-postproc \
25 --disable-encoders \
26 --disable-muxers \
27 --disable-filters \
28 --enable-cross-compile \
29 --cross-prefix=$TOOLCHAIN/bin/$CPU- \
30 --disable-shared \
31 --enable-static \
32 --sysroot=$NDK_ROOT/platforms/android-21/arch-arm \
33 --extra-cflags="$FLAGS $INCLUDES" \
34 --extra-cflags="-isysroot $NDK_ROOT/sysroot/" \
35 --arch=arm \
36 --target-os=android
37
38 # 清理一下
39 make clean
40 #执行makefile
41 make install
```

当在执行这个脚本时, 如果报下面错, 则说明没有安装make, 则使用

`sudo apt install make` 命令安装make

```
1 .....
2 Enabled indevs:
3 build.sh: 35: build.sh: make: not found
4 build.sh: 37: build.sh: make: not found
```

最后执行成功后会在 `./android/armeabi-v7a2/` 目录下生成三个文件 `include` -头文件, `lib` -静态库, `share` -示例

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### 阅读排行榜

1 FFmpeg命令行之 Unknown encoder libx



使用 `tar cvf ffmpeg.tar *` 命令将这三个文件夹压缩一下

当执行这个脚本后报错了，可以去ffmpeg的ffbuild/config.log文件，config.log是在编译时遇到问题时的记录日志，直接查看最后一行

```

build.sh: line 1: hell脚本: command not found
/home/.../android-ndk-r17c/toolchains/aarch64-linux-android-4.9/prebuilt/linux-x86_64/bin/aarch64-linux-android-gcc is unable to create an executable file
... compiler test failed.

If you think configure made a mistake, make sure you are using the latest
version from Git. If the latest version fails, report the problem to the
ffmpeg-user@ffmpeg.org mailing list or IRC #ffmpeg on irc.freenode.net.
Include the top file "ffbuild/config.log" produced by configure as this will help
solve the problem.

Makefile:2: ffbuild/config.mk: No such file or directory
Makefile:40: /tools/Makefile: No such file or directory
Makefile:41: /ffbuild/common.mk: No such file or directory
Makefile:90: /libavutil/Makefile: No such file or directory
Makefile:90: /ffbuild/library.mk: No such file or directory
Makefile:92: /fftools/Makefile: No such file or directory
Makefile:93: /doc/Makefile: No such file or directory
Makefile:94: /doc/examples/Makefile: No such file or directory
Makefile:159: /tests/Makefile: No such file or directory
Make: *** No rule to make target '/tests/Makefile'. Stop.
Makefile:2: ffbuild/config.mk: No such file or directory
Makefile:40: /tools/Makefile: No such file or directory
Makefile:41: /ffbuild/common.mk: No such file or directory
Makefile:90: /libavutil/Makefile: No such file or directory
Makefile:90: /ffbuild/library.mk: No such file or directory
Makefile:92: /fftools/Makefile: No such file or directory
Makefile:93: /doc/Makefile: No such file or directory
Makefile:94: /doc/examples/Makefile: No such file or directory
Makefile:159: /tests/Makefile: No such file or directory
Make: *** No rule to make target '/tests/Makefile'. Stop.

```

我这使用 `aarch64-linux-android` 编译脚本报错后查看 `config.log` 文件，可以看出最后那三行说的很清楚是无法识别三个命令，需要将脚本中这三个命令删除，重新编译。

```

ndk.decoder='yes'
wma_decoder='yes'
wma_decoder_select='riffdec'
y4lp_decoder='yes'
ylc_decoder='yes'
yop_decoder='yes'
yop_decoder='yes'
yu4_decoder='yes'
yu4mpegpipe_decoder='yes'
zerol2v_decoder='yes'
zerocodec_decoder='yes'
zerocodec_decoder_deps='zlib'
zlib='yes'
zlib_decoder='yes'
zlib_decoder_deps='zlib'
zlib_encoder_deps='zlib'
zmbv_decoder='yes'
zmbv_decoder_deps='zlib'
zmbv_encoder_deps='zlib'
zmq_filter_deps='libzmq'
zoozip_filter_deps='swscale'
zscale_filter_deps='libzimg const_nan'
WARNING: host's /usr/lib/android-ndk-r17c/toolchains/aarch64-linux-android-4.9/prebuilt/linux-x86_64/bin/aarch64-linux-android-pkg-config not found
Library detection may fail.
makepkg -u XXXXXX
XStAP
test_ld cc
test_cc
BEGIN /tmp/ffconf.v1z9g3Dt/test.c
1 int main(void){ return 0; }
END /tmp/ffconf.v1z9g3Dt/test.c
/home/.../android-ndk-r17c/toolchains/aarch64-linux-android-4.9/prebuilt/linux-x86_64/bin/aarch64-linux-android-gcc -sysroot=/home/.../android-ndk-r17c/platforms/android-21/arch-arm64 -isystem /home/.../android-ndk-r17c/sysroot/usr/include/aarch64-linux-android -D_ANDROID_API_21 -g -DANDROID -ffunction-sections -funwind-tables -fstack-protector-strong -no-canonical-prefixes -march-armv7-a -mfloat-abi=softfp -mfpu=vfpv3-d16 -mthumb -Wno-noexecstack -Wformat -Werror=format-security -O0 -EPIC -isystem /home/.../android-ndk-r17c/sources/android/support/include -isystem /home/.../ffmpeg/v1z9g3Dt/test.a /tmp/ffconf.v1z9g3Dt/test.c
aarch64-linux-android-gcc: error: unrecognized command line option '-mfloat-abi=softfp'
aarch64-linux-android-gcc: error: unrecognized command line option '-mfpu=vfpv3-d16'
aarch64-linux-android-gcc: error: unrecognized command line option '-mthumb'
cc compiler test failed.
...@z:~$ cd ~/ffmpeg4.0.2/ffbuilds

```

### configure脚本文件参数说明:

```

1  Usage: configure [options]
2  Options: [defaults in brackets after descriptions]
3
4  帮助选项
5  Help options:
6  --help                print this message [当前所看到的所有内容，就是
是用--help输出的帮助信息]
7  --quiet               Suppress showing informative output [禁止
显示信息输出，这个从来没有用过]
8  --list-decoders       show all available decoders [显示所有可用的
解码器] (非常常用)
9  --list-encoders       show all available encoders [显示所有可用的
编码器] (非常常用)
10 --list-hwaccel        show all available hardware accelerators
[显示所有可用的硬件加速器]
11 --list-demuxers       show all available demuxers [显示所有可用的
解复用器]
12 --list-muxers         show all available muxers [列出所有支持的封装]
13 --list-parsers        show all available parsers [显示所有可用的解
析器]
14 --list-protocols      show all available protocols [列出支持的通
信协议]
15 --list-bsfs           show all available bitstream filters [显示
所有可用的位流筛选器]
16 --list-indevs         show all available input devices [显示所有
可用的输入设备]
17 --list-outdevs        show all available output devices [显示所
有可用的输出设备]
18 --list-filters        show all available filters [显示所有可用过滤
器，当要做复杂特效时，就有用]
19

```

264'(1984)

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## 5. Miracast技术详解（四）：Sink源码解析

最新评论

- 1 FFmpeg核心模块



```

20 标准选项
21 Standard options:
22     --logfile=FILE           log tests and output to FILE
[ffbuild/config.log] [编译时日志信息输出路径, 默认: ffbuild/config.log]
23     --disable-logging        do not log configure debug information
[关闭:不记录配置调试信息]
24     --fatal-warnings         fail if any configure warning is
generated [如果生成任何配置警告则失败, 注意:不能加, 因为编译过程中, 警告是会有
的]
25     --prefix=PREFIX          install in PREFIX [/usr/local]   [我们最终
产出的目录, 动态库, 静态库] ( 非常常用)
26     --bindir=DIR             install binaries in DIR [PREFIX/bin] [在目
录中安装二进制文件] PREFIX
27     --datadir=DIR            install data files in DIR
[PREFIX/share/ffmpeg] [ 在目录中安装数据文件] PREFIX
28     --docdir=DIR             install documentation in DIR
[PREFIX/share/doc/ffmpeg] [在目录中安装文档] PREFIX
29     --libdir=DIR             install libs in DIR [PREFIX/lib]   [安装库
到指定目录]
30     --shlibdir=DIR           install shared libs in DIR [LIBDIR]   [指定
共享库路径]
31     --incdir=DIR             install includes in DIR [PREFIX/include]
[指定includes路径]
32     --mandir=DIR             install man page in DIR
[PREFIX/share/man] [指定man page路径]
33     --pkgconfigdir=DIR       install pkg-config files in DIR
[LIBDIR/pkgconfig] [在目录中安装pka配置文件]
34     --enable-rpath           use rpath to allow installing libraries
in paths
35                               not part of the dynamic linker search
path
36                               use rpath when linking programs (USE WITH
CARE) [使用rpath允许在路径中安装库, 没有用过]
37     --install-name-dir=DIR    Darwin directory name for installed
targets [已安装目标的目录名]
38
39 许可选项
40 Licensing options:
41     --enable-gpl             allow use of GPL code, the resulting libs
[允许使用GPL]
42                               and binaries will be under GPL [no]
43     --enable-version3        upgrade (L)GPL to version 3 [no] 更新GPL版
本
44     --enable-nonfree         allow use of nonfree code, the resulting
libs
45                               and binaries will be unredistributable
[no] [允许使用非免费程序]
46
47 配置选项
48 Configuration options:
49     --disable-static         do not build static libraries [no] [关闭静
态库(默认开启)]
50     --enable-shared          build shared libraries [no]   [打开动态库(默
认关闭)]
51     --enable-small           optimize for size instead of speed   [优化
大小]
52     --disable-runtime-cpudetect disable detecting CPU capabilities at
runtime (smaller binary) [禁用实时的CPU效率检测]
53     --enable-gray            enable full grayscale support (slower
color) [启用灰度(颜色、空间转换)]
54     --disable-swscale-alpha  disable alpha channel support in swscale
[禁用swscale中的 透明度]
55     --disable-all           disable building components, libraries
and programs [禁用所有, 包括组 件、库、程序]
56     --disable-autodetect     disable automatically detected external
libraries [no]
57
58 项目选项
59 Program options:
60     --disable-programs       do not build command line programs [禁止生
成所有exe]
61     --disable-ffmpeg         disable ffmpeg build [禁止生成ffmpeg.exe]
62     --disable-ffplay         disable ffplay build [禁止生成ffplay.exe]
63     --disable-ffprobe        disable ffprobe build [禁止生成
ffprobe.exe]
64
65 文档选项
66 Documentation options:
67     --disable-doc            do not build documentation [禁止生成doc文
件]

```

## • 1 FFmpeg核心模块

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```

68  --disable-htmlpages      do not build HTML documentation pages [禁
    止生成HTML文档页]
69  --disable-manpages      do not build man documentation pages [禁止
    生成帮助文档页]
70  --disable-podpages      do not build POD documentation pages [禁止
    生成POD文档页]
71  --disable-txtpages      do not build text documentation pages [禁
    止生成txt文档页]
72
73  组件选项 (FFmpeg是由多个模块组成的)
74  Component options:
75  --disable-avdevice      disable libavdevice build [模块之一(可以操控
    我们的摄像头) (Android中不支持)]
76  --disable-avcodec      disable libavcodec build [audio video
    codec (编码和解码)]
77  --disable-avformat      disable libavformat build [音视频格式生成和
    解析相关]
78  --disable-swresample    disable libswresample build [音频重采样 (如
    果想把单声道, 变成双声道)]
79  --disable-swscale      disable libswscale build [对视频显示相关 (对
    视频的缩放, 放大缩小)]
80  --disable-postproc      disable libpostproc build [后期处理, 很少
    用, 可以关闭掉]
81  --disable-avfilter      disable libavfilter build [给视频加水印, 加
    字幕, 特殊效果]
82  --enable-avresample     enable libavresample build (deprecated)
    [no]
83  --disable-pthreads      disable pthreads [autodetect]
84  --disable-w32threads    disable Win32 threads [autodetect]
85  --disable-os2threads    disable OS/2 threads [autodetect]
86  --disable-network       disable network support [no]
87  --disable-dct           disable DCT code
88  --disable-dwt           disable DWT code
89  --disable-error-resilience disable error resilience code
90  --disable-lsp           disable LSP code
91  --disable-lzo           disable LZO decoder code
92  --disable-mdct          disable MDCT code
93  --disable-rdft          disable RDFT code
94  --disable-fft           disable FFT code
95  --disable-faan          disable floating point AAN (I)DCT code
96  --disable-pixelutils    disable pixel utils in libavutil
97
98  单个组件选项
99  Individual component options:
100 --disable-everything     disable all components listed below [禁用
    下面已列出的全部组件]
101 --disable-encoder=NAME   disable encoder NAME
102 --enable-encoder=NAME    enable encoder NAME
103 --disable-encoders       disable all encoders 如果我们去播放视频, 不需
    要编码, 那么此功能就可以关闭掉
104 --disable-decoder=NAME   disable decoder NAME
105 --enable-decoder=NAME    enable decoder NAME
106 --disable-decoders       disable all decoders
107 --disable-hwaccel=NAME   disable hwaccel NAME
108 --enable-hwaccel=NAME    enable hwaccel NAME
109 --disable-hwaccels       disable all hwaccels
110 --disable-muxer=NAME     disable muxer NAME
111 --enable-muxer=NAME      enable muxer NAME
112 --disable-muxers         disable all muxers
113 --disable-demuxer=NAME   disable demuxer NAME
114 --enable-demuxer=NAME    enable demuxer NAME
115 --disable-demuxers       disable all demuxers
116 --enable-parser=NAME     enable parser NAME
117 --disable-parser=NAME    disable parser NAME
118 --disable-parsers        disable all parsers
119 --enable-bsf=NAME        enable bitstream filter NAME
120 --disable-bsf=NAME       disable bitstream filter NAME
121 --disable-bsfs           disable all bitstream filters
122 --enable-protocol=NAME   enable protocol NAME
123 --disable-protocol=NAME  disable protocol NAME
124 --disable-protocols      disable all protocols
125 --enable-indev=NAME      enable input device NAME
126 --disable-indev=NAME     disable input device NAME
127 --disable-indevs         disable input devices
128 --enable-outdev=NAME     enable output device NAME
129 --disable-outdev=NAME    disable output device NAME
130 --disable-outdevs        disable output devices
131 --disable-devices        disable all devices
132 --enable-filter=NAME     enable filter NAME
133 --disable-filter=NAME    disable filter NAME
134 --disable-filters        disable all filters

```

## • 1 FFmpeg核心模块

0



```

135
136 添加依赖库支持
137 External library support:
138
139 Using any of the following switches will allow FFmpeg to link to
140 the
141 corresponding external library. All the components depending on
142 that library
143 will become enabled, if all their other dependencies are met and
144 they are not
145 explicitly disabled. E.g. --enable-libwavpack will enable linking
146 to
147 libwavpack and allow the libwavpack encoder to be built, unless it
148 is
149 specifically disabled with --disable-encoder=libwavpack.
150
151 Note that only the system libraries are auto-detected. All the
152 other external
153 libraries must be explicitly enabled.
154
155 Also note that the following help text describes the purpose of
156 the libraries
157 themselves, not all their features will necessarily be usable by
158 FFmpeg.
159
160 --disable-alsa          disable ALSA support [autodetect]
161 --disable-appkit        disable Apple AppKit framework
162 [autodetect]
163 --disable-avfoundation  disable Apple AVFoundation framework
164 [autodetect]
165 --enable-avisynth       enable reading of AviSynth script files
166 [no]
167 --disable-bzlib          disable bzlib [autodetect]
168 --disable-coreimage      disable Apple CoreImage framework
169 [autodetect]
170 --enable-chromaprint     enable audio fingerprinting with
171 chromaprint [no]
172 --enable-frei0r          enable frei0r video filtering [no]
173 --enable-gcrypt          enable gcrypt, needed for rtmp(t)e
174 support
175
176 if openssl, librtmp or gmp is not used
177 [no]
178 --enable-gmp             enable gmp, needed for rtmp(t)e support
179 if openssl or librtmp is not used [no]
180 --enable-gnutls          enable gnutls, needed for https support
181 if openssl or libtls is not used [no]
182 --disable-iconv          disable iconv [autodetect]
183 --enable-jni             enable JNI support [no]
184 --enable-ladspa          enable LADSPA audio filtering [no]
185 --enable-libaom          enable AV1 video encoding/decoding via
186 libaom [no]
187 --enable-libass          enable libass subtitles rendering,
188 needed for subtitles and ass filter [no]
189 --enable-libbluray       enable BluRay reading using libbluray
190 [no]
191 --enable-libbs2b         enable bs2b DSP library [no]
192 --enable-libcaca         enable textual display using libcaca [no]
193 --enable-libcelt         enable CELT decoding via libcelt [no]
194 --enable-libcdio         enable audio CD grabbing with libcdio
195 [no]
196 --enable-libcodec2       enable codec2 en/decoding using libcodec2
197 [no]
198 --enable-libdc1394       enable IIDC-1394 grabbing using libdc1394
199 and libraw1394 [no]
200 --enable-libfdk-aac      enable AAC de/encoding via libfdk-aac
201 [no]
202 --enable-libflite        enable flite (voice synthesis) support
203 via libflite [no]
204 --enable-libfontconfig   enable libfontconfig, useful for drawtext
205 filter [no]
206 --enable-libfreetype     enable libfreetype, needed for drawtext
207 filter [no]
208 --enable-libfribidi      enable libfribidi, improves drawtext
209 filter [no]
210 --enable-libgme          enable Game Music Emu via libgme [no]
211 --enable-libgsm          enable GSM de/encoding via libgsm [no]
212 --enable-libiec61883     enable iec61883 via libiec61883 [no]
213 --enable-libilbc         enable iLBC de/encoding via libilbc [no]
214 --enable-libjack         enable JACK audio sound server [no]
215 --enable-libkvazaar      enable HEVC encoding via libkvazaar [no]
216 --enable-libmodplug      enable ModPlug via libmodplug [no]

```

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```

192 --enable-libmp3lame      enable MP3 encoding via libmp3lame [no]
193 --enable-libopencore-amrnb enable AMR-NB de/encoding via
libopencore-amrnb [no]
194 --enable-libopencore-amrwb enable AMR-WB decoding via libopencore-
amrwb [no]
195 --enable-libpencv       enable video filtering via libpencv [no]
196 --enable-libopenh264    enable H.264 encoding via OpenH264 [no]
197 --enable-libopenjpeg    enable JPEG 2000 de/encoding via OpenJPEG
[no]
198 --enable-libopenmpt     enable decoding tracked files via
libopenmpt [no]
199 --enable-libopus        enable Opus de/encoding via libopus [no]
200 --enable-libpulse       enable Pulseaudio input via libpulse [no]
201 --enable-libsvg         enable SVG rasterization via libsvg [no]
202 --enable-librubberband  enable rubberband needed for rubberband
filter [no]
203 --enable-librtmp        enable RTMP[E] support via librtmp [no]
204 --enable-libshine       enable fixed-point MP3 encoding via
libshine [no]
205 --enable-libsmbclient  enable Samba protocol via libsmbclient
[no]
206 --enable-libsnapppy     enable Snappy compression, needed for hap
encoding [no]
207 --enable-libsoxr        enable Include libsoxr resampling [no]
208 --enable-libspeex       enable Speex de/encoding via libspeex
[no]
209 --enable-libsrt        enable Haivision SRT protocol via libsrt
[no]
210 --enable-libssh         enable SFTP protocol via libssh [no]
211 --enable-libtesseract  enable Tesseract, needed for ocr filter
[no]
212 --enable-libtheora      enable Theora encoding via libtheora [no]
213 --enable-libtls         enable LibreSSL (via libtls), needed for
https support
214                          if openssl or gnutls is not used [no]
215 --enable-libtwolame      enable MP2 encoding via libtwolame [no]
216 --enable-libv4l2        enable libv4l2/v4l-utils [no]
217 --enable-libvidstab     enable video stabilization using vid.stab
[no]
218 --enable-libvmaf        enable vmaf filter via libvmaf [no]
219 --enable-libvo-amrwbenc enable AMR-WB encoding via libvo-amrwbenc
[no]
220 --enable-libvorbis      enable Vorbis en/decoding via libvorbis,
native implementation exists [no]
221 --enable-libvpx         enable VP8 and VP9 de/encoding via libvpx
[no]
222 --enable-libwavpack     enable wavpack encoding via libwavpack
[no]
223 --enable-libwebp        enable WebP encoding via libwebp [no]
224 --enable-libx264        enable H.264 encoding via x264 [no]
225 --enable-libx265        enable HEVC encoding via x265 [no]
226 --enable-libxavs        enable AVS encoding via xavs [no]
227 --enable-libxcb         enable X11 grabbing using XCB
[autodetect]
228 --enable-libxcb-shm     enable X11 grabbing shm communication
[autodetect]
229 --enable-libxcb-xfixes  enable X11 grabbing mouse rendering
[autodetect]
230 --enable-libxcb-shape   enable X11 grabbing shape rendering
[autodetect]
231 --enable-libxvid        enable Xvid encoding via xvidcore,
native MPEG-4/Xvid encoder exists [no]
232 --enable-libxml2        enable XML parsing using the C library
libxml2 [no]
233 --enable-libzimg        enable z.lib, needed for zscale filter
[no]
234 --enable-libzmq         enable message passing via libzmq [no]
235 --enable-libzvbi       enable teletext support via libzvbi [no]
236 --enable-lv2           enable LV2 audio filtering [no]
237 --disable-lzma          disable lzma [autodetect]
238 --enable-decklink       enable Blackmagic DeckLink I/O support
[no]
239 --enable-libndi_newtek  enable Newteck NDI I/O support [no]
240 --enable-mediacodec     enable Android MediaCodec support [no]
241 --enable-libmysofa      enable libmysofa, needed for sofalizer
filter [no]
242 --enable-openal         enable OpenAL 1.1 capture support [no]
243 --enable-opencl         enable OpenCL processing [no]
244 --enable-opengl         enable OpenGL rendering [no]
245 --enable-openssl        enable openssl, needed for https support
if gnutls or libtls is not used [no]
246
247
248

```

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```

249  --disable-sndio          disable sndio support [autodetect]
250  --disable-schannel      disable SChannel SSP, needed for TLS
support on
251                          Windows if openssl and gnutls are not
used [autodetect]
252  --disable-sdl2          disable sdl2 [autodetect]
253  --disable-securetransport disable Secure Transport, needed for TLS
support
254                          on OSX if openssl and gnutls are not used
[autodetect]
255  --disable-xlib          disable xlib [autodetect]
256  --disable-zlib          disable zlib [autodetect]
257
258  The following libraries provide various hardware acceleration
features:
259  --disable-amf          disable AMF video encoding code
[autodetect]
260  --disable-audiotoolbox  disable Apple AudioToolbox code
[autodetect]
261  --enable-cuda-sdk      enable CUDA features that require the
CUDA SDK [no]
262  --disable-cuvid        disable Nvidia CUVID support [autodetect]
263  --disable-d3d11va      disable Microsoft Direct3D 11 video
acceleration code [autodetect]
264  --disable-dxva2        disable Microsoft DirectX 9 video
acceleration code [autodetect]
265  --disable-ffnvcodec    disable dynamically linked Nvidia code
[autodetect]
266  --enable-libdrm        enable DRM code (Linux) [no]
267  --enable-libmfx        enable Intel MediaSDK (AKA Quick Sync
Video) code via libmfx [no]
268  --enable-libnpp        enable Nvidia Performance Primitives-
based code [no]
269  --enable-mmal          enable Broadcom Multi-Media Abstraction
Layer (Raspberry Pi) via MMAL [no]
270  --disable-nvdec        disable Nvidia video decoding
acceleration (via hwaccel) [autodetect]
271  --disable-nvenc        disable Nvidia video encoding code
[autodetect]
272  --enable-omx           enable OpenMAX IL code [no]
273  --enable-omx-rpi       enable OpenMAX IL code for Raspberry Pi
[no]
274  --enable-rkmp          enable Rockchip Media Process Platform
code [no]
275  --disable-v4l2-m2m      disable V4L2 mem2mem code [autodetect]
276  --disable-vaapi        disable Video Acceleration API (mainly
Unix/Intel) code [autodetect]
277  --disable-vidpau       disable Nvidia Video Decode and
Presentation API for Unix code [autodetect]
278  --disable-videotoolbox  disable VideoToolbox code [autodetect]
279
280  Toolchain options:
281  --arch=ARCH            select architecture []
282  --cpu=CPU              select the minimum required CPU (affects
instruction selection, may crash on older
283  CPUs)
284  --cross-prefix=PREFIX  use PREFIX for compilation tools []
285  --progs-suffix=SUFFIX  program name suffix []
286  --enable-cross-compile assume a cross-compiler is used
287  --sysroot=PATH         root of cross-build tree
288  --sysinclude=PATH      location of cross-build system headers
289  --target-os=OS         compiler targets OS []
290  --target-exec=CMD      command to run executables on target
291  --target-path=DIR      path to view of build directory on target
292  --target-samples=DIR   path to samples directory on target
293  --tempprefix=PATH      force fixed dir/prefix instead of mktemp
for checks
294  --toolchain=NAME       set tool defaults according to NAME
295                          (gcc-asan, clang-asan, gcc-msan, clang-
msan,
296                          gcc-tsan, clang-tsan, gcc-usan, clang-
usan,
297                          valgrind-massif, valgrind-memcheck,
298                          msvc, icl, gcov, llvm-cov, hardened)
299  --nm=NM                use nm tool NM [nm -g]
300  --ar=AR                use archive tool AR [ar]
301  --as=AS                use assembler AS []
302  --ln_s=LN_S            use symbolic link tool LN_S [ln -s -f]
303  --strip=STRIP          use strip tool STRIP [strip]
304  --windres=WINDRES      use windows resource compiler WINDRES
[windres]

```

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```

305 --x86asmexe=EXE          use nasm-compatible assembler EXE [nasm]
306 --cc=CC                  use C compiler CC [gcc]
307 --cxx=CXX               use C compiler CXX [g++]
308 --objcc=OCC             use ObjC compiler OCC [gcc]
309 --dep-cc=DEPCC          use dependency generator DEPCC [gcc]
310 --nvcc=NVCC             use Nvidia CUDA compiler NVCC [nvcc]
311 --ld=LD                 use linker LD []
312 --pkg-config=PKGCONFIG  use pkg-config tool PKGCONFIG [pkg-
config]
313 --pkg-config-flags=FLAGS pass additional flags to pkgconf []
314 --ranlib=RANLIB         use ranlib RANLIB [ranlib]
315 --doxygen=DOXYGEN       use DOXYGEN to generate API doc [doxygen]
316 --host-cc=HOSTCC        use host C compiler HOSTCC
317 --host-cflags=HCFLAGS   use HCFLAGS when compiling for host
318 --host-cppflags=HCPPFLAGS use HCPPFLAGS when compiling for host
319 --host-ld=HOSTLD        use host linker HOSTLD
320 --host-ldflags=HLDFLAGS use HLDFLAGS when linking for host
321 --host-libs=HLIBS       use libs HLIBS when linking for host
322 --host-os=OS            compiler host OS []
323 --extra-cflags=ECFLAGS  add ECFLAGS to CFLAGS []
324 --extra-cxxflags=ECFLAGS add ECFLAGS to CXXFLAGS []
325 --extra-objcflags=FLAGS add FLAGS to OBJCFLAGS []
326 --extra-ldflags=ELDFLAGS add ELDFLAGS to LDFLAGS []
327 --extra-ldexeflags=ELDFLAGS add ELDFLAGS to LDEXEFLAGS []
328 --extra-ldsoflags=ELDFLAGS add ELDFLAGS to LDSOFLAGS []
329 --extra-libs=ELIBS      add ELIBS []
330 --extra-version=STRING  version string suffix []
331 --optflags=OPTFLAGS     override optimization-related compiler
flags
332 --nvccflags=NVCCFLAGS   override nvcc flags [-gencode
arch=compute_30,code=sm_30 -O2]
333 --build-suffix=SUFFIX   library name suffix []
334 --enable-pic            build position-independent code
335 --enable-thumb          compile for Thumb instruction set
336 --enable-lto            use link-time optimization
337 --env="ENV=override"    override the environment variables
338
339 Advanced options (experts only):
340 --malloc-prefix=PREFIX  prefix malloc and related names with
PREFIX
341 --custom-allocator=NAME use a supported custom allocator
342 --disable-symver        disable symbol versioning
343 --enable-hardcoded-tables use hardcoded tables instead of runtime
generation
344 --disable-safe-bitstream-reader
345                          disable buffer boundary checking in
bitreaders
346                          (faster, but may crash)
347 --sws-max-filter-size=N the max filter size swscale uses [256]
348
349 Optimization options (experts only):
350 --disable-asm            disable all assembly optimizations
351 --disable-altivec        disable AltiVec optimizations
352 --disable-vsx            disable VSX optimizations
353 --disable-power8         disable POWER8 optimizations
354 --disable-amd3dnow       disable 3DNow! optimizations
355 --disable-amd3dnowext    disable 3DNow! extended optimizations
356 --disable-mmx            disable MMX optimizations
357 --disable-mmxext         disable MMXEXT optimizations
358 --disable-sse            disable SSE optimizations
359 --disable-sse2           disable SSE2 optimizations
360 --disable-sse3           disable SSE3 optimizations
361 --disable-ssse3          disable SSSE3 optimizations
362 --disable-sse4           disable SSE4 optimizations
363 --disable-sse42          disable SSE4.2 optimizations
364 --disable-avx            disable AVX optimizations
365 --disable-xop            disable XOP optimizations
366 --disable-fma3           disable FMA3 optimizations
367 --disable-fma4           disable FMA4 optimizations
368 --disable-avx2           disable AVX2 optimizations
369 --disable-avx512         disable AVX-512 optimizations
370 --disable-aesni          disable AESNI optimizations
371 --disable-armv5te        disable armv5te optimizations
372 --disable-armv6          disable armv6 optimizations
373 --disable-armv6t2        disable armv6t2 optimizations
374 --disable-vfp            disable VFP optimizations
375 --disable-neon           disable NEON optimizations
376 --disable-inline-asm     disable use of inline assembly
377 --disable-x86asm         disable use of standalone x86 assembly
378 --disable-mipsdsp        disable MIPS DSP ASE R1 optimizations
379 --disable-mipsdspr2      disable MIPS DSP ASE R2 optimizations

```

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```
380 --disable-msa            disable MSA optimizations
381 --disable-mipsfpu        disable floating point MIPS optimizations
382 --disable-mmio           disable Loongson SIMD optimizations
383 --disable-fast-unaligned consider unaligned accesses slow
384
385 Developer options (useful when working on FFmpeg itself):
386 --disable-debug           disable debugging symbols
387 --enable-debug=LEVEL     set the debug level []
388 --disable-optimizations  disable compiler optimizations
389 --enable-extra-warnings  enable more compiler warnings
390 --disable-stripping      disable stripping of executables and
shared libraries
391 --assert-level=level    0(default), 1 or 2, amount of assertion
testing,
392                          2 causes a slowdown at runtime.
393 --enable-memory-poisoning fill heap uninitialized allocated space
with arbitrary data
394 --valgrind=VALGRIND      run "make fate" tests through valgrind to
detect memory
395                          leaks and errors, using the specified
valgrind binary.
396                          Cannot be combined with --target-exec
397 --enable-ftapv           Trap arithmetic overflows
398 --samples=PATH           location of test samples for FATE, if not
set use
399                          $FATE_SAMPLES at make invocation time.
400 --enable-neon-clobber-test check NEON registers for clobbering
(should be
401                          used only for debugging purposes)
402 --enable-xmm-clobber-test check XMM registers for clobbering
(Win64-only;
403                          should be used only for debugging
purposes)
404 --enable-random           randomly enable/disable components
405 --disable-random         randomly enable/disable specific
components or
406 --enable-random=LIST     randomly enable/disable specific
component groups. LIST is a comma-
separated list
407 --disable-random=LIST    of NAME[:PROB] entries where NAME is a
component
408                          (group) and PROB the probability
associated with
409                          NAME (default 0.5).
410 --random-seed=VALUE       seed value for --enable/disable-random
411 --disable-valgrind-backtrace do not print a backtrace under
Valgrind
412                          (only applies to --disable-optimizations
builds)
413 --enable-osfuzz           Enable building fuzzer tool
414 --libfuzzer=PATH         path to libfuzzer
415 --ignore-tests=TESTS     comma-separated list (without "fate-"
prefix
416                          in the name) of tests whose result is
417                          ignored
418 --enable-linux-perf       enable Linux Performance Monitor API
419
420 NOTE: Object files are built at the place where configure is
launched.
421
```

分类: FFmpeg

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