

MPlayer(1)

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NAME

mplayer - Movie Player for Linux
 mencoder - Movie Encoder for Linux

SYNOPSIS

```
mplayer [options] [ file | URL | playlist | - ]
mplayer [global options] file1 [specific options] [file2]
      [specific options]
mplayer [global options] {group of files and options}
      [group specific options]
mplayer [dvd|vcd|cdda|cddb|tv]://title [options]
mplayer [mms[t]|http|http_proxy|rt[slp]://
      [user:passwd@]URL[:port] [options]
mencoder [options] [ file | URL | - ] [-o file]
gmplayer [options] [-skin skin]
```

DESCRIPTION

mplayer is a movie player for LINUX (runs on many other Unices and non-x86 CPUs, see the documentation). It plays most MPEG/VOB, AVI, ASF/WMA/WMV, RM, QT/MOV/MP4, OGG/OGM, VIVO, FLI, NuppelVideo, yuv4mpeg, FILM and RoQ files, supported by many native, XAnim, and Win32 DLL codecs. You can watch VideoCD, SVCD, DVD, 3ivx, DivX 3/4/5 and even WMV movies, too (without using the avifile library).

Another great feature of MPlayer is the wide range of supported output drivers. It works with X11, XV, DGA, OpenGL, SVGAlib, fbdev, AALib, DirectFB, but you can also use GGI, SDL (and this way all their drivers), VESA (on every VESA compatible card, even without X11), some low level card-specific drivers (for Matrox, 3Dfx and ATI) and some hardware MPEG decoder boards, such as the Siemens DVB, DXR2 and DXR3/Hollywood+. Most of them support software or hardware scaling, so you can enjoy movies in fullscreen.

MPlayer has an onscreen display (OSD) for status information, nice big antialiased shaded subtitles and visual feedback for keyboard controls. European/ISO 8859-1,2 (Hungarian, English, Czech, etc), Cyrillic and Korean fonts are supported along with 10 subtitle formats (MicroDVD, SubRip, SubViewer, Sami, VPlayer, RT, SSA, AQTtitle, JACOSub and our own: MPsub) and DVD subtitles (SPU streams, VobSub and Closed Captions).

mencoder (MPlayer's Movie Encoder) is a simple movie encoder, designed to encode MPlayer-playable movies (see above) to other MPlayer-playable formats (see below). It encodes to DivX4, XviD, one of the libavcodec codecs and PCM/MP3/VBRMP3 audio in 1, 2 or 3 passes. Furthermore it

has stream copying abilities, a powerful plugin system (crop, expand, flip, postprocess, rotate, scale, noise, rgb/yuv conversion) and more.

gmplayer is MPlayer with a graphical user interface. It has the same options as MPlayer.

GENERAL NOTES

Also see the HTML documentation!

Every 'flag' option has a 'noflag' counterpart, e.g. the opposite of the -fs option is -nofs.

You can put all of the options in a configuration file which will be read every time mplayer is run. The system-wide configuration file 'mplayer.conf' is in your configuration directory (e.g. /etc/mplayer or /usr/local/etc/mplayer), the user specific one is '~/.mplayer/config'. User specific options override system-wide options and options given on the command line override either. The syntax of the configuration files is 'option=<value>', everything after a '#' is considered a comment. Options that work without values can be enabled by setting them to 'yes' or '1' and disabled by setting them to 'no' or '0'. Even suboptions can be specified in this way.

EXAMPLE:

```
# Use Matrox driver by default.
vo=xmga
# I love practicing handstands while watching videos.
flip=yes
# Decode/encode multiple files from png, start it with -mf
on
mf= type=png:fps=25
```

PLAYER OPTIONS (MPLAYER ONLY)

-autoq <quality> (use with -vop pp)
Dynamically changes the level of postprocessing depending on available spare CPU time. The number you specify will be the maximum level used. Usually you can use some big number. You have to use -vop pp without parameters in order to use this.

-autosync <factor>
Gradually adjusts the A/V sync based on audio delay measurements. Specifying -autosync 0, the default, will cause frame timing to be based entirely on audio delay measurements. Specifying -autosync 1 will do the same, but will subtly change the A/V correction algorithm used. An uneven video frame rate in a movie which plays fine with -nosound can often be helped by setting this to an integer value greater than 1. The higher the value, the closer

the timing will be to `-nosound`. Try `-autosync 30` to smooth out problems with sound drivers which do not implement a perfect audio delay measurement. With this value, if large A/V sync offsets occur, they will only take about 1 or 2 seconds to settle out. This delay in reaction time to sudden A/V offsets should be the only side-effect of turning this option on, for all sound drivers.

`-benchmark`

Prints some statistics on CPU usage and dropped frames at the end. Use in combination with `-nosound` and `-vo null` for benchmarking only the video codec.

`-framedrop` (also see `-hardframedrop`)

Skips displaying some frames to maintain A/V sync on slow systems. Decoding of B frames is also skipped and video filters are not used.

`-h, -help, --help`

Show short summary of options.

`-hardframedrop`

More intense frame dropping (breaks decoding). Leads to image distortion!

`-identify`

Show file parameters in easy parsable format. The wrapper script `TOOLS/midentify` suppresses the other mplayer output and (hopefully) shell escapes the filenames.

`-input <commands>`

This option can be used to configure certain parts of the input system. Paths are relative to `~/.mplayer/`.

NOTE:

Autorepeat is currently only supported by joysticks.

Available commands are:

<code>conf=<file></code>	Read alternative <code>input.conf</code> . If given without pathname, <code>~/.mplayer</code> is assumed.
<code>ar-delay</code>	Delay in msec before we start to autorepeat a key (0 to disable).
<code>ar-rate</code>	How many key presses per second when we autorepeat.
<code>keylist</code>	Prints all keys that can be bound.
<code>cmdlist</code>	Prints all commands that can be bound.
<code>js-dev</code>	Specifies the joystick device to use (default is

```

        file                /dev/input/js0).
                           Read commands from the given
                           file. Mostly useful with a
                           fifo.

-lircconf <configuration file>
    Specifies a configuration file for LIRC (Linux In-
    frared Remote Control, see http://www.lirc.org) if
    you don't like the default ~/.lircrc.

-loop <number>
    Loops movie playback <number> times. 0 means for-
    ever.

-nojoystick
    Turns off joystick support. Default is on, if com-
    piled in.

-nolirc
    Turns off LIRC support.

-nortc
    Turns off usage of the Linux RTC (real-time clock -
    /dev/rtc) as timing mechanism.

-playlist <file>
    Play files according to a playlist (1 file per row
    or Winamp or ASX format).

-quiet
    Display less output and status messages.

-really-quiet
    Display even less output and status messages.

-rnd
    Play files in random order.

-sdp
    Specifies that the input file is a SDP ('Session
    Description Protocol') file that describes an RTP
    session (see http://www.live.com/mplayer/).

-skin <skin directory> (BETA CODE)
    Load skin from the given directory (WITHOUT path
    name).

    EXAMPLE:
        -skin fittyfene      tries Skin/fittyfene. It
                           first checks /usr/lo-
                           cal/share/mplayer/ and af-
                           terwards ~/.mplayer/.

-slave
    This option switches on slave mode. This is in-
    tended for use of MPlayer as a backend to other
    programs. Instead of intercepting keyboard events,
    MPlayer will read simplistic command lines from its

```

stdin. The section SLAVE MODE PROTOCOL explains the syntax.

- softsleep
Uses high quality software timers. As precise as the RTC without requiring special privileges. Comes at the price of higher CPU consumption.
- speed <0.01-100>
Set playback speed rate.
- sstep <sec>
Specifies seconds between displayed frames. Useful for slideshows.
- use-stdin

DEMUXER/STREAM OPTIONS

- aid <id> (also see -alang option)
Select audio channel [MPEG: 0-31 AVI/OGM: 1-99 ASF/RM: 0-127 VOB(AC3): 128-159 VOB(LPCM): 160-191] MPlayer prints the available IDs when running in verbose (-v) mode.
- alang <two letter country code> (also see -aid option)
Works only for DVD playback. It selects the DVD audio language and always tries to play audio streams whose language matches the given code. For the list of available languages, use with the -v switch and look at the output.

EXAMPLE:

```
-alang hu,en           Plays Hungarian and falls
                       back to English if Hungarian
                       is not available.
```

- audio-demuxer <number> (-audiofile only)
Force audio demuxer type for -audiofile. Give the demuxer ID as defined in demuxers.h. Use -audio-demuxer 17 to force .mp3 detection.
- audiofile <filename>
Play audio from an external file (WAV, MP3 or Ogg Vorbis).
- cdrom-device <path to device>
Override default CDROM drive name /dev/cdrom.
- cache <kbytes>
This option specifies how much memory (in kbytes) to use when precaching a file/URL. Especially useful on slow media (default is -nocache).
- cdda <option1:option2>
This option can be used to tune the CD Audio read-

ing feature of MPlayer.
Available options are:

```

speed=<value>          set CD spin speed

paranoia=<0-2>         set paranoia level
                        0: disable checking
                        1: overlap checking only
                        (default)
                        2: full data correction
                           and verification

generic-dev=<value>   use specified generic SCSI
                        device

sector-size=<value>   atomic read size

overlap=<value>       force minimum overlap search
                        during verification to <val-
                        ue> sectors.

toc-bias              Assume that the beginning
                        offset of track 1 as report-
                        ed in the TOC will be ad-
                        dressed as LBA 0. Some
                        Toshiba drives need this for
                        getting track boundaries
                        correct.

toc-offset=<value>    Add <value> sectors to the
                        values reported when ad-
                        dressing tracks. May be
                        negative.

(no)skip              (never) accept imperfect da-
                        ta reconstruction.

```

-channels <number>

Change the number of playback channels, defaults to '2' if not specified. If the number of output channels is bigger than the number of input channels empty channels are inserted (unless mixing from mono to stereo, then the mono channel is repeated in both output channels). If the number of output channels is smaller than the number of input channels, results depend on the audio decoder (-afm). Mplayer asks the decoder to decode the audio into as many channels as specified. Now it's up to the decoder to fulfill the requirement. If the decoder outputs more channels than requested, the exceeding channels are truncated. This is usually only important when playing videos with AC3 audio (like DVDs). In that case liba52 does the decoding by default and correctly downmixes the audio into the requested number of channels.

NOTE:

This option is honored by codecs (AC3 only) filters (surround) and ao drivers (OSS at least). Available options are:

2	Stereo
4	Surround
6	Full 5.1

- `-chapter <chapter id>[-<end chapter id>]`
Specify which chapter to start playing at. Optionally specify which chapter to end playing at (default: 1). Examples can be found below.
- `-csslib <filename>`
(old-style DVD option) This option is used to override the default location of libcss.so.
- `-demuxer <number>`
Force demuxer type. Give the demuxer ID as defined in demuxers.h. Use `-demuxer 17` to force .mp3 detection.
- `-dumpaudio (MPLAYER only)`
Dumps raw compressed audio stream to ./stream.dump (useful with mpeg/ac3).
- `-dumpfile <filename> (MPLAYER only)`
Specify which file MPlayer should dump to. Should be used together with `-dumpaudio / -dumpvideo / -dumpstream`.
- `-dumpstream (MPLAYER only)`
Dumps the raw stream to ./stream.dump. Useful when ripping from DVD or network.
- `-dumpvideo (MPLAYER only)`
Dump raw compressed video stream to ./stream.dump (not very usable).
- `-dvd <title id>`
Tell MPlayer which movies (specified by title id) to play. For example sometimes '1' is a trailer, and '2' is the real movie.
- NOTE:
Sometimes deinterlacing is required for DVD playback, see the `-vop pp=0x20000` option.
- `-dvd-device <path to device>`
Override default DVD device name /dev/dvd.
- `-dvdangle <angle id>`
Some DVD discs contain scenes that can be viewed from multiple angles. Here you can tell MPlayer which angles to use (default: 1). Examples can be found below.

- `-dvdauth <DVD device>`
 (old-style DVD option) Turns on DVD authentication using the given device.
- `-dvdkey <CSS key>`
 (old-style DVD option) When decoding a VOB file copied undecrypted from DVD, this option gives the CSS key needed to decrypt the VOB (the key is printed when authenticating with the DVD drive using `-dvdauth`).
- `-dvdnav (BETA CODE)`
 Force usage of `libdvdnav`.
- `-forceidx`
 Force rebuilding of INDEX. Useful for files with broken index (desyncs, etc). Seeking will be possible. You can fix the index permanently with `MEncoder` (see the documentation).
- `-fps <value>`
 Override video framerate (if value is wrong/missing in the header) (float number).
- `-frames <number>`
 Play/convert only first `<number>` frames, then quit.
- `-hr-mp3-seek (.MP3 only)`
 Hi-res mp3 seeking. Default is: enabled when playing from external MP3 file, as we need to seek to the very exact position to keep A/V sync. It can be slow especially when seeking backwards - it has to rewind to the beginning to find the exact frame.
- `-idx (also see -forceidx)`
 Rebuilds INDEX of the AVI if no INDEX was found, thus allowing seeking. Useful with broken/incomplete downloads, or badly created AVIs.
- `-mc <seconds/frame>`
 Maximum A-V sync correction per frame (in seconds).
- `-mf <option1:option2:...>`
 Used when decoding from multiple PNG or JPEG files. Available options are:
- | | |
|---------------------------------|---|
| <code>on</code> | turns on multifile support |
| <code>w=<value></code> | width of the output (autodetect) |
| <code>h=<value></code> | height of the output (autodetect) |
| <code>fps=<value></code> | fps of the output (default: 25) |
| <code>type=<value></code> | type of input files (available types: jpeg, png, tga) |
- `-ni (.AVI only)`

Force usage of non-interleaved AVI parser (fixes playing of some bad AVI files).

- nobps** (.AVI only)
Do not use average byte/sec value for A-V sync (AVI). Helps with some AVI files with broken header.
- passwd** <password> (see **-user** option too)
Specify password for http authentication.
- rawaudio** <option1:option2:...>
This option lets you play raw audio files. It may also be used to play audio CDs which are not 44KHz 16Bit stereo.
Available options are:
- | | |
|---------------------------------|----------------------------|
| on | use raw audio demuxer |
| channels=<value> | number of channels |
| rate=<value> | rate in samples per second |
| samplesize=<value> | sample size in byte |
| format=<value> | fourcc in hex |
- rtsp-stream-over-tcp**
Used with 'rtsp://' URLs to specify that the resulting incoming RTP and RTCP packets be streamed over TCP (using the same TCP connection as RTSP). This option may be useful if you have a broken Internet connection that does not pass incoming UDP packets (see <http://www.live.com/mplayer/>).
- skipopening**
Skip DVD opening (dvdnav only).
- sb** <byte position> (see **-ss** option too)
Seek to byte position. Useful for playback from CDROM images / .VOB files with junk at the beginning.
- srate** <Hz>
Forces the given audio playback rate, changing video speed to keep a-v sync. MEncoder passes this value to lame for resampling.
- ss** <time> (see **-sb** option too)
Seek to given time position.
- EXAMPLE:**
- | | |
|---------------------|------------------------|
| -ss 56 | seeks to 56 seconds |
| -ss 01:10:00 | seeks to 1 hour 10 min |
- tv** <option1:option2:...>
This option enables the TV grabbing feature of MPlayer.
- NOTE:**
MPlayer doesn't accept colons so type dots instead

in the device ID (e.g. hw.0,0 instead of hw:0,0). Be advised that although you can select any samplerate when using ALSA, the LAME audio codec is able to encode only the 'standard' samplerates. You'll get an .avi file with no sound when you choose an odd samplerate and use this codec. Available options are:

on	use TV input
noaudio	no sound
driver=<value>	available: dummy, v4l, bs-dbt848
device=<value>	Specify other device than the default /dev/video0.
input=<value>	Specify other input than the default 0 (Television) (see output for a list)
freq=<value>	Specify the frequency to set the tuner to (e.g. 511.250).
outfmt=<value>	output format of the tuner (yv12, rgb32, rgb24, rgb16, rgb15, uyvy, yuy2, i420)
width=<value>	width of the output window
height=<value>	height of the output window
buffersize=<value>	capture buffer size in megabytes (default is half of the physical memory)
norm=<value>	available: PAL, SECAM, NTSC
channel=<value>	Set tuner to <value> channel.
chanlist=<value>	available: europe-east, europe-west, us-bcast, us-cable, etc
audiorate=<value>	set audio capture bitrate
forceaudio	capture audio even if there are no audio sources reported by v4l
alsa	capture from ALSA
amode=<0-3>	choose an audio mode: 0: mono 1: stereo

2: language 1
3: language 2

`forcechan=<1-2>` By default, the count of recorded audio channels is determined automatically by querying the audio mode from the tv card. This option allows to force stereo/mono recording regardless of the `amode` option and the values returned by `v4l`. This can be used for troubleshooting when the tv card is unable to report the current audio mode.

`adevice=<value>` set an audio device
/dev/... for OSS
hardware ID for ALSA

`audioid=<value>` choose an audio output of the capture card, if it has more of them

`[volume|bass|treble|balance]=<0-65535>`
These options set parameters of the mixer on the video capture card. They will have no effect, if your card doesn't have one.

`-user <user name>` (see `-passwd` option too)
Specify user name for http authentication.

`-vcd <track>`
Play video CD track from device instead of plain file.

`-vid <id>`
Select video channel [MPG: 0-15 ASF: 0-255].

`-vivo <sub-options>` (DEBUG CODE)
Force audio parameters for the `.vivo` demuxer (for debugging purposes).

OSD/SUB OPTIONS

NOTE:
See `-vop` expand too.

`-dumpmicrodvds` (MPLAYER only)
Convert the given subtitle (specified with the `-sub` switch) to the MicroDVD subtitle format. Creates a `dumpsub.sub` file in the current directory.

- `-dumpmpsub` (MPLAYER only)
Convert the given subtitle (specified with the `-sub` switch) to MPlayer's subtitle format, MPsub. Creates a `dump.mpsub` file in the current directory.
- `-dumpsrtsub` (MPLAYER only)
Convert the given subtitle (specified with the `-sub` switch) to the time-based SubViewer (SRT) subtitle format. Creates a `dumpsub.srt` file in the current directory.
- `-dumpjacosub` (MPLAYER only)
Convert the given subtitle (specified with the `-sub` switch) to the time-based JACOs subtitle format. Creates a `dumpsub.js` file in the current directory.
- `-dumpsami` (MPLAYER only)
Convert the given subtitle (specified with the `-sub` switch) to the time-based SAMI subtitle format. Creates a `dumpsub.smi` file in the current directory.
- `-dumpsub` (MPLAYER only) (BETA CODE)
Dumps the subtitle substream from VOB streams. See `-dump*sub` and `-vobsubout*` options too.
- `-ifo` <vobsub ifo file>
Indicate the file that will be used to load palette and frame size for VOBSUB subtitles.
- `-ffactor` <number>
Resample alphasmap of the font. Can be:
- | | |
|------|--|
| 0 | plain white fonts |
| 0.75 | very narrow black outline
[default] |
| 1 | narrow black outline |
| 10 | bold black outline |
- `-font` <path to font.desc file>
Search for the OSD/SUB fonts in an alternative directory (default for normal fonts: `~/.mplayer/font/font.desc`, default for FreeType fonts: `~/.mplayer/subfont.ttf`).
- NOTE:
With FreeType, this option determines path to the text font file.
The `-subfont-*` options are available only with FreeType support compiled in. If FreeType support is enabled, the old font support can't be used.
- EXAMPLE:
`-font ~/.mplayer/arial-14/font.desc`
`-font ~/.mplayer/arialuni.ttf`
- `-noautosub`

Turns off automatic loading of subtitle files.

`-nooverlapsub`

Turns off support for overlapping subtitles.

`-osdlevel <0-2>` (MPLAYER only)

Specifies which mode the OSD should start in (0: none, 1: seek, 2: seek+timer, default is 1).

`-sid <id>` (also see `-slang` option)

Turns on DVD subtitle displaying. Also, you MUST specify a number which corresponds to a DVD subtitle language (0-31). For the list of available subtitles, use with the `-v` switch and look at the output.

`-slang <two letter country code>` (also see `-sid` option)

Works only for DVD playback. Turns on/selects DVD subtitle language. For the list of available subtitles, use with the `-v` switch and look at the output.

EXAMPLE:

```
-slang hu,en           Selects Hungarian and falls
                        back to English if Hungarian
                        is not available.
```

`-sub <subtitle file>`

Use/display this subtitle file.

`-subcc`

Display DVD Closed Caption (CC) subtitles. These are NOT the VOB subtitles, these are special ASCII subtitles for the hearing impaired encoded in the VOB userdata stream on most region 1 DVDs. CC subtitles have not been spotted on DVDs from other regions so far.

`-subcp <codepage>`

If your system supports `iconv(3)`, you can use this option to specify codepage of the subtitle.

EXAMPLE:

```
-subcp latin2
-subcp cp1250
```

`-sub-demuxer <number>` (BETA CODE)

Force subtitle demuxer type for `-subfile`.

`-subdelay <sec>`

Delays subtitles by `<sec>` seconds. Can be negative.

`-subfont-autoscale <0-3>`

Sets the autoscale mode.

NOTE:

Zero means that text-scale and osd-scale are font heights in points.

The mode can be:

0	no autoscale
1	proportional to movie height
2	proportional to movie width
3	proportional to movie diagonal (default)

`-subfont-blur <0-8>`

Sets the font blur radius (default: 2).

`-subfont-encoding <value>`

Sets the font encoding. When set to 'unicode', all the glyphs from the font file will be rendered and unicode will be used (default: unicode).

`-subfont-osd-scale <0-100>`

Sets the osd elements autoscale coefficient (default: 6).

`-subfont-outline <0-8>`

Sets the font outline thickness (default: 2).

`-subfont-text-scale <0-100>`

Sets the subtitle text autoscale coefficient (percentage of the screen size) (default: 5).

`-subfps <rate>`

Specify frame/sec rate of subtitle file (float number), default: the same fps as the movie.

NOTE:

ONLY for frame-based SUB files, i.e. NOT MicroDVD format.

`-subfile <filename> (BETA CODE)`

Currently useless. Same as `-audiofile`, but for subtitle streams (OggDS?).

`-subpos <0-100> (useful with -vop expand)`

Specify the position of subtitles on the screen. The value is the vertical position of the subtitle in % of the screen height.

`-unicode`

Tells MPlayer to handle the subtitle file as UNICODE.

`-utf8`

Tells MPlayer to handle the subtitle file as UTF8.

`-vobsub <vobsub file without extension>`

Specify the VobSub files that are to be used for subtitle. This is the full pathname without extensions, i.e. without the '.idx', '.ifo' or '.sub'.

`-vobsubid <0-31>`
Specify the VobSub subtitle id.

AUDIO OUTPUT OPTIONS (MPLAYER ONLY)

`-abs <value>` (OBSOLETE)
Override audio driver/card buffer size detection,
`-ao oss only`

`-af <plugin1,plugin2,plugin3[=options],...>`
Activate a comma separated list of audio filters
and their options.
Available filters are:

`resample[=srate[:sloppy][:fast]]`
Changes the sample rate of
the audio stream to an inte-
ger srate (Hz). It only
supports the 16 bit little
endian format.

`channels[=nch]`
Change the number of chan-
nels to nch output channels.
If the number of output
channels is bigger than the
number of input channels
empty channels are inserted
(except mixing from mono to
stereo, then the mono chan-
nel is repeated in both of
the output channels). If
the number of output chan-
nels is smaller than the
number of input channels the
exceeding channels are trun-
cated.

`format[=bps,f]`
Select the format f and bits
per sample bps used for out-
put from the filter layer.
The option bps is an integer
and denotes bytes per sam-
ple. The format f is a
string containing a concate-
nated mix of:
alaw, mulaw or imaadpcm
float or int
unsigned or signed
le or be (little or big en-
dian)

`volume[=v:sc:pr:en]` Select the output volume
level. This filter is not
reentrant and can therefore
only be enabled once for ev-

ery audio stream.

v: desired gain in dB for all channels in the stream. The gain can be set from -200dB to +40dB (where -200dB mutes the sound completely and +40dB equals a gain of 1000). The default gain is -20dB.

sc: enable soft clipping.

pr: enable probing of the volume level for each audio stream. Both the maximum and instantaneous volume is probed. The instantaneous volume can only be accessed through the runtime interface, but the maximum volume is printed at the end of the movie. This value can be used when transcoding movies to maximize the utilization of the dynamic range.

en: enable and disable the volume control.

delay[=d]

Delay sound output by d seconds (floating point number).

-af-adv <force=(0-3):list=(filters)> (see -af option too)
Specify advanced audio filter options:

force=<0-3>

Forces the insertion of audio filters to one of the following:

0: Completely automatic insertion of filters (default)

1: Optimize for speed

2: Optimize for accuracy

3: Turn off auto

list=<filters>

Same as -af (see -af option).

-ao <driver1[:device],driver2,...[,]>

Specify a priority list of audio output drivers (optionally with device) to be used. 'device' is valid with SDL, too, it means subdriver then.

NOTE:

To get a full list of available drivers, see -ao help.

If the list has a trailing ',' it will fallback to drivers not listed.

EXAMPLE

```
-ao oss:/dev/dsp2,oss:/dev/dsp1,
    try to use OSS with the
    specified sound devices and
    fallback to others if it
    fails
    -ao sdl:esd          specify the SDL subdriver

-aofile <filename>
    Filename for -ao pcm.

-aop <list=plugin1,plugin2...:option1=value1:opt2=val2...>
    Specify audio plugin(s) and their options (see doc-
    umentation too).
    Available options are:

    list=[plugins]      comma separated list of plu-
                        gins (resample, surround,
                        format, volume, extrastereo,
                        volnorm)

    delay=<sec>         example plugin, do not use.

    format=<format>     output format (format plugin
                        only)

    fout=<Hz>           output frequency (resample
                        plugin only)

    volume=<0-255>      volume (volume plugin only)

    mul=<value>         stereo coefficient (default:
                        2.5) (extrastereo plugin on-
                        ly)

    softclip            compressor / 'soft-clipping'
                        capabilities (volume plugin
                        only)

-delay <sec>
    Audio delay in seconds (may be +/- float value).

-mixer <device>
    This option will tell MPlayer to use a different
    device for mixing than /dev/mixer.

-nowaveheader (-ao pcm only)
    Don't include wave header.  Used for RAW PCM.
```

VIDEO OUTPUT OPTIONS (MPLAYER ONLY)

```
-aa* (-vo aa only)
    You can get a list and an explanation of available
```

options executing mplayer -aahelp

-bpp <depth>

Use different color depth than autodetect. Not all -vo drivers support it (fbdev, dga2, svga, vesa).

-brightness <-100 - 100>

Adjust brightness of video output (default 0). It changes intensity of RGB components of video signal from black to white screen.

-contrast <-100 - 100>

Adjust contrast of video output (default 0). Works in similar manner as brightness.

-display <name>

Specify the hostname and display number of the X server you want to display on.

EXAMPLE:

```
-display xtest.localdomain:0
```

-double

Enables doublebuffering. Fixes flicker by storing two frames in memory, and displaying one while decoding another. Can affect OSD. Needs twice the memory of a single buffer, so it won't work on cards with very little video memory.

-dr

Turns on direct rendering (not supported by all codecs and video outputs) (default is off). Warning: may cause OSD/SUB corruption!

-dxr2 <option1:option2:...>

This option is used to control the dxr2 driver. Note: The lavc filter is now auto inserted if you try to play a non MPEG1/2 format so all formats supported by MPlayer should play out of the box (if you have the CPU power needed to encode on the fly). The overlay chipset used on the dxr2 is of pretty bad quality but the default settings should work for everybody. The OSD may be usable with the overlay (not on TV) by drawing it in the colorkey. With the default colorkey settings you may get variable results, usually you will see the colorkey around the characters or some other funny effect. But if you properly adjust the colorkey settings you should be able to get acceptable results.

```
ar-mode=<value>      aspect ratio mode (0 = normal, 1 = pan scan, 2 = letterbox (default))
```

```
iec958-encoded/decoded
                    iec958 output mode
```

```

mute                mute sound output

ucode=<value>       path to the microcode

TV Out

75ire               enable 7.5 IRE

bw                  b/w TV output

color               color TV output

interlaced          interlaced TV output

macrovision=<value> macrovision mode (0 = off
                    (default), 1 = agc, 2 = agc
                    2 colorstripe, 3 = agc 4
                    colorstripe)

norm=<value>         TV norm (ntsc (default),
                    pal,pal60,palm,paln,palnc)

square/ccir601-pixel
                    TV pixel mode

Overlay

cr-[left|right|top|bot]=<-20-20>
                    adjust the overlay cropping

ck-[rgb]min=<0-255> minimum value for the color
                    key

ck-[rgb]max=<0-255> maximum value for the color
                    key

ck-[rgb]=<0-255>   color key values

ignore-cache        do not use the VGA cache

ol-osd              enable the osd hack on the
                    overlay

ol[hwxy]-cor=<value>
                    adjust the overlay size and
                    position in case it doesn't
                    match the window perfectly

overlay             enable the overlay

overlay-ratio=<1-2500>
                    tune the overlay (default
                    1000)

update-cache        recreate the VGA cache

-fb <device> (fbdev or DirectFB only)

```

Specifies the framebuffer device to use. By default it uses /dev/fb0.

`-fbmode <modename>` (fbdev only)
Change video mode to the one that is labelled as `<modename>` in /etc/fb.modes.

NOTE:

VESA framebuffer doesn't support mode changing.

`-fbmodeconfig <filename>` (fbdev only)
Use this configuration file instead of the default /etc/fb.modes. Only valid for the fbdev driver.

`-forcexv` (SDL only)
Force using XVideo.

`-fs`
Fullscreen playing (centers movie, and makes black bands around it). Toggle it with the 'f' key (not all video outputs support it). See also `-zoom`.

`-fsmode-dontuse <0-31>` (OBSOLETE) (use `-fs` option)
Try this option if you still experience fullscreen problems.

`-geometry x[%][:y[%]]`
Adjust where the output is on the screen initially. The `x` and `y` specifications are in pixels measured from the top-right of the screen to the top-right of the image being displayed, however if a percentage sign is given after the argument it turns the value into a percentage of the screen size in that direction. The values given must be integers.

EXAMPLE:

<code>50:40</code>	Places the window at <code>x=50</code> , <code>y=40</code>
<code>50%:50%</code>	Places the window in the middle of the screen
<code>100%</code>	Places the window at the top left corner of the screen
<code>100%:100%</code>	Places the window at the bottom left corner of the screen

`-hue <-100 - 100>`
Adjust hue of video signal (default: 0). You can get colored negative of image with this option.

`-icelayer <0-15>` (icewm only)
Sets the layer of the fullscreen window of mplayer for icewm.

0	Desktop
2	Below
4	Normal

6	OnTop
8	Dock
10	AboveDock
12	Menu (default)

- `-jpeg <option1:option2:...> (-vo jpeg only)`
Specify options for the JPEG output.
Available options are: [no]progressiv, [no]baseline, optimize, smooth, quality and outdir.
- `-monitor_dotclock <dotclock (or pixelclock) range> (fbdev and vesa only)`
Look into etc/example.conf for further information and in DOCS/video.html.
- `-monitor_hfreq <horizontal frequency range> (fbdev and vesa only)`
- `-monitor_vfreq <vertical frequency range> (fbdev and vesa only)`
- `-monitoraspect <ratio>`
Set aspect ratio of your monitor or TV screen. See also `-aspect` for movie aspect.
- EXAMPLE:**
`-monitoraspect 4:3 or 1.3333`
`-monitoraspect 16:9 or 1.7777`
- `-nograbpointer`
Do not grab mouse pointer after VidMode change (`-vm`), useful for multihead setup.
- `-noslices`
Disable drawing video by 16-pixel height slices/bands, instead draws the whole frame in a single run. May be faster or slower, depending on card/cache. It has effect only with libmpeg2 and libavcodec codecs.
- `-panscan <0.0-1.0>`
Enables Pan & Scan functionality, i.e. in order to display a 16:9 movie on a 4:3 display, the sides of the movie are cropped to get a 4:3 image which fits the screen. This function works only with xv, xmgc and xvidix drivers.
The range controls how much of the image is cropped.
- `-rootwin`
Play movie in the root window (desktop background) instead of opening a new one. Works only with x11, xv, xmgc and xvidix drivers.
- `-saturation <-100 - 100>`
Adjust saturation of video output (default: 0). You can get grayscale output with this option.

`-screenw <pixels> -screenh <pixels>`
 If you use an output driver which can't know the resolution of the screen (fbdev/x11 and/or TVout) this is where you can specify the horizontal and vertical resolution.

`-stop_xscreensaver`
 Turns off xscreensaver at startup and turns it on again on exit.

`-vm`
 Try to change to a better video mode. dga, x11/xv (XF86VidMode) and sdl output drivers support it.

`-vo <driver1[:device],driver2,...[,]>`
 Specify a priority list of video output drivers (optionally with device) to be used. 'device' is valid with SDL and GGI, too, it means subdriver then.

NOTE:
 See `-vo help` for a full list of available drivers. If the list has a trailing ',' it will fallback to drivers not listed.

EXAMPLE:

<code>-vo xmgga,xv,</code>	Try Matrox kernel driver,
<code>-vo sdl:aalib</code>	then Xv driver, then others specify the SDL subdriver

`-vsync`
 Enables VBI for vesa.

`-wid <window id>`
 This tells MPlayer to use a X11 window, which is useful to embed MPlayer in a browser (with the plugin extension for instance).

`-xineramascreen <0-...>`
 In Xinerama configurations (i.e. a single desktop that spans across multiple displays) this option tells MPlayer which screen to display movie on.

`-z <0-9>`
 Specifies compression level for PNG output (`-vo png`)

0	no compression
9	max compression

`-zrbw (-vo zr only)`
 Display in black and white (for optimal performance, this option can be combined with the 'decode only in black and white' option for codecs belonging to the FFmpeg family).

`-zrcrop <[width]x[height]+[x offset]+[y offset]> (-vo zr only)`

Select a part of the input image for display, multiple occurrences of this option switch on cinerama mode. In cinerama mode the movie is distributed over more than one TV (or beamer) to create a larger screen. Options appearing after the n-th `-zrcrop` apply to the n-th MJPEG card, each card should at least have a `-zrdev` in addition to the `-zrcrop`. For examples, see the output of `-zrhhelp` and the Zr section of the documentation.

`-zrdev <device> (-vo zr only)`

Specify the device special file that belongs to your MJPEG card, by default this driver takes the first v4l device it can find.

`-zrfd (-vo zr only)`

Force decimation: Decimation, as specified by `-zrhdec` and `-zrvdec`, only happens if the hardware scaler can stretch the image to its original size. Use this option to force decimation.

`-zrhhelp (-vo zr only)`

Display a list of all `-zr*` options, their default values and an example of cinerama mode.

`-zrnorm <norm> (-vo zr only)`

Specify norm PAL/NTSC, the default is 'no change'.

`-zrquality <1-20> (-vo zr only)`

A number from 1 to 20 representing the jpeg encoding quality. 1 gives the best quality and 20 gives very bad quality.

`-zrvdec <1,2,4> -zrhdec <1,2,4> (-vo zr only)`

Vertical/horizontal decimation: Ask the driver to send only every 2nd or 4th line/pixel of the input image to the MJPEG card and use the scaler of the MJPEG card to stretch the image to its original size.

`-zrxdooff <x display offset>, -zrydooff <y display offset> (-vo zr only)`

If the movie is smaller than the TV screen, these options control the position of the movie relative to the upper left corner of the screen. The movie is centered by default.

DECODING/FILTERING OPTIONS

`-ac <[-]codecl,[-]codec2,...[,]>`

Specify a priority list of audio codecs to be used, according to their codec name in `codecs.conf`. Use a '-' before the codec name to omit it.

NOTE:

See `-ac` help for a full list of available codecs. If the list has a trailing `,` it will fallback to codecs not listed.

EXAMPLE:

```
-ac mp3acm          force l3codeca.acm MP3 codec
-ac mad,           try libmad first, then fall-
                  back to others
-ac hwac3,a52,    try hardware AC3
                  passthrough, then software
                  AC3 codec, then others
-ac -ffmp3,       try other codecs except FFm-
                  peg's MP3 decoder
```

`-afm <driver1,driver2,...>`

Specify a priority list of audio drivers to be used, according to their driver name in `codecs.conf`. It falls back to default if none is ok.

NOTE:

See `-afm` help for a full list of available drivers.

EXAMPLE:

```
-afm ffmpeg        try FFmpeg's libavcodec
                  (mp1/2/3) codecs first
-acm,dshow         try Win32 codecs first
```

`-aspect <ratio>`

Override aspect ratio of movies. It's autodetected on MPEG files, but can't be autodetected on most AVI files.

EXAMPLE:

```
-aspect 4:3 or -aspect 1.3333
-aspect 16:9 or -aspect 1.7777
```

`-flip`

Flip image upside-down.

`-lavdopts <option1:option2:...> (DEBUG CODE)`

If decoding with a codec from `libavcodec`, you can specify its parameters here.

EXAMPLE:

```
-lavdopts bug=1
```

NOTE:

Just add the values of the things you want to enable. Available options are:

```
ec                error concealment:
                  1: use strong deblock
                    filter for damaged MBs
                  2: iterative MV search
                    (slow)
```

3: all (default)

er=<value>

error resilience:

0: disabled
 1: careful (should work with broken encoders)
 2: normal (default) (works with compliant encoders)
 3: aggressive (more checks but might cause problems even for valid bitstreams)
 4: very aggressive

bug=<value>

manually work around encoder bugs:

0: nothing
 1: autodetect bugs (default)
 2 (msmpeg4v3): some old lavc generated msmpeg4v3 files (no autodetect)
 4 (mpeg4): xvid interlacing bug (autodetected if fourcc==XVIX)
 8 (mpeg4): UMP4 (autodetected if fourcc==UMP4)
 16 (mpeg4): padding bug
 32 (mpeg4): illegal vlc bug (autodetected per fourcc)

gray

grayscale only decoding (a bit faster than with color)

-noaspect

Disable automatic movie aspect ratio compensation.

-nosound

Do not play/encode sound.

-vop pp=<option1/option2/...>

This option enables usage of MPlayer's internal postprocessing filter, and also gives an interface where you can pass options to the named filter.

Note that each sub-filter must be separated with a / sign.

Each filter defaults to 'c' (chrominance).

The keywords accept a '-' prefix to disable the option.

A ':' followed by a letter may be appended to the option to indicate its scope:

a: Automatically switches the filter off if the CPU is too slow.

c: Do chrominance filtering, too.

y: Do not do chrominance filtering (only luminance filtering).

EXAMPLE:

```
-vop pp=hb/vb/dr/al/lb
-vop pp=hb/vb/dr/al
-vop pp=de/-al      default filters without
                    brightness/contrast correc-
                    tion
-vop pp=de/tn:1:2:3 Enable default filters &
                    temporal denoiser.
-vop pp=hb:y/vb:a -autoq 6
                    Deblock horizontal only lu-
                    minance and switch vertical
                    deblocking on or off auto-
                    matically depending on
                    available CPU time.
```

-pp <quality> (see -vop pp option too)
Set postprocess level of the DLL. This option is NO LONGER USABLE with MPlayer's postprocess filter, but only with Win32 DirectShow DLLs which have interal postprocessing routine.

The valid range of -pp value vary on codecs, mostly 0-6, where 0=disable 6=slowest/best.

-ssf <mode>
Specifies SwScaler parameters.

EXAMPLE

```
-vop scale -ssf lgb=3.0

lgb=<0-100>      Gaussian blur filter (luma)
cgb=<0-100>      Gaussian blur filter (chroma)
ls=<0-100>       sharpen filter (luma)
cs=<0-100>       sharpen filter (chroma)
chs=<h>          chroma horizontal shifting
cvs=<v>          chroma vertical shifting
```

-stereo <mode>
Select type of MP2/MP3 stereo output.

```
0      Stereo
1      Left channel
2      Right channel
```

-sws <software scaler type> (see -vop scale option too)
This option sets the quality (and speed, respectively) of the software scaler, with the -zoom option. For example with x11 or other outputs which lack hardware acceleration. Possible settings are:

NOTE:

For -sws 2 and 7, the sharpness can be set with the

scaling parameter (p) of `-vop scale` (0 (soft) - 100 (sharp)), for `-sws 9`, it specifies the filter length (1 - 10).

0	fast bilinear (default)
1	bilinear
2	bicubic (good quality)
3	experimental
4	nearest neighbour (bad quality)
5	area
6	luma bicubic / chroma bilinear
7	gauss
8	sincR
9	lanczos
10	bicubic spline

`-vc <[-]codec1,[-]codec2,...[,]>`
Specify a priority list of video codecs to be used, according to their codec name in `codecs.conf`. Use a '-' before the codec name to omit it.

NOTE:

See `-vc help` for a full list of available codecs. If the list has a trailing ',' it will fallback to codecs not listed.

EXAMPLE:

<code>-vc divx</code>	force Win32/VFW DivX codec, no fallback
<code>-vc divx4,</code>	try divx4linux codec first, then fallback to others
<code>-vc -divxds,-divx,</code>	try other codecs except Win32 DivX codecs
<code>-vc ffmpeg12,mpeg12,</code>	try libavcodec's MPEG1/2 codec, then libmpeg2, then others

`-vfm <driver1,driver2,...>`
Specify a priority list of video drivers to be used, according to their driver name in `codecs.conf`. It falls back to default if none is ok.

NOTE:

If `libdivxdecore` support was compiled in, then `odivx` and `divx4` now contains just the same DivX4 codec, but different APIs to reach it. For difference between them and when to use which, check the DivX4 section in the documentation.

See `-vfm help` for a full list of available drivers.

EXAMPLE:

<code>-vfm ffmpeg,dshow,vfw</code>	try the libavcodec, then Di-
------------------------------------	------------------------------

```

                                rectshow, then VFW codecs
                                and fallback to the others,
                                if still none is ok
-vfm xanim                        try XAnim codecs first

-vop <...,filter3[=options],filter2,filter1>
  Activate a comma separated list of video filters
  and their options in reverse order.

```

NOTE:

The parameters are optional and if omitted, some of them are set to default values. Use -1 to keep the default value. Parameters w:h means width x height in pixels, x:y means x;y position counted from the upper left corner of the bigger image.

To get a full list of available plugins, see -vop help.

Available filters are:

```

crop[=w:h:x:y]                   Crops the given part of the
                                image and discards the rest.
                                Useful to remove black bands
                                from widescreen movies.

```

```

rectangle[=w:h:x:y]             Draws a rectangle of the re-
                                quested width and height at
                                the specified coordinates
                                over the image (used to test
                                crop). (default: maximum w/
                                h, upper left x/y position)

```

```

expand[=w:h:x:y:o]              Expands (not scales) movie
                                resolution to the given val-
                                ue and places the unscaled
                                original at coordinates x y.
                                Can be used for placing sub-
                                titles/OSD in the resulting
                                black bands (default: origi-
                                nal w/h, centered x/y). The
                                last parameter (de)activates
                                OSD rendering (default: 0).

```

```

flip                             Flips the image upside down.
                                See also option -flip.

```

```

mirror                           Flips the image on Y axis.

```

```

rotate[=<0-7>]                  Rotates and flips (optional)
                                the image +/- 90 degrees.
                                For parameters between 4-7
                                rotation is only done if the
                                movie's geometry is portrait
                                and not landscape.

```

```

scale[=w:h[:c[:p]]]             Scales the image with the
                                software scaler (slow) and
                                performs a YUV<->RGB col-

```

orspace conversion (see `-sws` option too). The value 0 is used for scaled (aspect) destination w/h. (default: original w/h, destination w/h with `-zoom`) Optionally chroma skipping (c from 0-3) and scaling parameters can be specified. (see the `-sws` option for details)

`yuy2` Forces software YV12/I420 or 422P to YUY2 conversion.

`rgb2bgr[=swap]` RGB 24/32 <-> BGR 24/32 colorspace conversion with optional R <-> B swapping.

`palette` RGB/BGR 8 -> 15/16/24/32bpp colorspace conversion using palette.

`format[=fourcc]` Restricts the colorspace for next filter. It does not do any conversion. Use together with the scale filter for a real conversion.

`pp[=flags]` Activates the external post-processing filter. (see `-vop pp` option for details)

`lavc[=quality:fps]` Realtime MPEG1 encoder for use with DVB/DXR3 (libavcodec)

`fame` Realtime MPEG1 encoder for use with DVB/DXR3 (libfame)

`dvbscale[=aspect]` Set up optimal scaling for DVB cards. (aspect = `DVB_HEIGHT*ASPECTRATIO`, default: 768)

`cropdetect[=0-255]` Calculates necessary cropping parameters and prints the recommended parameters to stdout. The threshold can be optionally specified from nothing (0) to everything (255). (default: 24)

`noise[=luma[u][t|a][h][p]:chroma[u][t|a][h][p]]`
 Adds noise
 <0-100>: luma noise
 <0-100>: chroma noise
 u: uniform noise

```

t: temporal noise
a: averaged temporal
noise
h: high quality
p: mix with pattern

eq[=bright:cont] Activates the software
equalizer with interactive
controls like the hardware
eq controls. The values can
be from -100 to 100.

halfpack Convert planar YUV 4:2:0 to
half-height packed 4:2:2,
downsampling luma but keep-
ing all chroma samples.
Useful for output to low-
resolution display devices
when hardware downscaling is
poor quality or is not
available.

dint[=sense:level] Detects and drops first of
interlaced frames in video
stream. Values can be from
0.0 to 1.0 - first (default
0.1) is relative difference
between neighbor pixels,
second (default 0.15) is
what part of image have to
be detected as interlaced to
drop the frame.

unsharp=1 |cWxH:amount[:1|cWxH:amount]
Unsharp mask / gaussian
blur.
l: apply effect on luma
component
c: apply effect on chroma
components
WxH: width and height of
the matrix, odd sized in
both directions (min =
3x3, max = 13x11 or
11x13, usually something
between 3x3 and 7x7)
amount: relative amount
of sharpness / blur to
add to the image (amount
< 0 = blur, amount > 0 =
sharpen, usually some-
thing between -1.5 and
1.5)

swapuv Swap U & V plane.

il=[d|i][s][:[d|i][s]]

```

```
(de)interleaves lines.
d: deinterleave
i: interleave
s: swap fields (exchange
even & odd lines)
```

```
boxblur=radius:power[:radius:power]
radius: size of the filter
power: how often the filter
should be applied
```

```
!!! .IPs lbpp !!! .IPs 2xsai !!! .IPs eq2 !!!
.IP s yvu9 !!! more (IMHO all of -vop help should
be documented), !!! especially bmovl (see .c
file), add vo/test?
```

```
-x <x> (MPLAYER only)
Scale image to x width (if sw/hw scaling available).
Disables aspect calculations.
```

```
-xvidopts <option1:option2:...>
Specify additional parameters when decoding with Xvid.
```

```
dr2          Activate direct rendering
              method 2.
nodr2        Deactivate direct rendering
              method 2.
```

```
-xy <x>
x<=8         Scale image by factor <x>.
x>8         Set width to <x> and calculate
            height to keep correct
            aspect ratio.
```

```
-y <y> (MPLAYER only)
Scale image to y height (if sw/hw scaling available).
Disables aspect calculations.
```

```
-zoom
Allow software scaling, where available. Could be
used to force scaling with -vop scale.
```

```
NOTE:
-vop scale will IGNORE options -x / -y / -xy / -fs
/ -aspect without -zoom.
```

ENCODING OPTIONS (MENCODER ONLY)

```
-audio-density <1-50>
```

Number of audio chunks per second (default is 2 for 0.5s long audio chunks).

NOTE:

CBR only, VBR ignores this as it puts each packet in a new chunk.

`-audio-delay <0.0-...>`

Sets the audio delay field in the header. Default is 0.0, negative values do not work. This does not delay the audio while encoding, but the player will see the default audio delay, sparing you the use of the `-delay` option.

`-audio-preload <0.0-2.0>`

Sets up audio buffering time interval (default: 0.5s).

`-divx4opts <option1:option2:...>`

If encoding to DivX4, you can specify its parameters here.

Available options are:

<code>help</code>	get help
<code>br=<value></code>	specify bitrate in kbit <4-16000> or bit <16001-24000000>
<code>key=<value></code>	maximum keyframe interval (in frames)
<code>deinterlace</code>	enable deinterlacing (avoid it, DivX4 is buggy)
<code>q=<1-5></code>	quality (1-fastest, 5-best)
<code>min_quant=<1-31></code>	minimum quantizer
<code>max_quant=<1-31></code>	maximum quantizer
<code>rc_period=<value></code>	rate control period
<code>rc_reaction_period=<value></code>	rate control reaction period
<code>rc_reaction_ratio=<value></code>	rate control reaction ratio
<code>crispness=<0-100></code>	specify crispness/smoothness
<code>pass=<1-2></code>	With this you can encode 2pass DivX4 files. First encode with <code>pass=1</code> , then with the same parameters, encode with <code>pass=2</code> .

vbrpass=<0-2> Override the pass argument and use XviD VBR Library instead of DivX4 VBR. Available options are:

- 0: one pass encoding (as in not putting pass on the command line)
- 1: Analysis (first) pass of two pass encoding. The resulting AVI file can be directed to /dev/null.
- 2: Final (second) pass of two pass encoding.

-endpos <[[hh:]mm:]ss[.ms]|size[b|kb|mb]> (see -ss and -sb option too)
Stop encoding at given time or byte position. Can be specified in many ways:

NOTE:
Byte position won't be accurate, as it can only stop at a frame boundary.

EXAMPLE:

-endpos 56	encode only 56 seconds
-endpos 01:10:00	encode only 1 hour 10 minutes
-endpos 100mb	encode only 100 MBytes

-ffourcc <fourcc>
Can be used to override the video fourcc of the output file.

EXAMPLE:

-ffourcc div3	will have the output file contain 'div3' as video fourcc.
---------------	---

-include <configuration file>
Specify configuration file to be parsed after the default

-info <option1:option2:...> (.AVI only)
Specify the info header of the resulting .AVI file. Available options are:

help	show this description
name=<value>	title of the subject of the file
artist=<value>	artist or author of the original subject of the file
genre=<value>	original work category

```

subject=<value>      contents of the file

copyright=<value>    copyright information for
                    the file

srcform=<value>      original form of the materi-
                    al that was digitized

comment=<value>      general comments about the
                    file or the subject of the
                    file

-lameopts <option1:option2:...>
    If encoding to MP3 with libmp3lame, you can specify
    its parameters here.
    Available options are:

    help              get help

    vbr=<0-4>         variable bitrate method
                    0: cbr
                    1: mt
                    2: rh(default)
                    3: abr
                    4: mtrh

    abr              average bitrate

    cbr              constant bitrate

    br=<0-1024>      specify bitrate in kBit (CBR
                    and ABR only)

    q=<0-9>          quality (0-highest, 9-low-
                    est) (only for VBR)

    aq=<0-9>         algorithmic quality (0-best/
                    slowest, 9-worst/fastest)

    ratio=<1-100>    compression ratio

    vol=<0-10>       set audio input gain

    mode=<0-3>       (default: auto)
                    0: stereo
                    1: joint-stereo
                    2: dualchannel
                    3: mono

    padding=<0-2>    0: no
                    1: all
                    2: adjust

-lavcopts <option1:option2:...>
    If encoding with a codec from libavcodec, you can
    specify its parameters here.

```

EXAMPLE:

```
-lavcopts                                vcodec=msmpeg4:vbi-
trate=1800:vhq:keyint=250
```

Available options are:

```
vcodec=<value>      use the specified codec
                    (there is no default, you
                    must specify it):
                    mjpeg: Motion JPEG
                    h263: H263
                    h263p: H263 Plus
                    mpeg4: DivX 4/5
                    msmpeg4: DivX 3
                    rv10: an old RealVideo
                    codec
                    mpeg1video: MPEG1 video
                    :)

vqmin=<2-31>        minimum quantizer (pass 1/2)
                    (default: 3)

vqscale=<2-31>     constant quantizer (selects
                    fixed quantizer mode) (de-
                    fault: 0 (disabled))

vqmax=<1-31>       maximum quantizer (pass 1/2)
                    (default: 15)

vqdiff=<1-31>     maximum quantizer difference
                    between I or P frames
                    (pass 1/2) (default: 3)

vmax_b_frames=<0-4> maximum number of B frames
                    between non B frames:
                    0: no B frames (default)
                    0-2: sane range

vme=<0-5>          motion estimation method:
                    0: none (very lq)
                    1: full (slow)
                    2: log (lq)
                    3: phods (lq)
                    4: EPZS (default)
                    5: X1

vhq                high quality mode, encode
                    each macro block in all
                    modes an choose the smallest
                    (slow). (default: HQ dis-
                    abled)

v4mv               4 motion vectors per mac-
                    roblock (slightly better
                    quality), cannot be used
                    with B frames. (default:
```

disabled)

keyint=<0-300> interval between keyframes in frames. Larger numbers mean slightly smaller files, but less precise seeking, 0 means no key frames and values >300 aren't recommended. For a strict mpeg1/2/4 compliance this would have to be <=132. (default: 250 or one key frame every ten seconds in a 25fps movie)

vb_strategy=<0-1> strategy to choose between I/P/B frames (pass 2):
 0: always use the maximum number of B frames (default)
 1: avoid B frames in high motion scenes (bitrate mispredictions)

vpass=<1-2> Activates internal 2pass mode (default: disabled):
 1: first pass
 2: second pass

aspect=<x.x/y.y> Store movie aspect internally, just like MPEG files. Much nicer solution than rescaling, because quality isn't decreased. Only MPlayer will play these files back correctly, other players will display them with wrong aspect. Example:
 aspect=16.0/9.0

vbitrate=<value> specify bitrate (pass 1/2) in
 kBit <4-16000> or
 Bit <16001-24000000>
 (warning: 1kBit = 1000 Bits)
 (default: 800)

vratetol=<value> approximated filesize tolerance in kbit. (warning: 1kBit = 1000 Bits) (default: 8000)

vrc_maxrate=<value> maximum bitrate in kbit/sec (pass 1/2)

vrc_minrate=<value> minimum bitrate in kbit/sec (pass 1/2)

```

vrc_buf_size=<value>
    buffer size in kbit (pass 1/
2). Note: vrateol should
not be too large during the
second pass or there might
be problems if
vrc_(min|max)rate is used.

vb_qfactor=<-31.0-31.0>
    quantizer factor between B
and non B frames (pass 1/2)
(default: 1.25)

vi_qfactor=<-31.0-31.0>
    (pass 1/2) (default: 0.8)

vb_qoffset=<-31.0-31.0>
    quantizer offset between B
and non B frames (pass 1/2)
(default: 1.25)

vi_qoffset=<-31.0-31.0>
    (pass 1/2) (default: 0.0)
    if v{b|i}_qfactor > 0
    I/B-Frame quantizer = P-
    Frame quantizer *
    v{b|i}_qfactor +
    v{b|i}_qoffset
    else
    do normal ratecontrol (dont
lock to next P frame quan-
tizer) and set q= -q *
v{b|i}_qfactor +
v{b|i}_qoffset

vqblur=<0.0-1.0>
    quantizer blur (pass1):
    0.0: qblur disabled
    0.5 (default)
    1.0: average the quantiz-
er over all previous
frames, larger values
will
average the quantizer
more over time (slower
change)

vqblur=<0.0-99.0>
    quantizer gaussian blur,
larger values will average
the quantizer more over time
(slower change) (pass2) (de-
fault: 0.5)

vqcomp=<value>
    quantizer compression, de-
pends upon vrc_eq (pass 1/2)
(default: 0.5)

```

```

vrc_eq=<equation>    main ratecontrol    equation
                    (pass 1/2):

1: constant bitrate
tex: constant quality
1+(tex/avgTex-1)*qComp: ap-
proximately the equation of
the old ratecontrol code
tex^qComp: with qcomp 0.5 or
something like that (de-
fault)

infix operators: +,-,*,/,^

variables:
tex:                texture
complexity
iTex,pTex:         intra, non
intra texture complexity
avgTex:            average
texture complexity
avgIITexaverage:  intra tex-
ture complexity in I frames
avgPITexaverage:  intra tex-
ture complexity in P frames
avgPPTexaverage:  non intra
texture complexity in P
frames
avgBPTexaverage:  non intra
texture complexity in B
frames
mv:                bits used
for MVs
fCode:             maximum
length of MV in log2 scale
iCount:            number of
intra MBs / number of MBs
var:               spatial
complexity
mcVar:             temporal
complexity
qComp:             qcomp from
the command line
isI, isP, isB:     is 1 if
picture type is I/P/B else 0
Pi,E:              see your
favorite math book

functions:
max(a,b),min(a,b): maximum /
minimum
gt(a,b): is 1 if a>b, 0 oth-
erwise
lt(a,b): is 1 if a<b, 0 oth-
erwise
eq(a,b): is 1 if a==b,0 oth-
erwise

```

sin, cos, tan, sinh, cosh,
tanh, exp, log, abs

vrc_override=<options>
User specified quality for specific parts (pass 1/2). The options are <start-frame, end-frame, quality[/start-frame, end-frame, quality[/...]]>:
quality 2-31: quantizer
quality -500-0: quality correcture in %

vrc_init_cplx=<0-1000>
initial complexity (pass 1)

vqsquish=<0-1>
specify how to keep the quantizer between qmin and qmax (pass 1/2):
0: use clipping
1: use a nice differentiable function (default)

vlelim=<-1000-1000>
single coefficient elimination threshold for luminance. Negative values will also consider the dc coefficient (should be at least -4 or lower for encoding at quant=1):
0: disabled (default)
-4 (JVT recommendation)

vcelim=<-1000-1000>
single coefficient elimination threshold for chrominance. Negative values will also consider the dc coefficient (should be at least -4 or lower for encoding at quant=1):
0 disabled (default)
7 (JVT recommendation)

vstrict
strict standard compliance. Only recommended if you want to feed the output into the mpeg4 reference decoder.

vdpart
data partitioning. Adds 2 byte per video packet, improves error-resistance when transferring over unreliable channels (eg. streaming over the internet)

vpsize=<0-10000>
video packet size, improves

```

error-resistance (see -vd-
part option too):
    0: disabled (default)
    100-1000: good choice

gray                grayscale    only    encoding
                    (faster) (default: disabled)

vfdct=<0-99>        dct algorithm:
                    0: automatically select a
                      good one (default)
                    1: fast integer
                    2: accurate integer
                    3: mmx
                    4: mlib

idct=<0-99>         idct algorithm. Note: all
                    these IDCTs do pass the
                    IEEE1180 tests afaik:
                    0: automatically select a
                      good one (default)
                    1: jpeg reference integer
                    2: simple
                    3: simplemmx
                    4: libmpeg2mmx (inaccu-
                      rate, DONT USE for encod-
                      ing with keyint >100)
                    5: ps2
                    6: mlib
                    7: arm

lumi_mask=<0.0-1.0> luminance masking. Warning:
                    be careful, too large values
                    can cause disasterous
                    things. Warning2: large
                    values might look good on
                    some monitors but may look
                    horrible on other monitors:
                    0.0: disabled (default)
                    0.0-0.3: sane range

dark_mask=<0.0-1.0> darkness masking. Warning:
                    be careful, too large values
                    can cause disasterous
                    things. Warning2: large
                    values might look good on
                    some monitors but may look
                    horrible on other monitors /
                    TV / TFT:
                    0.0: disabled (default)
                    0.0-0.3: sane range

tcplx_mask=<0.0-1.0> temporal complexity masking
                    (default: 0.0 (disabled))

scplx_mask=<0.0-1.0>

```

spatial complexity masking. Larger values help against blockiness, if no deblocking filter is used for decoding. Crop any black borders to get better quality:
 0.0: disabled (default)
 0.0-0.5: sane range

naq normalize adaptive quantization (experimental)

ildct use interlaced dct

mpeg_quant use MPEG quantizers instead of H.263. (default: disabled) (i.e. use H.263 quantizers)

-noskip
 Do not skip frames.

-o <filename>
 Outputs to the given filename, instead of the default 'test.avi'.

-oac <codec name>
 Encode with the given codec. Use -ovc help to get a list of available codecs. (no default set)

EXAMPLE:
 -oac copy no encoding, just streamcopy
 -oac pcm encode to uncompressed PCM
 -oac mp3lame encode to MP3 (using Lame)

-ofps <fps>
 The output file will have different frame/sec than the source. You MUST set it for variable fps (asf, some mov) and progressive (29.97fps telecined mpeg) files.

-ovc <codec name>
 Encode with the given codec. Use -ovc help to get a list of available codecs. (no default set)

EXAMPLE:
 -ovc copy no encoding, just streamcopy
 -ovc divx4 encode to DivX4/DivX5
 -ovc rawrgb encode to uncompressed RGB24
 -ovc lavc encode with a libavcodec codecs

-passlogfile <filename>
 When encoding in 2pass mode, MEncoder dumps first pass' informations to the given file instead of the default divx2pass.log.

`-skiplimit <value>`
 Maximal skipable frames after non-skipped one
 (`-noskiplimit` for unlimited number).

`-v, --verbose`
 Enable verbose output (more `-v` means more verbosity).

`-vobsubout <basename>`
 Specify the basename for the output `.idx` and `.sub`
 files. This turns off subtitle rendering in the
 encoded movie and diverts it to Vobsub subtitle
 files.

`-vobsuboutindex <index>`
 Specify the index of the subtitles in the output
 files. (default: 0)

`-vobsuboutid <langid>`
 Specify the language two letter code for the subti-
 tles. This overrides what is read from the DVD or
 the `.ifo` file.

`-xvidencopts <option1:option2:...>`
 If encoding to XviD, you can specify its parameters
 here.
 There's three modes available : constant bitrate
 (CBR), fixed quantizer and 2pass.
 Available options are:

<code>pass=<1 2></code>	specify the pass in 2pass mode
<code>quality=<0-6></code>	specify the encoding quality (default=6)
<code>br=<value></code>	sets the bitrate to be used in kbits/second if <code><16000</code> or in bits/second if <code>>16000</code> (CBR or 2pass mode, de- fault=687 kbits/s)
<code>rc_reaction_delay_factor=<value></code>	specify how fast the rate control reacts, lower values are faster
<code>rc_averaging_period=<value></code>	period to reach the required average
<code>rc_buffer=<value></code>	size of the rate control buffer
<code>quant_range=<1-31>--<1-31>[/<1-31>--<1-31>]</code>	min & max quantizer for all frames (default=2-31, CBR)

```

mode)
min & max quantizer for I/P
frames (default=2-31/2-31,
2pass mode)

min_key_interval=<value>
    minimum interval between key
    frames (default=0, 2pass on-
    ly)

max_key_interval=<value>
    maximum interval between key
    frames (default=10*fps)

mpeg_quant      use MPEG quantizers instead
                of H.263 (default=off)

mod_quant      decide whether to use MPEG
                or H.263 quantizers on a
                frame-by-frame basis. (de-
                fault=off, 2pass mode only)

lumi_mask      use a lumimasking algorithm
                (default=off, seems buggy)

hintedme       save Motion Estimation vec-
                tors to a file during the
                first pass and reuse this
                file during the second (de-
                fault=off, 2pass mode only,
                seems buggy)

hintfile       specify the temporary file
                to be used by the 'hintedme'
                option (default=
                ./xvid_hint_me.dat, 2pass
                mode only)

debug          save per-frame statistics in
                xvid.dbg (default=off)
                this is *not* the 2pass con-
                trol file

keyframe_boost=<0-1000>
                (default=0, 2pass mode only)

kfthreshold=<value> (default=10, 2pass mode on-
                ly)

kfreduction=<0-100> (default=30, 2pass mode on-
                ly)

fixed_quant=<1-31> switch to fixed quantizer
                mode and specify the quan-
                tizer to be used

```

KEYBOARD CONTROL

NOTE:

MPlayer has a fully configurable, command driven, control layer which allow you to control MPlayer using keyboard, mouse, joystick or remote control (using lirc).

The default configuration file for the input system is `~/.mplayer/input.conf` but it can be overridden using the `-input conf` option.

These keys may/may not work, depending on your video output driver.

general control

<code><- and -></code>	seek backward/forward 10 seconds
<code>up and down</code>	seek backward/forward 1 minute
<code>pgup and pgdown</code>	seek backward/forward 10 minutes
<code>< and ></code>	backward/forward in playlist
<code>HOME and END</code>	go to next/previous playtree entry in the parent list
<code>INS and DEL</code>	go to next/previous alternative source (asx playlist only)
<code>p / SPACE</code>	pause movie (any key unpauses)
<code>q / ESC</code>	stop playing and quit
<code>+ and -</code>	adjust audio delay by +/- 0.1 second
<code>/ and *</code>	decrease/increase volume
<code>9 and 0</code>	decrease/increase volume
<code>m</code>	mute sound
<code>f</code>	toggle fullscreen
<code>w and e</code>	decrease/increase panscan range
<code>o</code>	toggle between OSD states: none / seek / seek+timer
<code>d</code>	toggle frame dropping
<code>v</code>	toggle subtitle visibility
<code>j</code>	switch subtitle language
<code>z and x</code>	adjust subtitle delay by +/- 0.1 second
<code>r and t</code>	adjust subtitle position

(The following keys are valid only when using `-vo xv` or `-vo [vesa|fbdev]:vidix` or `-vo xvidix` `-vo (x)mga` or `-vc divxds (slow)`.)

<code>1 and 2</code>	adjust contrast
<code>3 and 4</code>	adjust brightness
<code>5 and 6</code>	adjust hue
<code>7 and 8</code>	adjust saturation

GUI keyboard control

<code>ENTER</code>	start playing
<code>s</code>	stop playing

a	about
l	load file
c	skin browser
p	toggle playlist
TV input control	
h and k	select previous/next channel
n	change norm
u	change channel list
DVDNAV input control	
K,J,H,L	browse up/down/left/right
M	jump to main menu
S	select

SLAVE MODE PROTOCOL

If the `-slave` switch is given, playback is controlled by a line-based protocol. Each line must contain one command otherwise one of the following tokens:

Commands

seek <value> [type=<0/1/2>]	Seek to some place in the movie. Type 0 is a relative seek of +/- <value> seconds. Type 1 seek to <value> % in the movie. Type 2 is a seek to an absolute position of <value> seconds.
audio_delay <value>	Adjust the audio delay of value seconds
quit	Quit MPlayer
pause	Pause/unpause the playback
grap_frames	Somebody know ?
pt_step <value> [force=<value>]	Go to next/previous entry in the playtree.
pt_up_step <value> [force=<value>]	Like pt_step but it jumps to next/previous in the parent list.
alt_src_step <value>	When more than one source is available it selects the next/previous one (only supported by asx playlist).

```

sub_delay <value> [abs=<value>]
    Adjust the subtitles delay
    of +/- <value> seconds or
    set it to <value> seconds
    when abs is non zero.

osd [level=<value>] Toggle osd mode or set it to
    level when level > 0.

volume <dir>          Increase/decrease volume

[contrast|brightness|hue|saturation] <-100 -
100> [abs=<value>]
    Set/Adjust video parameters.

frame_drop [type=<value>]
    Toggle/Set frame dropping
    mode.

sub_visibility        Toggle subtitle visibility.

sub_pos <value>       Adjust subtitles position.

vo_fullscreen         Switch to fullscreen mode.

tv_step_channel <dir>
    Select next/previous tv
    channel.

tv_step_norm          Change TV norm.

tv_step_chanlist      Change channel list.

gui_[loadsubtitle|about|play|stop]
    GUI actions

```

FILES

```

/etc/mplayer/mplayer.conf
    system-wide settings

~/.mplayer/config
    user settings

~/.mplayer/input.conf
    input bindings (see '-input keylist' for full
    keylist)

~/.mplayer/gui.conf
    GUI configuration file

~/.mplayer/gui.pl
    GUI playlist

~/.mplayer/font/
    font directory (There must be a font.desc file and

```

```

files with .RAW extension.)

~/.mplayer/DVDkeys/
    cracked CSS keys
Sub files
are searched for in this priority (for example
/mnt/movie/movie.avi):
    /mnt/cdrom/movie.sub
    ~/.mplayer/sub/movie.sub
    ~/.mplayer/default.sub

```

EXAMPLES

```

Quickstart DVD playing
    mplayer -dvd 1

Play in japanese with english subtitles
    mplayer -dvd 1 -alang ja -slang en

Play only chapters 5, 6, 7
    mplayer -dvd 1 -chapter 5-7

Multiangle DVD playing
    mplayer -dvd 1 -dvdangle 2

Playing from a different DVD device
    mplayer -dvd 1 -dvd-device /dev/dvd2

Old style DVD (VOB) playing
    mplayer -dvdauth /dev/dvd /mnt/dvd/VIDEO_TS/
    VTS_02_4.VOB

Stream from HTTP
    mplayer http://mplayer.hq/example.avi

Stream using RTSP
    mplayer rtsp://server.example.com/streamName

Convert subtitle to MPsub (to ./dump.mpsub)
    mplayer dummy.avi -sub source.sub -dumpmpsub

Input from standard V4L
    mplayer -tv on:driver=v4l:width=640:height=480:outfmt=i420 -vc rawi420
    -vo xv

Encoding DVD title #2, only selected chapters
    mencoder -dvd 2 -chapter 10-15 -o title2.avi -oac
    copy -ovc divx4

Encoding DVD title #2, resizing to 640x480
    mencoder -dvd 2 -vop scale=640:480 -o title2.avi
    -oac copy -ovc divx4

Encoding DVD title #2, resizing to 512xHHH (keep aspect
ratio)

```

```
mencoder -dvd 2 -vop scale -zoom -xy 512 -o title2.avi -oac copy -ovc divx4
```

The same, but with libavcodec family, MPEG4 (Divx5) compression

```
mencoder -dvd 2 -o title2.avi -ovc lavc -lavcopts vcodec=mpeg4:vhq:vbitrate=1800 -oac copy
```

The same, but with libavcodec family, MJPEG compression

```
mencoder -dvd 2 -o titel2.avi -ovc lavc -lavcopts vcodec=mjpeg:vhq:vbitrate=1800 -oac copy
```

Encoding all *.jpg files in the current dir

```
mencoder \*.jpg -mf on:fps=25 -o output.avi -ovc divx4
```

Encoding from tuner

```
mencoder -tv on:driver=v4l:width=640:height=480 -o tv.avi -ovc rawrgb
```

Encoding from a pipe

```
rar p test-SVCD.rar | mencoder -ovc divx4 -divx4opts br=800 -ofps 24 -- -
```

Encoding multiple *.vob files

```
cat *.vob | mencoder <options> -
```

BUGS

Probably. PLEASE, double-check the documentation (especially bugreports.html), the FAQ and the mail archive before!

Send your complete bug reports to the MPlayer-users mailing list at <mplayer-users@mplayerhq.hu>. We love complete bug reports :)

AUTHORS

Check documentation.

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STANDARD DISCLAIMER

Use only at your own risk! There may be errors and inac-

curacies that could be damaging to your system or your eye. Proceed with caution, and although this is highly unlikely, the authors don't take any responsibility for that!

2002-10-19

MPlayer(1)