

# FFmpegSettings(bpy\_struct)

base class — [bpy\\_struct](#)

**class** bpy.types.FFmpegSettings(bpy\_struct)

FFmpeg related settings for the scene

## audio\_bitrate

Audio bitrate (kb/s)

### TYPE:

int in [32, 384], default 192

## audio\_channels

Audio channel count

- `MONO` Mono – Set audio channels to mono.
- `STEREO` Stereo – Set audio channels to stereo.
- `SURROUND4` 4 Channels – Set audio channels to 4 channels.
- `SURROUND51` 5.1 Surround – Set audio channels to 5.1 surround sound.
- `SURROUND71` 7.1 Surround – Set audio channels to 7.1 surround sound.

### TYPE:

enum in ['MONO', 'STEREO', 'SURROUND4', 'SURROUND51', 'SURROUND71'], default 'STEREO'

## audio\_codec

FFmpeg audio codec to use

- `NONE` No Audio – Disables audio output, for video-only renders.
- `AAC` AAC.
- `AC3` AC3.
- `FLAC` FLAC.
- `MP2` MP2.
- `MP3` MP3.
- `OPUS` Opus.
- `PCM` PCM.
- `VORBIS` Vorbis.

### TYPE:

enum in ['NONE', 'AAC', 'AC3', 'FLAC', 'MP2', 'MP3', 'OPUS', 'PCM', 'VORBIS'], default 'NONE'

## audio\_mixrate

Audio sample rate (samples/s)

### TYPE:

int in [8000, 192000], default 48000

## audio\_volume

Audio volume

### TYPE:

float in [0, 1], default 1.0

## buffer\_size

FFmpeg buffer size

Rate control: buffer size (kb)

**TYPE:**

int in [0, 2000], default 0

**codec**

FFmpeg codec to use for video output

- NONE No Video – Disables video output, for audio-only renders.
- AV1 AV1.
- H264 H.264.
- H265 H.265 / HEVC.
- WEBM WebM / VP9.
- DNXHD DNxHD.
- DV DV.
- FFV1 FFmpeg video codec #1.
- FLASH Flash Video.
- HUFFYUV HuffYUV.
- MPEG1 MPEG-1.
- MPEG2 MPEG-2.
- MPEG4 MPEG-4 (divx).
- PNG PNG.
- QTRLE QuickTime Animation.
- THEORA Theora.

**TYPE:**

enum in ['NONE', 'AV1', 'H264', 'H265', 'WEBM', 'DNXHD', 'DV', 'FFV1', 'FLASH', 'HUFFYUV', 'MPEG1', 'MPEG2', 'MPEG4', 'PNG', 'QTRLE', 'THEORA'], default 'H264'

**constant\_rate\_factor**

Constant Rate Factor (CRF); tradeoff between video quality and file size

- NONE Constant Bitrate – Configure constant bit rate, rather than constant output quality.
- LOSSLESS Lossless.
- PERC\_LOSSLESS Perceptually Lossless.
- HIGH High Quality.
- MEDIUM Medium Quality.
- LOW Low Quality.
- VERYLOW Very Low Quality.
- LOWEST Lowest Quality.

**TYPE:**

enum in ['NONE', 'LOSSLESS', 'PERC\_LOSSLESS', 'HIGH', 'MEDIUM', 'LOW', 'VERYLOW', 'LOWEST'], default 'MEDIUM'

**ffmpeg\_preset**

Tradeoff between encoding speed and compression ratio

- BEST Slowest – Recommended if you have lots of time and want the best compression efficiency.
- GOOD Good – The default and recommended for most applications.
- REALTIME Realtime – Recommended for fast encoding.

**TYPE:**

enum in ['BEST', 'GOOD', 'REALTIME'], default 'GOOD'

**format**

Output file container

**TYPE:**

enum in ['MPEG4', 'MKV', 'WEBM', 'AVI', 'DV', 'FLASH', 'MPEG1', 'MPEG2', 'OGG', 'QUICKTIME'], default 'MKV'

**gopsize**

Distance between key frames, also known as GOP size; influences file size and seekability

**TYPE:**

int in [0, 500], default 25

**max\_b\_frames**

Maximum number of B-frames between non-B-frames; influences file size and seekability

**TYPE:**

int in [0, 16], default 0

**maxrate**

Rate control: max rate (kbit/s)

**TYPE:**

int in [-inf, inf], default 0

**minrate**

Rate control: min rate (kbit/s)

**TYPE:**

int in [-inf, inf], default 0

**muxrate**

Mux rate (bits/second)

**TYPE:**

int in [0, inf], default 0

**packetsize**

Mux packet size (byte)

**TYPE:**

int in [0, 16384], default 0

**use\_autosplit**

Autosplit output at 2GB boundary

**TYPE:**

boolean, default False

**use\_lossless\_output**

Use lossless output for video streams

**TYPE:**

boolean, default False

**use\_max\_b\_frames**

Set a maximum number of B-frames

**TYPE:**

boolean, default False

### video\_bitrate

Video bitrate (kbit/s)

#### TYPE:

int in  $[-\infty, \infty]$ , default 0

**classmethod** `bl_rna_get_subclass(id, default=None)`

#### PARAMETERS:

**id** (*str*) – The RNA type identifier.

#### RETURNS:

The RNA type or default when not found.

#### RETURN TYPE:

`bpy.types.Struct` subclass

**classmethod** `bl_rna_get_subclass_py(id, default=None)`

#### PARAMETERS:

**id** (*str*) – The RNA type identifier.

#### RETURNS:

The class or default when not found.

#### RETURN TYPE:

type

## Inherited Properties

- `bpy_struct.id_data`

## Inherited Functions

- `bpy_struct.as_pointer`
- `bpy_struct.driver_add`
- `bpy_struct.driver_remove`
- `bpy_struct.get`
- `bpy_struct.id_properties_clear`
- `bpy_struct.id_properties_ensure`
- `bpy_struct.id_properties_ui`
- `bpy_struct.is_property_hidden`
- `bpy_struct.is_property_overridable_library`
- `bpy_struct.is_property_readonly`
- `bpy_struct.is_property_set`
- `bpy_struct.items`
- `bpy_struct.keyframe_delete`
- `bpy_struct.keyframe_insert`
- `bpy_struct.keys`
- `bpy_struct.path_from_id`
- `bpy_struct.path_resolve`
- `bpy_struct.pop`
- `bpy_struct.property_overridable_library_set`
- `bpy_struct.property_unset`
- `bpy_struct.type_recast`
- `bpy_struct.values`

## References

- `RenderSettings.ffmpeg`

