NAME

movimdec - MovIm decoder

SYNOPSIS

movimdec [input_options] **-i** *input_file* [decoding_options] [output_options] **-o** *output_file*

movimdec -h

DESCRIPTION

MovIm is a video codec specifically designed for both conservation and restoration of moving images.

The **MovIm** package includes the **libmovim** C library implementing the **MovIm** video codec and its associated **movimenc**, **movimdec** and **movimplay** utilities, as well as the **openmovim** Bash command-line interface allowing to encode, decode, play and analyse virtually any moving images.

movimdec is a **MovIm** decoder.

OPTIONS

GENERAL OPTIONS

-i *input_file*, **--input=**input_file*
>   The uncompressed or lossless compressed MovIm data can be used directly as a file (.movim).
>   This format is directly inspired from FFmpeg's NUT container.

-o *output_file*, **--output=**output_file*
>   All container formats and video codecs supported by FFmpeg should work.

INPUT AND OUTPUT OPTIONS

--flip=(*vertical*|*horizontal*)
>   flip the image on the *vertical* or *horizontal* axis

>   This option may be repeated.

--rotate=angle*
>   *angle* of counterclockwise rotation in degrees, expressed as an integer or a real number

>   This option may be repeated.

--lut[**:**channel*]**=**path*
>   *path* to an 1D LUT or a 3D LUT to apply

LUTs can be applied to the input file and/or the output file. Moreover a LUT can be applied to the whole file (default) or only to a single *channel*.

This option may be repeated.

For 1D LUT, which transforms e.g. from floating-point scene linear into camera log or a display-referred space, the maximum allowed size is currently 16'777'216, i.e. 24-bit precision.

DECODING OPTIONS
--demosaic=(*BLI*|*BCI*|*LR*|*VNG*|*SI*|*PG*|*AMZE*|*HQLI*|*AHD*|*DLMMSEE*)
demosaic a Bayer-encoded *input_file*

This option allows to choose between different demosaicing algorithms, because the results may vary a lot, depending on the image content.

The following algorithms are implemented:
- *BLI* = bilinear interpolation
- *BCI* = bicubic interpolation
- *LR* = Lanczos resampling
- *VNG* = variable number of gradients
- *SI* = spline interpolation
- *PG* = pixel grouping
- *AMZE* = aliasing minimisation and zipper elimination
- *HQLI* = high-quality linear interpolation (Malvar, He and Cutler. IEEE 2004)
- *AHD* = adaptive homogeneity-directed (Hirakawa and Parks. IEEE 2005)
- *DLMMSEE* = directional linear minimum mean square-error estimation (Zhang and Xiaolin. IEEE 2005)

INFORMATIVE OPTIONS
-h, --help
display a help message

--version
display the installed version of **movimdec** in the date-based *YYYY-MM-DD* format and the implemented version of **MovIm** in the semantic *major.minor*[.*patch*] format:

movimdec 2025-06-29
MovIm 1.11

NOTES

movimdec can also be used to check the validity of MovIm data or to extract the metadata from MovIm data. More information to come.

SEE ALSO

movimenc(1) and **movimplay**(1); **libmovim**(1); **openmovim**(1).

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