

**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 2024-03-23
MovIm 1.10.3
```

### 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)**.

### COPYRIGHT

Copyright (c) 2014-2024 by Reto Kromer

Copyright (c) 2022-2024 by Michal Cohen

### LICENSE

The **MovIm** package is released under a 3-Clause BSD License.

### DISCLAIMER

The **MovIm** package is provided "as is" without warranty or support of any kind.