**NAME**

movimplay - MovIm player

**SYNOPSIS**

**movimplay** [input_options] **-i** *input_file* [playing_options]

**movimplay -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.

**movimplay** is a **MovIm** player.

**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.

**INPUT 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

A LUT can be applied to the whole input 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.

**PLAYING OPTIONS**

The following list is not exhaustive.

**--ignore=***channel*[**:***bit_plane*]

ignore a full *channel*, or even only one single *bit_plane* of a *channel*

This option may be repeated and the order of the different **--ignore** and **--select** options is relevant.

Each bit-plane of each channel may be abbreviated as *all*, like in **--ignore=all**.

**--select=***channel*[**:***bit_plane*]

select one *channel*, or even only one single *bit_plane* of a *channel*

This option may be repeated and the order of the different **--ignore** and **--select** options is relevant.

The whole image is played by default, which is equivalent to **--select=all**.

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

```
movimplay 2024-03-23
MovIm 1.10.3
```

## NOTES

Depending on the resolution, the number of channels, the bit-depth and the available computing power, the moving images may play very slowly, far below real time. The **--select** and **--ignore** options allow to play only some channels, or even only some bit-planes of channels.

**movimplay** is helpful when **libmovim** is used as a standalone library rather than as an embedded library into an application, such as a film or video restoration suite.

The author is indebted to Fabrice Bellard (and his **bpgview**), Ulrich Ruedel and **mpv** for the inspiration given.

## SEE ALSO

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

## COPYRIGHT

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