

**DVO**

**TWISTER**  
**USER GUIDE**

# WHAT DOES IT DO?

**DVO Twister** is an advanced tool designed specifically for frame rate standards conversion. It utilizes our PHAME algorithm to achieve high-quality standards conversion, employing sophisticated motion estimation to analyze and interpret the motion in the source video and generate smooth and seamless output in the target video standard. To use **DVO Twister**, you should set up a project and composition configured for your target format.

# HOW DO YOU USE IT?

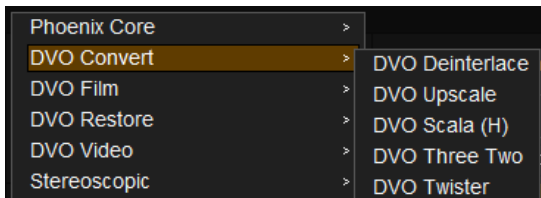
DVO Twister works on the following platforms:



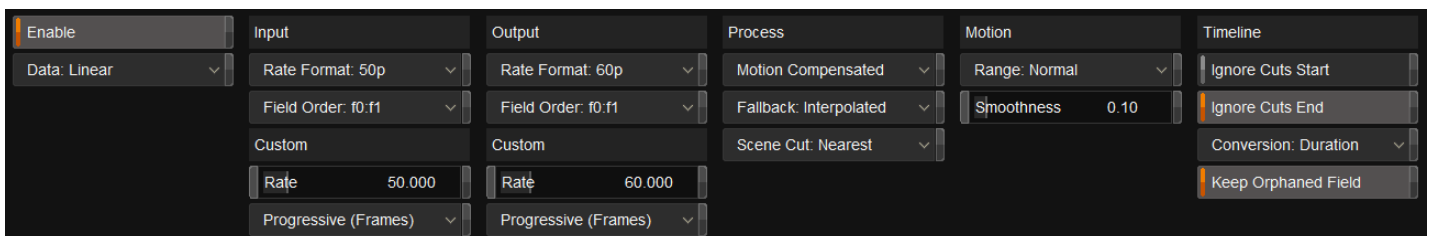
If you're already a Filmworkz veteran, you can jump right in and use **DVO Twister** however if you need a hand with anything, our friendly AI assistant [Juno](#) is your first port of call. Whether it's guidance with DVO tools, help getting started in Phoenix, Nucoda or Loki, access to the latest versions or discovering best practices, **Juno**'s here to offer instant, accurate support, any time you need it - that's 24/7 because **Juno** never sleeps!

# GETTING STARTED

1. Launch your platform on your workstation.
2. Locate the toolbar, (positioned on the left-hand side of the interface)
3. Scan the toolbar options until you find the **DVO Twister** tool.

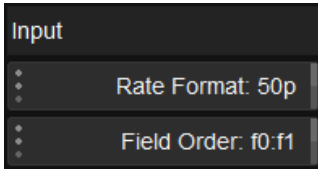


4. Click on it and the control panel under appears:



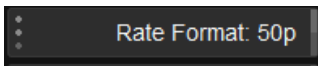
# CONTROL PANEL EXPLAINED

## INPUT



Configure the source format for the input.

## RATE FORMAT

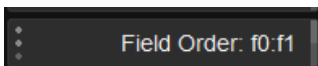


Select the source format for the conversion. Available modes include common field and framerates.

### Note:

- **3:2 (29.97->23.976):** Will perform an automatic inverse telecine process
- **Custom:** Set the input framerate freely.

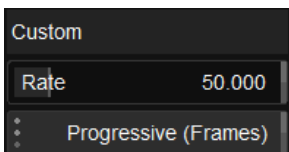
## FIELD ORDER



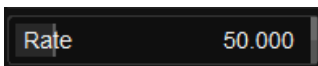
Sets the field order if the input rate format is interlaced.

**Values:** f0:f1 (default), f1:f0

## CUSTOM



## RATE



Sets the source format rate for the conversion when rate format is set as *custom*.

Media can be specified to be *Progressive* or *Interlaced*.

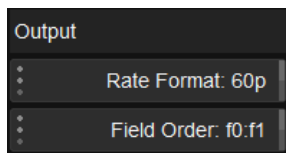
**Range:** 1.00 - 240.00

**Values:** Progressive (frames)/ Interlaced (fields)

**Default:** 50 / Progressive

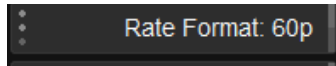


# OUTPUT



Configure the desired format for the output.

## RATE FORMAT

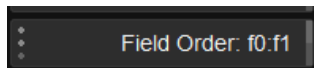


Select the output format for the conversion. Available modes include common field and framerates.

### Note:

**Custom:** Set the input framerate freely.

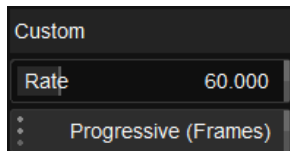
## FIELD ORDER



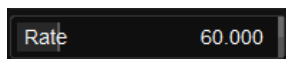
Sets the field order to the output rate when the format is interlaced.

**Values:** f0:f1 (default), f1:f0

# CUSTOM



## RATE



Sets the output format rate for the conversion when rate format is set as *custom*.

Media can be specified to be *Progressive* or *Interlaced*.

**Range:** 1.00 - 240.00

**Values:** Progressive (frames)/ Interlaced (fields)

**Default:** 60 / Progressive

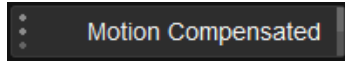


# PROCESS

This section sets up various processing options, including fallback modes.

Fallback modes are included to handle scenarios where certain processing options may not produce desired results, by providing alternative settings to ensure smooth processing and undesired artifacts.

## MOTION MODE



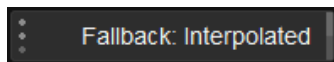
This defines how the images are recreated in the target format.

**Motion Compensated:** Uses motion compensation and is the default. This accurately recreates fields and frames using the Digital Vision *Phame* motion vector algorithms.

**Interpolated:** This is a simpler method that recreates correct target fields and frames by careful mixing of the input source. This method will often produce a lower quality result than the motion compensated approach. Try this if *Motion Compensation* creates undesirable artifacts.

**Nearest:** This uses no processing other than skipping or repeating frames to output the same clip duration

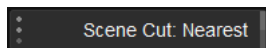
## FALLBACK



Fallback determines how images that are identified as "unsafe" in the "Motion Mode" are processed in the target format, with "unsafe" referring to images that pose a challenge or limitations due to the content or motion characteristics.

**Values:** Interpolated (default), Nearest

## SCENE CUT PROCESSING



DVO Twister has a built-in **scene detector** and the *Scene Cut* mode determines how images adjacent to a scene cut are processed.

**Disable:** Ignores the cut and forces motion processing across the scene cut. This will not provide a clean cut but is sometimes preferred as it is the most accurate representation in terms of alignment in time

**Interpolate:** Forces the processing to be in *interpolate* mode across the scene cut.

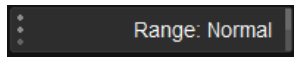
**Nearest:** Forces the processing to be in *nearest neighbor* mode, giving the best-looking edits but not necessarily aligned in time. This is the default setting



# MOTION

*Motion* sets up the *motion analysis* and its thresholds. This option only affects the image if *Process* is set to *Motion Compensated*.

## RANGE

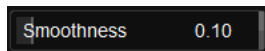


*Range* affects how motion is detected and selects between three main modes.

A larger mode can help with fast motion and larger images.

**Values:** Normal (default), Large, X-Large

## SMOOTHNESS



*Smoothness* affects how the threshold between *motion* and *fallback* are managed to achieve a preferred blend.

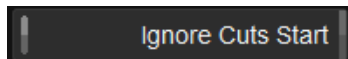
**Values:** 0.0 - 1.0

**Default:** 0.10

# TIMELINE

Defines how the filter should process the timeline.

## IGNORE CUTS START



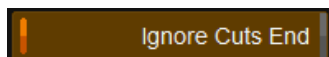
This sets the reference in-point for the conversion. Once enabled all conversions will be calculated from *the start* of the source clip.

If *disabled* it will respect the scene edits and use the first frame of each edit as a reference frame as the start of the conversion.

If the **whole timeline** is processed, *Ignore Cuts Start* needs to be **enabled**.

**Default:** Disabled

## IGNORE CUTS END



This sets the duration endpoint based on the edits. If enabled, all conversions will be allowed to use frames past the source clip edit.

If *disabled*, it will convert until end of source edit.

**Default:** Enabled



# CONVERSION

## Conversion: Duration

This defines the length of the conversion.

**Range:** Converts the sequence with the same frame count as the reference.

**Duration (default):** Converts the sequence with time as reference. It will add or subtract fields or frames at the end of the sequence to conform with the new duration.

**Range+Duration:** Converts a sequence with time as the reference, ensuring that the timing and duration of the converted sequence align with the source sequence.

This means that the last frame of the source sequence will be preserved as the last frame in the target sequence, managing any anomalies or discrepancies in the timing or frame range between the two sequences.

# KEEP ORPHANED FIELD

## Keep Orphaned Field

Uses the "other field" (at same time) to complete the last frame if needed.

**Default:** Enabled



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**SALES**

