

# DVO LINE SYNC USER GUIDE

### WHAT DOES IT DO?

Line sync or line *jitter* is a very common problem with archived analog video tape. It's typically caused by the lack of (or disturbances with) *line synchronization pulses* which prevents the video tape recorder from locating the actual start and end of each line. This causes **random line displacement** (jitter).

The most visible effect is that vertical edges appear to be jagged. The jitter can range from +/-1 pixel to more than +/-5 pixels in severe cases. **DVO Line Sync** automatically detects and corrects these line displacements as well as any stretching the jitter causes.

### HOW DO YOU USE IT?

DVO Line Sync works on the following platforms:





If you're already a Filmworkz veteran, you can jump right in and use **DVO Line Sync** however if you need a hand with anything, our friendly AI assistant <u>Juno</u> 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!



- 1. Launch your platform on your workstation.
- 2. Locate the toolbar, (positioned on the lefthand side of the interface)

Phoenix Core		
DVO Convert		
DVO Film		test prores gamma
DVO Restore		
DVO Video	>	DVO Aperture
Colour Tools		DVO Deinterlace
Colour Management		DVO Chroma (H)
Composite		DVO Cross Colour
Image Effects		DVO Dropout
Timewarps		DVO Dropout+Fix
Transition		DVO Line Sync
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4. Click on it and the control panel under appears:

3. Scan the toolbar options until you find the **DVO Line Sync** tool.



Enable	Detection		Processing	Noise Reduction
	Strength	40	Shift	NR Enable
			Stretch	NR Strength 50



## **CONTROL PANEL EXPLAINED**

### PARAMETERS

When enabled, DVO Line Sync will process the input using the settings described below.

### **DETECTION STRENGTH**

Detection	
Strength	40

Detection Strength controls the degree of jitter detection with a higher number meaning a higher degree of detection.

If the Strength parameter is pushed too high, we may correct lines unnecessarily and introduce jitter. Analyse the resulting output before committing to a long render.

Note that the processing time is dependent on detected (and processed) lines. The more line sync issues we find, the longer it will take to process.

### PROCESSING

Processing

#### SHIFT



Enables correction of pixel shifting (left/right). Enabling this feature allows for the correction of pixel shifting in the horizontal direction, specifically left or right. Pixel shifting refers to the displacement or misalignment of pixels within an image or video frame.

When pixel shifting occurs, it can cause visual distortions and misalignment of image elements. This can be particularly noticeable in scenarios where precise alignment is crucial, such as in graphics, text, or objects with well-defined edges.

#### **STRETCH**

Stretch

Enables correction of stretched/shrunken lines.



### **NOISE REDUCTION**

This is Adaptive Noise Reduction with non-recursive spatial-temporal filtering so ghosting will not occur. Note that processing time will be considerably higher when active since all lines have to be processed.

### **NR ENABLE**

NR Enable

Enables *Noise Reduction*, independent of shift/stretch detection and correction.

### **NR STRENGTH**



Sets the amount of Noise Reduction to perform.



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