

DVO

PIXEL

USER GUIDE

WHAT DOES IT DO?

DVO Pixel is used to find and conceal any stuck, dead or semi-dead pixels coming from a malfunctioning camera sensor.

If you have an "uncut" sequence consisting of several clips (with different dead pixels), you need to Scene detect your mixdown.

HOW DO YOU USE IT?

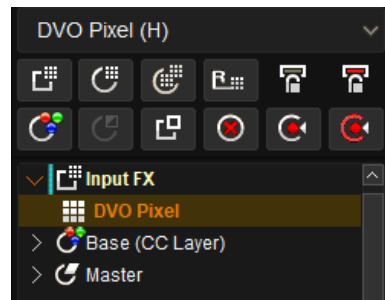
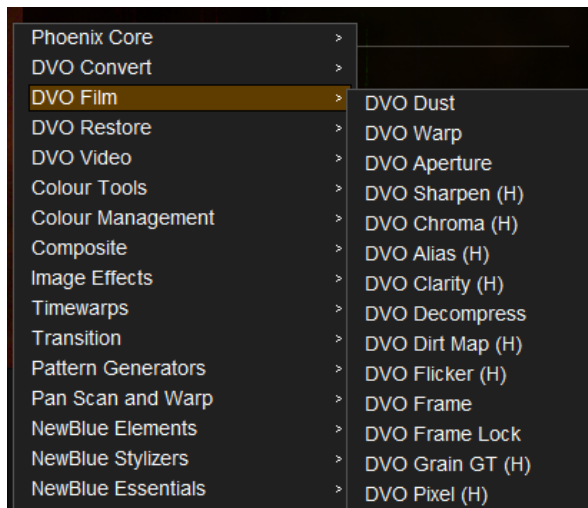
DVO Pixel works on the following platforms:



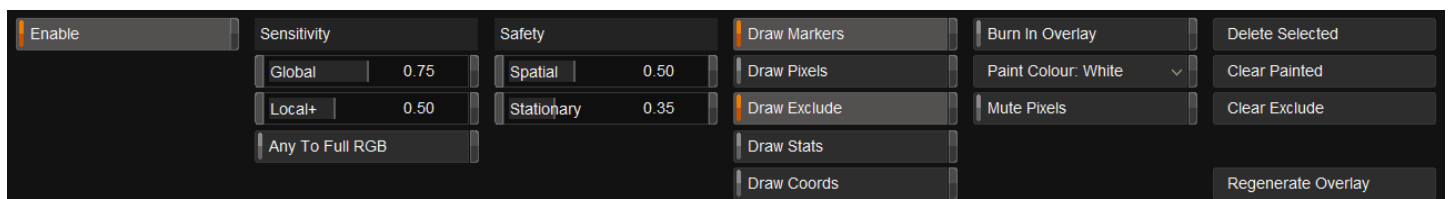
If you're already a Filmworkz veteran, you can jump right in and use DVO Pixel however if you need a hand with anything, our friendly AI assistant [Juno](#) is your first port of call. Whether it's guidance with DVO tools, help getting started in Phoenix, Nucoda or Loki, access to the latest versions 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 Pixel tool.



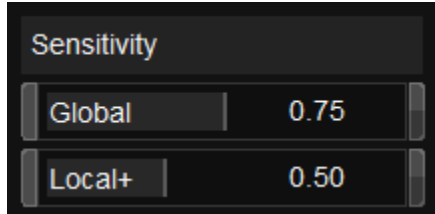
4. Click on it and the control panel under appears



CONTROL PANEL EXPLAINED

ANALYSIS

SENSITIVITY



This parameter controls how sensitive we are when searching for problem pixels.

GLOBAL

The main threshold for finding potential dead pixels (searching the RGB channels).

Range: 0.0 - 1.0

Default: 0.75

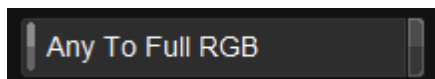
LOCAL+

Secondary localized detection sensitivity - expands primary detection. As a compressed or debayered pixel tends to grow to surrounding pixels, processing nearby pixels might be necessary.

Range: 0.0 - 1.0

Default: 0.50

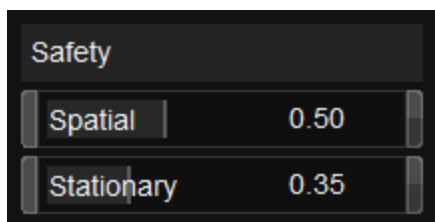
ANY TO FULL RGB



If enabled and a dead pixel is only detected in *one (or two) colour channels*, full RGB will be selected for detection. This will make *DVO Pixel* process **all channels**.

Default: Disabled

SAFETY



The Safety setting determines how much risk is taken with detection. The higher the value, the safer and less risk of errors but the greater the chance of less detection of actual problem pixels.

Spatial safety is for pixels that have extraordinary features but are not dead. Stationary safety is for static objects.



SPATIAL

Reduces the possibility of mistaking spatial features for dead pixels.

Range: 0.0 - 1.0

Default: 0.50

STATIONARY

Reduces possibility of mistaking temporally stationary features for dead pixels.

Range: 0.0 - 1.0

Default: 0.35

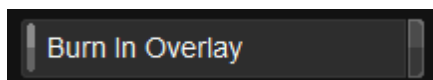
VISUALIZATION PARAMETERS

These parameters help with visualizing the effect *DVO Pixel* has and help identify the detected result (because a single pixel can be hard to find). By default, any detected pixel will be surrounded by a **green marker** which indicates that it will be processed. The pixel within will also be *color-coded* to indicate the RGB channels to be processed.

A *White* pixel overlay indicates that processing will occur on all RGB channels. A *Magenta* pixel indicates the blue and red channel will be processed.

This visualization is purely an on-screen aid and is **not burnt into the output** (exception: see *Burn in Overlay* below).

BURN IN OVERLAY

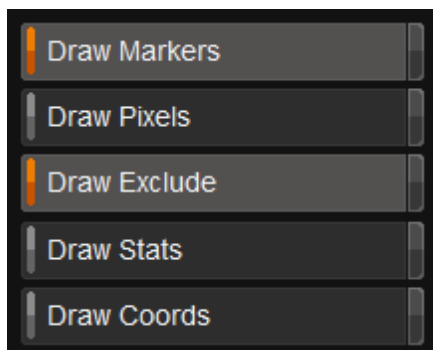


This enables burn-in visualization in the output result.

This is the most thorough analysis display method as all pixels will have their surrounding marker set in the color that processing will occur in. This option will **burn in** the overlay into the result.

Default: Disabled

DRAW



This enables the visualization of the various **overlays**:

Default: Disabled



DRAW MARKERS

Markers will be indicated with green rectangles around a pixel cluster or painted pixel regions. A painted region of pixels will have a dotted frame in the *Burn in Overlay* and every pixel will have its own box in the corresponding color.

DRAW PIXELS

Pixels will be colored as in the processing/detection hit.

DRAW EXCLUDE

Exclude will draw the region included/excluded.

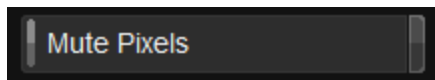
DRAW STATS

Writes information on the left side of the viewer about the number of dead pixels found and manual fixes.

DRAW COORDS

Writes the pixel coordinates next to the markers; Draw Markers has to be enabled for the information to be shown.

MUTE PIXELS



The tool is enabled but dead pixel processing is *muted*; detection is performed, and the overlay can be enabled. This can be used to *manually* verify detection of dead pixels.

Default: Disabled

If enabled the (muted) process will burn into final output result.

REGIONS

Regions can be used to **include** or **exclude** processing. The regions can be drawn **interactively**.

EXCLUDE REGION

The selected region will not be processed.

To draw a region, use **ALT + Drag Mouse**, displayed as **red** outline with **red** interior.

To resize a region, drag a corner or edge of the marker or drag the center cross to move the region

INCLUDE REGION

This region will be processed and can be *inside* an excluded region.

To draw a region, use **SHIFT+ ALT + Drag Mouse**, displayed as **green** outline. To resize a region, drag a corner or edge of the marker or drag the center cross to move the region.

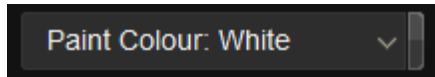
Hot Key "1" and "2" can alter the state of a selected region to be Included or Excluded.

Excluding can be very useful if there are burn-in objects on the material like a logo or timecode.



PAINT PIXEL

PAINT COLOR



Manually create a processing mask by manually painting the pixels needed.

The definition of what channels should be processed is done using different colors:

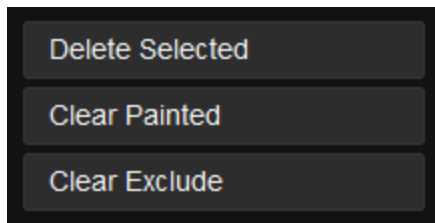
| Color Selection | Processed Channels |
|-----------------|--------------------|
| White | R+G+B |
| Red | R |
| Green | G |
| Blue | B |
| Yellow | RG |
| Cyan | GB |
| Magenta | RB |

To paint a pixel, use **Shift + Drag Mouse**, displayed as pixel with the same color as the selected one. The pixel cluster will be indicated as a dotted green outline.

To remove a single paint stroke use **CTRL + Shift + Mouse click**. To select multiple regions, lasso using the mouse, selected regions will turn yellow.

To select *multiple* regions, **lasso** using the mouse. The selected regions will turn yellow.

MANAGING REGIONS



DELETE SELECTED

This will delete all selected regions, marked as yellow.

Hotkey: Delete

CLEAR PAINTED

This will remove all painted pixels.

Hotkey: Shift + Delete

CLEAR EXCLUDE

This will remove all included and excluded regions.

Hotkey: Alt + Delete



REGENERATE OVERLAY

Regenerate Overlay

The overlay updates when changing parameters, but you can force it to update by using these hotkeys:

Hotkey: Press “Regenerate Overlay” button

Hotkey: 0 (zero)



WANNA KNOW

MORE?

JUNO

WEBSITE

SALES

