



Image Sculptor v10.0.5 — User Guide

A complete reference guide to every feature, panel, and control in Image Sculptor.

Overview

Image Sculptor is a self-contained, browser-based photo editing application. It runs entirely offline from a single HTML file — no server, no accounts, no subscriptions. All processing happens inside your browser using the HTML5 Canvas API. The app is designed to work on Chromebook Plus, Windows, and macOS laptops in a full-screen browser window.

The interface is divided into three columns: the left panel contains image loading, presets, texture, and vignette controls. The centre viewport displays your image. The right panel contains tonal looks, LUT management, global tonal adjustments, and the graduated ND filter.

Toolbar — Left to Right

Control	Description
■ □ □ (colour squares)	Sets the viewport background to black, 50% grey (default), or white. Useful for judging tonal balance — a neutral grey is recommended for editing as it least influences your perception of the image.
Filename field	Enter a base name for your exported files (no extension). Defaults to "SCULPT" if left empty. All four export files use this name as a prefix.
LOAD [L]	Opens a file picker accepting images (JPEG, PNG, WebP), .cube LUT files, and .csv tonal preset files simultaneously. Files are automatically routed to the correct panel.
ZEBRA OFF / ON	Toggles zebra exposure overlay. Red pixels are at or above 99% brightness (clipped highlights). Blue pixels are at or below 1% brightness (crushed blacks).
SOURCE	Hold to see the original unprocessed image. Release to return to the edited view. This is a momentary toggle — it does not alter any settings.
UNDO [U]	Steps back through edit history. Maximum 20 steps. Keyboard shortcut: U.
REDO [Y]	Steps forward through edit history. Keyboard shortcut: Y.
RESET ALL	Resets all sliders, clears all LUTs and tonal looks, removes any texture, and returns to neutral — but keeps the current image loaded.
START OVER	Asks for confirmation, then resets everything including the image, returning the app to its cold-start state. Also clears the session Ledger.
LEDGER	Downloads the session Ledger as a CSV file. The Ledger records every parameter change made during the session with a timestamp, and is useful for support or for recreating a look later.
SAVE [E]	Renders and downloads the full-resolution output bundle: three JPEG files and one .cube LUT. Only active when an image is loaded. Keyboard shortcut: E.



Panel 0 — Auto-Start Looks

Five built-in parameter presets designed to give a useful starting point for common subject types. Each preset clears the current global tone settings and applies a curated combination of values. LUTs, tonal looks, colour balance, and texture are not affected.

The RESET button in the panel header restores all preset-affected parameters (Exposure, Contrast, Highlights, Shadows, Midtones, Sculpt Mix, Vignette, and ND Filter) to their neutral defaults, without touching anything else.

TIP

Presets are a starting point, not an end point. Apply one that feels directionally right for your image, then use the individual panels to refine. The RESET in Panel 0 only undoes the preset parameters — your LUTs and tonal looks will remain active.

Panel 1 — Colour Balance

Three sliders adjust the gain (brightness multiplier) of the Red, Green, and Blue channels independently. These are applied to the raw pixel values before any other processing.

Slider	Range and Effect
Red Gain	-1.0 to +1.0. Positive values warm the image towards orange/red. Negative values remove red, shifting towards cyan.
Green Gain	-1.0 to +1.0. Positive values push towards green. Negative values shift towards magenta. Useful for correcting foliage colour casts.
Blue Gain	-1.0 to +1.0. Positive values cool the image towards blue. Negative values warm towards amber/yellow. The most commonly used channel for white balance correction.

⚠ NOTE

Colour Balance applies a linear gain to each channel and is not a true white balance tool. For accurate white balance correction, use small, equal-and-opposite adjustments (e.g., reduce Red slightly and increase Blue slightly for a warmer-to-cooler correction). Extreme values will clip highlights in the affected channel.

The [Load Image] button here opens the original image file picker — an alternative to LOAD [L] or drag-and-drop.



Panel 2 — Tonal Looks

Tonal Looks apply colour-to-colour gradient mappings driven by image luminance. Each look defines a colour gradient from shadows to highlights; the app maps each pixel to a point on that gradient based on its brightness, then blends the result with the original colour.

Control	Description
Mood: Smooth / Discrete selector	Smooth mode interpolates between gradient colour stops for a seamless transition. Discrete mode jumps between stops based on luminance bands, creating a more segmented, cross-processed feel.
Look stack (drag .csv here)	Loaded looks appear here as gradient swatches. Each has a checkbox (active/inactive) and an opacity slider (0 to 1) to control blend strength individually. Multiple looks can be active simultaneously and are blended together.
[Load Tonal CSV]	Opens a file picker for .csv look files. Multiple files can be selected at once.
Sculpt Mix slider (0–1)	Master intensity control for all active looks combined. At 0, looks have no effect. At 1, they apply at full strength modulated by each look's individual opacity slider.

TIP

The Tonal Look CSV format: each row defines one look with columns: index, name, colour1, colour2, colour3, colour4, colour5 (hex values). Rows with fewer than 2 colour stops are silently skipped. You can drop multiple .csv files at once to load several look sets simultaneously.

Panel 3 — LUT Stack

Load and blend one or more industry-standard 3D LUT files in .cube format. LUTs are applied to pixel colours before global adjustments. Multiple active LUTs are blended sequentially - the output of one feeds the input of the next.

Control	Description
LUT stack (drag .cube here)	Loaded LUTs appear as named entries with a checkbox and an opacity slider. The checkbox activates the LUT; the opacity slider (0–1) controls blend strength between the original and the LUT-transformed colour.
[Load LUT .cube]	Opens a file picker for .cube files. Multiple files can be selected at once.

⚠ IMPORTANT — LUT EXPORT

When you use SAVE [E], the exported .cube LUT file encodes your colour balance, tonal looks, global exposure/contrast/vibrance, and shadow/midtone/highlight adjustments only.

The vignette, graduated ND filter, and texture overlay are intentionally excluded from the LUT export. These are spatially-dependent effects that cannot be encoded in a colour-only 3D LUT.

The exported LUT uses a 33-point lattice with trilinear interpolation during export rendering for maximum quality.



Panel 4 — Global Changes

Slider	Range and Effect
Exposure	-1.0 to +1.0. Applied as a power-law (gamma) function. Positive brightens, negative darkens. The app applies gentle highlight compression above 85% brightness to reduce clipping.
Contrast	-1.0 to +1.0. Expands or compresses tonal range around the midpoint (0.5). Positive increases separation between light and dark; negative flattens the image.
Vibrance	-1.0 to +1.0. A saturation-aware adjustment. At positive values, it boosts saturation proportionally more in already-desaturated areas, leaving already-vivid colours less affected. At negative values it reduces saturation uniformly.
Shadows	-0.5 to +0.5. Brightness offset applied to the darkest areas of the image (luminance below 0.5). Positive lifts blacks; negative deepens them.
Midtones	-0.5 to +0.5. Brightness offset applied to mid-luminance areas. Affects the bulk of most images.
Highlights	-0.5 to +0.5. Brightness offset applied to the brightest areas (luminance above 0.5). Negative values help recover bright sky and cloud detail.

TIP

The app enforces a minimum pixel brightness of 0.02 (approximately 5/255) when any adjustment is active, meaning true black is never produced regardless of settings. This prevents crushed blacks in the final export and is by design.

Panel 5 — Texture Overlay

Blends a second image (the texture) over your photo using one of four luminance-aware blend modes. Textures are scaled to fill the image from the centre outward.

Control	Description
Blend mode selector	Four modes — see table below.
[Load Texture]	Opens a file picker for PNG or JPEG texture files. Only one texture can be loaded at a time.
Blend Strength (0–2)	Controls the intensity of the texture blend. Values above 1.0 produce strong, exaggerated effects.
Texture Soften (0–5)	Applies a Gaussian blur to the texture before blending, creating softer, less structured overlays. Live preview updates while dragging.



Panel 5 — Texture Overlay cont'd

Blend Mode	Effect
Contrast Mod (Over)	The texture luminance modulates the brightness of the source image. Bright texture areas lighten; dark areas darken.
Contrast Mod (Under)	The source image luminance modulates the texture. The texture colour shows through, shaped by the original image's tones.
Multiply (Grit / Shadow Accent)	Multiplies source and texture colours together. Always darkens. Best for adding grain, dirt, or shadow texture without affecting highlights.
Screen (Light Leaks / Flares)	Inverse multiply — always lightens. Best for light leaks, film burns, and glow effects.

⚠ NOTE

Textures are not saved in the session and must be reloaded each time the app is opened. If you load a texture before loading a source image, it will be held in memory and applied automatically when an image is subsequently loaded. Loading a new image clears any existing texture.

Panel 6 — Vignette Finish

Applies a radial darkening from the centre outward. The vignette is always centred on the image — the centre cannot be repositioned.

Control	Description
Preset selector	Manual (full user control), Portrait Glow (large soft vignette, Radius 0.85, Feather 0.8, Strength 0.3), Moody Edge (tight strong vignette, Radius 0.5, Feather 0.4, Strength 0.9).
Radius (0–1.5)	The normalised distance from centre at which darkening begins. Lower values bring the darkening closer to the centre. 0.8 is a natural-looking starting point.
Feather (0–1)	Controls how gradually the vignette transitions from clear to dark. Low values produce a hard, abrupt edge; high values produce a very soft gradual fade.
Strength (0–1)	The maximum darkness of the vignette at the extreme corners. 0 means no vignette; 1 means full black at the corners.

TIP

For a subtle, natural-looking vignette, set Radius to 0.75–0.85, Feather to 0.5–0.7, and Strength to 0.15–0.30. The vignette is applied after all other adjustments and is not included in the exported .cube LUT.



Panel 7 — Graduated ND Filter

Simulates a physical graduated neutral density filter — a semi-transparent grey gradient that darkens the top of the image (sky) while leaving the bottom (ground) unaffected. The transition is linear from top to bottom.

Slider	Range and Effect
Filter Density (0–1.5)	The strength of sky darkening. At 0 there is no effect. At 1.0 the top of the image receives approximately one stop of additional darkening. At 1.5 the effect is very strong.

⚠ NOTE

The graduated ND filter assumes the horizon is in the centre of the frame and the sky is at the top. It is not suitable for images where sky appears at the bottom, or for interior shots where uniform exposure across the frame is required.

Like the vignette, the ND filter is excluded from the exported .cube LUT.

Histogram

The histogram at the bottom of the left panel shows the luminance distribution of the processed image. The horizontal axis represents brightness from black (left) to white (right), divided into 10 evenly-spaced zones marked by faint grid lines. The vertical axis shows how many pixels fall into each brightness band.

⚠ ACCURACY NOTE

For performance, the histogram samples approximately 1 in every 200 pixels of the preview image. It is an indicative guide to tonal distribution, not a pixel-accurate metering tool. Use the Zebra overlay for precise highlight and shadow checking.

Loading Files — Summary

File Type	How to Load
Images (JPEG, PNG, WebP)	Drag onto the app window, or LOAD [L], or [Load Image] button in Panel 1
.cube LUT files	Drag onto the app window, drag into the LUT stack, LOAD [L], or [Load LUT .cube] button. Multiple files at once supported.
.csv Tonal Look files	Drag onto the app window, drag into the Tonal Looks stack, LOAD [L], or [Load Tonal CSV] button. Multiple files at once supported.
Texture (JPEG or PNG)	[Load Texture] button in Panel 5 only. Cannot be loaded via LOAD [L] or drag-and-drop on the main window.



Operational Notes and Known Constraints

- Session slider values, LUT selections and opacities, and tonal look selections are saved automatically in the browser's local storage and restored on next open. Images, textures, LUT data, and tonal look data are never stored and must be reloaded.
- Undo history stores a maximum of 20 states. The oldest state is discarded when the limit is reached. Undo history is cleared whenever a new image is loaded.
- Texture pixel data is not included in undo history snapshots. If you undo past a texture-apply action, the canvas will correctly show no texture but the Load Texture button will not re-apply it automatically. Simply reload the texture.
- The app runs entirely in the browser's single-threaded JavaScript engine. On very large images (12 megapixels or above), the export render can take several seconds. The status bar will show RENDERING OUTPUT during this time.
- The session Ledger records up to 1,000 state changes in the browser's local storage. If this limit is reached, the oldest entries are discarded silently. Use the LEDGER button to export a CSV before this occurs in a long session.
- The SAVE [E] button is disabled (does nothing) if no image is loaded. All other controls are active at all times.

NOTES ::