Monotone Master Sculptor v3.3.4

User Guide

A complete reference to every panel, control, and feature in Monotone Master Sculptor v3.3.4.

Overview

Monotone Master Sculptor is a self-contained, browser-based black and white conversion and toning application. It runs entirely offline from a single HTML file. All processing happens inside the browser using the HTML5 Canvas API.

The interface is divided into three columns: the left panel contains the LUT Stack, Tonal Stack, Texture Overlay, and B&W; Mixer. The centre viewport displays your image. The right panel contains Curve Presets, Global Changes, Vignette Finish, and Graduated ND Filter.

Toolbar — Left to Right

Control	Description
■ ■ ■ (swatches)	Sets the viewport background to black, middle grey (default, #7F7F7F), or white. Only the viewport background changes — sidebars remain dark.
Filename field	Enter a base name for your exported files before saving. Leave blank to use the image filename.
LOAD [L]	Universal file loader. Accepts images (JPEG, PNG, WebP), .cube LUT files, .csv/.txt palette files, and .acv curve files. Files are auto-routed to the correct panel.
ZEBRA	Toggles the exposure warning overlay. Lime Green = crushed blacks (EXIT zones). Magenta = blown highlights (FLOW zones).
SOURCE	Hold to see the original colour image. Release to return to your edit. No settings are changed.
UNDO [U]	Step back one edit. Maximum 20 steps. Keyboard shortcut: U.
REDO [Y]	Step forward after an undo. Keyboard shortcut: Y.
RESET ALL	Resets all sliders, clears all assets, returns to neutral. Image remains loaded.
START OVER	Confirmation required. Clears everything including the image and the session Ledger. Returns the app to cold-start state.
LEDGER	Downloads a timestamped CSV of every parameter change made in the session. Shows status message if no edits recorded.
SAVE [E]	Exports three JPEGs and one .cube LUT. Only active when an image is loaded. Keyboard shortcut: E.

Left Panel

LUT Stack

Load and apply industry-standard 3D LUT files (.cube format). The LUT is applied first in the processing pipeline — before the B&W; conversion — allowing it to shift colours that the B&W; Mixer then converts to luminance. This is the most powerful way to create distinctive tonal responses.

Control	Description
Stack list	Click a loaded LUT to activate it (highlighted in turquoise). Click again to deactivate.
[Load LUT .cube]	Opens a file picker for .cube files. Multiple files can be selected at once.
CLEAR	Deactivates and removes all loaded LUTs.

TIP

Only one LUT can be active at a time. Loading a film emulation LUT (e.g. Kodak Tri-X or Ilford HP5 simulation) before conversion gives the B&W; result the specific tonal character of that film stock.

Tonal Stack

Apply colour toning to the converted greyscale image. Toning maps each grey value to a colour using a smooth gradient between the palette colour stops — there are no hard boundaries between colours, even with a two-colour duotone.

Control	Description
Stack list	Click a loaded palette to activate it. The gradient swatch shows the colours in the palette.
[Load Tonal Palette]	Opens a file picker for .csv or .txt files containing hex colour codes. Multiple files can be selected.
Tonal Intensity (0–1)	Master strength control. At 0, toning has no effect. At 1, the palette is applied at full strength. Start at 0.3–0.5 for a subtle tone.
CLEAR	Deactivates and removes all loaded palettes. Resets Tonal Intensity to 0.5.

■ NOTE

Palette files must contain valid 6-digit hex colour codes (e.g. #3A2010 for a warm shadow, #E8D0A0 for a warm highlight). Each line of the file is treated as one palette. Rows with fewer than two colour stops are ignored.

Panel 5 — Texture Overlay

Blends a second image (the texture) over your converted photograph. The texture is automatically converted to greyscale before blending, preserving the monochrome output.

Control	Description
Blend mode	Contrast Mod (Over): texture lightens or darkens the image. Contrast Mod (Under): image shapes the texture. Multiply: always darkens — ideal for grain and grit. Screen: always lightens — ideal for light leaks and fog.
[Load Texture]	Opens a file picker for PNG or JPEG files. Only one texture at a time. Textures cannot be loaded via LOAD [L] or drag-and-drop.
Blend Strength (0–2)	How strongly the texture affects the image. Values above 1.0 produce exaggerated effects.
Texture Soften (0–5)	Blurs the texture before blending. Higher values give a softer, more atmospheric result. Preview updates while dragging.
CLEAR	Removes the texture and resets all texture controls.

Panel 1 — B&W; Mixer

The core of the conversion. Six sliders control how much each colour channel in the original image contributes to the final grey value. All sliders default to 1.0 (equal weighting), which produces the same result as a standard luminance conversion.

Slider	Range and Effect
Red (0–2)	Primarily affects skin tones, red subjects, autumn leaves. Above 1.0 = lighter; below = darker.
Yellow (0–2)	Warm tones: golden hour, sand, straw, some foliage.
Green (0–2)	Foliage, grass, some water. Increasing creates bright, airy landscapes.
Cyan (0–2)	Cool blue-green tones. Water, certain sky colours.
Blue (0–2)	Sky, shadows, blue subjects. Reducing creates dramatic dark skies (classic landscape technique).
Magenta (0–2)	Flowers, some synthetic colours, certain skin tones.

Right Panel

Panel 2 — Curve Presets

Apply tonal curve adjustments using Photoshop-compatible .acv curve files. Curves reshape the relationship between input and output grey values after the B&W; Mixer but before Global Changes. The app uses monotone cubic spline interpolation — the same algorithm as Photoshop — so imported curves render correctly.

Control	Description
Curve list	Click a loaded curve to activate it. Click again to deactivate.

Control	Description
[Load Curve .acv]	Opens a file picker for .acv files. Multiple files can be selected.
CLEAR	Removes all loaded curves.

Panel 3 — Global Changes

Slider	Range and Effect
Exposure	0.5–2.0, displayed as offset from neutral (0.00). Applied as gamma-style tone mapping. +0.50 is approximately one stop brighter.
Vibrance	-1.0 to +1.0. Saturation-aware adjustment. Only affects toned output when a palette is active. Positive values enrich dull tones more than vivid ones. Zero effect on pure greyscale.
Contrast	-1.0 to +1.0. Linear scale around the midpoint. Positive expands tonal range; negative compresses it.
Shadows	-0.5 to +0.5. Brightness offset for the darkest areas (luminance below 0.33).
Midtones	-0.5 to +0.5. Brightness offset for mid-grey tones (luminance 0.33–0.66).
Highlights	-0.5 to +0.5. Brightness offset for the brightest areas (luminance above 0.66).

Panel 4 — Vignette Finish

Applies a radial darkening from the centre outward, fixed at the geometric centre of the image. Can also be inverted to create a lit-centre glow effect.

Control	Description
INVERT (LIT CENTRE)	Checkbox. When checked, the vignette brightens the centre rather than darkening the edges. Creates a glowing highlight effect.
Radius (0–1)	The normalised distance from centre at which darkening begins.
Falloff (0.1–5.0)	How sharply the vignette transitions. Low values: abrupt edge. High values: long gradual fade.
Strength (0–1)	Maximum darkness (or brightness, if inverted) at the extreme edges.
SHOW SPATIAL MASK	Checkbox. Displays the vignette gradient as a greyscale map — useful for understanding the vignette shape before applying it.

■ NOTE

The vignette is not included in the exported .cube LUT — it is a spatial effect that cannot be represented in a colour transform. It is always applied to the exported JPEG files.

Panel 6 — Graduated ND Filter

Simulates a physical graduated neutral density filter. Darkening is applied linearly from the top of the frame (maximum) to the bottom (zero). The foreground is never affected.

Slider	Range and Effect
Filter Density (0–1.5)	At 0, no effect. At 1.0, approximately one stop of darkening at the top of the frame. At 1.5, very strong sky darkening.

NOTE

The ND filter assumes the sky is at the top of the frame. Like the vignette, it is excluded from the exported .cube LUT.

Processing Pipeline — Order of Operations

Understanding this order is essential when combining multiple adjustments:

Stage	Operation
1. LUT	If active, the source colour pixel is transformed by the 3D LUT before greyscale conversion.
2. B&W; Mixer	Source RGB is converted to a single luminance value using the six weighted channel sliders.
3. Curve	If active, the luminance value is reshaped by the curve using monotone cubic spline interpolation.
4. Shadow/Midtone/Highlight offsets	Zone-based brightness adjustments applied to the reshaped luminance.
5. Contrast	Linear scale around the midpoint applied to the result.
6. Graduated ND	Per-pixel exposure reduction applied linearly from top to bottom.
7. Exposure (gamma)	Power-law tone mapping applied to the final luminance value.
8. Tonal Palette	If active, the greyscale value indexes the smooth palette gradient. Result blended with greyscale at Tonal Intensity rate.
9. Vibrance	Saturation-aware boost applied to the toned RGB result.

Stage	Operation
10. Texture	If loaded, the greyscale texture is blended by the selected mode and Blend Strength.
11. Vignette	Radial darkening/brightening applied as a multiply factor to the final RGB.

File Loading Summary

File Type	How to Load
Images (JPEG, PNG, WebP)	Drag onto app, or LOAD [L] button
.cube LUT files	Drag onto app, drag into LUT stack, LOAD [L], or [Load LUT .cube] button
.csv / .txt palette files	Drag onto app, drag into Tonal Stack, LOAD [L], or [Load Tonal Palette] button
.acv curve files	Drag onto app, drag into Curve Presets stack, LOAD [L], or [Load Curve .acv] button
Texture (JPEG or PNG)	[Load Texture] button in Panel 5 only — not via LOAD [L] or general drag-and-drop

Operational Notes and Known Constraints

- Session slider values are saved automatically in browser localStorage and restored on next open. Images, LUTs, palettes, curves, and textures must be reloaded each session.
- Undo history stores a maximum of 20 states. The oldest state is discarded when the limit is reached. Undo clears when a new image is loaded.
- Vibrance only visibly affects toned (palette-active) output. On a pure greyscale image it has zero effect.
- The Tonal Stack supports one active palette at a time.
- The LUT Stack supports one active LUT at a time.
- The session Ledger records up to 1,000 state changes in browser localStorage. Export the Ledger CSV before this limit is reached in very long sessions.
- SAVE [E] is inactive until an image is loaded.

