Lumatic Lab XMP Converter

From Preset to Universal LUT: A Technical Guide to Baking Your Looks

Concept Architecture & Workflow (v2.16)

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RAW Data

The immutable digital negative. Unchangeable and rock-solid.

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XMP Sidecar

A plain-text 'recipe' file containing non-destructive slider edits (warmer white balance, reduced exposure).

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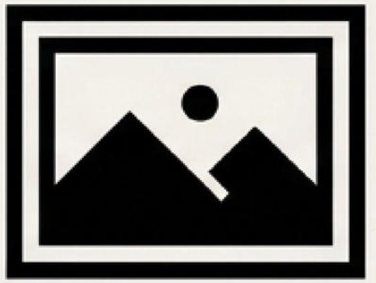


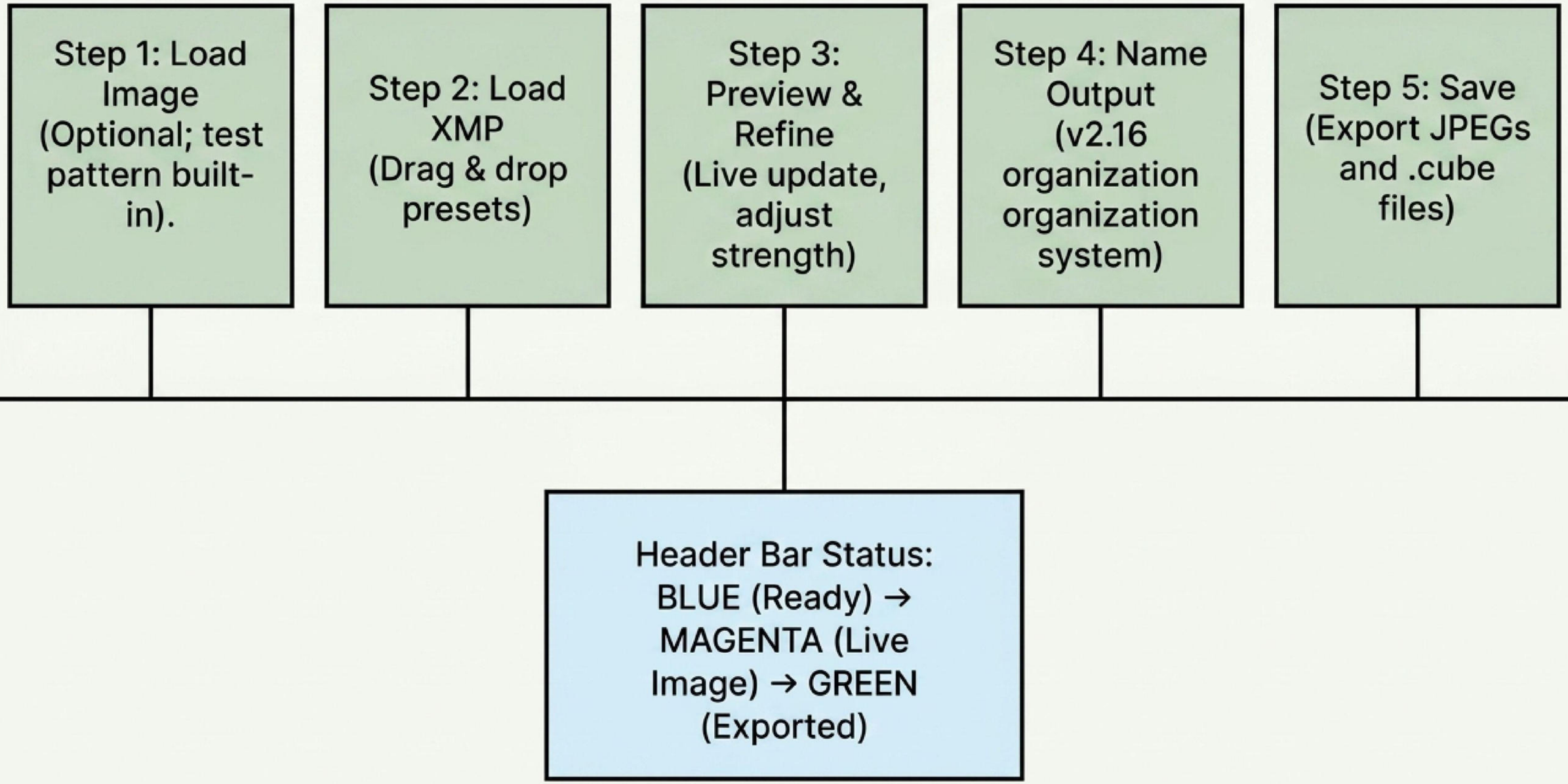
The Dressed Image

The visual appearance. Deleting the XMP file strips the edits, returning image to a 'naked' state.

XMP data saves automatically in the background—we just need a way to make these text recipes universal.


Ai
Proprietary Edit Recipes
XMP files only work within specific Adobe photo software ecosystems. They are just text instructions, not baked pixel changes.
The Lumatic Translation Engine
Reads the proprietary text math and bakes the look.
Universal 33-Point .cube LUT
The color math is translated into a standardized 3D lattice, universally accepted across major photo and video editing platforms.

	RAW	XMP	LUT
Nature	Immutable sensor data.	Editable plain-text.	Baked 3D color lattice.
Editability	Permanent (Cannot be overwritten).	100% Non-destructive (Sliders can be changed).	Destructive/Baked (Math is locked in).
Primary Role	Digital Negative.	Edit instructions / “Clothes”.	Universal Color Filter.
Universality	Camera-specific.	Software-dependent (Adobe).	Universal standard.


Step 1: Load Image (Optional; test pattern built-in).
Step 2: Load XMP (Drag & drop presets)
Step 3: Preview & Refine (Live update, adjust strength)
Step 4: Name Output (v2.16 organization organization system)
Step 5: Save (Export JPEGs and .cube files)
Header Bar Status: BLUE (Ready) → MAGENTA (Live Image) → GREEN (Exported)

Lumatic Converter Input Hub

Top Path: Image Input

Users can drag JPEG, PNG, or WebP files, or press [L] to open the picker. If no image is loaded, a built-in color-wheel test pattern ensures instant offline testing.

Bottom Path: XMP Input

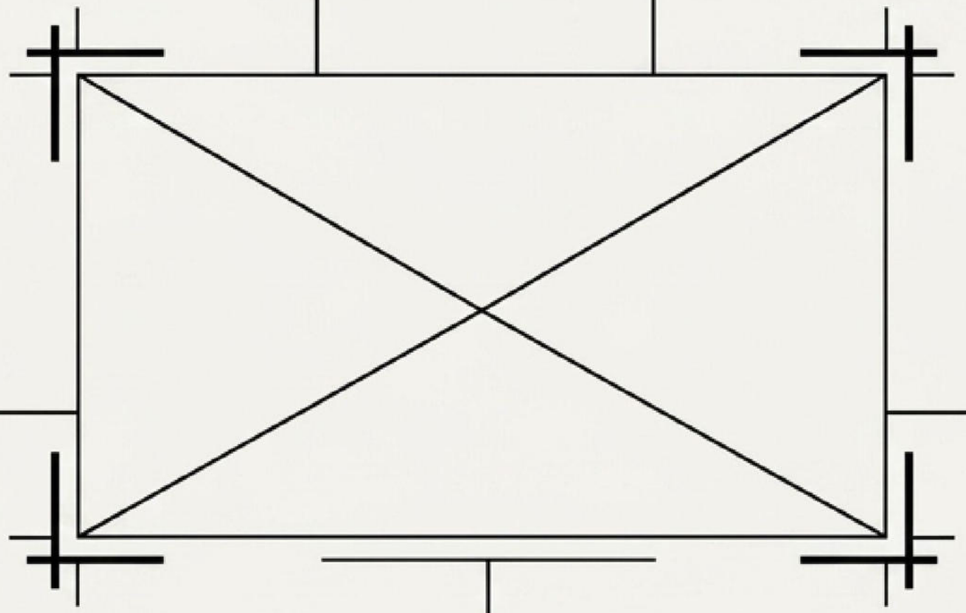
Drag and drop .xmp files into the Preset Stack (tagged B&W or COLOUR).

■ RGBTABLE UNSUPPORTED

Presets that store their look in Adobe's proprietary crs:RGBTable colour table are rejected on purpose. The tool cannot decode that table, and baking a LUT without it would silently drop the main part of the look. This is deliberate per §2.7.

Intentional Rejection. Presets utilizing Adobe's proprietary crs:RGBTable are blocked. Why? The tool cannot decode this closed format. Baking a LUT without it would silently drop the main part of the look—a corruption the Converter strictly prohibits.

FUNCTIONAL UI BREAKDOWN



Zebra

Diagnostic overlay marking blown highlights (magenta) and crushed shadows (lime green).

Source

Hold to instantly compare against the untouched original image.

Background Swatches

Black, Middle Grey (#7F7F7F), and White to judge tones against neutral fields.

Strength Slider

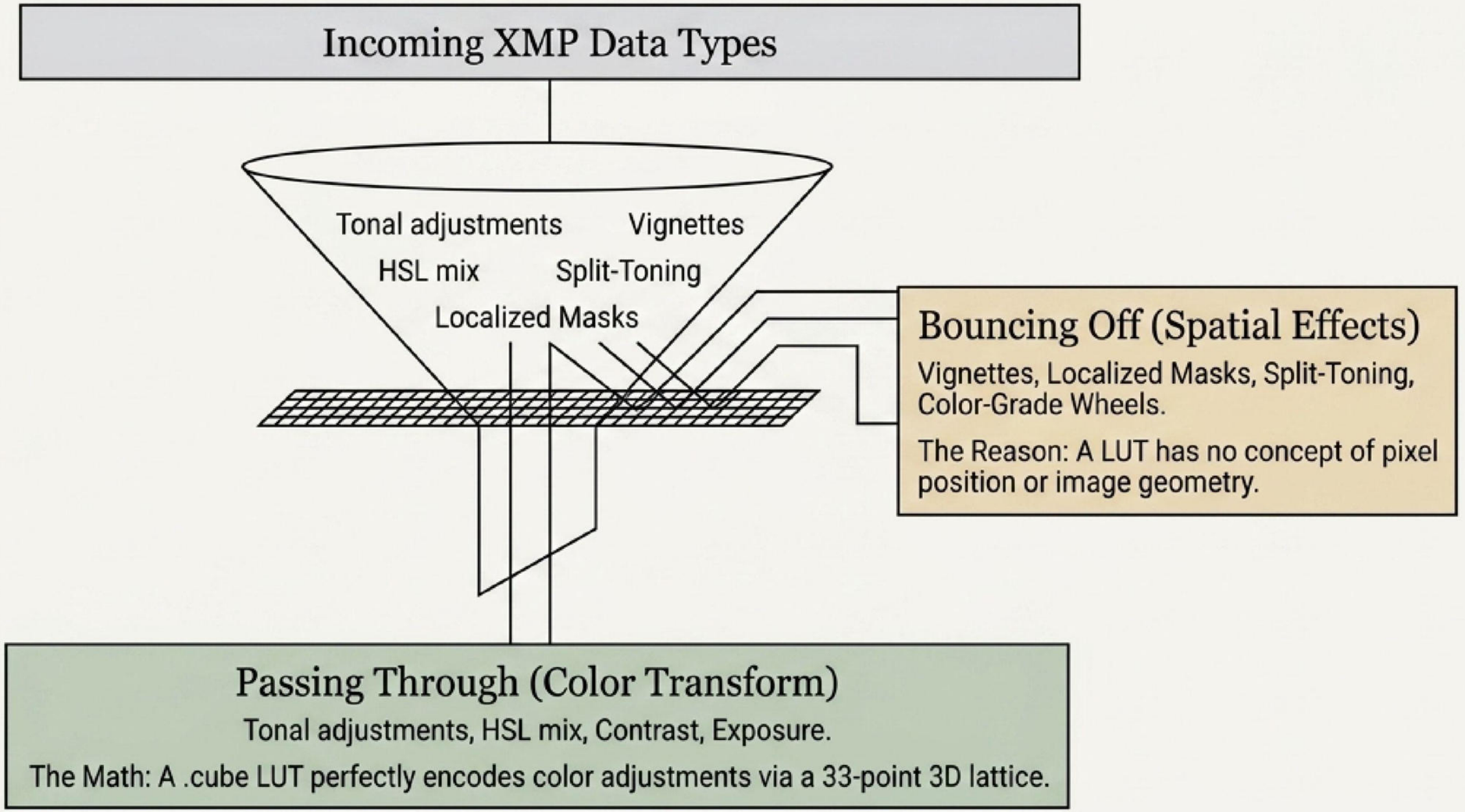
Mixes the processed look against the original (0% to 100%).

Tonal Offsets

Exposure, Contrast, Highlights, Shadows.

Additive manual corrections applied **on top** of the preset.

The ‘Color-Only Rule’ Filter Funnel



A .cube LUT encodes colour only. Any position-dependent effect is excluded by design (§2.7). This tool's presets are colour transforms, so the LUT is a faithful match, but keep this rule in mind when combining LUTs with spatial effects elsewhere.
The exported LUT is a faithful mathematical color match. Any position-dependent spatial effects must be applied manually in your final target software.

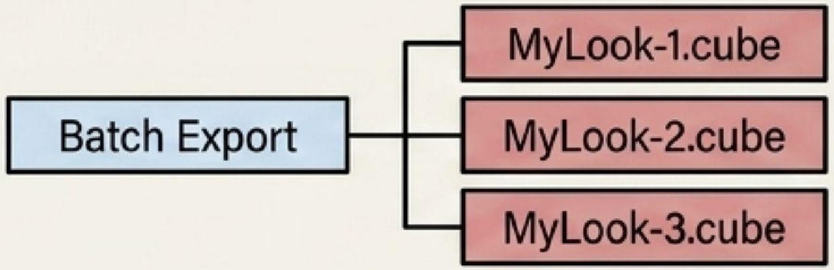
v2.16 Upgrades: Naming Architecture

In-Stack Renaming

Double-click any preset in the stack to manually rename it.
This purely changes the label, not the visual look.

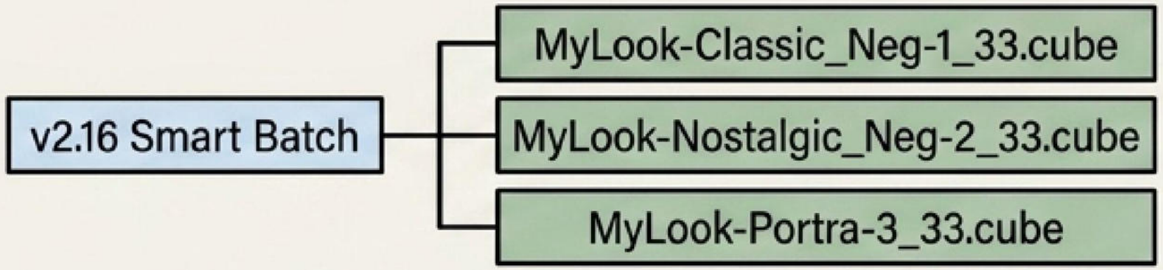
Smart Batch Naming (v2.16)

Before



Batch exports yielded identical prefixes separated only by trailing numbers.

After



Distinct naming architecture automatically generated as prefix-presetname-N_33.cube.

Benefit: Batch LUTs arrive in the Downloads folder with distinct, readable names, eliminating guesswork.

Save Active Action

Press the E key to trigger SAVE ACTIVE without reaching for the mouse.

prefix_ORIG.jpg

Native resolution render (95% Quality).

prefix_SOCIAL.jpg

Web-ready, 1200px on the long edge (95% Quality).

prefix_ARCH.jpg

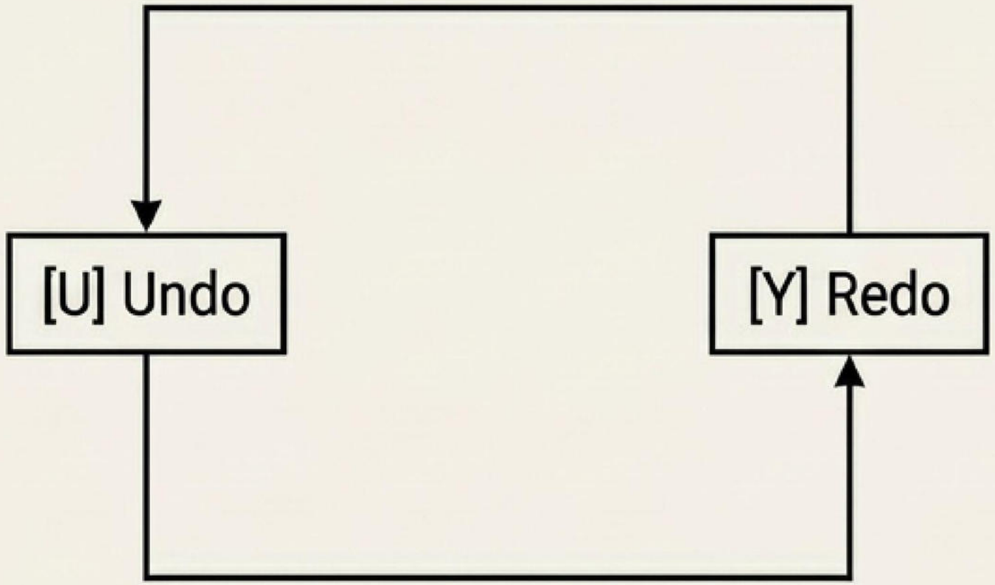
Thumbnail, 200px on the long edge (92% Quality).

prefix_33.cube

The universal 33-point 3D lattice LUT.

Provenance Callout: The .cube file contains a baked-in text header stamp (# (c) Lumatic Lab - All Rights Reserved) verifying its generation source.

Memory Efficiency



The Mechanic: The system tracks up to 20 edit steps.

The Secret: It never stores heavy pixel data. It only saves lightweight JSON strings of slider values, ensuring instant browser performance.

The Ledger

Timestamp (ISO-8601)	Edit State (JSON String)
YYYY-MM-DDTHH:MM:SSZ	{'slider1': 0.5, 'slider2': 0.8...}
YYYY-MM-DDTHH:MM:SSZ	{'slider1': 0.52, 'slider2': 0.79...}
YYYY-MM-DDTHH:MM:SSZ	{'slider1': 0.48, 'slider2': 0.81...}
YYYY-MM-DDTHH:MM:SSZ	{'slider1': 0.45, 'slider2': 0.75...}

Crash Recovery: Click ‘LEDGER’ to download a .csv record of your session.

Data Included: Two columns featuring exact ISO-8601 timestamps and the specific JSON edit state per change. Capped at 1,000 entries.

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