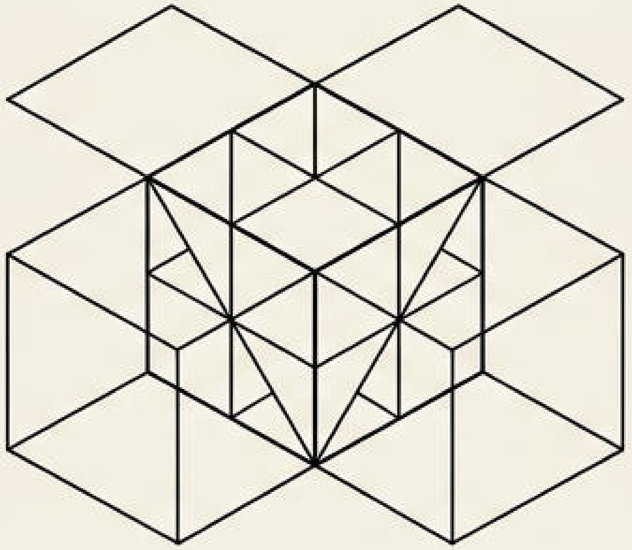


LUMATICLAB LUT EVALUATOR

Bridging XMP Workflows to Universal LUT Pipelines

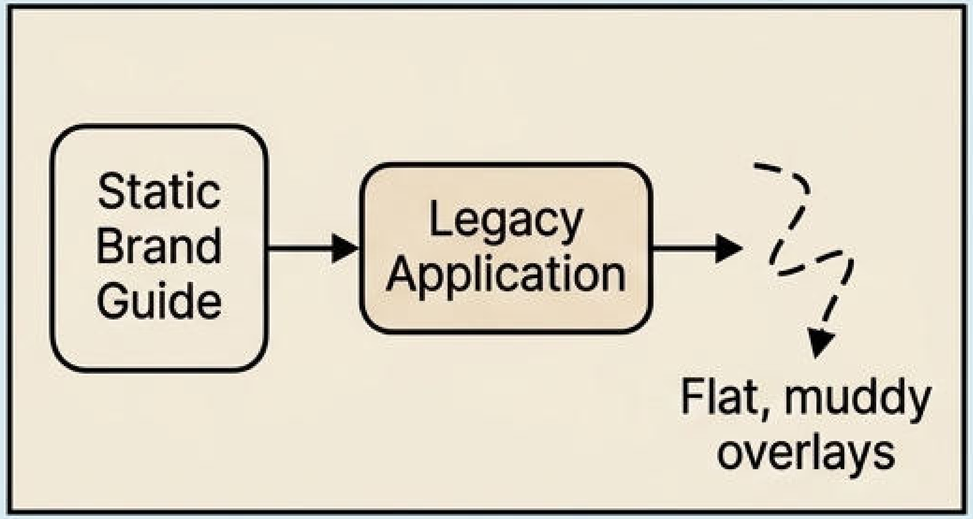
A browser-based grading engine for cross-media color consistency.

The Evolution of Your Look: XMP vs. LUT

XMP PRESETS	.CUBE LUTS
SCOPE Application-specific (e.g., restricted to Lightroom or Camera Raw).	**SCOPE** Universal standard (Premiere, Photoshop, Resolve, etc.).
FUNCTION Parametric raw-level adjustments (moving sliders).	**FUNCTION** Mathematical 3D transform (trilinear interpolation) acting at the pixel level.
LIMITATION Closed ecosystem; cannot easily migrate a precise look to video editors or other graphics software.	**ADVANTAGE** Cross-media consistency. Carries exact color intent anywhere without relying on specific software engines.

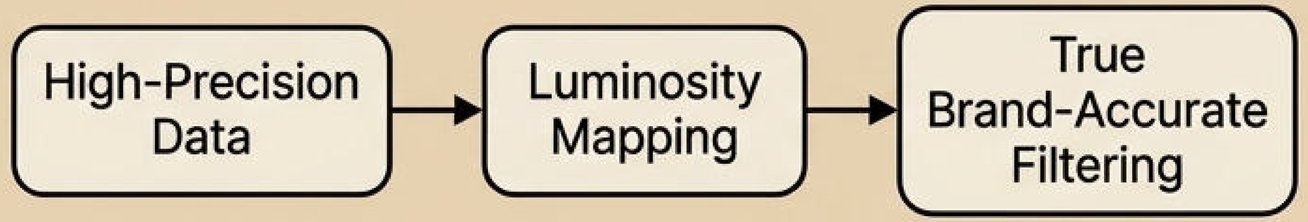
The Disconnect & The Solution

The Historical Problem



Legacy LUT application often created a disconnect between static brand style guides and dynamic visual campaigns.

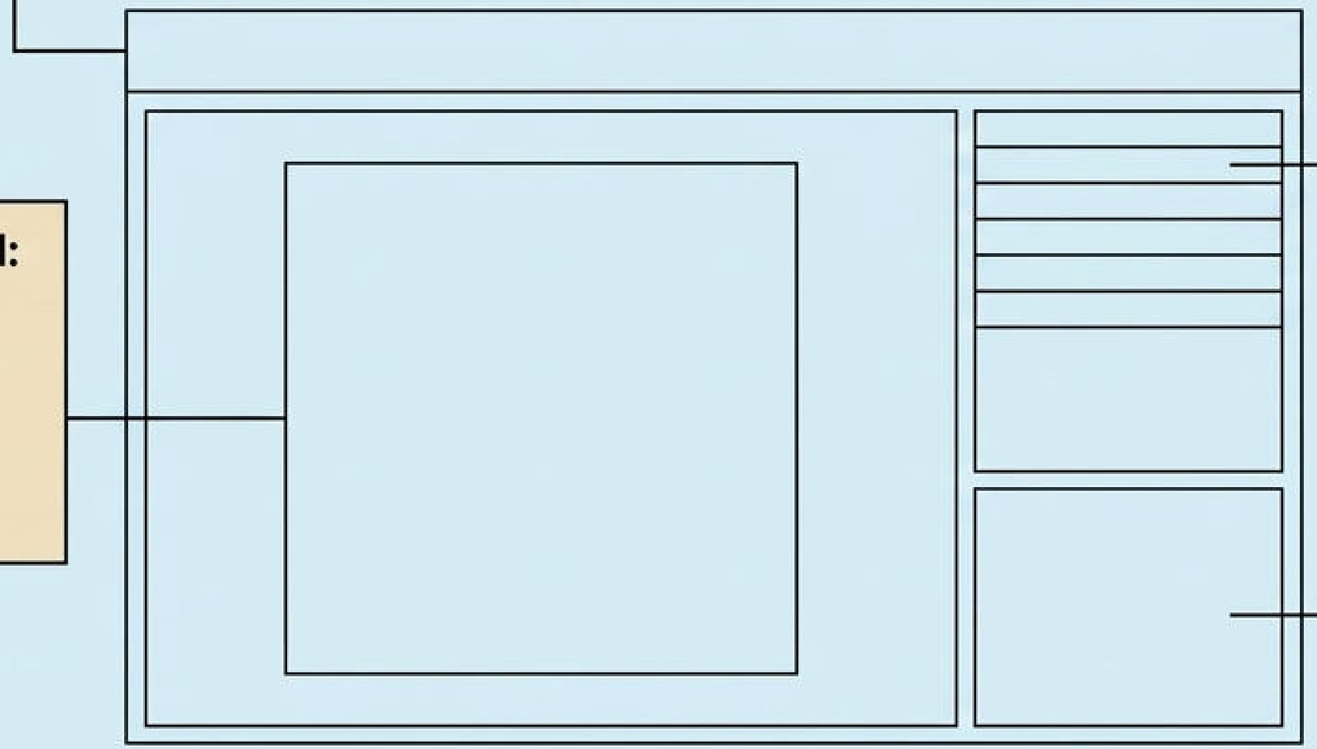
The Evaluator Solution



The LUT Evaluator is a single-file, fully offline tool for judging .cube LUTs and Lumatic .csv palettes against an image before you commit to them in your editing pipeline. It opens ready to work: a standard test card is already loaded.

- A single-file, offline HTML grading engine.
- Runs entirely in-browser without installation.
- Extracts high-precision data (like .aco swatches) avoiding muddy midtones.

Anatomy of the Evaluation Workspace



1 **The Header (50px Fixed):**
Houses background swatches and dynamic status border.

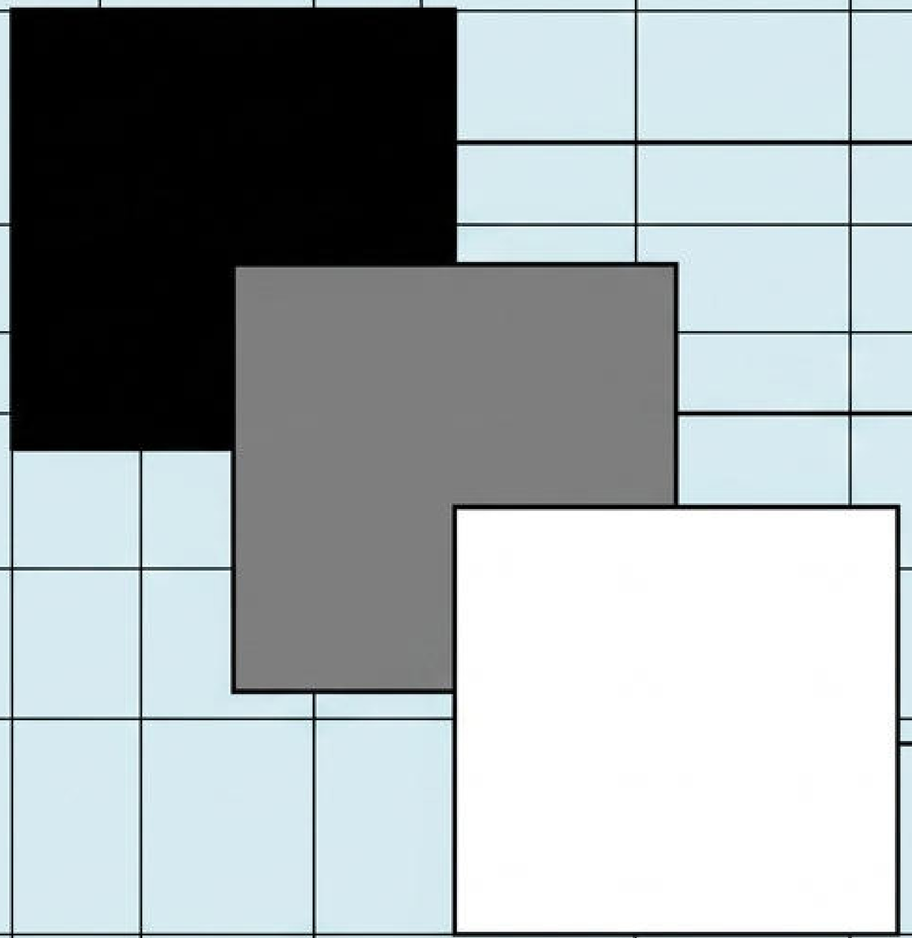
Blue = **READY**
Magenta = **LIVE**
Green = **EXPORTED**

2 **Preview Image Panel:**
Center viewport for visualizing trilinear interpolation or luminance-mapped tone ramps.

3 **Assets Panel:**
The right-side stack holding loaded .cube and .csv files.

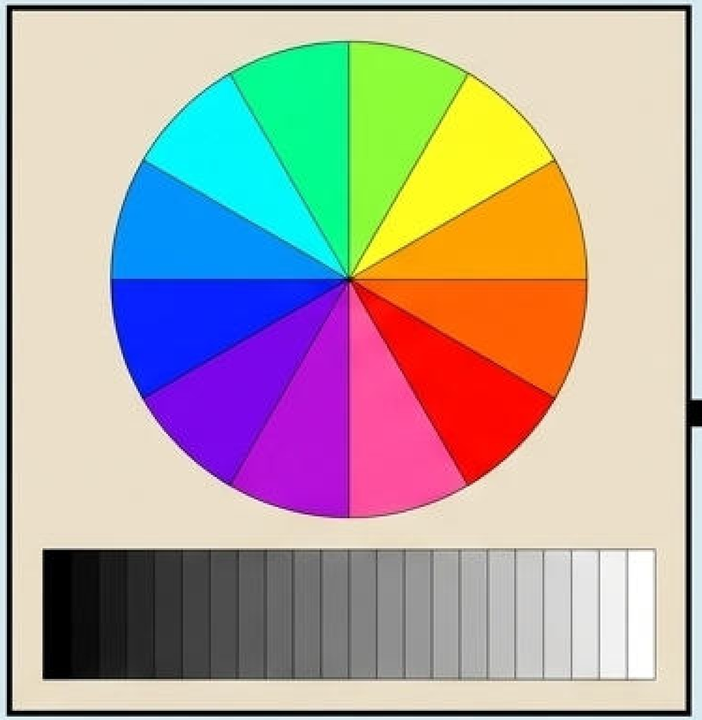
4 **Save Result Panel:**
The export command center.

The Neutral Judging Surface



Black Swatch	Judging against black exaggerates perceived brightness. Use for dark-key work.
Middle Grey (#7F7F7F)	#7F7F7F is the exact midpoint between black and white — the neutral judging surface. This is the launch default.
White Swatch	Judging against white exaggerates perceived density. Use for high-key or print-bound work.

Steps 1 & 2: Loading & Strict Validation



The Built-in Baseline:
Exercises hue mapping and saturation response before a photo is even loaded.

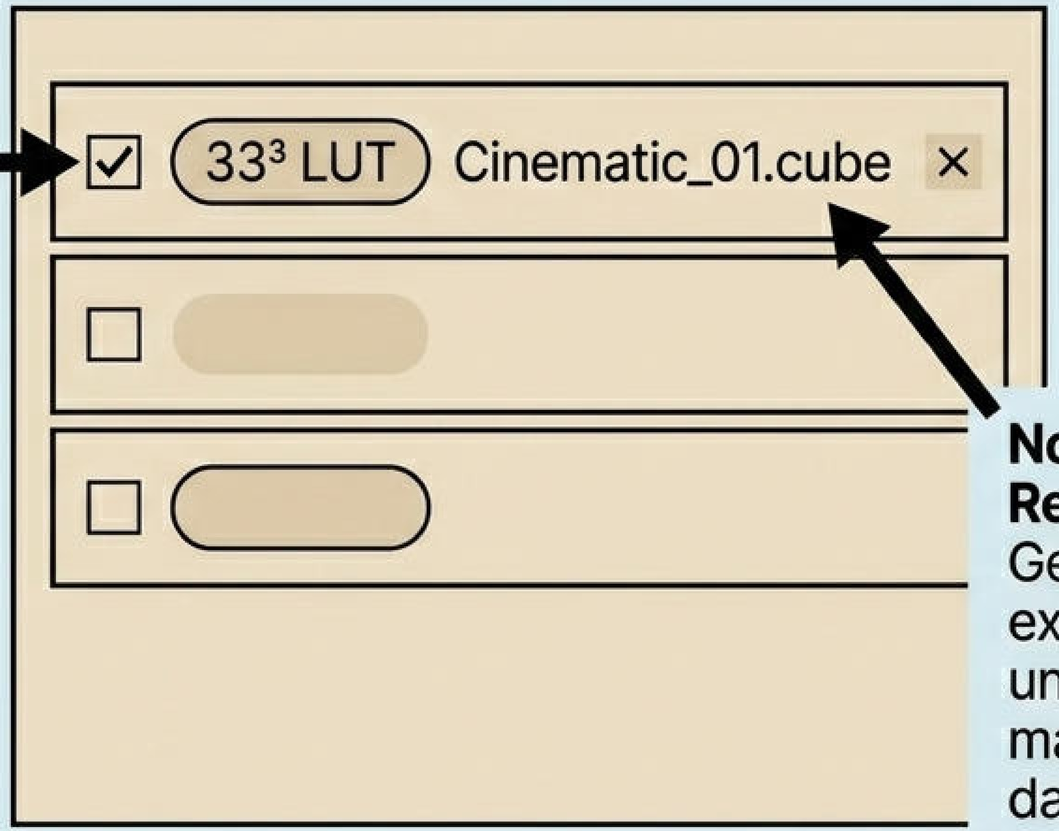
Universal File Picker:
Drag and drop .cube LUTs, .csv palettes, or JPEG/PNG/WebP images anywhere.

The Validation Gate

Perfectly Formed:
.cube must declare a valid LUT_3D_SIZE (2-256) and contain exactly size^3 numeric entries.

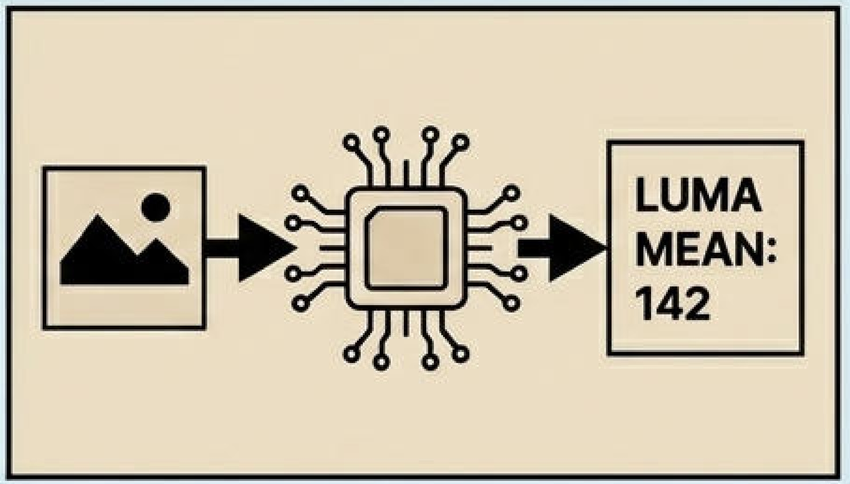
Malformed Files:
Explicitly rejected in status bar. The engine refuses to guess.

Steps 3 & 4: Managing the Asset Stack



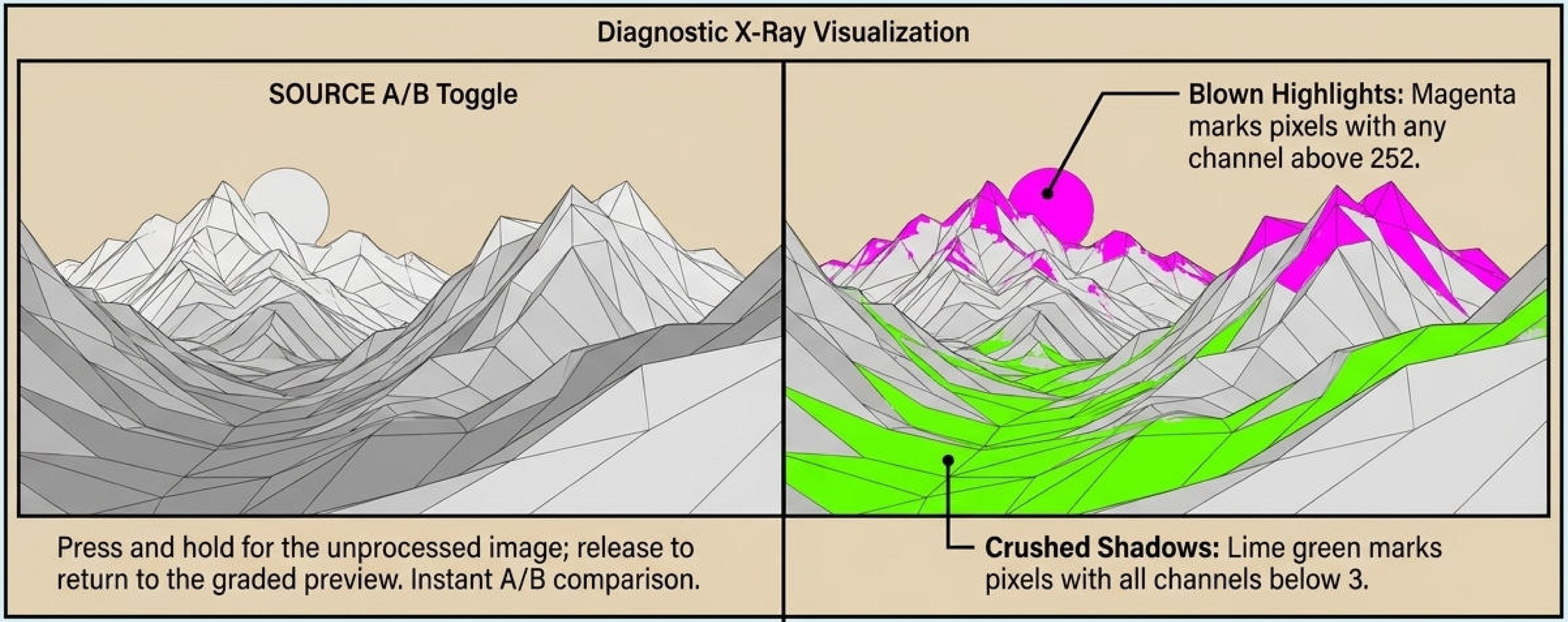
Non-Destructive Renaming: Generate clean export files; the underlying mathematical data is entirely untouched.

One-at-a-Time Evaluation: Checking an item automatically unchecks others.



Luma Mean: Upon loading an image, a background thread instantly calculates the average image brightness (0-255) using standard luminance formulas.

Step 5: Diagnostic X-Ray

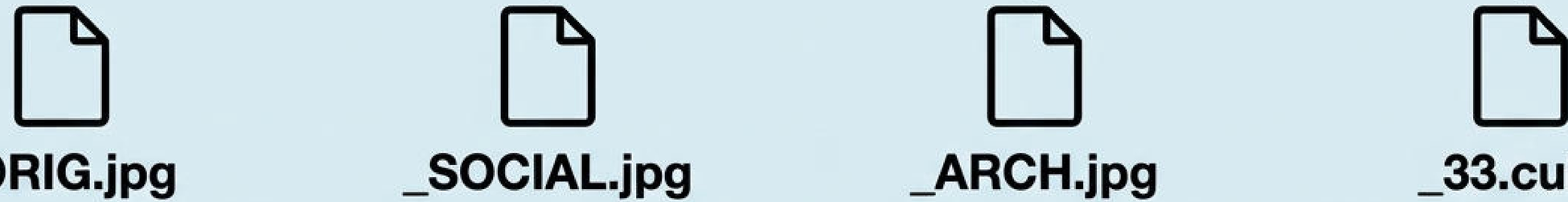


Note: The ZEBRA markers are strictly diagnostic and never saved to the final export.

Steps 6 & 7: The Export Bundle

SAVE 4-PART RESULT

TIP — The export filename fills itself in from the active item's name. If you type your own name into the field, the tool respects it and stops auto-filling.



_ORIG.jpg	_SOCIAL.jpg	_ARCH.jpg	_33.cube
Full-resolution processed image (0.95 quality).	Scaled to 1200px on the longest side.	Scaled to 200px on the longest side.	A 33-point .cube LUT encoding the active look, carrying the Lumatic provenance stamp. The _33 in the filename records the lattice size.

The 4-Part Delivery: What you preview is exactly what you save.

Auditable, Crash-Safe Failsafes

Visualizing History

Step back one change [U].
Up to 20 state snapshots are kept.
Loading a new image clears the history.

Shortcut: U.



The Session Ledger

Download the session record [LEDGER].
A .csv of every state change this session — timestamped, up to 1,000 entries.

Reports LEDGER IS EMPTY if nothing has happened.

Reset vs. Restart	
RESET ALL	A light touch. Deselects assets, turns off zebras.
START OVER	A confirmed full purge that clears history and restores the test pattern.

The Universal Color Pipeline

1. EXTRACT

Move beyond closed software ecosystems by converting aesthetic intent into standard files.

2. EVALUATE

Load assets into the offline grading engine against standard test patterns and neutral backgrounds.

3. VALIDATE

Utilize mathematical clipping diagnostics (Zebra) and Luma Mean readouts to ensure technical perfection.

4. EXPORT

Generate pristine 33-point .cube LUTs ready for seamless deployment across Premiere, Photoshop, Resolve, and beyond.

