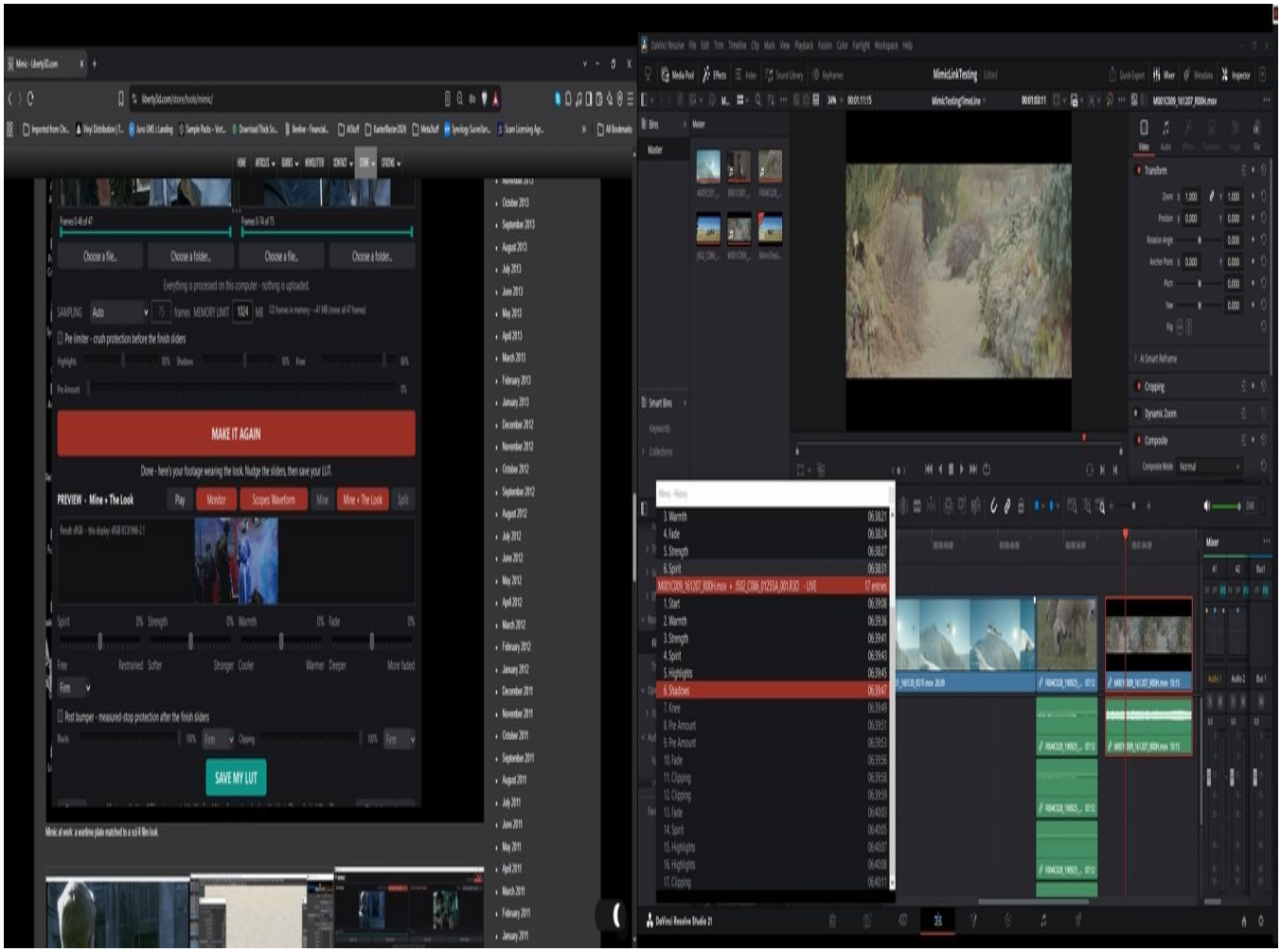


Mimic

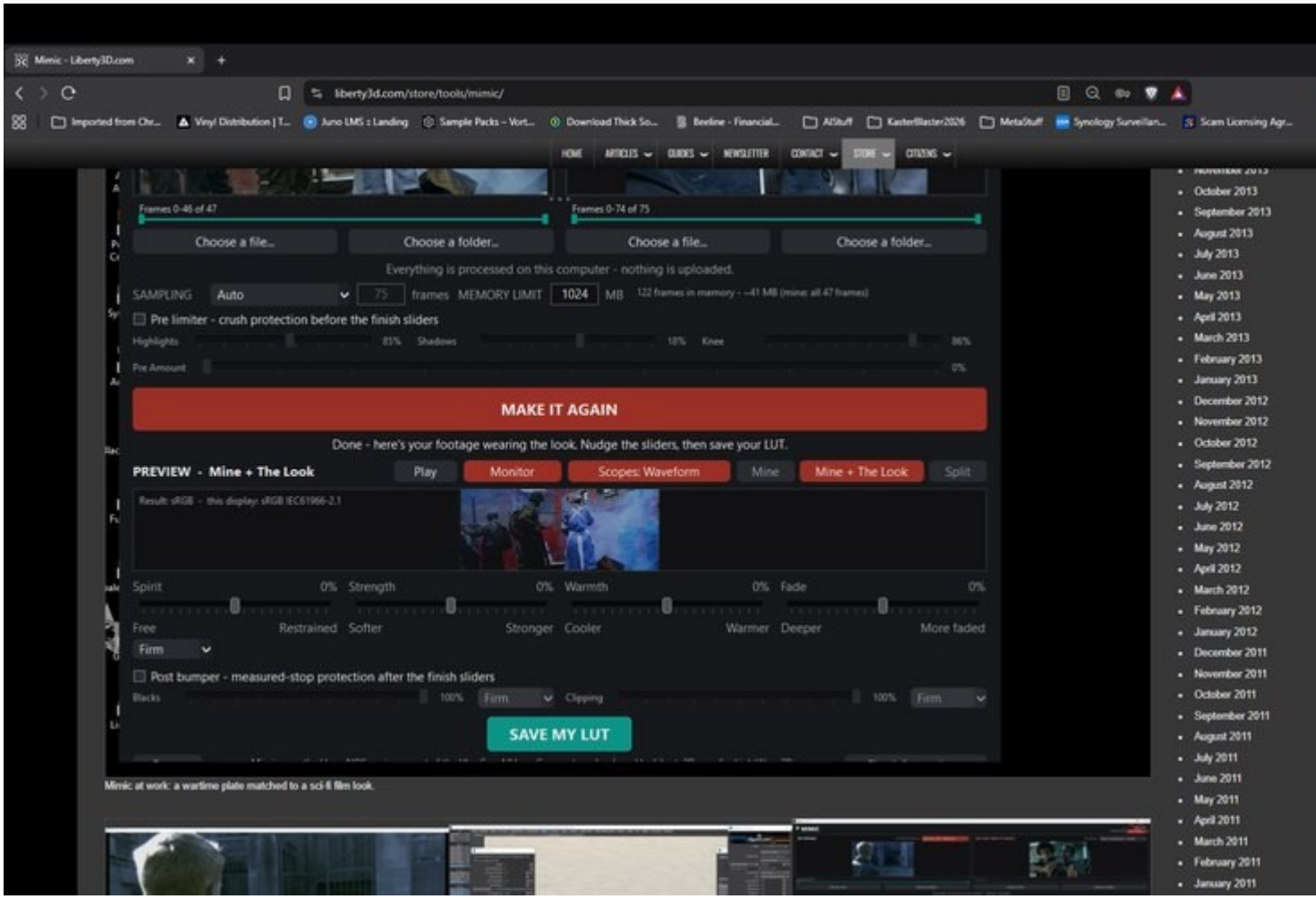
The Look-Matching Application — Standalone Manual

Mimic 1.3.70 · November 2026 · Liberty3D.com

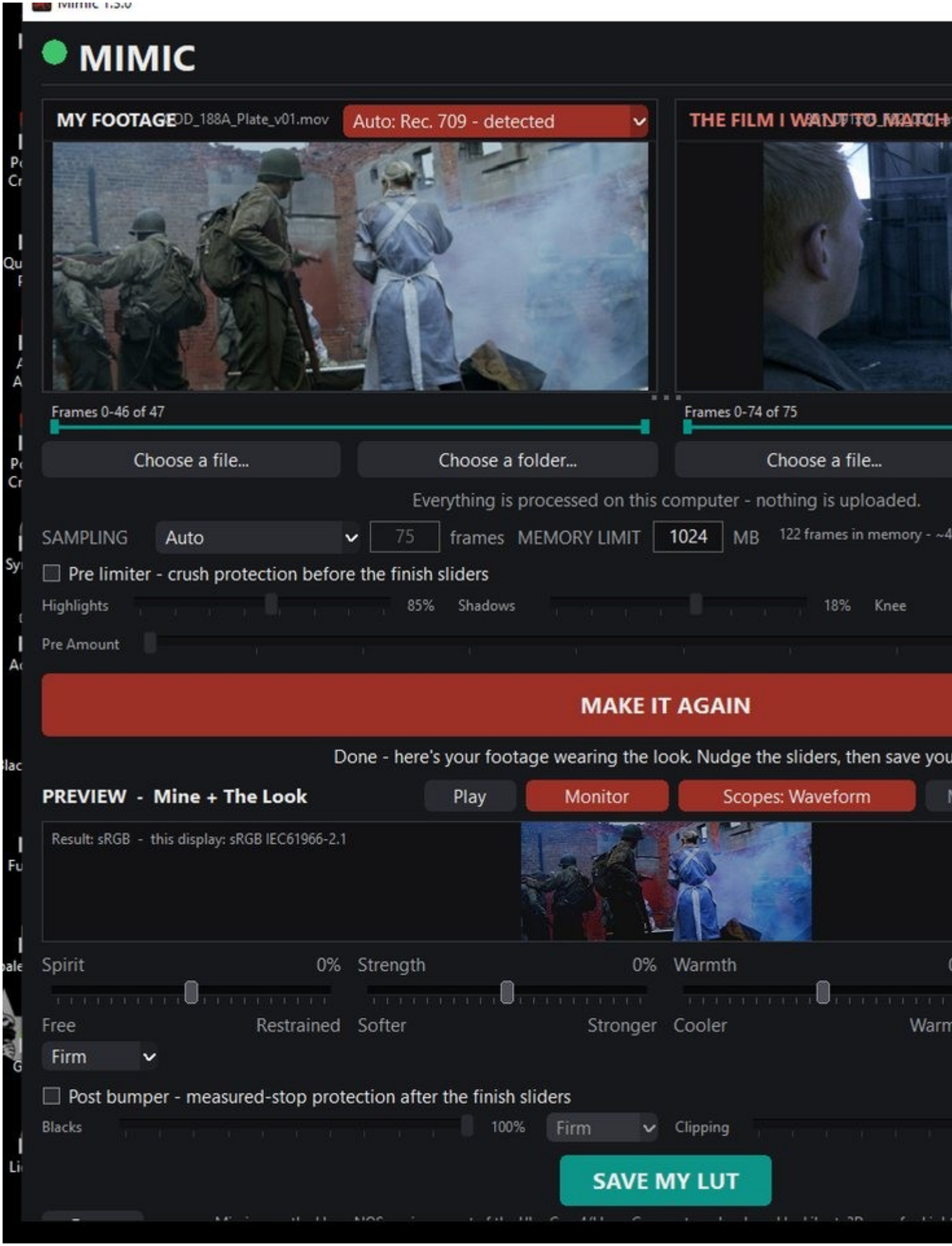
About this manual. This is the complete Mimic manual: the match itself, the guards,

Mimic Link with LightWave, and working live with DaVinci Resolve, in depth. For using Mimic together with LightWave3D and the UberCam 4 + HyperCam bundle — the cameras, the Sensor, and the looks Mimic streams into Layout — refer to the UberCam 4 + HyperCam manual, which carries this same Mimic material as its final part.

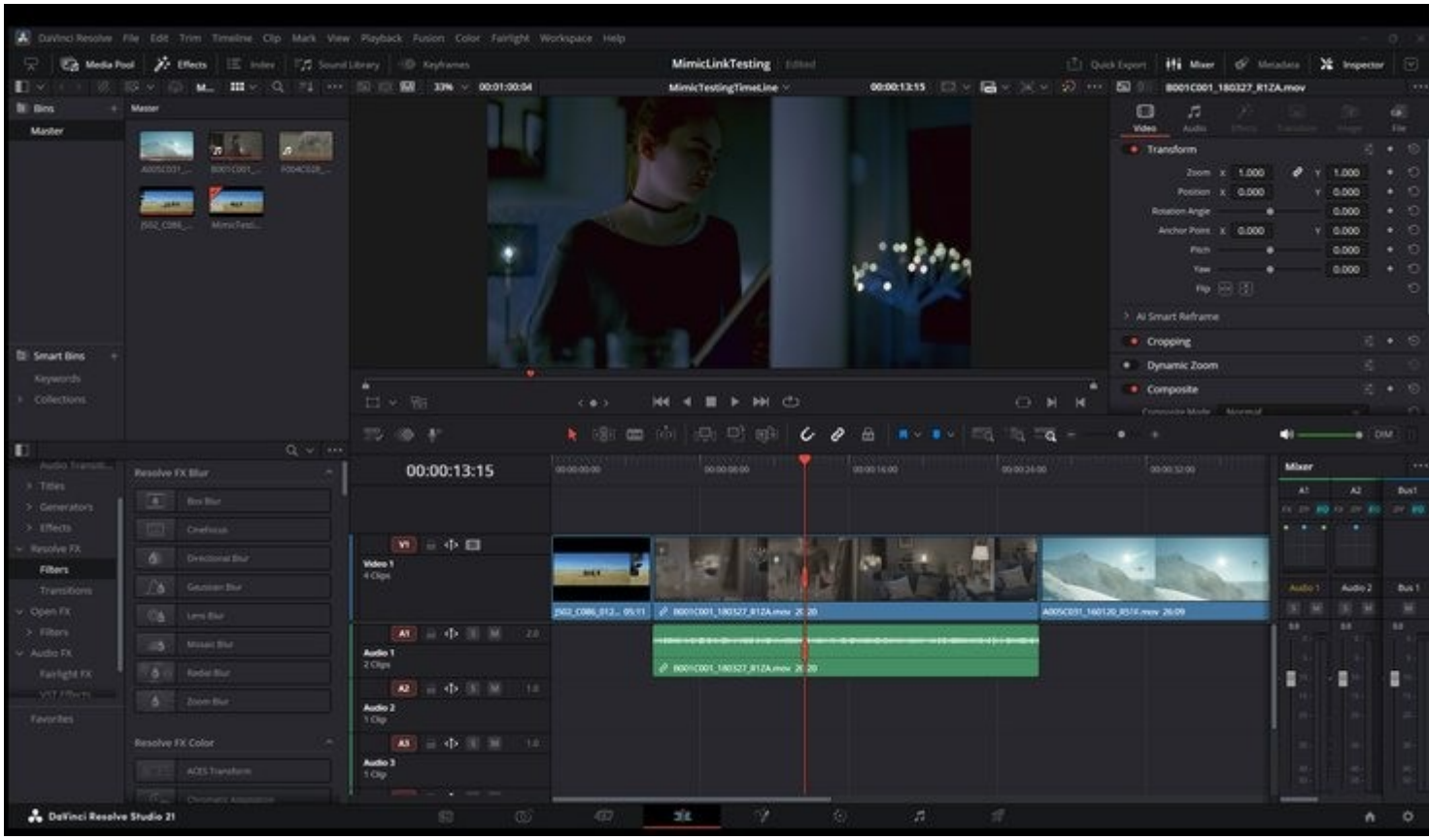
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Mimic at work — a clip pulled from Resolve, matched, and riding back to the timeline.



A wartime plate matched to a sci-fi film look.



A worked match in Resolve: a night interior pulled from the timeline, matched in Mimic, and read back Before and After.

Mimic builds a LUT that matches your footage to a target film. Read a clip and a reference, run the match, save the LUT — then use it anywhere, or stream it straight into LightWave with Mimic Link and watch the HyperCam Sensor wear it while you work. Mimic has its own license key and its own activation, separate from the camera key: run Mimic, enter the key from your purchase, and it verifies once online and runs offline after that. Your bundle key includes Mimic.

Spirit and the guards

SPIRIT - THE GUARD ON THE MATCH Spirit watches the match itself. When Mimic builds your look, the recipe can push colors harder than anything in the film you are matching actually contains - that is where neon, clipped-looking color comes from. Spirit measures the reference film's own color extremes and gently bends anything straining past them back inside, working on color intensity so hues stay true. It is a guard, not an effect: at -100% it is completely off, and everything it does is measured from your reference, never a preset.

NEW: ULTRA Spirit and both bumper guards (Blacks and Clipping) now have a fourth character: Ultra, beyond Hard, with roughly double the grip. Reach for it with hot, saturated references, or whenever you want the guard to hold a tighter line. Soft, Firm and Hard are unchanged.

F9 MAKES THE LOOK. F10 SAVES IT. Borrowed from LightWave, on purpose. In Layout, F9 renders a frame and F10 renders the animation - if you have spent years in LightWave, those keys are already in your fingers. Mimic keeps the habit: F9 runs the match, F10 saves your LUT.

SLIDERS, REBUILT

Keyboard shortcuts

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SLIDERS, REBUILT

Mimic Link — working live with LightWave

MAKE IN MIMIC. WATCH IT IN LIGHTWAVE. Mimic Link streams the look you are building straight into Layout, so the render in front of you wears the match while you work — no save, reopen, re-apply loop. The switch lives in LightWave: in the Sensor's panel, choose **Mimic Link** in the **Movie Look** dropdown. That choice is the arm — nothing streams until you make it, and it touches only the movie-look slot: your Film Stock and Sensor Profile stay exactly as they were.



Mimic streaming a matched look live into LightWave — the Sensor applies it in VPR while you shape it.

In Mimic, turn on **Link LightWave3D**. From then on, every finished MAKE and every committed slider change sends the look exactly as it stands. The Sensor applies the newest one at the next frame boundary — make three changes in a hurry and LightWave takes the third, never a backlog of all three. The link is per-session on the Mimic side: it starts off at every launch, so a restarted Mimic

never pushes a look uninvited.

WHERE THE LOOK LIVES IN THE SENSOR The incoming look is held in the Sensor's **Show LUT** channel, and **LUT Amount** is its trim — not Look Amount. Arming the link sets LUT Amount to 100%, and the Show LUT field reads **Awaiting LUT Transport** until the first look arrives; that is the channel standing ready, not an error. Once a look lands it renders through the Sensor in VPR and final renders alike, and HyperLook's saved passes carry it the same way.

SAVE IS THE ANCHOR F9 makes the look; F10 saves it — and saving does one more thing. When you save a look while the Sensor is armed, the save **anchors** it: the Sensor takes the file you just saved as its own Show LUT, in place, at 100%, and the Movie Look selection steps back to None. The stream has graduated into a file the scene owns — from there it behaves like any LUT you loaded by hand, saves with the scene, and reaches final renders through HyperLook exactly as it did while streaming. Mimic's link switches itself off when the anchor lands. To keep iterating afterward, arm the link again — Mimic Link in the Sensor, link on in Mimic — and carry on.

One consequence worth knowing: the anchored LUT is your saved file, in your folder. If you later move or delete that file, the Show LUT shows its normal can't-find-it state, like any LUT whose file moved — so save looks somewhere the scene can keep.

GRABBING FRAMES BACK The link runs both ways. Mimic can ask Layout for the frame it just rendered — the actual render, wearing the look — and it lands in Mimic as MY FOOTAGE, so the match gets judged against the real thing instead of a guess. The Sensor also sends one frame back on its own after each look it applies, so you see your render wearing the look you just pushed.

HOW A GRAB WORKS (added 2026-11-01, verified against the Sensor source) A grab is a request, not a screenshot. When you press **Grab VPR Frame** or **Grab Frame Range**, Mimic writes the request into the link, and the Sensor — which sits in Layout's render pipeline and sees the final render buffer one pixel at a time — records the frame as the renderer produces it. Each pixel is recorded once, the first time it appears for that frame; VPR's refinement passes and anti-aliasing re-samples over the same pixel are never double-counted. The value recorded is the pixel after the Sensor's own processing: if the Sensor is applying a look or grain, the grab wears it, and if the Sensor is doing nothing, the grab is the untouched render buffer.

Three consequences are worth knowing. First, a grab is the real render data — the scene's render resolution, scene-linear, carried to Mimic as a float EXR — not a picture of the VPR window, and not limited to the size of your viewport. Second, VPR can be the renderer that fills a grab, because VPR

feeds the same pipeline: leave VPR sitting on a frame and the grab completes from VPR's rendering of it, at VPR's render settings. Third, a frame only counts when every pixel has arrived. Change the frame halfway through a grab and the partial frame is abandoned — a single grab reports itself incomplete rather than handing you half a frame.

GRAB FRAME RANGE **Grab Frame Range** asks for a set of frames in one request: a First and Last scene frame and a Stride — every frame, every second frame, and so on — up to 400 frames in a set. Layout still has to render each requested frame: run the sequence (F10 across the range, for example), or step VPR through the frames. The Sensor captures each one as it renders, under its scene frame number. The set is delivered to Mimic only when it is complete, never in pieces, and it loads as MY FOOTAGE with the scene frame numbers preserved, so anything you measure or match from it speaks scene time. If a frame in the set is never rendered, the set never completes — the request simply keeps waiting for the frames it is missing.

Working Live with DaVinci Resolve



Mimic linked live to DaVinci Resolve — the Color page and Mimic, working on the same frames.

Working Live With DaVinci Resolve

Mimic can work live with DaVinci Resolve the same way it works live with LightWave: frames come

out of Resolve into Mimic, and the look you build goes back into Resolve onto your clip — no export, reopen, re-apply loop. The connection runs through a small Liberty3D script — the Mimic Link script — that lives inside Resolve and answers Mimic.

The Mimic Link Script — Mimic Installs It For You (One Time)

There is no file to find, download, or copy. Mimic carries the Mimic Link script, Liberty3D_MimicLink.py, inside itself and keeps it in place:

1. In Mimic, enter Fusion/Resolve mode from the splash screen (or the mode buttons beside the MIMIC title). Mimic checks the script on entry: if it is missing or out of date, Mimic offers to install or update it — showing you the full path before anything is written. Choose Install, or Choose folder… if you want it somewhere else (Mimic remembers your choice). If you decline, Mimic will not nag you again about that same version.

1. The default home is:

%APPDATA%\Blackmagic Design\DaVinci Resolve\Support\Fusion\Scripts\Utility\ Liberty3D_MimicLink.py

On most machines that is C:\Users\<your name>\AppData\Roaming\ Blackmagic Design\DaVinci Resolve\Support\Fusion\Scripts\Utility\ Liberty3D_MimicLink.py. The splash screen names the folder too, with an Open folder button, and the Mimic Link script line under the title in the Fusion/Resolve window always shows where the script stands (Install / Update / Repair appear there when needed). When Mimic replaces a script, the old file is first backed up beside the new one as Liberty3D_MimicLink.py.OLD. The script can be updated at any time, even while a Resolve session is live: the copy running in Resolve works from memory and is not disturbed, and it keeps its version until you reload the script there (stop it and launch it again from Workspace > Scripts).

1. If Resolve was already running when the script was installed, restart Resolve once — its Scripts menu is scanned at startup.

Starting The Link (Each Session)

Resolve cannot start scripts on its own, and neither the installer nor Mimic can start this one for you — the script is launched by hand once per Resolve session:

1. Open your project and a timeline, and park the playhead on the clip you want to work with.

1. In Resolve, choose Workspace > Scripts > Utility > Liberty3D_MimicLink. The Resolve Console answers with the script's startup line — "Liberty3D Mimic Link script … up" — and the script keeps running. That is the link being alive; leave it running while you work.

1. In Mimic's Fusion/Resolve mode, the Source pane now watches Resolve instead of the LightWave mirror. Until the script checks in, the status reads as waiting — start the script (step 5) and it connects on its own. Nothing is ever sent or applied until you ask: the connection is armed by you, in Mimic.

Working The Link

- Get the frame. Mimic asks Resolve for the frame under your playhead, and it lands in Mimic as MY FOOTAGE. The grab is the frame as Resolve displays it — graded, exactly as you see it — so the match is judged against the real picture. Mimic also reads your project's color setup live from Resolve (color science mode and the input, timeline and output color spaces), so it knows precisely what it is looking at.

- Send the look back. Send to Resolve installs the look you have built into Resolve's LUT library — filed per project, per timeline, per clip, so one clip's look never re-grades another — and applies it to node 1 of the clip under the playhead. Link Resolve keeps the connection armed, so each finished MAKE and each committed change re-sends the look as it stands.

- No doubled looks. If a Liberty3D look is already on the clip when Mimic grabs a frame, the script lifts it off for the grab and puts it straight back — a look is never matched on top of itself. If the lift cannot be verified, the frame is flagged CONTAMINATED rather than silently used.

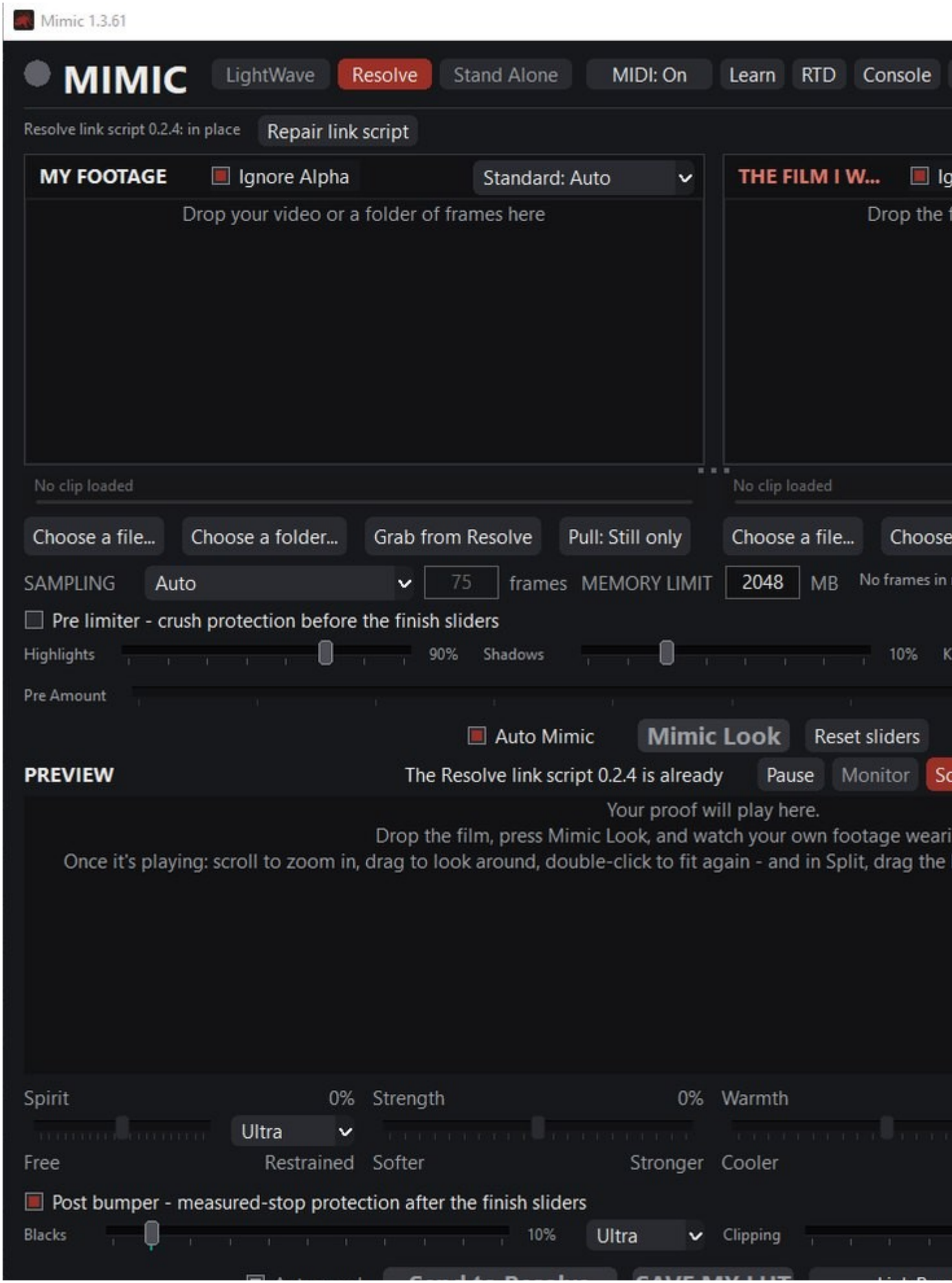
- Pull the source instead. When you want the ungraded material, Mimic can pull the clip itself as a file and decode it directly (.R3D originals ride the same decode as everywhere else in Mimic; .braw cannot be pulled this way, and ARRIRAW is refused with the reason stated). The fallback order is yours to set: Pull Auto (file first, else the still), Source only, or Still only.

- Follow the playhead. Turn on Follow (the Follow button beside Pull:) and Mimic watches the clip under Resolve's playhead: settle the playhead on a different clip for a moment and Mimic pulls that clip in, exactly the way Grab from Resolve does, under your Pull setting. Scrubbing inside a clip never refetches it — the clip is the unit. Follow never interrupts a match or a pull already in flight; it waits for a quiet moment and a settled playhead. The clip you are parked on when Follow starts watching is the starting point — it begins with the next clip you settle

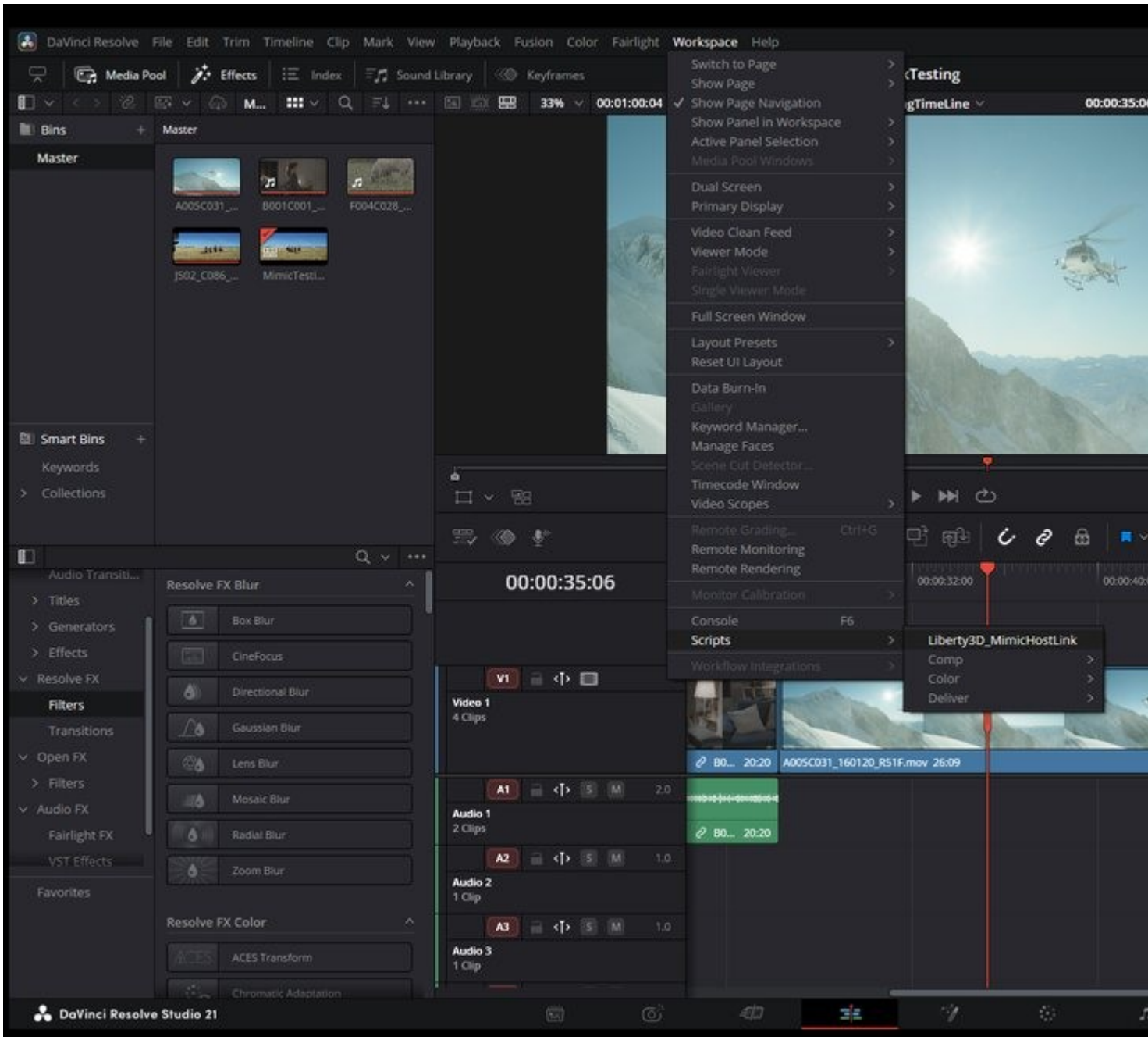
on. Follow needs the Mimic Link script 0.2.8 or newer running; on an older script Mimic tells you once, with the remedy, instead of sitting silent.

GOOD TO KNOW

- Pushes land on node 1 of the current clip's node graph. Build the rest of your grade around it accordingly.
- Leaving the Fusion/Resolve mode in Mimic ends the link: the script stops, by design. Coming back to Resolve later means launching the script again from Workspace > Scripts (step 5) — Mimic then greets it fresh.
- If Resolve's Scripts menu ever lists Liberty3D_MimicLink twice, a second, stray copy exists somewhere Resolve looks — the per-user folders, the folders under C:\ProgramData, or the Resolve program folder. Mimic watches all of them and its script line tells you when it finds one. The same applies to the script's old name, Liberty3D_MimicHostLink, left over from before the rename: it is a separate, old copy. Mimic reports both but never touches either; deleting the extra copy is safe.
- The script and Mimic are a matched pair and update together. Updating Mimic is the whole update — there is no separate Resolve component to install or keep track of.


Mimic 1.3.61
MIMIC
LightWave
Resolve
Stand Alone
MIDI: On
Learn
RTD
Console
Resolve link script 0.2.4: in place
Repair link script
MY FOOTAGE
Ignore Alpha
Standard: Auto
Drop your video or a folder of frames here
THE FILM I W...
Drop the
No clip loaded
No clip loaded
Choose a file...
Choose a folder...
Grab from Resolve
Pull: Still only
Choose a file...
Choose
SAMPLING
Auto
75
frames
MEMORY LIMIT
2048
MB
No frames in
Pre limiter - crush protection before the finish sliders
Highlights
90%
Shadows
10%
Pre Amount
Auto Mimic
Mimic Look
Reset sliders
PREVIEW
The Resolve link script 0.2.4 is already
Pause
Monitor
Your proof will play here.
Drop the film, press Mimic Look, and watch your own footage weari
Once it's playing: scroll to zoom in, drag to look around, double-click to fit again - and in Split, drag the
Spirit
0%
Strength
0%
Warmth
Ultra
Free
Restrained
Softer
Stronger
Cooler
Post bumper - measured-stop protection after the finish sliders
Blacks
10%
Ultra
Clipping

Mimic in Resolve mode — the Mimic Link script in place, ready to pull frames and push looks.

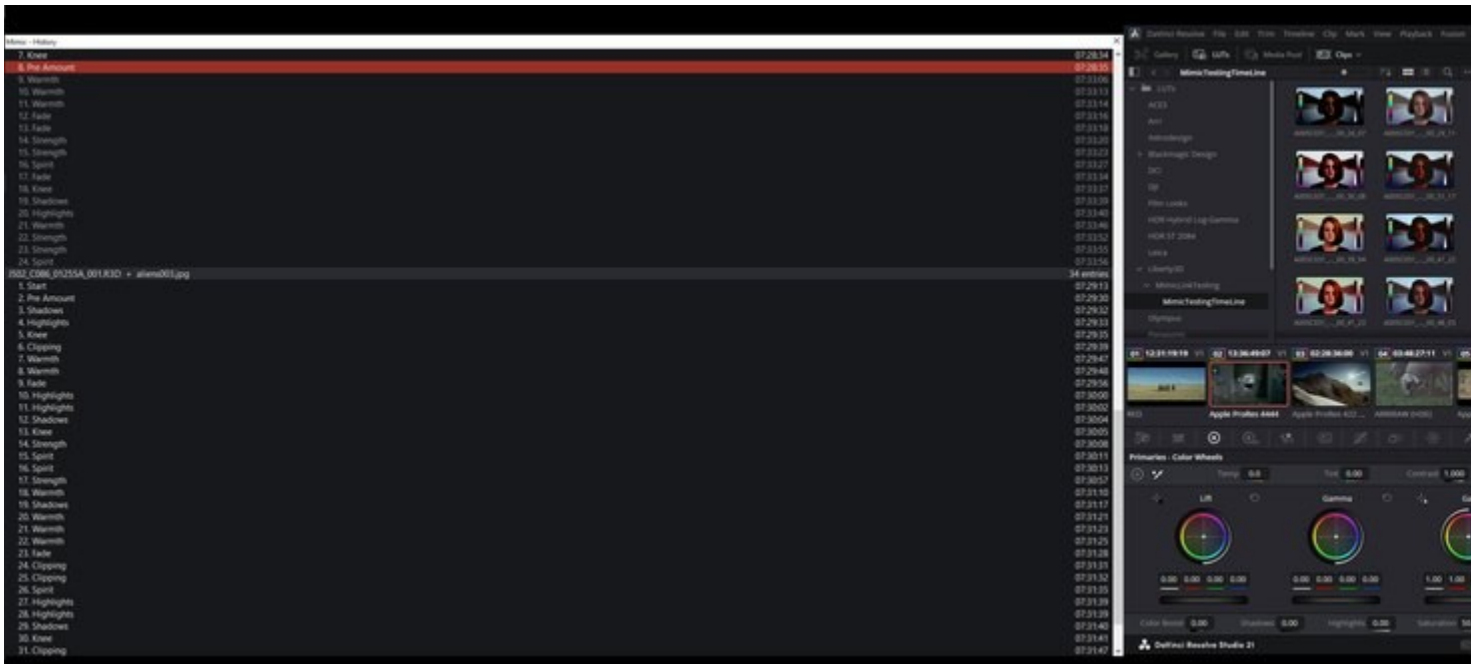


The Mimic Link script lives in Resolve under Workspace > Scripts — one click starts the link for the session.



The loop closed: frames pulled from Resolve, the look matched, and the LUT applied back onto the timeline.

The History — every look you tried, kept



The History at work — the looks tried on a pair, kept in their own stack, with Resolve and Mimic side by side and Follow on.

Every committed change you make to a look is an entry in the History (Ctrl+H, the History button in the header, or the creature's menu). Each pair of clips — your footage and the film you are matching it to — keeps its own stack, with the standing entry lit and the road not taken dimmed behind it. Click any entry to land on that look again. If the pair's material is not loaded when you click, Mimic

reloads it first — in Resolve it re-pulls the pair from your timeline at the pair's own clip and restores your playhead afterwards. Ctrl+Z and Ctrl+Y (or Ctrl+Shift+Z) walk the same stack without opening the window.

Sessions — your work, where you left it

Mimic remembers your work per project. The histories are saved automatically and restored when you return to the same Resolve project and timeline — and the same care is taken with a LightWave scene. When a different project's saved session exists, it is offered, never forced on top of the work you have standing. For a keepsake or a second machine, Save/Load in the header writes the whole session — every pair, every entry, every cursor — to a .mimicsession file (Save session snapshot…) and reads it back (Load session snapshot…), wherever the file lives.

Desqueeze — see anamorphic footage unsqueezed

Footage shot with an anamorphic lens can be viewed unsqueezed while you work: right-click a pane and pick its desqueeze (Off, 1.33x, 1.5x, 1.8x, 2.0x), per side. It is a viewing aid only — the match, the exports and the LUT are always computed on the footage exactly as it is.

Faster RED

RED originals load fast now: a clip's frames are developed in parallel at the size Mimic works at, so an .R3D pair that used to take minutes is ready in a fraction of the time.

HDR sources

Mimic matches in display-referred space: it reads your footage and your reference film the way they display, and builds the match from that. Scene-linear HDR stills are welcome on either side — EXR and Radiance HDR (.hdr) files are read directly, with no conversion step needed.

HDR video is the exception to know about: PQ and HLG material will load, but it is not tone mapped, so a match from it is built on the encoded values rather than a displayed picture. HDR stills of real subjects are solid ground; environment probes have one extra behavior, covered next.

Matching HDR to HDR

Mimic happily matches scene-linear HDR sources (EXR and Radiance HDR) on either side. One behavior worth knowing: when BOTH sides are HDRI environment images, the resulting look can

come out washed out — blacks lifted, contrast flattened — especially when the two environments differ a lot in overall brightness (a dusk landscape matched to a bright beach at noon, for example).

This happens because an environment HDRI is a picture of *illumination*, not of a subject. The match balances the two environments' overall light, so the LUT ends up carrying their brightness relationship as well as the film's color and contrast character. Applied to a render, that reads as a general lift.

What to do about it: nothing is broken, and the look is still usable — just expect to finish it by hand. Pull **Strength** back until the wash settles (half strength is a good starting point), and let the Post bumper's Blacks guard re-seat the shadows. For the most predictable results, match from a rendered frame or a photograph rather than a raw environment probe, and use HDR environment plates as the *film* side when you want their color character more than their exposure.

Matching HDR footage of real subjects (rather than 360-degree environments) is not affected the same way.

Where the look sits — and where the feeds are taken

The Sensor is designed to be the **last pixel filter in the chain**. Other pixel filters do their work first; the look is applied after them, because the look is the final word on the image — it is what people want after everything else has been applied. There is nothing to arrange: put the Sensor in the scene and the ordering takes care of itself.

The HyperDIT feed is taken from **inside the Sensor, after the look is applied**, so the DIT always shows the finished, looked image exactly as the audience will see it. The Mirror feed to Mimic is taken from inside the Sensor **before** the look, so Mimic always matches from clean, unlooked pixels — a look is never matched on top of itself. The separate HyperDIT Tap plug-in remains available for the unusual case of a filter that must deliberately run after the look.

[SOURCE NOTE, not manual text: the folded-in Tap ships in Sensor 0.4.131 (designed 2026-11-01, Kat's direction). Until that build is the live release, the shipping arrangement remains the standalone Tap placed below the Sensor in Effects > Pixel Filters, which achieves the same post-look feed by list order. Do not publish the folded wording ahead of the build.]