

TINCTURE

Turn the colours of a photograph into a LUT for Photoshop, Lightroom, Premiere, DaVinci Resolve and more.

User Manual

VERSION 1.0.0 · WINDOWS 10 AND 11

- Look: capture the colour grade of any photo
- Before & After: learn an edit you already made, exactly
- .cube, .3dl and HALD .png, in 17, 33 or 65 points
- Match: make your photo follow a reference
- HALD: convert a HALD image graded in any editor
- Everything stays on your PC

Tincture · 2026

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Chapter 1 explains what Tincture makes and shows the window. Chapters 3 to 6 each cover one way of making a LUT, and can be read in any order. Chapter 8 shows how to use the result in other apps.

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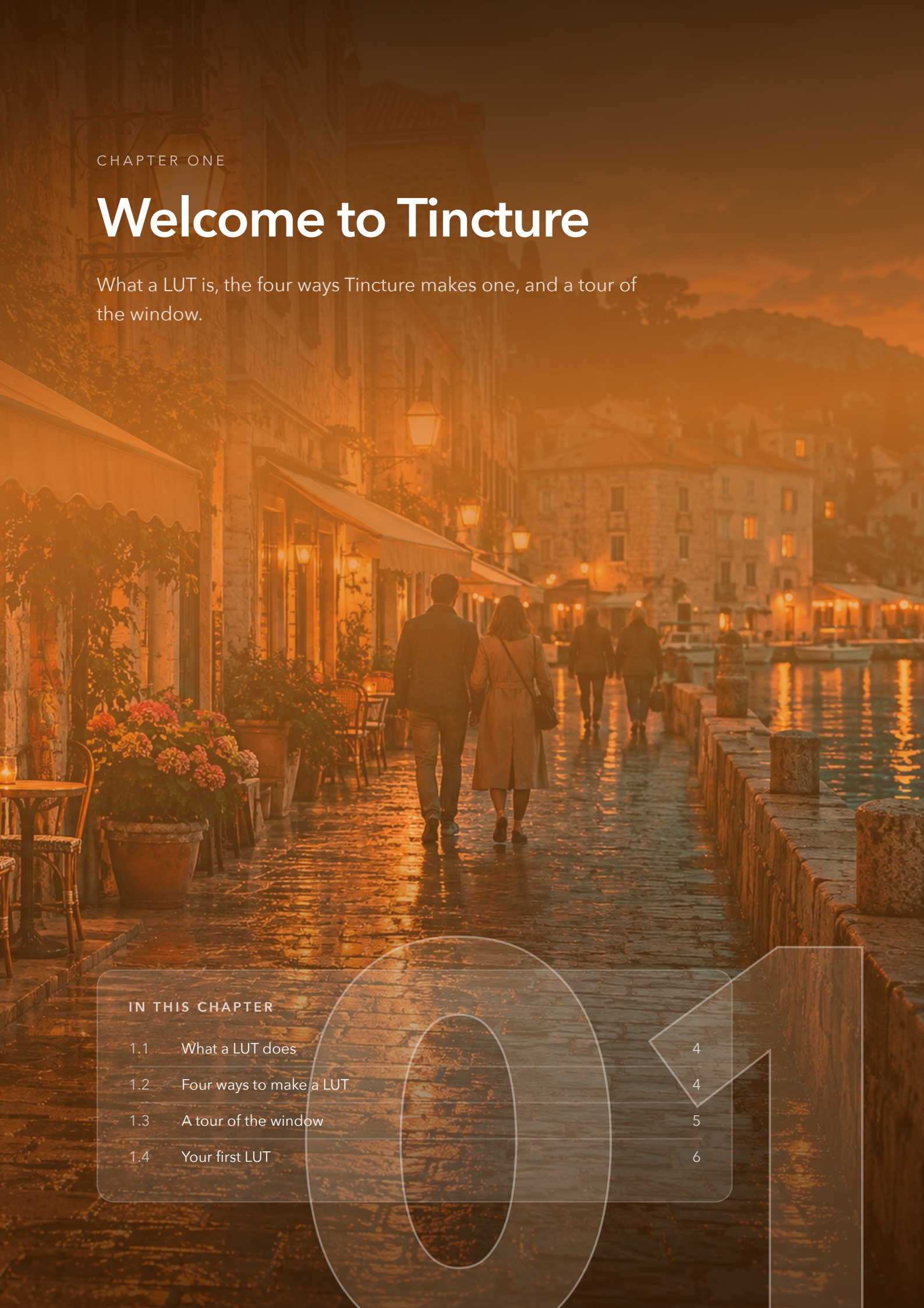
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CHAPTER ONE

Welcome to Tincture

What a LUT is, the four ways Tincture makes one, and a tour of the window.

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1.1 What a LUT does

A **LUT** (lookup table) is a recipe for colour. For every colour that goes in, it says which colour comes out. A 3D LUT does this for the whole range of red, green and blue at once, so it can hold a complete colour grade: a contrast curve, a warm cast in the highlights, a teal tint in the shadows, muted greens and softer blacks, all in one small file.

Because almost every photo and video editor can apply a LUT, a grade made once travels everywhere. You apply it in Photoshop as a Color Lookup layer, in Premiere Pro or DaVinci Resolve as a look, in Affinity Photo as a LUT adjustment, and so on.

Tincture makes LUTs from images rather than from sliders. Give it a photo whose colours you like, and it builds the LUT that gives other photos that look.



The test chart as it is

The same chart through a LUT made from a photo

Figure 1.1 A LUT changes every colour in a consistent way. Here, lifted blacks, softer highlights and muted colours, taken from the café photo in chapter 3.

A LUT stores the answer for a grid of colours, for example 33 steps of red by 33 of green by 33 of blue, which is 35,937 colours. Editors work out the colours in between. More points mean finer detail and a larger file; 33 is the usual choice.

1.2 Four ways to make a LUT

Which mode to use depends on what you have.

Look

You have: one photo with the look you want

Tincture reads its tones, colour cast, colourfulness and palette and builds a LUT that gives them to other photos. Chapter 3.

Match

You have: your photo and a reference photo

Your photo's brightness and colours are made to follow the reference, shadows, mid-tones and highlights separately. Chapter 4.

Before & After

You have: a photo before and after your own edit

Tincture learns the exact colour change and turns it into a LUT you can use on other photos. Chapter 5.

HALD

You have: any editor with colour adjustments

Grade a special HALD image in any app, drop it back in, and Tincture converts it to a LUT without loss. Chapter 6.

TIP

When you have the original of a graded photo, use **Before & After**: it is exact. **Look** has only the finished photo to go on, so it makes an informed interpretation of the grade, which you can then adjust.

1.3 A tour of the window

The window has three columns: the modes and your images on the left, the preview in the middle and the adjustments on the right.

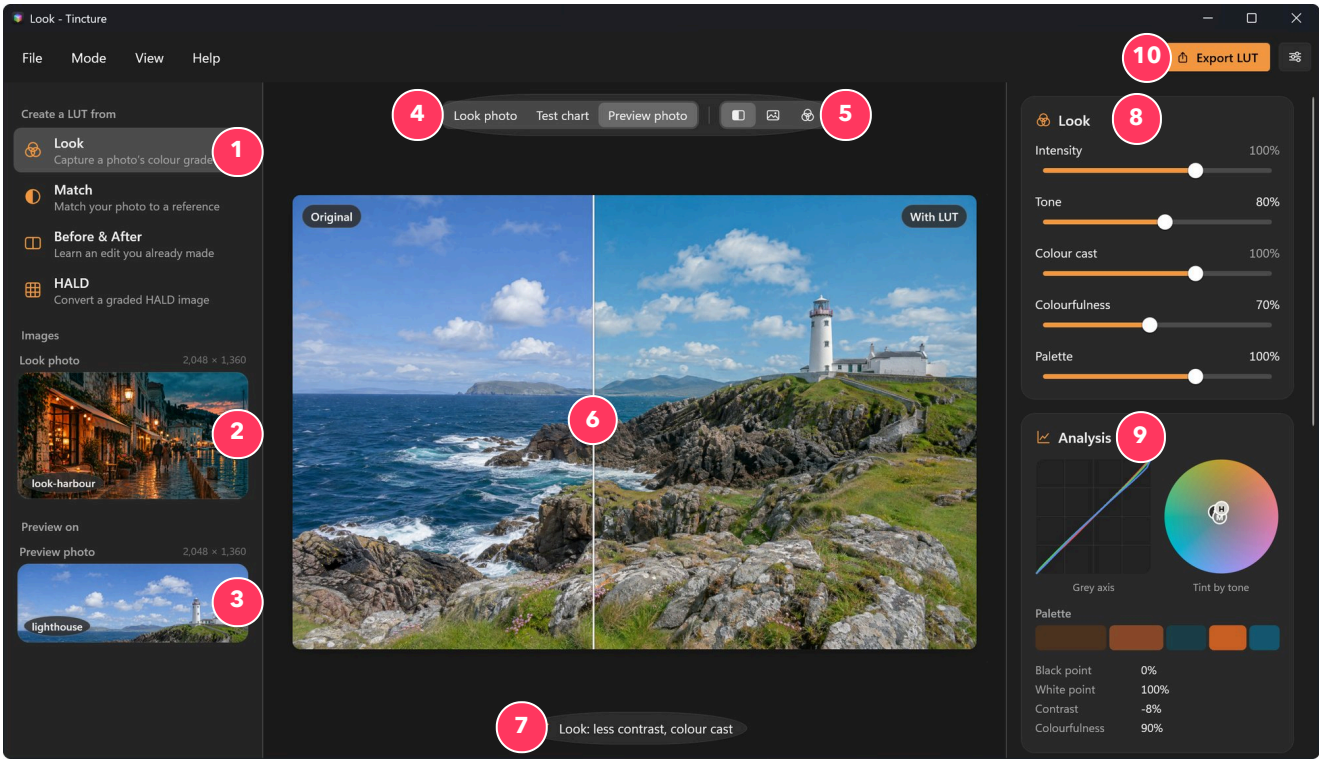


Figure 1.2 Tincture in Look mode: the harbour photo's look on a photo of a lighthouse, split down the middle.

1. **Modes.** The four ways of making a LUT. `Ctrl+1` to `Ctrl+4` switch between them.
2. **Images.** The images this mode needs. Drop a file on a well or click it to choose one.
3. **Preview photo.** Any photo of yours, to see the LUT on it. Optional.
4. **Preview on.** Choose what the preview shows: the mode's own image, the test chart or your preview photo.
5. **Compare.** Split view, the original alone, or the result alone.
6. **Split.** Drag anywhere in the picture to move the dividing line.
7. **Status.** What Tincture found, or how well a Before & After edit was learned.
8. **Mode controls.** Intensity and the sliders for this mode.
9. **Analysis.** What the LUT does to greys, where it tints the tones, and the palette. Scroll down for **Fine tune** (temperature, tint, contrast and saturation, added on top) and **Export**.
10. **Export LUT.** Saves the LUT (`Ctrl+E`). The same button sits at the bottom of the adjustments. The button beside it shows or hides the adjustments (`Ctrl+Alt+A`).

1.4 Your first LUT

1. Choose **Look** in the sidebar.
2. Drag a photo whose colours you like onto the **Look photo** well. Tincture analyses it in about a second.
3. Drag one of your own photos onto **Preview photo** and drag the split line to compare.
4. Adjust **Intensity** and the other sliders until it looks right.
5. Click **Export LUT**, keep the **.cube** format and save.
6. In Photoshop, add a Color Lookup adjustment layer and load the file (page 30).

CHAPTER TWO

Installing and first steps

What you need, installing with the setup, the first launch, and how to bring images in.



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2.1 What you need

- ✓ A PC running 64-bit Windows 10 or 11, with an Intel, AMD or Arm processor.
- ✓ Photos in any format Windows can open: JPEG, PNG, TIFF, BMP and GIF, and with Microsoft's free extensions from the Microsoft Store, HEIC, WebP and camera raw files.
- ✓ An editor that reads LUTs, such as Photoshop (chapter 8 lists more).

Tincture works entirely on your PC. It never connects to the internet, and it reads your images without changing them.

2.2 Installing

1. Double-click `Tincture-1.0.0-Setup.exe`.
2. Click **Next**, check the folder (your own programs folder; no administrator password is needed) and click **Install**.
3. Open Tincture from the Start menu. The setup also offers Tincture in File Explorer's **Open with** menu for photos.

> **NOTE** This version of Tincture is not signed with a code-signing certificate, so Windows may show *Windows protected your PC* when you run a downloaded setup. Click **More info**, check that the app is `Tincture-1.0.0-Setup.exe`, then click **Run anyway**. To remove Tincture, open **Settings › Apps › Installed apps**, find Tincture and choose **Uninstall**.

2.3 The first window

Tincture opens in Look mode with nothing loaded. The middle of the window says what the mode needs.

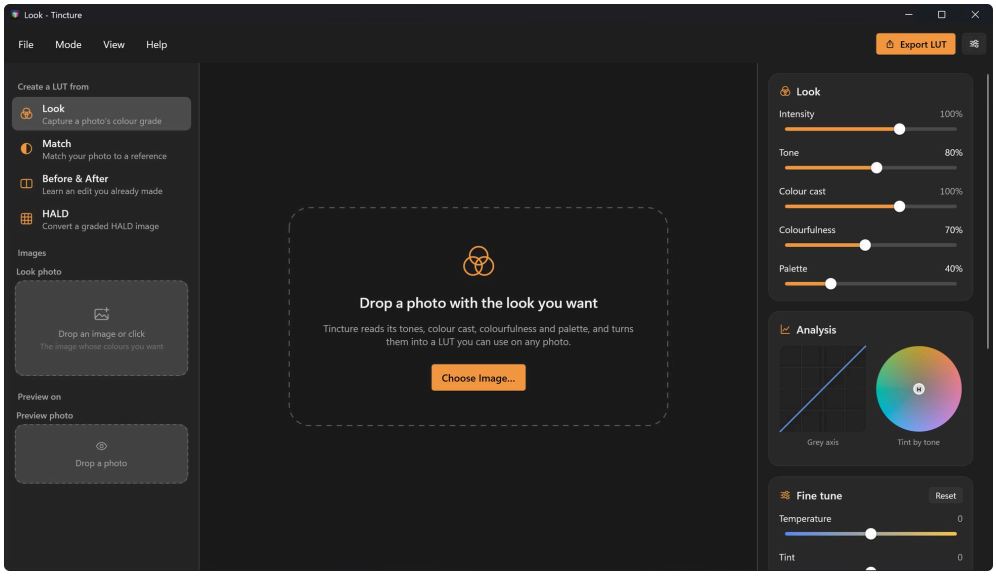


Figure 2.1 The empty window. Each mode shows its own instructions here until its images are in.

2.4 Bringing images in

There are four ways to give Tincture an image:

- **Drag and drop** a file onto one of the wells in the sidebar, or onto the preview, which fills the first empty well.
- **Click a well** to choose a file.
- **File › Open Image…** (`Ctrl+O`) fills the first empty well of the current mode.
- In File Explorer, right-click a photo and choose **Open with › Tincture**. If Tincture is already open, the photo goes to it.

To replace an image, drop another on the same well. To remove one, point at it and click the **×** in its corner. The size shown above each well is the original's; Tincture analyses a copy of up to 1,600 pixels on the long side, which is plenty for colour. HALD images are the exception: they are read at full size, exactly as stored.

> **TIP** Photos from an iPhone or a wide-gamut camera are converted to sRGB for analysis, the colour space LUTs in Photoshop and most video apps expect.



CHAPTER THREE

Look: capture a photo's colour grade

One photo in, its look out: what Tincture reads, the sliders, and how to choose a photo that works well.

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3.1 What Tincture reads

A colour grade leaves traces in a photo. Tincture looks for four of them and builds a LUT that puts the same traces into any photo.

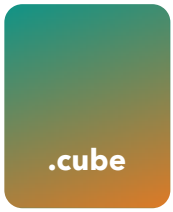


Tone
Lifted blacks, softened whites and the contrast of the mid-tones.

Colour cast
The tint of greys, whites and blacks, separately in shadows, mid-tones and highlights.

Colourfulness
How muted or vivid the colours are, with the cast taken out.

Palette
The photo's dominant colours, which hues can be nudged towards.



A LUT for any photo

The colour cast is read only from near-grey areas, such as walls, clouds, clothing, stone and shadows. That is where a grade shows clearly: a grey wall turned teal means a teal grade, while a teal boat may simply be teal.

3.2 Making a Look LUT

1. Choose **Look** (`Ctrl+1`).
2. Drop the photo with the look you want onto **Look photo**. The status line sums up what Tincture found, for example *blacks lifted, soft highlights, muted colour*.
3. Drop one of your own photos onto **Preview photo**. Until you do, the preview shows the test chart.
4. Set the sliders (page 12), then export (page 26).



Figure 3.1 The look of the café photo on a portrait: lifted blacks, softer highlights, sage greens and muted colour.

3.3 The sliders

Each slider sets how much of one part of the look is used: 100% is the look as measured, 0% leaves that part out and up to 150% exaggerates it. Double-click a slider's name to put it back to its starting value.

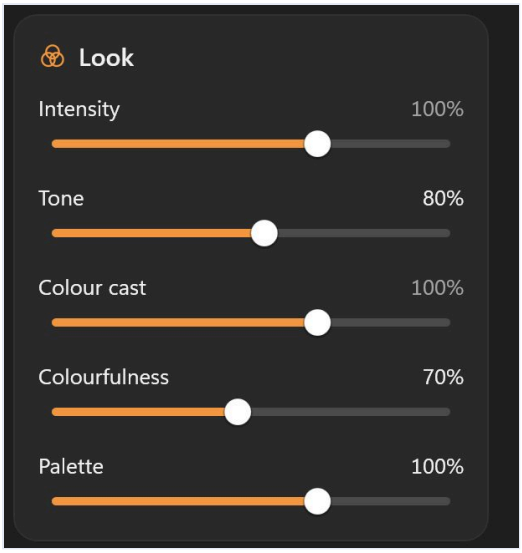


Figure 3.2 Look mode's sliders, with Palette raised to 100% for the harbour photo.

SLIDER	START
Intensity	100%. The whole look, blended with the original.
Tone	80%. Black point, white point and contrast.
Colour cast	100%. The tints in shadows, mid-tones and highlights.
Colourfulness	70%. Muting or monochrome.
Palette	40%. The pull towards the dominant colours.

Palette is the most creative control. It pulls each colour's hue towards the nearest of the photo's dominant colours, and leaves hues far from all of them alone. The harbour photo at dusk is mostly teal and orange, so a strong pull turns blue skies teal and yellows orange:



Palette 40% | Palette 100% | Palette 150%

Figure 3.3 The harbour look on the lighthouse at three Palette settings.

The café photo's look, by contrast, lives in its tones and colourfulness, so it travels to any photo at its starting settings:



Lighthouse | Portrait | Beach

Figure 3.4 One look, three photos: the café photo's LUT, unchanged.

3.4 Reading the analysis

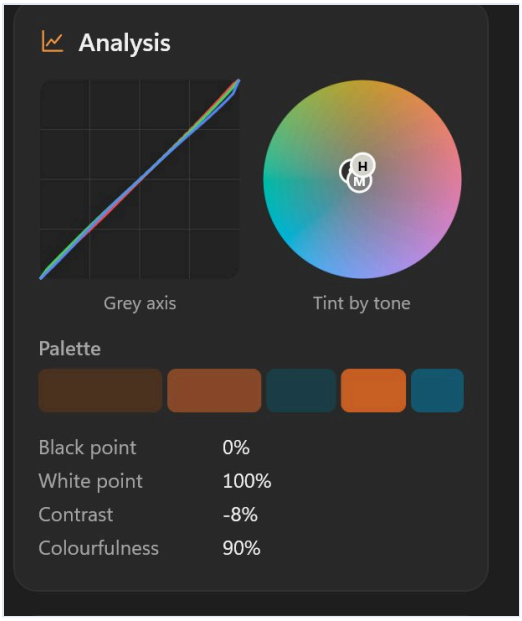


Figure 3.5 The analysis of the harbour photo's look.

Grey axis. What the LUT does to greys from black to white, as red, green and blue curves. One line on the diagonal means no change. A line starting above the bottom corner means lifted blacks, and curves that separate mean a tint.

Tint by tone. Where shadow (S), mid-tone (M) and highlight (H) greys move on a colour wheel. Dots in the centre stay neutral; teal shadows and orange highlights pull S and H apart.

Palette shows the dominant colours, widest first, and the numbers give the measured black point, white point, contrast and colourfulness.

All modes show the grey axis and tint wheel, so they are also a quick way to compare LUTs.

3.5 Choosing a good look photo

A single photo cannot say what it looked like before it was graded, so Tincture has to separate the grade from the scene. It is deliberately careful: when it cannot tell, it leaves that part of the look out rather than guess. These photos work best:

- ✓ **Some near-neutral areas**: clouds, concrete, stone, clothing, skin in shade, deep shadows. They reveal the cast.
- ✓ **A full range of tones**, from dark to bright, so lifted blacks and soft highlights can be measured.
- ✓ **A global grade**, without heavy vignettes or local edits, which no LUT can carry.
- ✗ **A frame filled with one strong colour**, such as a pink flower: there is nothing grey to read a cast from, so Tincture leaves the cast out.
- ✗ **A photo with no dark areas**: it may look faded only because of what is in it, so Tincture does not lift the blacks.

CARE Previewing on the **Look photo** itself shows the look applied twice, so it looks overdone. Judge the LUT on your own photo or the test chart.

CHAPTER FOUR

Match: your photo, a reference's colours

Make one photo follow another, tone and colour, shadows to highlights.



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4.1 When to use Match

Look mode knows only the reference. Match also knows *your* photo, so it can move your photo's own brightness and colours onto the reference's: its darkest tones onto the reference's darkest, its mid-tones onto the mid-tones, and so on, and the spread and balance of its colours separately in shadows, mid-tones and highlights.

That makes Match the right choice when you want a series to agree: a shot from the morning matched to one from the evening, a second camera matched to the first, or your photo matched to a frame you admire.

4.2 Matching two photos

1. Choose **Match** (`Ctrl+2`).
2. Drop the photo you want to change onto **Your photo**.
3. Drop the photo whose look you want onto **Reference look**.
4. The preview shows your photo before and after. Adjust, then export.

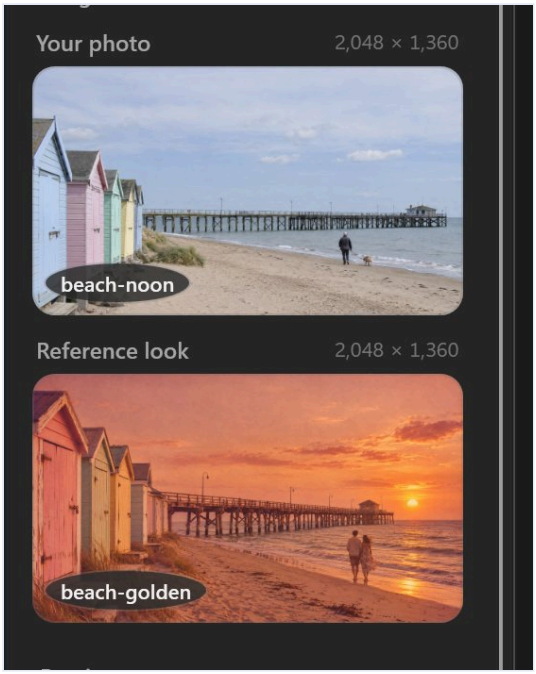


Figure 4.1 Match mode's two wells.

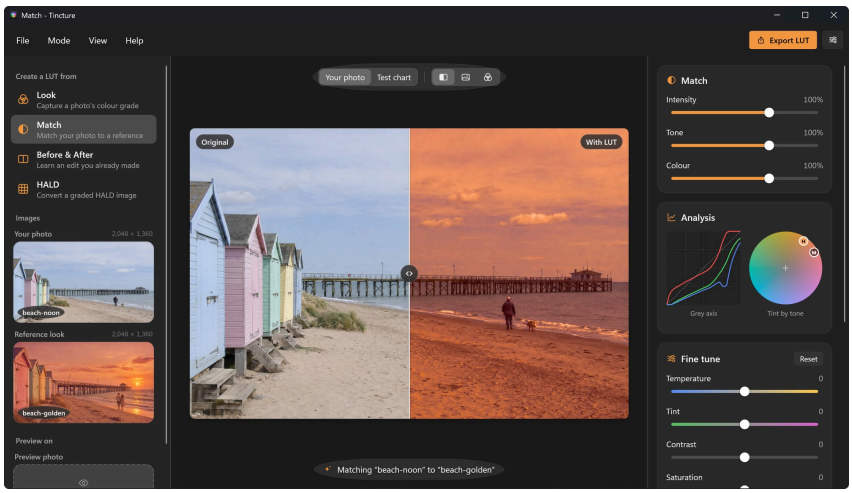


Figure 4.2 A midday beach matched to a golden-hour reference of the same kind of scene.

4.3 Sliders and tips

SLIDER	WHAT IT DOES
Intensity	The whole match, blended with the original.
Tone	How far brightness and contrast follow the reference.
Colour	How far colour balance and saturation follow, per tonal range.

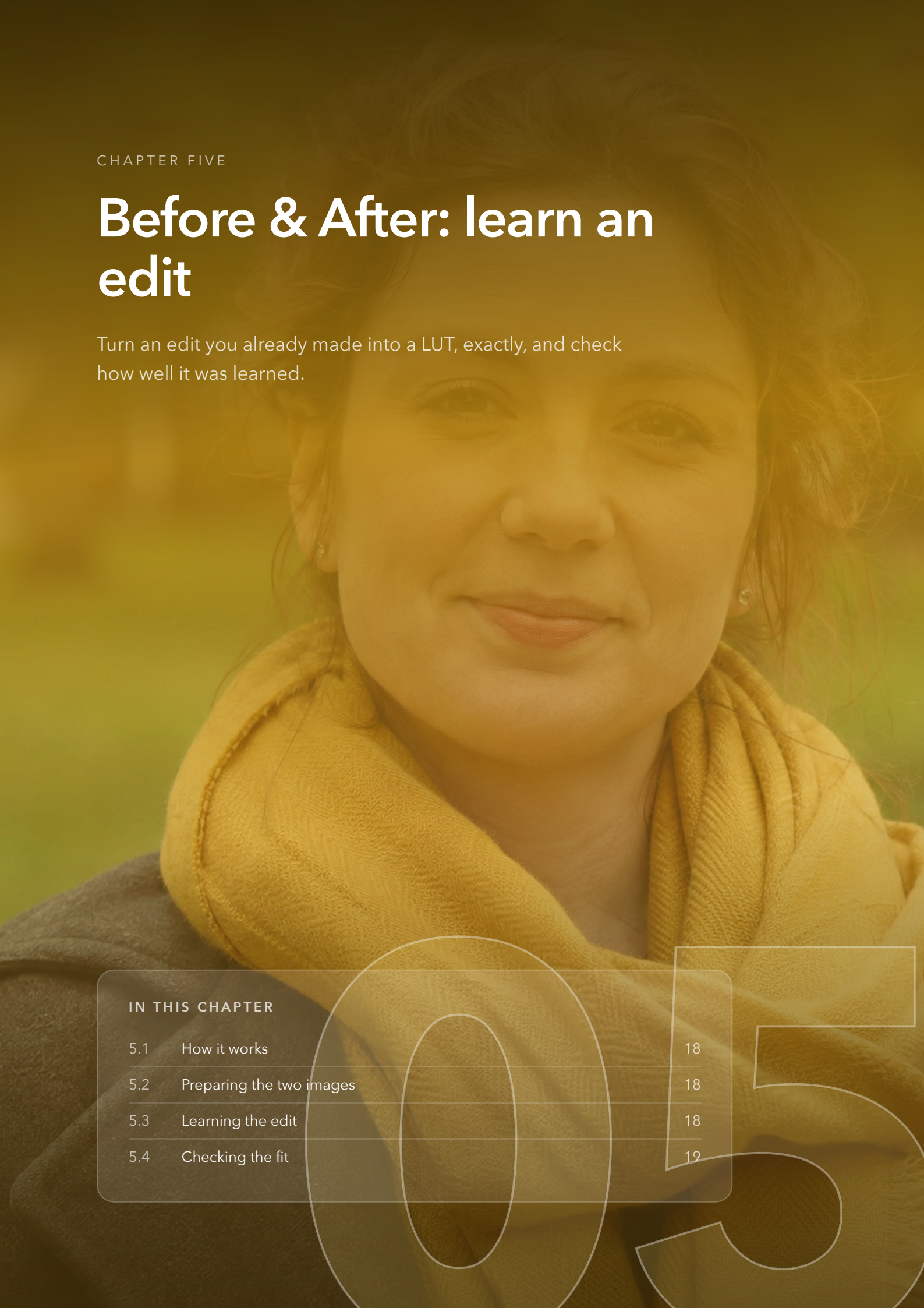
- **Similar scenes match best.** Two photos of a beach, two portraits or two street scenes give a close, natural result.
- **Very different scenes** still work, but the result is more of an interpretation: a dark forest matched to a bright beach is told to become bright. Tincture smooths the result so it never posterises; lower **Tone** if the brightness jumps too far.
- The LUT is tuned to your photo's tones, so it suits other photos from the same shoot best.



The beach match on the lighthouse

The same LUT on the portrait

Figure 4.3 A Match LUT used on photos from other shoots: the golden light comes along, at full strength.



CHAPTER FIVE

Before & After: learn an edit

Turn an edit you already made into a LUT, exactly, and check how well it was learned.

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5.1 How it works

Give Tincture the same photo twice: as it was, and after your edit. Every pixel then says exactly what the edit did to its colour. Tincture finds the LUT that reproduces all of those changes at once, and fills in colours the photo does not contain smoothly from the edit around them. The result usually matches your edit to within a fraction of a level on the 0 to 255 scale.

It works with any editor: Photoshop, Lightroom, Capture One, Affinity Photo or your phone.

5.2 Preparing the two images

1. Edit the photo using only **global colour adjustments**: curves, levels, colour balance, hue and saturation, selective colour, white balance, a camera profile or a preset made of those.
2. Export the original and the edited version **at the same size and crop**, both as JPEG, PNG or TIFF in sRGB. In Photoshop, **File › Export › Export As…** does this.

> **CARE** A LUT changes every pixel of the same colour in the same way, so it cannot carry anything that treats two such pixels differently: masks, brushes, gradients, vignettes, local adjustments, sharpening, noise, grain, blur, or a different crop. Leave those out of the edit, or add them afterwards in the other app.

5.3 Learning the edit

1. Choose **Before & After** (`Ctrl+3`).
2. Drop the original onto **Before** and the edited version onto **After**.
3. Read the fit error in the status line, then export.

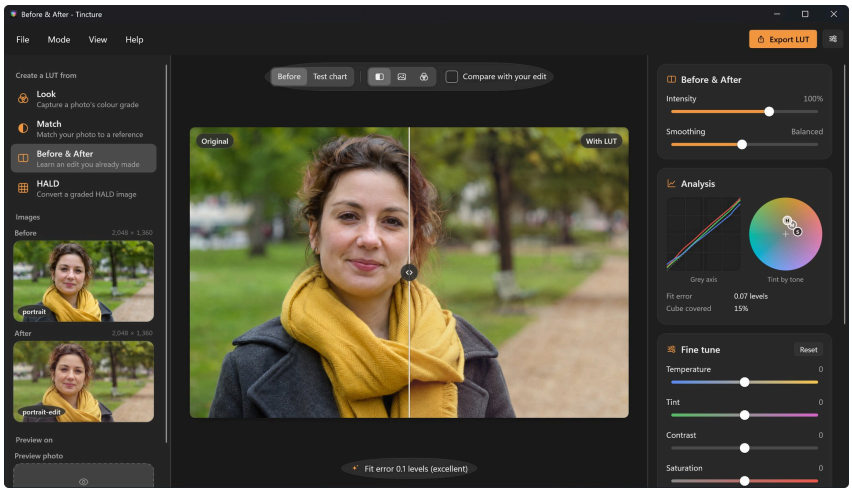


Figure 5.1 A portrait before (left) and with the learned LUT (right). The fit error is 0.1 levels.

5.4 Checking the fit

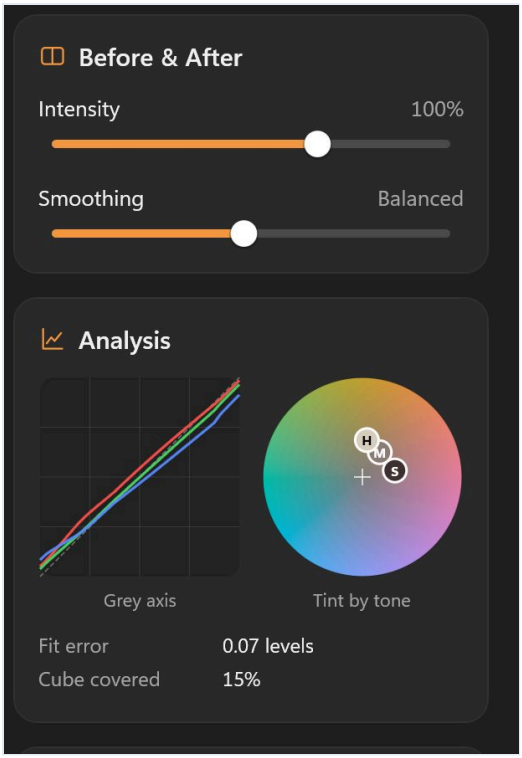


Figure 5.2 Smoothing, the fit error and how much of the colour space the photo covers.

The **fit error** is the average difference between your edit and the LUT's result, in levels on the 0 to 255 scale.

FIT ERROR	MEANING
below 1.5	Excellent: no visible difference.
1.5 to 3	Good.
3 to 6	Fair: probably a small local edit.
above 6	Poor: local edits, or the images do not line up.

Cube covered is the share of all possible colours that appear in the photo. Colours outside it are filled in from the nearest ones, so a LUT learned from a varied, colourful photo carries over to other photos best.

Smoothing sets how closely the LUT follows individual pixels. **Fine** follows them closely; **Smooth** irons out noise and JPEG artefacts in the two images. **Balanced** suits most photos.

To see the difference itself, turn on **Compare with your edit** above the preview. The left side then shows your real edit instead of the original:

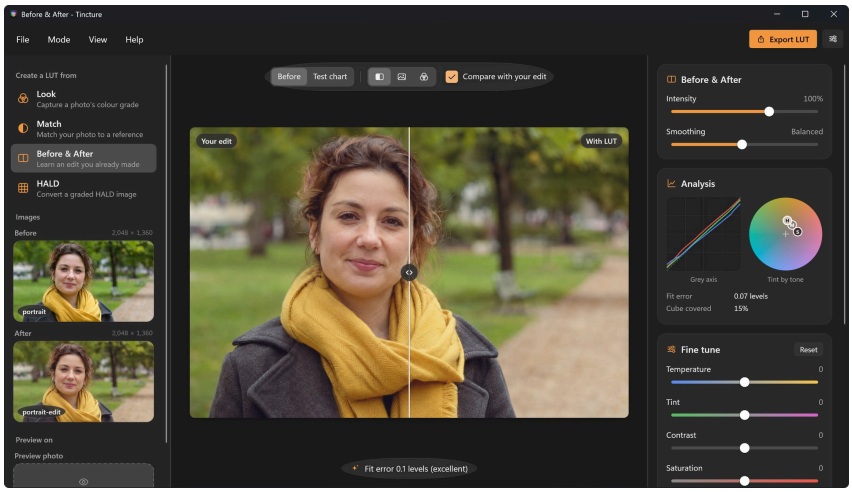


Figure 5.3 Your edit (left) against the LUT (right): the two sides should be indistinguishable.

CHAPTER SIX

HALD: grade it anywhere

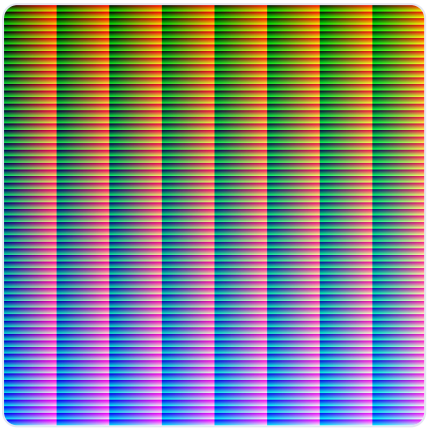
Grade a special image in any editor, and Tincture turns the grade into a LUT without losing anything.

IN THIS CHAPTER

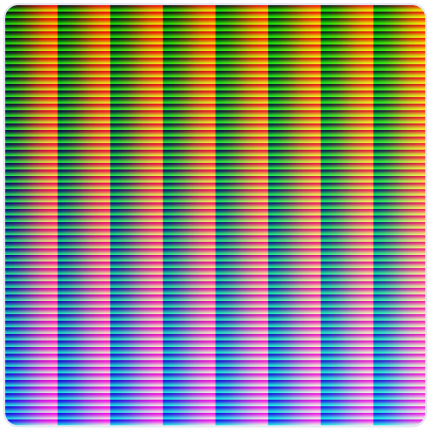
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6.1 What a HALD image is

A HALD image (HALD CLUT) contains every colour of a LUT's grid, laid out as a square picture. Grade it like any photo and it records exactly what your adjustments did to every colour. Tincture then reads it back as a LUT, with nothing estimated.



Identity HALD: every colour, unchanged



The same image after a teal and orange grade



The resulting LUT on a photo

Figure 6.1 A level 8 HALD image, 512 by 512 pixels holding a 64-point LUT, before and after grading, and what the grade does to a photo.

Use HALD when your editor has adjustments you like but no LUT export, or when you want a grade built with tools Tincture does not have. Photoshop users have a shortcut too:
File › Export › Color Lookup Tables… writes a LUT straight from adjustment layers.

6.2 Step by step

1. Choose **HALD** (`Ctrl+4`) and click **Save Identity HALD…** (`Ctrl+Shift+H`). Tincture saves a 512 by 512, 16-bit PNG.
2. Open it in your editor. If Photoshop asks about the embedded profile, choose **Use the embedded profile**.
3. Grade it with colour adjustments only, the same way you would a photo. In Photoshop, use adjustment layers.
4. Save a copy as PNG or TIFF at the same size, keeping 16 bits per channel if the app offers it.
5. Drop the graded file onto the **Graded HALD** well, check the preview and export.

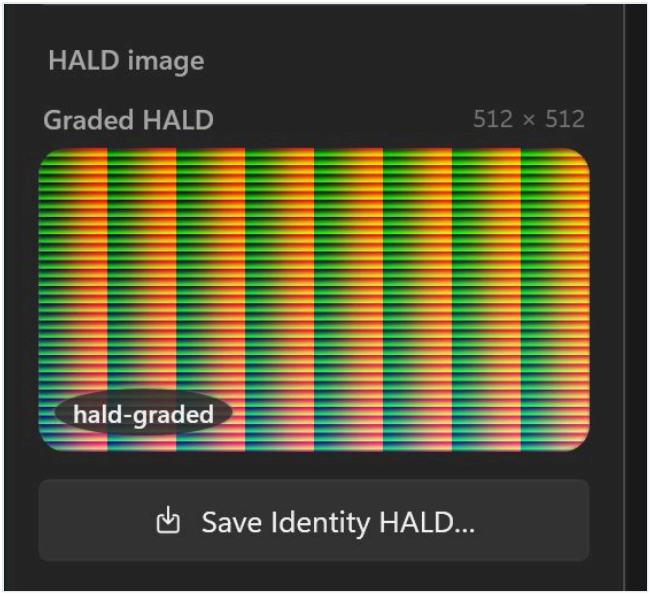


Figure 6.2 The graded HALD in its well, and the button that saves a fresh identity HALD.

CARE

Keep the HALD image intact. Do not resize, crop, rotate or sharpen it, add noise, grain, a vignette or a frame, convert it to another colour profile, or save it as a JPEG. Any of these changes the colours the grid relies on. Eight-bit files work, but 16-bit keeps the finest steps.

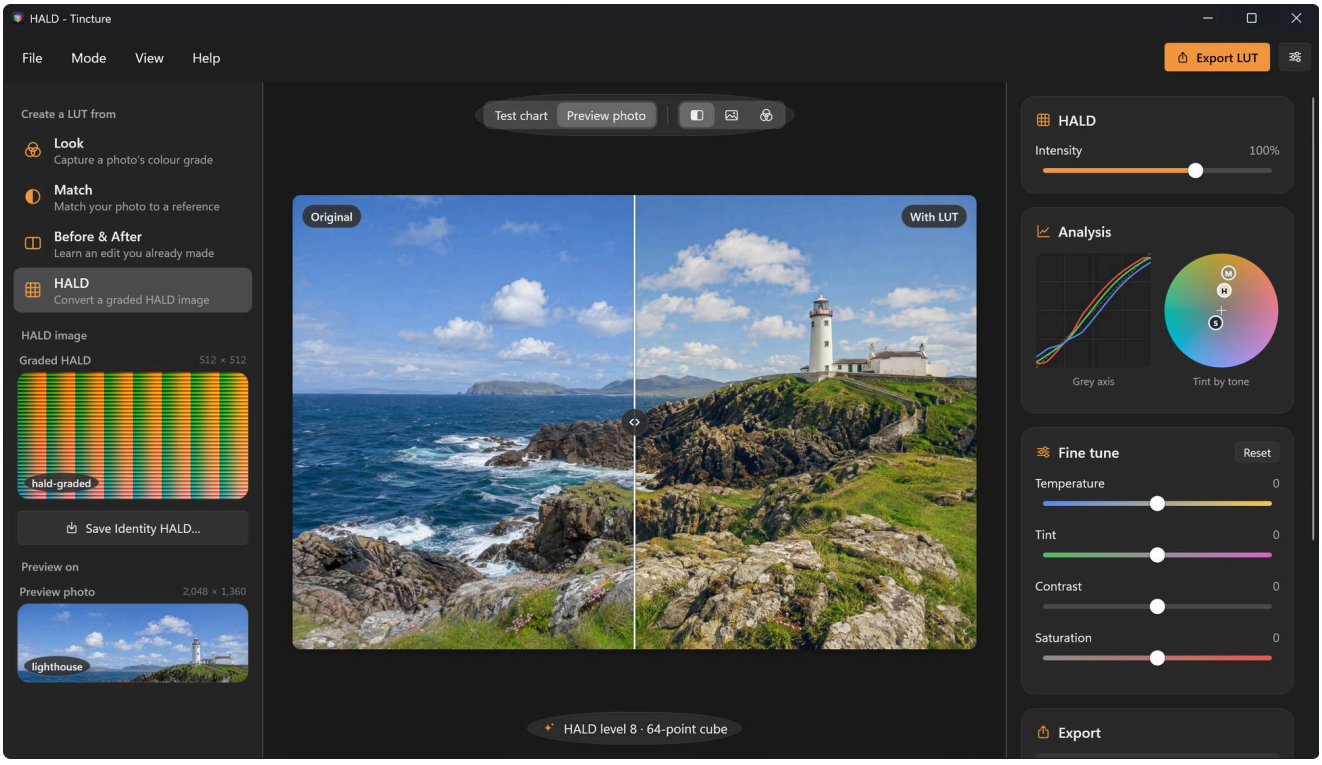


Figure 6.3 A graded HALD image converted to a LUT and previewed on the lighthouse.

6.3 Accepted sizes

A HALD image is square with a side of $level^3$ pixels and holds a LUT of $level^2$ points. Tincture accepts every level from 2 to 16; these are the common ones:

LEVEL	IMAGE SIZE	LUT POINTS	NOTES
4	64 × 64	16	Coarse; fine for gentle grades.
6	216 × 216	36	
8	512 × 512	64	Tincture's identity HALD. Recommended.
12	1728 × 1728	144	Very fine; large file.

Whatever the level, the LUT you export uses the grid you choose in Export (page 26).

CHAPTER SEVEN

Preview, fine-tune and export

Judging the result, adding your own touch, and saving the LUT in the format your app needs.



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7.1 The preview

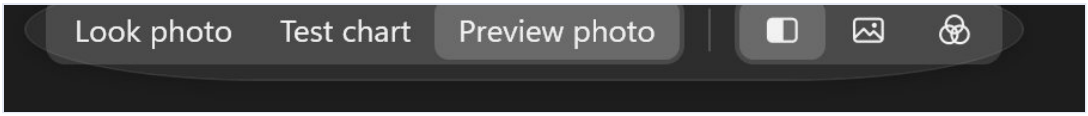


Figure 7.1 Above the preview: what to preview on, and how to compare.

Preview on chooses the picture: the mode's own image (**Look photo**, **Your photo** or **Before**), the built-in **Test chart**, or your **Preview photo** once you have added one.

The three compare buttons show the picture **split**, the **original** alone or the result **with the LUT** alone. In split view, drag anywhere in the picture to move the line.

The test chart is the best way to see everything a LUT does at a glance: a hue sweep from pale to deep, a smooth grey ramp and 24 colour patches including skin tones and greys.

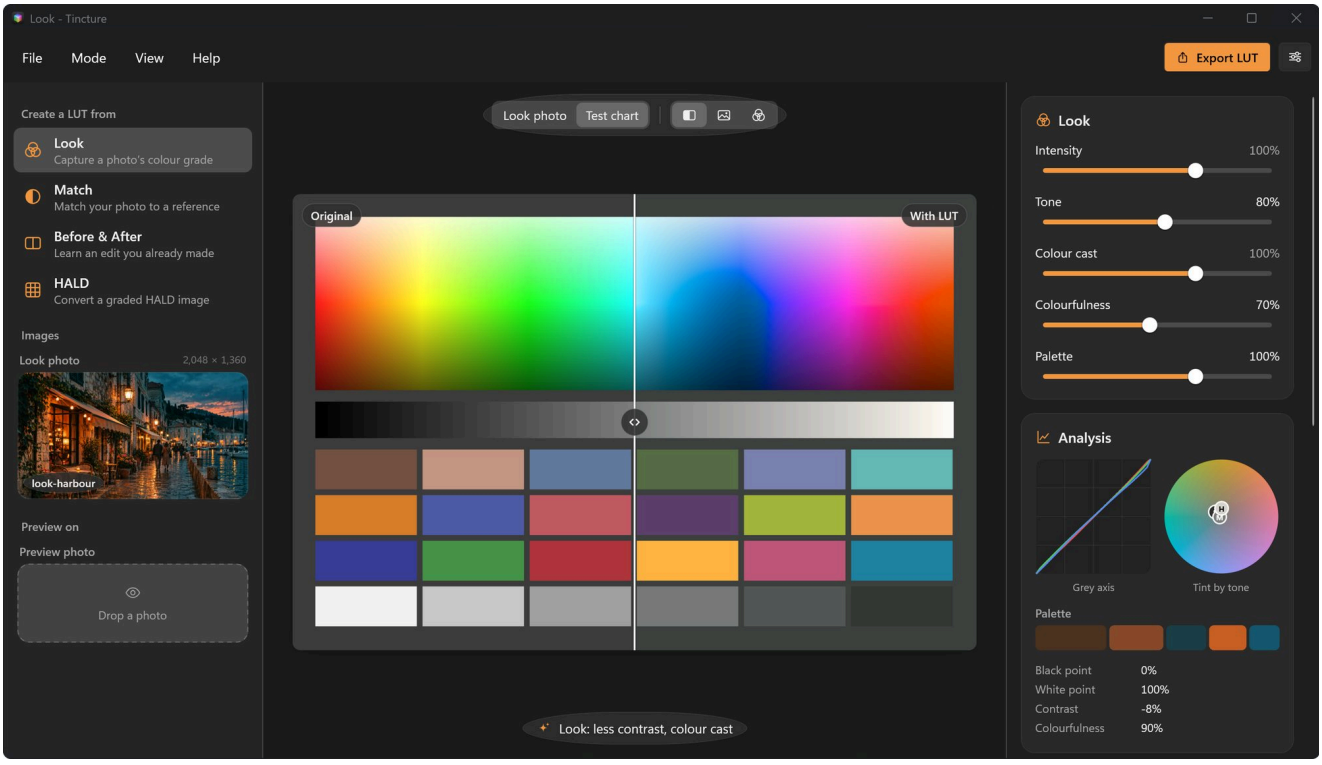


Figure 7.2 The harbour look on the test chart. The grey ramp shows the tone curve; the patches show which colours move.

The area behind the picture is neutral grey in both light and dark appearance, so it never tints your judgement. The preview is worked out on all your PC's processor cores and updates as you drag a slider.

7.2 Fine tune

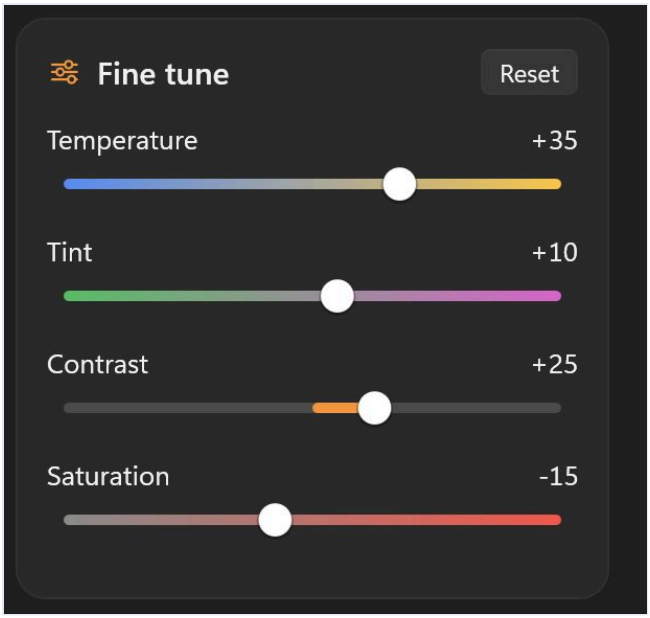


Figure 7.3 Fine tune: four controls on top of every mode.

Fine tune adds your own adjustments on top of whatever the mode made, at full strength whatever the Intensity:

Temperature warms or cools, like white balance. **Tint** moves towards magenta or green. **Contrast** steepens or flattens the mid-tones around mid grey. **Saturation** mutes or enriches every colour.

Reset clears all four; **Mode › Reset Adjustments** (`Ctrl+Shift+R`) resets every slider. Fine tune also works with no image at all, as a quick way to make a simple warming or contrast LUT.

7.3 Exporting

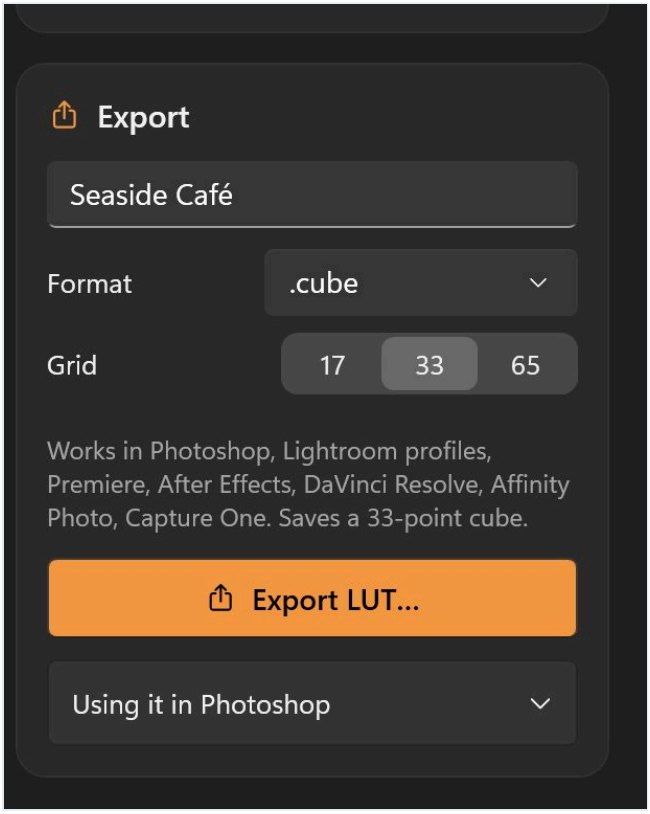


Figure 7.4 The Export card at the bottom of the adjustments.

1. **Name** the LUT. Tincture suggests one from your image; the name is also stored inside .cube files and shows in some apps.
2. Choose the **format**: .cube, .3dl, HALD .png, or all three at once.
3. Choose the **grid**: 17, 33 or 65 points.
4. Click **Export LUT...** (`Ctrl+E`) and choose where to save.

FORMAT	USE IT FOR
.cube	Photoshop, Camera Raw profiles for Lightroom, Premiere Pro, After Effects, DaVinci Resolve, Affinity Photo, Capture One. The first choice.
.3dl	Photoshop, Autodesk Flame and Lustre, Nuke, DaVinci Resolve.
HALD .png	Affinity Photo, GIMP with G'MIC, darktable, RawTherapee, ImageMagick. Always a 64-point LUT.
All three	The three files side by side, with the same name.

GRID	COLOURS STORED	CHOOSE IT WHEN
17	4,913	An app asks for small LUTs, or for gentle looks.
33	35,937	Almost always: the standard size.
65	274,625	Strong grades, smooth gradients and 16-bit work.

When the file is saved, a note appears below the preview with a button that shows it in File Explorer:



Figure 7.5 The café look exported as "Seaside Café.cube".

7.4 Light and dark

Tincture follows the app mode chosen in Windows, under **Settings › Personalisation › Colours**. Everything works the same in both.

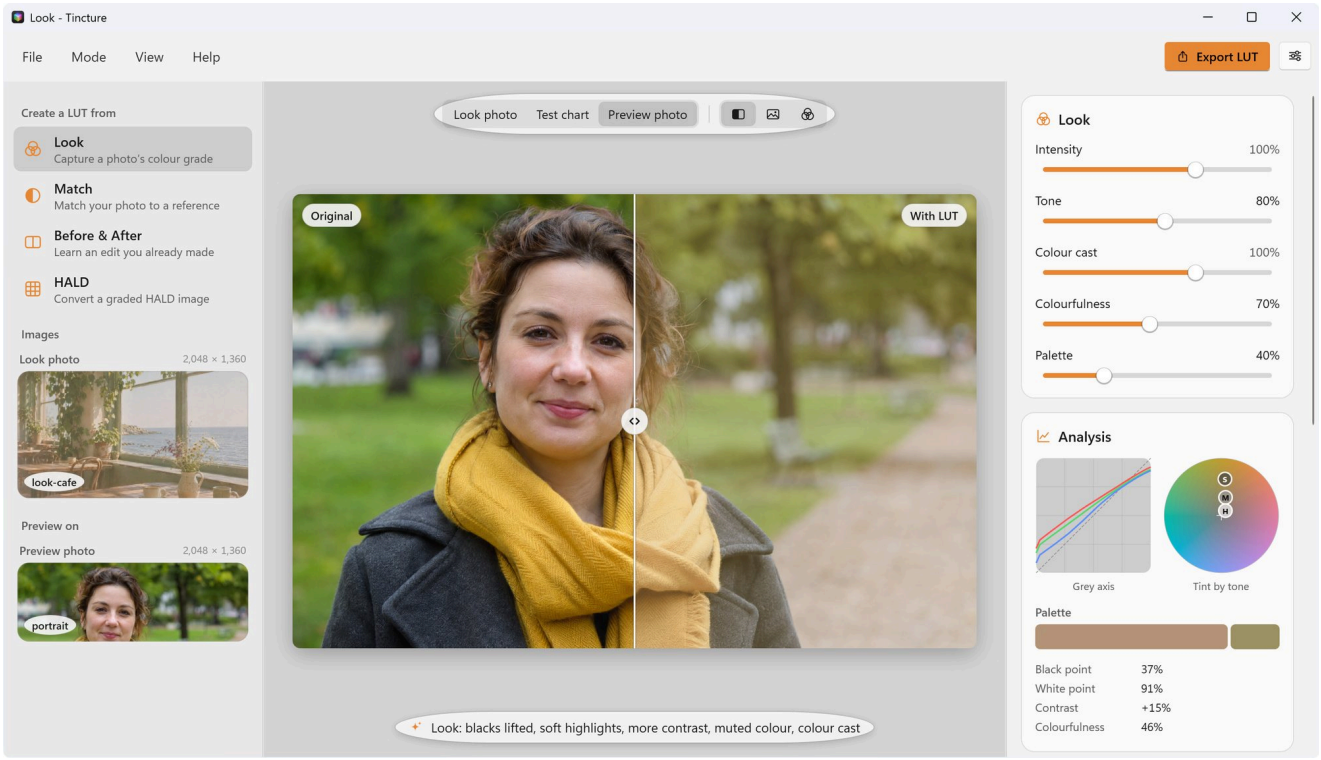
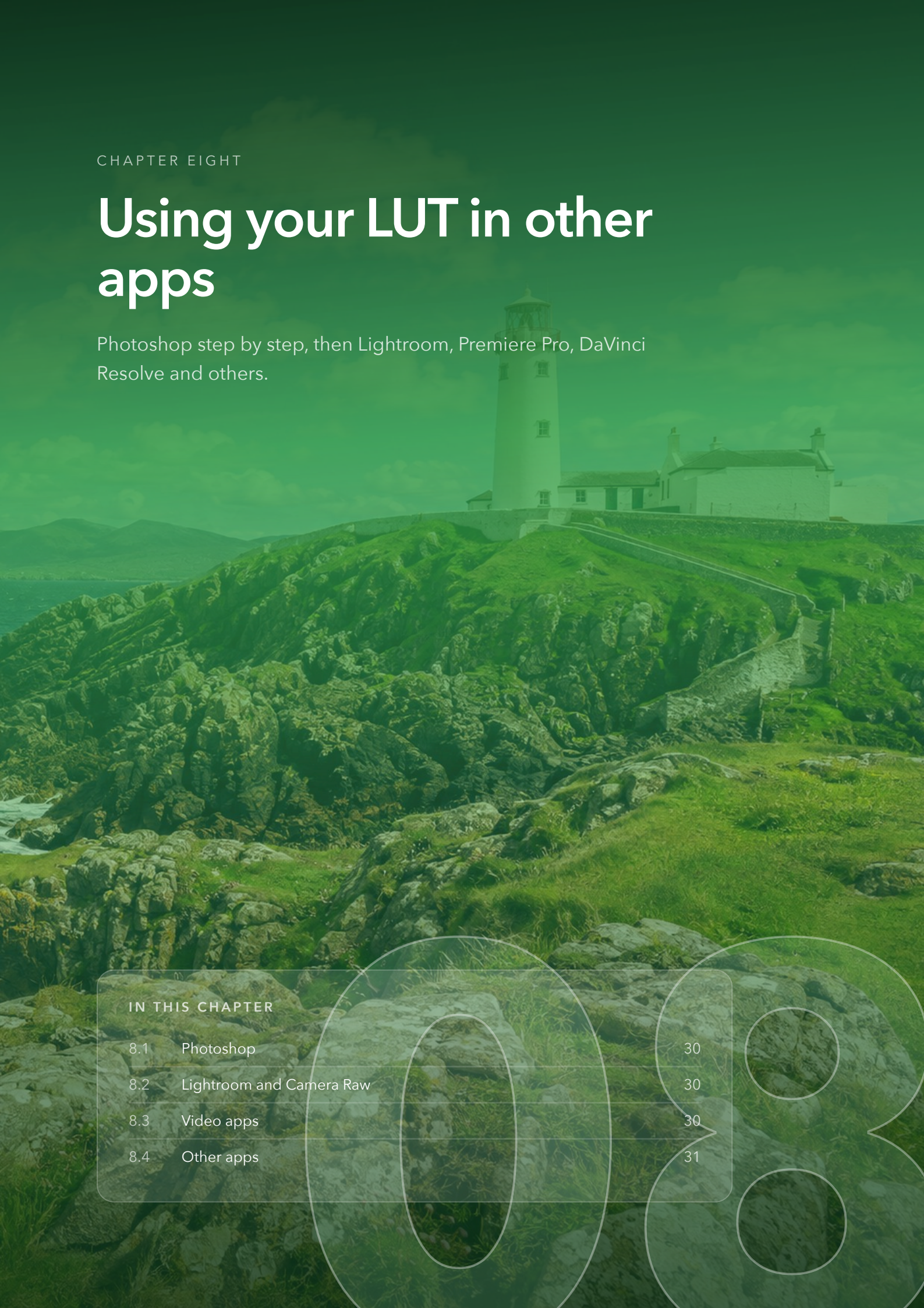


Figure 7.6 The light appearance, with the café look on the portrait.

CHAPTER EIGHT

Using your LUT in other apps

Photoshop step by step, then Lightroom, Premiere Pro, DaVinci Resolve and others.



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8.1	Photoshop	30
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8.1 Photoshop

1. Open your photo and choose **Layer › New Adjustment Layer › Color Lookup…**, then click **OK**.
2. In the Properties panel, open the **3DLUT File** menu and choose **Load 3D LUT…**.
3. Choose the .cube or .3dl file from Tincture. The look appears at once.

- **Strength:** lower the adjustment layer's **Opacity**.
- **Only the tones or only the colours:** set the layer's blend mode to **Luminosity** to keep just the tonal changes, or to **Color** to keep just the colour changes.
- **On part of the photo:** paint on the adjustment layer's mask.
- The LUT is stored inside the PSD, so the file opens correctly on another computer.

> **NOTE** Tincture's LUTs are built for sRGB, like most LUTs for photos. In a document using Adobe RGB or ProPhoto RGB, the same numbers stand for different colours and the look is a little stronger or shifted. For the closest match, work in sRGB, or convert with **Edit › Convert to Profile…** before applying the LUT.

To keep your LUTs in the 3DLUT File menu itself, copy them into the `Presets\3DLUTs` folder inside Photoshop's folder (usually `C:\Program Files\Adobe\Adobe Photoshop` with the version) and restart Photoshop. You may need an administrator password.

8.2 Lightroom and Camera Raw

Lightroom does not open LUT files itself, but it can use a Camera Raw profile that contains one. Profiles are made in Camera Raw: open a raw photo in Photoshop so that it opens in Camera Raw, hold `Alt` and click the **Create Preset** button in the Presets panel to open **Create Profile**, tick **Color Lookup Table** and choose your .cube file, then name and save the profile. After a restart it appears in Lightroom's profile browser, with an amount slider. Adobe moves these controls between versions now and then; its help on creating Camera Raw profiles has the current steps.

8.3 Video apps

Premiere Pro and After Effects

In the **Lumetri Color** panel, open **Creative**, then the **Look** menu, and choose **Browse…** to load the .cube file. Use the panel's **Intensity** to weaken it.

DaVinci Resolve

Open **Project Settings › Color Management**, click **Open LUT Folder** under Lookup Tables, copy the .cube file there and click **Update Lists**. On the Color page, right-click a node and choose the LUT from the **LUT** menu.

CARE

Tincture's LUTs expect normal, display-ready video (Rec. 709, as phones and most cameras record by default). For log footage, convert it to Rec. 709 first with your camera's technical LUT or the app's colour management, then apply Tincture's LUT after it.

8.4 Other apps

APP	HOW
Affinity Photo	Add a LUT adjustment and choose **Load LUT…** (.cube or .3dl).
Capture One	Its LUT tool loads .cube files.
darktable	The *lut 3D* module reads .cube, .3dl and HALD .png.
RawTherapee	Film Simulation uses HALD .png files.
GIMP	The G'MIC plug-in applies HALD .png and .cube files.

Menu names change between versions. If an app is not listed, look for “LUT”, “Color Lookup” or “3D LUT” in its adjustments or effects.

CHAPTER NINE

Reference

Shortcuts, file formats, the command-line tool, troubleshooting and a glossary.

IN THIS CHAPTER

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09

9.1 Keyboard shortcuts

KEYS	ACTION
`Ctrl+O`	Open Image… into the first empty well of the current mode
`Ctrl+E`	Export LUT…
`Ctrl+Shift+H`	Save Identity HALD…
`Ctrl+1` `Ctrl+2` `Ctrl+3` `Ctrl+4`	Look, Match, Before & After, HALD
`Ctrl+Shift+R`	Reset Adjustments: every slider back to its starting value
Double-click	A slider's name resets that slider
Drag	In the preview, moves the split line
`Ctrl+Alt+A`	Show or hide the adjustments
`F1`	This manual
`Alt+F4`	Exit

9.2 File formats

FORMAT	DETAILS
.cube	Adobe Cube LUT 1.0 text file: a TITLE line, LUT_3D_SIZE and the 0 to 1 domain, then one line of three numbers per grid point, red changing fastest, six decimal places. The layout of Photoshop's own .cube presets.
.3dl	Autodesk text file: a 10-bit input line (0 to 1023), then one line of three 12-bit numbers (0 to 4095) per grid point, blue changing fastest. The layout of Photoshop's own .3dl presets.
HALD .png	Level 8 HALD image, 512 by 512 pixels, 16 bits per channel, sRGB.

Every LUT works on sRGB-encoded, display-referred colour: the values a JPEG or an sRGB document holds. Its files were checked with independent readers: ffmpeg applies its .cube, .3dl and HALD files with the same result as Tincture, and Tincture reads Photoshop's own preset LUTs exactly as ffmpeg does.

9.3 The command-line tool

When Tincture is built from its source code, it also builds `tincture`, a command-line tool with the same engine, useful for batches. Its output format follows the file extension (.cube, .3dl or .png). The Windows build of the tool reads PNG images; convert other formats first, or use the app.

COMMAND	WHAT IT DOES
`tincture look photo.jpg -o look.cube`	A Look LUT. Add `--tone`, `--cast`, `--colourfulness` or `--palette` with an amount (1 = 100%).
`tincture match mine.jpg ref.jpg -o m.cube`	A Match LUT.
`tincture edit before.jpg after.jpg -o e.cube`	A Before & After LUT. `--smooth` sets the smoothing.
`tincture hald graded.png -o h.cube`	A LUT from a graded HALD image.
`tincture identity -o hald.png`	An identity HALD (`--level` sets the level).
`tincture apply look.cube in.jpg -o out.png`	Applies any .cube, .3dl or HALD LUT to an image.
`tincture analyse photo.jpg`	Prints what Look mode reads from a photo.
`tincture compare a.png b.png`	The average and largest difference between two images.

The commands that make a LUT take `--size 17`, `33` or `65` for the grid; 33 if you leave it out.

9.4 Troubleshooting

Photoshop will not load the file

Load it from the Color Lookup layer's **3DLUT File** menu, not Abstract or Device Link, which are for colour profiles. Make sure you chose the .cube or .3dl file: a HALD .png is not loaded this way.

The look is stronger or shifted in Photoshop

The document is probably in Adobe RGB or ProPhoto RGB. The LUT is made for sRGB; see the note on page 30.

A Look LUT hardly changes anything

The photo may have few near-grey areas, or its look may live mostly in its palette. Raise **Palette** and **Colour cast**, or use Match with a photo of your own, or Before & After if you have the original.

The fit error in Before & After is high

The edit includes local changes (masks, brushes, a vignette), or the two images do not line up because of a crop, a resize or a rotation. Export both at the same size from the same crop and keep the edit global.

Tincture says the image is not a HALD CLUT

It was resized, cropped or saved at a different size. A HALD image must stay square, with a side of 64, 216, 512 or 1728 pixels and so on. Start again from a fresh identity HALD.

Smooth skies show steps after applying the LUT

Export with the 65-point grid, and apply strong looks to 16-bit images where you can: an 8-bit JPEG has only 256 steps per channel to stretch.

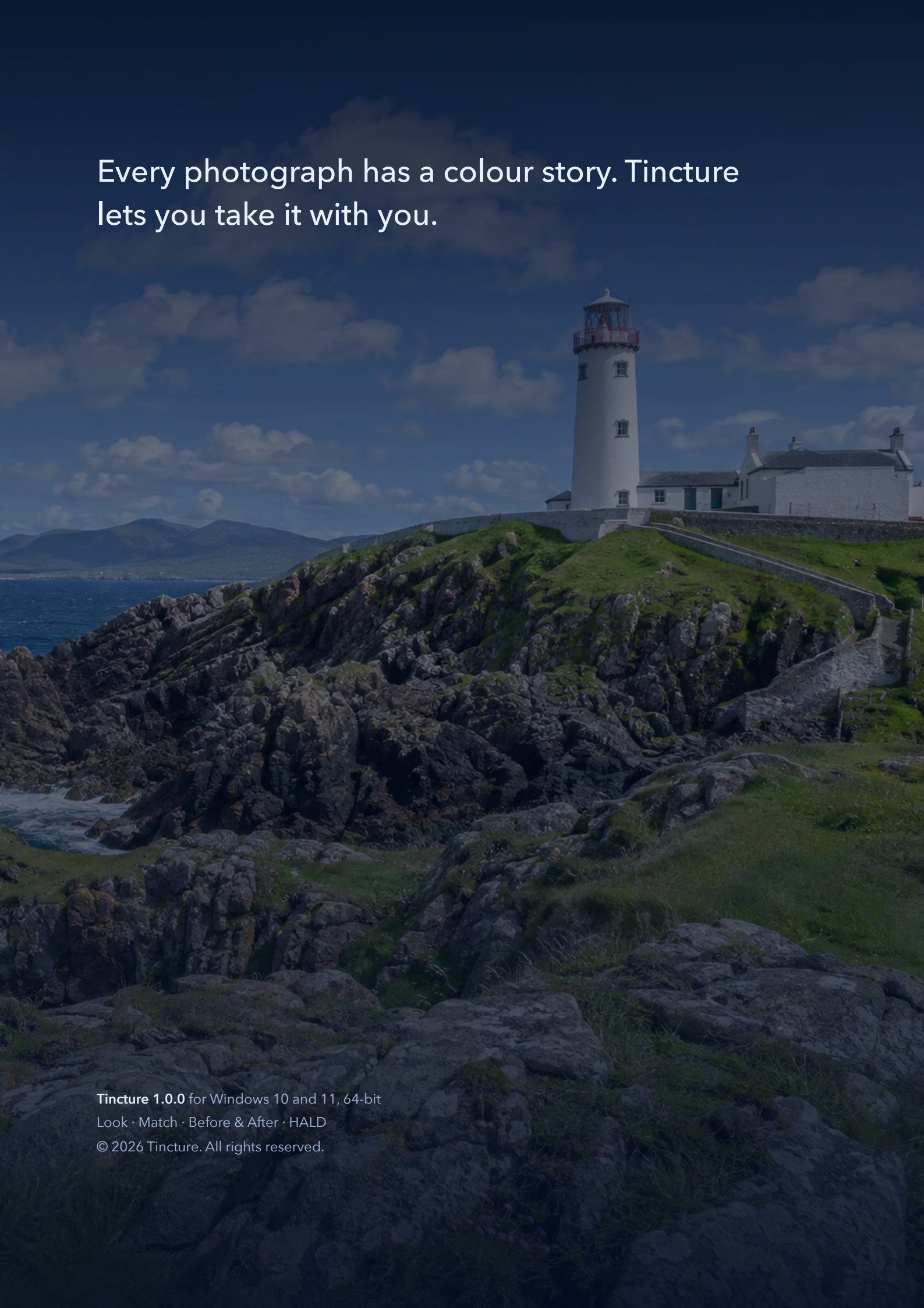
9.5 Glossary

LUT, 3D LUT	A lookup table: for a grid of input colours, the output colour of each. Apps work out the colours in between.
Grid points	The number of steps per channel: 33 points means 33 × 33 × 33 colours.
HALD CLUT	A LUT stored as an image, so any image editor can grade it.
Identity	A LUT or HALD image that changes nothing; the starting point for grading.
Colour cast	A tint shared by the greys, whites and blacks of a photo.
Split toning	Different casts in shadows and highlights, such as teal shadows and orange highlights.
sRGB, display-referred	The standard colour space of photos and screens; the values Tincture's LUTs expect.
Oklab	A colour space in which equal steps look equally different; Tincture analyses colour in it.
Fit error	In Before & After, the average difference between your edit and the LUT, in levels of 0 to 255.

9.6 Privacy and credits

Tincture never connects to the internet and collects nothing. Your images are read, never changed, and nothing is saved except the files you export and a few settings (the last format, grid and export folder, and the window's place, in `%APPDATA%\Tincture`; unexpected errors are noted in `%LOCALAPPDATA%\Tincture\errors.log`).

The colour science draws on Oklab by Björn Ottosson, the HALD CLUT format by Eskil Steenberg and the colour transfer of Pitié and Kokaram. The sample photographs in this manual were generated for it; the edits on them were made with ffmpeg and Tincture.



Tincture 1.0.0 for Windows 10 and 11, 64-bit

Look · Match · Before & After · HALD

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