

# Essentials of Develop Module

## *Mastering Basic Editing*

Mark Fitzgerald

Mark@DDRoom.com

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**This Class is Being Recorded**



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This class is sponsored by Pro Photo Supply

The screenshot shows the Pro Photo Supply website. At the top, there are navigation links: Shop, Lab, Rental, Used, Crew Finder, Events & Contests. A search bar is present with the placeholder text "What are you looking for?". Below the search bar, there are category links: DIGITAL PHOTOGRAPHY, DIGITAL CINEMA, FILM PHOTOGRAPHY, STUDIO & LIGHTING, BAGS, TRIPODS & ACCESSORIES, PRINTERS, GIFT CARDS. The main banner features a Canon EOS R5 Mark II camera with the text "MASTER THE MOMENT" and "EOS R5 Mark II". A "SHOP NOW" button is visible. Below the banner, there is a section titled "Buy or Rent The Latest Gear" with five product thumbnails. The first two thumbnails have prices: \$3,999.00 - \$3,799.99 and \$699.00 - \$349.00.

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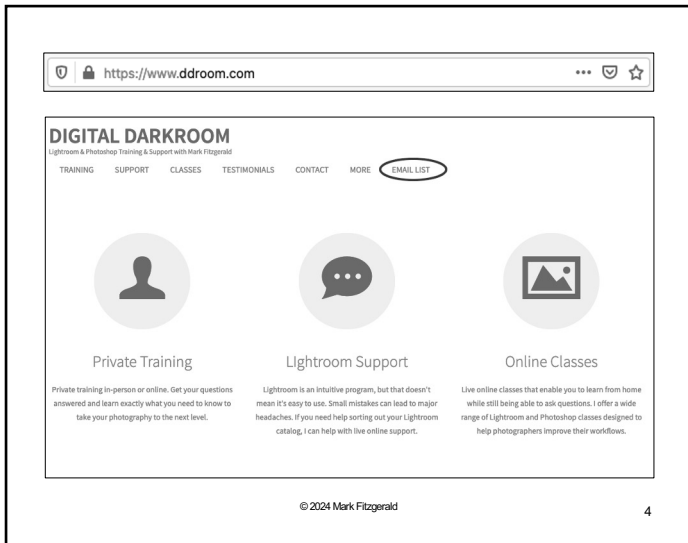
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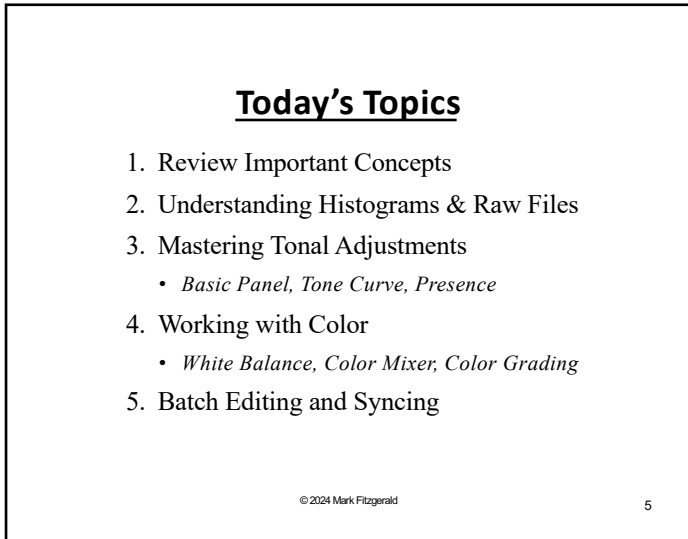
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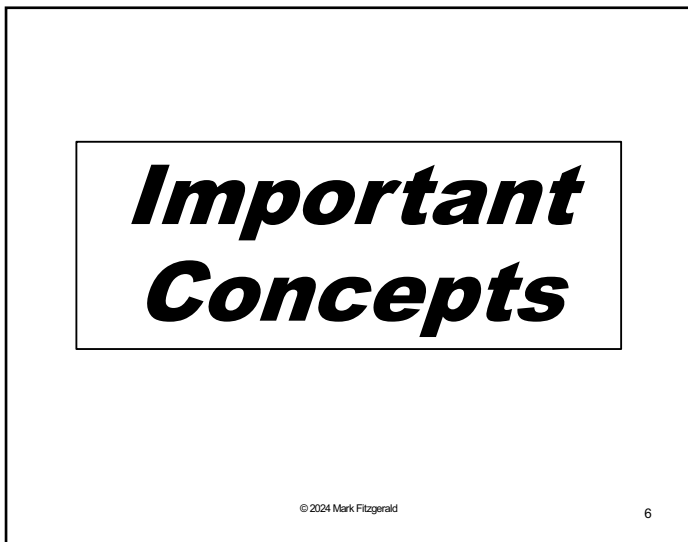
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## Versions of Lightroom

- ✓ **Lightroom 6:** The last standalone version released 2015.
- ✓ **Lightroom:** More basic version of LR where your files are typically stored in the cloud. \$9.99/month w/1TB cloud storage.
- ✓ **Lightroom Classic:** Lightroom and Photoshop come as a package called the Photography Package for \$9.99/month with 20GB cloud storage. (You can increase to 1TB Storage with LR and PS for \$19.99).
  - *The software is installed on your computer and your image files are also stored locally on your hard drive (not in Adobe's cloud).*
  - *You do not need to be online to use the Lightroom or Lightroom Classic.*

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## Metadata vs. Pixels

- ✓ **Photoshop edits pixels** which can be destructive. Once pixels are changed it can be difficult and even impossible to undo edits.
- ✓ **Lightroom Classic uses metadata** to make all edits non-destructive. For raw files, this metadata is either stored in the *central database*, in an *XMP sidecar* file, or in a *DNG raw file*. (See next slide.)
- ✓ **Nonvolatile history** ~ Because LrC uses metadata, you can modify or undo develop settings at any point or even completely reset a photo to its original import settings.

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## Using XMP Sidecar Files

- ✓ Using XMP Sidecar files **ensures your edits on raw files** stay with the original file rather than being hidden in LrC's database.
- ✓ **Use the menus to navigate to:** *Lightroom Classic > Catalog Settings > Metadata (Mac), Edit > Catalog Settings > Metadata (Win).*
- ✓ Select **Automatically Write Changes to XMP** on the Metadata pane.
- ✓ Be aware that **LrC will begin writing XMP files** to raw files. It may take a while but it's okay to continue working while it does that.

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## Editing Philosophy

*Begin with the end in mind*

- ✓ **Look at the image** – what do you notice, what jumps out at you? Where does your eye go? Is it where you want the viewer's eye to go?
- ✓ **Flip the image** horizontally or vertically to see it from another point of view. (*Photo>Flip...*)
- ✓ **What will you be doing with it** – how will it be viewed or presented? Digital or print? For sale or contest?
- ✓ **What was your vision** when you first shot the photo? Postproduction is about “completing the thought”.
- ✓ When you answer these questions, you'll have a better idea of what your post processing needs are.

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## Postproduction Workflow Overview

- ✓ **Adjust the fundamentals:** Things like brightness, contrast, color, cropping, sharpening, noise etc.
- ✓ Fix anything the **viewer might find distracting:** Spotting, retouching, crooked lines, etc.
- ✓ **Control the viewer's experience:** Selective focus, burning and dodging, creative cropping, B&W/color, etc.
- ✓ Create a **finished image** that manages the strengths and weaknesses of the image and expresses your creative vision.

*Let's look at some examples...*

*(Note for Mark: Comp workflow before & after collection set)*

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## Develop Module Overview

- ✓ **Presets panel:** Develop presets – much like recipes.
- ✓ **Snapshots panel:** Create snapshots to save a particular point in time.
- ✓ **History panel:** Each editing step is recorded in the History panel.
- ✓ **Histogram panel:** Used to evaluate tonal ranges while modifying develop settings.
- ✓ **Toolstrip:** Contains special tools. A dropdown panel appears below the toolstrip when a tool is selected.
- ✓ **Editing panels:** Sets of adjustment sliders and controls.

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# Histograms & Raw Files

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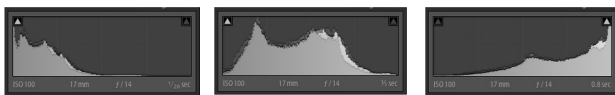
## What is a Histogram?

- ✓ A **histogram** displays the tonal range of the image, from pure black on the left to pure white on the right. Think of each tone as a column. The height of each column is governed by the number of pixels that have that tone. When the columns are stacked together, they form a graph called a “histogram”.
- ✓ **Clipping:** Occurs when data is pushed off the right (highlight) or left (shadow) sides of the histogram during exposure or post processing. When highlight data is clipped, bright highlights are forced to pure white (100). Clipped shadow tones become pure black (0).

Underexposure

Normal

Overexposure



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## Understanding the Raw File Format

- ✓ **Film is most sensitive to** small differences in low brightness levels (**shadows**) – this is the way humans see things.
- ✓ **Digital capture is linear in nature** – unlike the way humans see the world.
  - Devotes **large amount** of data to describing highlights that we can't even see.
  - Devotes **small amount** of data to shadows where our eyes see the most.
- ✓ A raw conversion can compress pixels in highlights and expand pixels in the **shadows = potential noise** because noise lives in the shadow tones of a digital image.

*☞ This means that it's better to be darkening a raw image than to be lightening it.*

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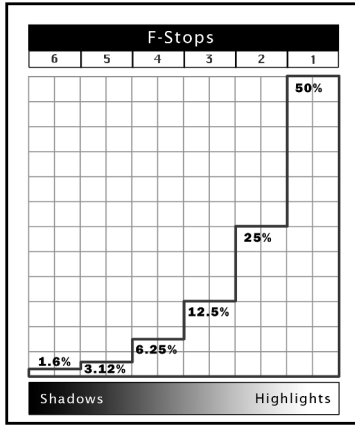
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Raw Capture  
6-stops of  
Dynamic Range

4098 tones  
in each channel

**50% of info is in  
brightest stop**

**1.6% of info is in  
darkest stop!**



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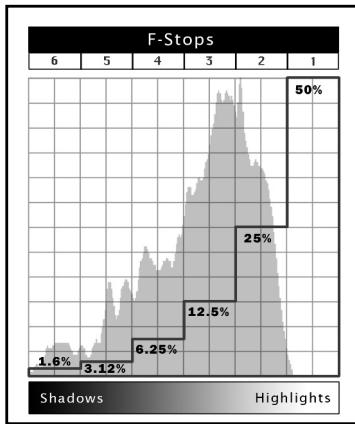
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Raw Capture  
6-stops of  
Dynamic Range

**Exposing for  
the Shadows**



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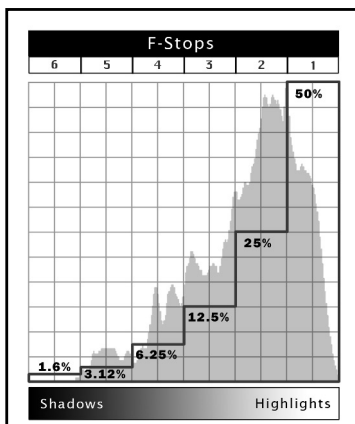
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Raw Capture  
6-stops of  
Dynamic Range

**Exposing for  
the Highlights**



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# Adjusting Tone & Contrast

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## Working with Profiles

- ✓ Most cameras enable you to shoot with **camera profiles**, such as Portrait, Landscape, Neutral, Standard, etc. (i.e., Canon = Picture Style, Nikon = Picture Control, etc.)
- ✓ However, **when you shoot raw** files, these settings are replaced by the default Adobe Color profile.
- ✓ You can change the standard profile to a different one in **Profile menu** (at the top of the Basic panel in the latest LR, or in the Calibration panel in previous versions.)
- ✓ A profile **modifies colors as well as contrast** to provide a specific look.

 *It is important to consider adjusting white balance after changing a profile because a profile is more about the differences between colors than overall color balance.*

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## Applying In-Camera Profiles

- ✓ Lightroom Classic gives you the ability to **apply your in-camera settings** to raw files during import. (For example: When you shoot B&W photos import as B&W.)
  1. Go to Lightroom's **preferences** (Mac: *Lightroom Classic > Preferences*, Windows: *Edit > Preferences*) and choose the Presets tab.
  2. Change the **Master menu** to *Camera Settings*.
- ✓ Imported photos will now honor the in-camera settings.

 *You can undo or modify these imported settings by changing to a different profile in the Develop module.*

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## Concepts of Tonal Adjustment

1. Adjust the **white point** to control highlight brightness and clipping. Be careful about clipping highlights. (Though sometimes a “flat” image needs brighter highlights)
2. Adjust **black point** to control shadow clipping. Pure black in appropriate areas of the image can add depth. (Try not to clip shadow detail on the main subject.)  
*☞ White point + black point = overall contrast.*
3. Adjust Exposure slider whenever it’s necessary to modify overall **brightness**.
4. Accentuate **midtone detail** in highlight and shadow areas using the Highlights and Shadows sliders.

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## Using the Histogram Clipping Previews

- ✓ The **Histogram panel** has two small triangle icons above each end of the histogram. If these triangles display a color or white, clipping is occurring.
- ✓ Hover over these icons to see where the clipping is in the image. Highlight clipping is **red**. Shadow clipping is **blue**.
- ✓ **Click on a clipping preview triangle** to turn on the red and blue clipping previews so that it isn’t necessary to hover over the icons to see them.

*☞ An alternate method for seeing an on-image clipping preview is to **hold down the Option/Alt key** while clicking and dragging Tone sliders.*

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## Basic Panel Tonal Adjustments

1. **Exposure:** Adjust the overall brightness with this slider.
2. **Whites:** Use this slider to control highlight clipping.
3. **Blacks:** Use this slider to control shadow clipping.
4. **Highlights:** Used to lighten or darken highlights tones.
5. **Shadows:** Used to lighten or darken shadow tones.

*☞ Hover over a slider then look at the histogram to see a preview area of the corresponding tonal range controlled by the slider.*

*☞ What about the Contrast slider?*

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## Advanced Tonal Adjustment Using Curves

- ✓ Use the **Tone Curve panel** to fine-tune midtone contrast. The steeper the line, the more contrast in that area.
- ✓ Slightly increase the Lights value and slightly decrease the Darks value to **steepen the line in the middle** range and add midtone contrast. (S-Curve)
- ✓ Use **Targeted Adjustment tool** to click on an area and modify it by clicking and dragging up or down. (*This affects similar tones throughout the image, not just the region clicked on.*)

☞ **Take it easy with curves until you have a firm grasp.** Small changes can have a big impact.

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## Basic Panel Presence Sliders

- ✓ **Texture:** Used to increase or decrease texture while preserving fine detail. Tends to affect medium-sized details the most. It's more subtle than Clarity. (Increasing Texture looks a lot like sharpening. Decreasing Texture looks like noise removal.) Best to view effect at 100% zoom.
- ✓ **Clarity:** Increases or decreases contrast of edge detail especially in the midtone areas. Clarity also affects brightness and saturation.
- ✓ **Dehaze:** Used to remove atmospheric haze. Has a greater effect on contrast and saturation than Clarity.

☞ **Sharpening:** *Has the greatest effect on the finest detail, also called high-frequency details. (Sharpening is discussed in detail in the Advanced Techniques class.)*

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## Comparing & Contrasting Presence

- ✓ **Clarity** works mostly on contrast with midtones and high frequency details.
- ✓ **Dehaze** works mostly with areas with lower frequency. It boosts color and contrast.
- ✓ **Texture** Can be used to increase detail too. Ignores high frequency and works more with mid frequency. Does not affect color. Used to soften skin while maintaining detail.

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## Using History & Snapshots

- ✓ **History panel:** Lightroom records every editing step in the develop module.
  - New steps are shown at the top of the panel. The oldest are at the bottom.
  - The number of history steps is unlimited and is "permanent" = nonvolatile.
- ✓ **Snapshots panel:** Enables you to record a particular history state or point in time.
  - Useful for trying something different on a photo enabling you to easily get back to where you were.
  - Can't compare snapshots side-by-side.

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## How to See Before/After Adjustments

- ✓ It is important to know how to see photos with and without adjustments to evaluate changes while in Develop module.
- ✓ **History panel:** Go to a previous step to view the image before those steps were applied.
- ✓ **Before/After View:** Use the Before/After view button on the Toolbar to compare before and after version side-by-side.
  - An alternate to see before/after is to press the "\" (backslash key) to toggle between before and after views.
- ✓ **Panel Preview buttons:** Almost every panel has a small preview button at the top left (or in the case of tools the bottom left). This enables you to turn off a single panel instead of everything. The button looks like an eye. Click and hold to temporarily turn off.

 *Before/After view disregards any crop adjustments.*

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# ***Working with Color***

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## Measuring Color Values

- ✓ Lightroom uses an **RGB color model**. Each pixel in a photo has a red, green, and blue value (even black & white photos).
- ✓ You can **measure these values** in a specific area by hovering the cursor over the area and looking at the R, G, B values beneath the Develop module's histogram.
- ✓ Lightroom's **standard scale uses percentages** from 0 to 100 with 0 being darker, and 100 being lighter.
- ✓ When **one color has a higher value** than the others, that color is more dominant visually.
- ✓ **When all three values** are 0, the color is black. When all three are 100, the color is white.
- ✓ When all colors have the same value, the color you see is gray. **This is also called neutral gray or "neutral"**.

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## Adjusting Global Color

- ✓ **White Balance:** White Balance is used to neutralize the influence of the color of the light that illuminated the scene you photographed. **There are 3 methods for adjusting WB:**
  1. If you're working with raw files, you can use the **WB menu** at the top of the Basic panel to choose one of the white balance settings your camera uses.
  2. If you have an exposure target (such as a gray card) in image, you can use **White Balance tool (W)** to "click-balance" on the target.
  3. Use the **Temp and Tint** sliders to visually fine-tune color.
- ✓ The goal with the White Balance tool is to **neutralize a color cast** in a tone that should be gray, white, or black (think of white and black as light and dark gray.)

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## Using Saturation and Vibrance

- ✓ The **Saturation slider** is used to modify the intensity of colors.
  - Saturation is **linear**, which means it affects all colors the same.
- ✓ The **Vibrance slider** is used to increase the saturation of the less intense colors more than the colors that are already intense.
  - Vibrance is **non-linear** since it affects some colors more than other colors.
  - The Vibrance slider is designed to protect skin tone colors since they tend to be less intense.

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## Working with the Color Mixer Panel

- ✓ The **Color Mixer Panel** is a recent update to Lightroom Classic. The panel used to be named “HSL/Color”.
- ✓ Color Mixer panel **contains two sections:**
  - **Mixer** - Work with Hue, Saturation, and Luminance (like the old HSL/Color panels).
  - **Point Color** - A more advanced way of working with HSL by precisely targeting and modifying colors.

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## Working with the Mixer

- ✓ **HSL:** Adjust the **Hue, Saturation, and Luminance** of individual color ranges.
  - *Hue* = Spectral quality of the color
  - *Saturation* = Intensity of the color
  - *Luminance* = Brightness of the color
- ✓ Use the **Targeted Adjustment tool** to click and drag up and down on a color in the image to change values. If that color range contains overlapping colors, both sliders will be adjusted.
- ✓ **Adjust > Color:** A different way of presenting **the same controls** that are in HSL. The main exception is that there isn't a Targeted Adjustment tool.

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## Point Color – LrC's Newest Color Tool

- ✓ The Point Color panel is **in the Color Mixer panel**. Go to Color Mixer and choose Point Color.
- ✓ Point Color is similar to the Mixer – but it's much **more accurate and flexible**.
- ✓ Use the **eyedropper** to click on the color you wish to modify. (That color will be affected anywhere it exists in the photo, not just the spot you click on.)
- ✓ When you click to sample a color, a **color small swatch** with the color is dropped next to the eyedropper as well as the color bar beneath the main color field. **When you modify the color** the lower half of the swatch shows the new color while the upper half shows the color you originally sampled. These colors are also shown in the color bar that is directly beneath the main color picker.

 *Make sure you open any collapsed subpanels.*

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## Point Color – Using the Shift Sliders

- ✓ Use the Hue Shift, Sat. Shift and Lum. Shift sliders to change the color you sampled with the eyedropper.
  - **Hue Shift:** Used to change the hue of the color. It has a limited color range of hues that are adjacent to the sampled color.
  - **Sat. Shift:** Used to adjust saturation. Negative values decrease saturation while positive values increase saturation of selected color.
  - **Lum. Shift:** Used to modify luminance (brightness) of the selected color.
- ✓ **Additional sample points can be added**, but they may affect one other if the colors are similar.
- ✓ **Select Visualize Range** at the bottom of the panel for an accurate preview. Unaffected colors are gray while affected colors show in color

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## Point Color – Using Range Sliders

- ✓ The Range Sliders enable you to **fine tune the range** of colors included in the eyedropper sample.
- ✓ **Drag to the right** to expand the range to include a broader range of values. **Drag to the left** to narrow the range to more similar values.
  - The **main Range slider** is used to expand or contract the range of the sampled color.
  - **Hue Range:** Expand or contract the range of hues being affected.
  - **Saturation Range:** Expand or contract the range of saturation being affected.
  - **Luminance Range:** Expand or contract the luminance range being affected.

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## Point Color – Using Range Sliders (2)

- ✓ The **rectangle on the slider shows the range of selected colors**. They are centered over the original sample color, indicated by the dot.
- ✓ **Drag the rectangle** to reposition the range, or drag the right or left edge of the rectangle to expand or collapse the range.
- ✓ **Use the Falloff Sliders on the right and left of the box**, indicated by the triangles, to fade the range (narrow or expand it). Fade range determines the difference between colors that are affected and those that are not.

 *Point Color controls are also in the masking controls.*

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## Point Color – Highlights

- ✓ **Mixer** samples color in one dimension at a time: hue, saturation, luminance.
- ✓ **Point Color** samples color in three dimensions: hue, saturation and luminance.
- ✓ **Point Color** enables you to modify and customize ranges.
- ✓ Your eyedropper selection is shown **in the main color field of Point Color**. Hue and saturation can be adjusted by clicking and dragging in the color field.
- ✓ Luminance can be adjusted using the **vertical rectangle to the right** of the main color field.
- ✓ You can add **up to 8 sample swatches**. Right click a swatch to delete the sample.
- ✓ **To delete all samples**, hold Option/Alt and click Reset Point Color at the top of the panel.

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## Getting Creative with Color Grading

- ✓ **Color Grading Panel:** This panel **replaced the Split Toning panel** when LRC 10 was introduced in 2020. It works in a similar way but is much more powerful than Split Toning.
  - You can apply colors individually to **shadows, midtones, highlights**, or globally by using the Adjust buttons at the top.
  - Using this panel is **similar to creating colored filters** that lay on top of your photo.
  - Color selection using the Color Grading panel is **more intuitive** than most other methods.
  - Color Grading **affects neutral gray**.
- 📌 *Color Grading panel is best used to create stylized colors, though can be used for general color correction.*

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## Using the Color Grading Panel

- ✓ By default, a **set of range icons** is displayed at the top, representing Shadows, Midtones, Highlights and Global.
- ✓ Click and drag on a **circular color picker** to choose the color you want to add, or use the Hue, Saturation and Luminance sliders beneath the color picker.
- ✓ **Blending:** Used to affect “color crossover”, where colors overlap and blend to potentially create new colors. Moving to the left keeps ranges mostly pure. Moving to the right blends colors more.
  - **When working with midtone** color, it’s best to keep the Blending value low or midtones can be overwhelmed by shadow and highlight colors.
  - **Hold the Alt/Option key** while dragging Blending to for a better preview of the primary color that is being influenced.

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## Using the Color Grading Panel (2)

- ✓ **Balance:** Shifts the range of values that determine what is considered shadows and highlights. Decreasing the value weights the adjustment more toward shadow colors. Increasing the value moves the overall adjustment toward the selected highlight color.
- ✓ Click and hold on an **eyeball next to a color picker** to turn off temporarily turn off the adjustment.
- ✓ When working with a single range (shadows, midtones, etc.) click the small color swatch to the left to open a small **presets panel**.
- ✓ Use the **eyedropper tool in the color presets** to sample a color in the photo. Click and drag to select a color. Release the mouse button when you have the color you want.

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# ***Batch Editing & Syncing***

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## Previous & Copy/Paste

- ✓ **Copy/Paste buttons:**
  - Click Copy to copy the develop settings from the selected photo. When the dialog box opens choose which settings to paste.
  - Select another photo and click Paste to apply the copied settings to the selected photo.
  - Useful for more nuanced batching but limited to one photo at a time.
- ✓ **Previous button:** Click it to automatically apply all develop settings from the previously selected photo to the currently selected photo.
  - Useful for photos that are very similar.

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## **Synchronizing Develop Settings**

✓ This is one of the **most powerful methods** for sharing develop settings from one photo to other photos.

1. Select a previously developed photo in Develop module.
2. Select additional photos on the Filmstrip.
3. Click the Sync button. When the dialog opens, choose the settings you want to synchronize and then click Synchronize.

 *The Sync button only shows when multiple files are selected. It replaces the Previous button.*

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## **LRC Develop Module – Advanced**

- \* Cropping & Redeye
- \* Cloning, Healing & Generative AI
- \* Black & White
- \* Develop Presets and Virtual Copies
- \* Sharpening and Noise Removal
- \* Lens Profiles and Chromatic Aberration
- \* Transforming Geometry
- \* Lens Blur
- \* Import presets
- \* Introduction to Masking

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***Final  
Thoughts***

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