Capture One Essentials

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- Part One: Organization
- We will start with the tool tabs, which are the collections of tools.
  - You can press the command button and then click and drag these into whatever order you want.
  - By right clicking on an option you can remove one of these tabs. By clicking on the three dots next to the icons you can add one.
  - By right clicking on the icon you can add tools to tool tabs. You can also create a custom tool tab as you so choose.
  - Within a tool tab you can click on the three dots next to a tool and remove it.
  - By clicking on the title of a tool you can rearrange them.
  - By clicking on the three dots you can add tools to a non-scrolling region called the "pinned area". This can be useful for constantly referenced information (like histograms).
- You can customize your workspace however you want.
  - Under "view" you can find the browser or the tools and place them wherever you want, thus creating a workspace.
  - You can click on the customize icon at the top of the workspace or you can go to view - customize toolbar, to move the tools accessible at the top of the screen. This is your toolbar.
  - Under window - workspace, you can save a workspace and return back to that layout whenever you wish. You can have as many workspaces as you want.

- ○ Your images are inside a browser. Within the browser tool you can alter the size of the images, if they show as icons or a list, and what order they appear in.
  - ○ While working you can click and drag a tool out inside your workspace to see it larger and work directly with it. When done it can be popped back inside a tool tab.

- ● Part Two: Exposure
- ● Quick tool tab
  - ○ Histogram
    - ■ Make sure you can read a histogram.
    - ■ As you move your cursor over an image the histogram will inform you where those pixels fall.
  - ○ Base characteristics
    - ■ The color profile of your camera. At the moment this will be the color reproduced by your camera. Later in class we will learn to measure the color our camera creates and build out a profile that reproduces the colors our cameras are missing.
    - ■ By the way, with any adjustment tab, you can hold alt and click on the back arrow on the tab to see what the image looked like before the alteration you made using this tab.
  - ○ Styles and presets
    - ■ Presets
      - ● Presets are adjustments using only a single tool.

- Make an adjustment with a tool and click on the three lines (looks like a hamburger) to save the adjustment as a preset.
- Styles
  - Premade adjustments using one or more tools. These can be applied to as many images as you want.
  - Click on styles to lead them into the applied panel (some will override others).
  - To create one, make a filled adjustment layer and then edit within.
  - When you want to use one, right click on it and apply to a new layer.
    - Right click on any of these and you can apply to the effect or to a new layer. I would add to a new layer, which allows you to change the opacity of the effect.
    - I would also add the tool tab "style brushes" to create and use brushes of varying effects. Click on the brush and add the effect to areas of the photo as you desire.
    - To create a new brush, create a new empty adjustment layer, select the brush tool, create the effect you want and then click on the three dots next to the style brush tool and select "save style brush".
  - White balance
    - Wand tool will always do an auto adjustment of the given tool.

- - We can change white balance and then alter it by kelvin or tint. Only do this after you select the appropriate base characteristics.
  - You can also use the eyedropper tool to find a neutral gray, but this will be more accurate if the source is made to be photographic 17% gray.
- Exposure editing
  - Exposure
    - The wand tool doesn't tend to be accurate.
    - You can adjust overall exposure. Note that double clicking a slider sets it back to its original position.
    - Adjusts the exposure of the image.
  - Contrast
    - The difference between bright and dark areas. This is a global adjustment.
    - The levels tool will give you more nuance later. But it isn't defaulted inside the quick tab.
  - Brightness
    - Exposure biases highlight tones whereas brightness has no bias.
  - Saturation
    - The depth of the color tones, not their value.
- High dynamic range
  - Highlight slider to control highlights (brighter or darker).
  - Shadow slider to do the same with shadows. There is a reason these last two are in a "high dynamic range" subsection.

- White slider makes the white areas whiter. Good for smoke or white shirts and to add some small contrast.
- Black slider is very useful. Making black areas a little darker adds to depth and color saturation.
- Styles tool tab
  - We have examined base characteristics, styles, and presets already. This can be a fast place to find and adjust those.
  - This is also where the adjustments clipboard can be found.
    - When you copy a set of edits you can drop out parts of the edit to apply to other images here.
    - You can select all by clicking on the three dots.
    - You can also add a particular style or preset here.
- Exposure tool tab
  - The real power in editing is isolating parts of the frame for individual editing. We do this with what is called a mask. To mask is to isolate part of the frame. This isolated section is called a layer in Capture One.
    - You will want to have a layers tools tab in several of your tool tabs, including adjust and color.
    - You can view and switch between layers with the icon next to the image in the main image viewing panel.
  - The layers tool allows you to edit part of the frame separately from another part. We are introducing it here because it will be essential to our workflow.
    - Right click layer for options
    - Press "M" on keyboard to view mask options
    - You can create an empty layer.

- Within this you will isolate part of the frame using a tool.
- Alternatively you can create a filled layer, which you include everything (I use this for exposure and color edits, so that they are not part of the background layer).
- Create a second layer, copy from an existing layer, and then invert the selection to edit two halves of the image independently.
    - Any editing tool will work within your selected layer in exactly the same manner as we have previously explored.
    - Click on the mouse tool at the top to see viewing options (greyscale will prove useful for seeing the edges.
    - You can pull down the opacity of the masks to make them more subtle.
- Brush
    - Right click for settings, can draw on to a particular mask.
        - Size is the size of the brush.
        - Hardness is how hard the edge of the brush stroke is.
        - Opacity is how well we see through the adjustment.
        - Flow decides if the adjustment is built up over time or applied 100% at once.
        - Airbrush builds up the effect.
        - Pen pressure is for use with a tablet of some kind.

- The link tools link the brush options with this particular layer and the eraser with brush links those tools together as well.
- Automask helps define the edge better.
  - Center dot is the sample.
  - Detects difference to inner circle and stops at the edge.
  - Is a binary mask, in other words there isn't feathering to its adjustments.
  - Click on the refine mask option. This will create a radius of feathering adjustments.
- Erase tool takes it away.
- Using the automask feature you can define your subject and then right click on the layer in the layer panel and select "fill mask". This saves a lot of time.
  - Magic brush
    - Select part of the frame and Capture One will find all similar pixels and add them to a mask, independent of where they are in the frame.
    - This is additive, so you can click multiple times.
    - You can then erase any parts that we selected accidentally.
  - Gradient mask
    - Hold shift to lock horizontal
    - Lines mean 100% opacity, 50%, and 0%. Please note the effect fades as you reach the end of the mask (thus it being a gradient mask).

- If you try to add or subtract from the mask, perhaps with the erase tool, it will rasterize, which means it locks the mask in place.
- You can refine the mask by using the luma range adjustment (make sure to have mask viewing turned on for this). This is oftentimes called a luma mask (or luminosity mask).
    - Needs an extant mask to work with.
    - You can create a new mask and just fill it, or you can work with a selected range.
    - Click on "luma range" and adjust to select the area you want to work with.
- Radial mask
    - Draw an oval to define the space of the adjustment.
    - Right click to define inside or outside the radius.
    - Hover the cursor over the inner circle to rotate.
    - Move the outer circle and inner circles to define the hardness and size.
    - You can refine with the eraser, but it will rasterize when you do so.
- Healing and cloning mask
    - Healing adjusts the pixels by mixing them with nearby areas. You can move the point of reference after creating the spot to be adjusted.
    - Clone will directly copy an area, and you can use this as a brush to remove objects. You must select the cloned area first.

- The clone tool in the refine tool tab allows you to change the tool to one specific to dust removal.
- Levels defines the highlight, midpoint, and shadow point of the image. You can adjust exposure here, but this will also affect how the white and black, as well as the highlights and shadows, sliders work. Again you can make adjustments to exposure or to the RGB channels separately.
- Curve is a control for contrast that gives you the ability to make the contrast in the highlights different from the shadows.
  - The main trick here is to learn the essential "s" curve and to be subtle.
  - You can use the dropped tool to create a point on the graph indicating that value.
  - While the density curve is the most valuable, you can control the RGB range separately with the curve tool.
  - The luma tool adjusts brightness contrast but not color.
- Dehaze affects a larger area and boosts saturation more. However this might make smaller spaces less recognizable. I use it for the sky and for a small global adjustment.
- Clarity affects smaller areas of contrast, good for adding structure to a subject.
- Structure works with medium size detail, good for background and large structures.
- The vignette tool is a nice way of adding focus or dynamism to an image. You can change how extreme it is and the same (circle or elliptical).

- Part Three: Color
- Color tool tab
  - On top of the controls we have already discussed there are more nuances here that I enjoy working with. Moreover, I have tended to add the histogram and the layers tabs here, to make sure I have that information easily accessible.
  - Color editor
    - With the basic tab you can choose a color and then alter the hue saturation, and lightness of that color.
      - Hue is the actual tone of the color.
      - Saturation is the depth of that color.
      - Lightness is how bright or dark that color is.
      - Click on the three dots to adjust smoothness, which is affecting some of the colors outside the range so the effect is smoothed out.
    - With the advanced tab you can choose the exact color you want to adjust.
      - Here you can define the range of the selection.
      - The smoothness slider will alter the edge of the color range to a hard or slow fall off. This is the same tool as before, but placed with the other sliders.
    - Lastly you can select the skin tone of the subject.
      - The original tools work in the same way. Remember the first color you pick is your ideal color.
        - You adjust its hue, saturation, and lightness.
        - Then expand the range of colors affected.

- ○ By moving the uniformity sliders you will make all other colors in the range closer to your original color in their hugh, saturation, and lightness.
  - Click on "view selected color range" to see just the selected color (all else will be in greyscale).
  - You can use this slider to adjust anything, not just skin. By clicking on a color, changing the range, and then moving the dot within the range, you can change the initial color to the new one. This works particularly well within layers, as we will examine going forward.
  - Create a mask around the subject's face, so as not to affect other colors in the frame. Select the ideal tone and then add uniformity to the hue. This will reduce redness in the skin tone.
- ○ Color balance
  - This is known as split toning - the ability to adjust color temperature separately for the highlights, midtones, and shadows.
  - Note that where you position your levels controls will affect what is defined as highlights and shadows.
  - It is normal for the shadows of an image to be a cooler color temperature than the highlights or midtones.
  - By using the circular slider on the ride you can adjust exposure of highlights, midtones, and shadows from this single tool.

- ○ Black and white
  - ■ First, click to enable black and white.
  - ■ After that you can adjust individual colors. This will make those colors lighter or darker in the image.
  - ■ Using the split tone tab will allow you to adjust the hue and saturation of highlights and shadows, thus allowing you to bring those colors in or out of selected areas.
- ○ Normalize
  - ■ This tool is incredibly powerful. With one dropper you can select a color and decide if you are going to normalize white balance, exposure, or both.
  - ■ Choose the image you want to match and click on the same color to normalize and then will then match.
  - ■ While this is oftentimes used for skin tone, it can be for anything. For instance, you can adjust a product or a piece of clothing in one image to be perfect and then match that look in all subsequent images.
  - ■ If you are hanging or delivering a series of images (even from a number of different cameras) you can and should normalize them to look the same.
  - ■ You can save the exact tone as a preset and then apply it to other images later on.
  - ■ You can also adjust the exact hex number. This is often done for images of products with a banded color.

- ● Part Four: Finishing
- ● Details tool tab

- The navigator will let you zoom in and move the viewed area while knowing where you are within the frame.
- Focus tool shows area for reference.
  - You can use the magnifying glass tool to look at other areas.
  - Keep this tool up when using the other sliders within the tool tab.
- Sharpening is a small area contrast tool.
  - When you bring in an image to Capture One, the software makes an initial assessment of the image and lens and adds corrections that it feels are appropriate. You can, of course, change these here.
  - Amount is the, you guessed it, amount of sharpening the software will do when it finds an edge or contrast point.
  - Radius is the distance from the contrast point that the software will add changes. Move this around to make sure you don't overdo the effect.
  - Threshold is the amount of contrast capture one needs to see in an edge before it applies sharpening.
  - Halo suppression will remove halos that our sharpening choices have introduced.
- Noise reduction
  - Two types of noise. Color noise is when multiple colors appear in an area that should be a singular color where luminance noise appears more like grain. Adjust each slider to see which you have.

- - - Moving detail slider gives more detail but can introduce artifacts. Moving it to the left can give you smoother results with less detail.
    - Single pixel is there to adjust and remove hot single pixels within an image. Please note this tends to work when zoomed in to the issue area of the image.
  - Film grain
    - With a drop down slider you can decide the type of grain you want.
    - Impact is the amount of noise added.
    - Granularity is the size of the grain added.
  - Spot removal
    - Allows you to select individual spots being removed in the order of creation.
    - You can adjust the size of the brush here or with the cursor.
    - Also you can decide the type of spot being removed so the software can clone and fix the issue intelligently.
- Shape tool tab
  - Lens correction
    - Some corrections have already been done upon importing the image. These can be adjusted.
    - For instance, the barrel distortion of your lens has likely been corrected but can be adjusted. Many lenses, especially wide ones, need this correction.
    - Sharpness can be adjusted for lenses that need extra contrast.

- - - ■ Light falloff fixes vignetting issues in some lenses.
  - ○ Purple fringing will remove the added purple color that sometimes appears at the edge of a heavily backlit subject.
  - ○ Rotation &flip will straighten and flip the image in the orientation you need. This is duplicated in the crop cursor tool in the cursor toolbar.
  - ○ Keystone allows you to define straight and parallel lines in the image, as we previously detailed. Define the straight and parallel lines and click "apply".
  - ○ Grid turns on a grid of varying shapes with outlines in varying colors. By clicking on the "clockwise" and "mirror" boxes, you can rotate the shape. Combine this with the grid icon in the toolbar.
  - ○ Crop is the same tool as from the cursor toolbar. However here you can decide the aspect ratio and the exact size in either dimensions or pixels. Use this after the grid tool.
  - ○ LCC allows you to take the adjustments you have made and save them as a preset you can apply whenever you use this same lens in the future.
- ● ICC Camera Profiles/Base Characteristics
  - ○ Camera Profile
    - ■ Color checker passport will measure the colors your camera actually records. By running their software (color checker calibration) it will build a profile to add in the colors your camera fails to record.

- ■ Shoot a picture in RAW and export it. Open in color checker calibration, center the edges of the color swatches, and click to build a profile.
- ■ After relaunching Capture One you can use this profile to build in the color your camera is missing. The passport can also be used for white balance calibration.
- ● Panorama
  - ○ Highlight series of images
  - ○ Right click and select panorama merge
  - ○ You can choose the shape of the end result here, though you will be able to crop later.
  - ○ The final image is a DNG, which is a software's RAW file. This can be edited like any other image.
- ● HDR merge is similar
  - ○ Highlight the images to merge
  - ○ Right click and select "merge to HDR"
  - ○ I would use auto align to start
  - ○ The finished product is a DNG ready to edit.
- ● Exporting
  - ○ You can export by click the export button at the top left of the workspace or going into the file drop down menu. Here you will have choices, but please note that you are really creating a new file (called a variant).
    - ■ Drop down menu allows you to open and edit it with another software for finishing if you need.
    - ■ You can also export the original file if needed.
  - ○ Location

- Where will the variant go. A downloads folder is always good, but it can be anywhere you like. Different projects also access images from different places.
- You can designate a subfolder as well.
- If you have similar existing files Capture One will default to adding a suffix so the old images are not overwritten.
- You will then get information about the drive where the image is going.
  - Naming
    - This uses the token system from before, but is separate from the original file that you are working with. For instance, you might want images used in a project to have their names reflect their size or how they are going to be used in the project. Alternatively, you probably want to name the actual RAW file something that relates to your search parameters within Capture One.
  - Format and size
    - The file format relates to how you will use the image. Some formats allow you alter the color range (8 bit or 10 bit) and some will allow you to alter quality.
    - The ICC profile relates to color space. This is widely misunderstood.
      - ICC stands for international color consortium, a governing body over color in imagery. There are standards for color in image reproduction but not in the sensors or in image creation. Different color spaces hold different amounts of color.

- ProPhoto RGB is 99% of naturally occurring colors, but almost no printer can reproduce it.
- AdobeRGB is a large color space, but most monitors and most printing processes do not use it. This is used in large format printing almost exclusively.
- sRGB is a universal, though small, color space. The internet is programmed in sRGB, as is your monitor, and most types of production.
  - Resolution allows you to decide the pixels per inch in a given print size, but this will not add clarity to the image itself.
  - Scale determines the size print you are anticipating (this ties in with the resolution choice).
  - Lastly you can decide what software should be prioritized for opening the variant in the future.
    - Summary
      - This references your choices to make sure they are the way you want.
    - You can not click the + button within the export recipe panel, this saves your selection. Now you can simply select the recipe you want to use in the future to get the same results.
- Printing
  - You choose the resolution and sharpening applied to the printed variant. This means you have multiple ways of sharpening an image in Capture One.

- With color profile you will want to use a downloaded profile specific to your paper on your printer. Or you can create one with a kit from Calibrite.
- Rendering intend allows us to use the choice of paper and printer to decide what happens with "out of gamut" colors.
  - We need to consider out of gamut colors for our process. How many will there be and what will happen with them?
  - This leads us to soft proofing. Soft proofing and rendering intent are the concepts regarding what happens when there is a color in an image that the reproduction method cannot duplicate. Preview printing, profile for printer and paper will be necessary to preview this.
    - Turn off printer enhancement
    - Relative colormetric (smallest change)
    - Perceptual (no clumping)
    - Absolute colormetric (medical)
    - Saturation (cartography)
- Please remember that accurate variants rely on a calibrated monitor. Monitor calibration software will make sure your monitor is not adding brightness, contrast, or saturation to the way you view your images.