Imerge Pro 2021.5

FXhome

Table of Contents

1. What is Imerge Pro?

Introducing the world's first raw image compositor

Imerge Pro is the world's first raw image compositor. It uses layer-based compositing to combine images in 16-bit color space, providing the highest quality in the industry. And by using the GPU for the heavy lifting, performance is still astonishingly fast, even on high resolution images. Imerge Pro provides a full toolkit to create composite images for a range of applications, including:

- **Event photography:** Easily and quickly batch process large quantities of images shot using the same setup, by applying the same settings to all images automatically. Hot Folder import and export allow you to set up once, and have all images processed automatically as soon as they are captured.
- **Studio photography:** Full control over the individual images in your composite allow you to carefully construct realistic results that cannot be shot practically.
- **Advertising campaigns:** Batch processing includes controls for easily creating consistency in layout across multiple exported images in different sizes and aspect ratios. Easily add text and other graphics to your composites using the built-in tools.
- **Catalogs:** Green screen photography makes it simple to replace backdrops behind your models or products, to add imagery that enhances the products being sold.
- and **much more.**

The unique features of Imerge Pro include:

Batch and workflow features

- **Layer content:** A fundamental feature of the Imerge workflow is that layers exist as containers, and

each layer can contain multiple images. So when working with a batch of images, you can set up a single layer the way you want, and import the entire batch of images into it. Multiple layers can be used to set up different elements, or to process groups of images from the batch using different settings.

- **Custom export list:** In addition to easily auto-exporting all images in your project, you can easily set up custom export lists, to only export specific images, or specific variations of the layers stored in the project.
- **Content variations:** Creating variations of images based on layer content is also possible. For example, you may have one layer for your background, which contains three different background images. A second layer might contain 5 foreground images. It is a simple process to export each foreground three times, once with each background, for a total of 15 image variations. Those numbers aren't limitations, each layer could contain one image or hundreds.
- **Hot Folders:** Set up a Hot Folder for import when shooting with a tethered camera, so every image captured with the camera is automatically imported into PhotoKey. Hot Folder export means you can then have these images processed automatically, without any interaction from you, and exported. So once the setup is complete, you just press the shutter button, and within moments, you have a finished image processed and waiting on your hard drive.

Built-in keying effects

- **Chroma key:** Our most powerful and versatile keying tool. Visually adjust the range of colors being removed from your image for precise results. Can be used with any colored background.
- **Color difference key:** A simplified tool for quick results on high quality green screen or blue screen images.
- **Luminance Key:** Removes black or white backgrounds, by making a selection based on the luminance values.
- **Spill removal:** Provides tools to clean up the edge detail and colors in your keyed image.

Unique effects

We have developed several unique tools in Imerge to help you dial in adjustments to your image in a visual, intuitive fashion.

- **Color adjustment:** A visual guide on the color spectrum display allows you to easily define the range of colors selected. You can then adjust the hue, saturation, and lightness of that selection, or invert it to affect all other colors while leaving the selection intact.
- **Tone coloring:** A tool which originated in video coloring, and gives separate visual controls for colorizing the overall image, the shadows, the midtones, and the highlights.
- **Saturation editor:** A curve overlaid onto the color spectrum allows you to precisely adjust the saturation of specific hues in your image.

Intelligent masks

In addition to standard tools for painting in masks or drawing them in using paths, Imerge offers several intelligent masks, which create selections based on the data in your image.

- **Color range:** Visually select a range of colors in your image, and create a mask to hide or show only the area where the selected colors are present.
- **Luminance:** Create a mask based on the luminance values in the image, so you can easily apply adjustments to only shadow areas or only highlights.

High quality

- **Non-destructive:** Editing in Imerge Pro is non-destructive. It never changes your source images, and all adjustments you make can be removed or modified at any time.
- **Image formats:** Works with Raw, EXR (single layer only) and HDR files, in addition to your standard formats like JPEG.
- **16-bit processing:** Does all image processing in 16-bit float. Even when source images are 8-bit, Imerge processes them at 16-bit to ensure the best possible quality retention throughout editing.

Built with GPU technology throughout the pipeline

- **Greater speed:** Using your graphics processing unit (GPU) for processing allows for greater speed, so the interface remains responsive and images can be exported as quickly as possible.
- **Support for larger files:** Even large, high-resolution images can be processed quickly, so the creative process isn't hampered by waiting for software.

Last modified: Jan 04, 2022

2. What's new?

This new version of Imerge Pro includes a number of powerful new tools. Full details of this and all previous updates are detailed on our website, here: https://fxhome.com/imerge-pro/whats-new/

Every license of Imerge Pro is permanent, and will never expire. When you purchase an Imerge license, it includes access to 12 months of software updates. So for a full year after purchase, every single tool and feature we add to the software, regardless of what version number it is released in, is immediately available to you. Once that period elapses, you can continue forever using the last version released during your update period. If you want to access further updates later, you can upgrade to another 12 months of updates at any time.

Last modified: Dec 24, 2021

3. Installation, activation and updates

How to install

Installation of Imerge uses a simple process of downloading the installer from the internet, running the installer, then launching and activating the software. If you do not yet have a license, you can skip the activation step and run the software in demo mode.

The latest installer is always available here: https://fxhome.com/software-install/imerge-pro

Installing on a Windows computer

1. The first thing you want to do is make sure your computer meets the minimum requirements for Imerge, listed lower on this page. Pay particular attention to the GPU requirements and ensure your GPU drivers are up to date.

- **NVIDIA:** https://www.geforce.com/drivers
- **AMD:** https://www.amd.com/en/support.
- **Intel:** https://downloadcenter.intel.com/product/80939/Graphics-Drivers
  2. Then, download the most recent Windows installer from this page: https://fxhome.com/software-install/imerge-pro
  3. Run the Imerge Pro installer file on your computer by double clicking on its file icon (this requires administrator privileges on your computer). Follow the on-screen instructions to complete the installation.

Installing on a Mac

1. The first thing you want to do is make sure your computer meets the minimum requirements for Imerge, listed lower on this page. Pay particular attention to the GPU requirements.
2. Then, download the most recent Mac installer from this page: https://fxhome.com/software-install/imerge-pro
3. Double click the downloaded DMG file to open it.
4. Now drag the Imerge Pro application icon to your Applications folder.
5. Run the application by double clicking it in the Applications folder.

Activation

Demo

When you launch the software, the activation helper will appear. If you wish to run the software in demo mode, click the "Try" button. All features of the software will be available for testing, in demo mode. All exported images will be watermarked if processed by the demo mode.

Activate

If you have purchased a license, you can remove the trial restrictions by clicking the "Activate" button in the activation helper. If you already have a FXhome website account, sign in with your details. Otherwise, choose to create an account, and follow the onscreen instructions.

Software updates

Imerge will automatically check for updates when launched, if your computer is connected to the internet. If it isn't you can still easily check for updates manually to ensure you always have the latest features and tools at your disposal.

- **Auto-update:** By default, the web helper that loads online help into the Projects page will check for any updates to the software when Imerge is launched. If an update is found, you will be notified in the Web Content column on the right side of the projects screen.
- **Dismissing updates:** When notified of an update, you can either install it right away, or dismiss it until later. Click the Dismiss button that is displayed in the notification to suppress the update reminder for one week.
- **Updating manually:** If you want to check for updates manually, you can do so at any time on our website. Just visit the What's New page to see all the latest updates and what each one includes: https://fxhome.com/imerge-pro/whats-new/

Supported systems

- **Windows:** Microsoft Windows 10 (64-bit), Microsoft Windows 8 (64-bit)
- **Mac:** macOS 10.14 Mojave, macOS 10.13 High Sierra, OS X 10.12 Sierra
- **Processor:** Intel Core i3 or AMD equivalent (Intel Core i5, Core i7 or AMD equivalent recommended)
- **RAM:** 4 GB (8 GB recommended)
- **Drive space:** HDD with more than 1GB free space for installation (SSD recommended)
- **Graphics Card:** must support OpenCL 2.1 or above, and OpenGL 4.1 or above (includes most dedicated cards from 2012 onward)
  - 2048 MB graphics memory for projects up to 24 MP
  - 4096+ MB of graphics memory for projects over 24 MP
  - **Windows:**
    - Intel HD Graphics 4000 (GT2) (2012)
    - NVIDIA GeForce 600 Series (2012)
    - AMD R7 Series (2013)
  - **Mac:**
    - Dedicated NVIDIA or AMD cards from 2012 onwards

Notes on performance and large images (GPU)

Performance of Imerge can be optimized depending on your primary workflow. Editing images to adjust their

color or tone relies on different system components that creating composites that combine elements of multiple images. So depending on whether you will primarily be editing or compositing, you can optimize your system accordingly.

Editing

- **Fast storage:** Storing your images on an SSD or a fast HDD will ensure they can be opened quickly.
- **Lots of RAM:** The more system RAM you have, the more quickly you can open large images or multiple images.
- **Fast CPU:** The CPU is used to decode, or decompressed saved images so they can be displayed. A fast CPU will help images to open quickly.

Compositing

- **Powerful GPU:** For compositing, the most important system component is the GPU, which will process adjustments, masks, and other compositing tools as quickly as possible.
- **VRAM:** Video RAM is a special type of ram built onto the GPU. Having more VRAM will provide better performance, and support larger image resolutions.

Last modified: Dec 24, 2021

4. Getting started & workflow

This Getting Started section of the user manual is designed to familiarize you with the interface and get you started using the software as quickly as possible. More thorough details of all features and functions of the software will be provided later in the manual.

Introductory video

This video introduces you to the software by walking through the tools and process used to create one of the example images used for the product launch.

https://www.youtube.com/embed/WHvgPVmxV7w?rel=0

Further information

- **Finding your way round** gives a quick overview of the interface layout.
- **Project navigation** and **Project files** explain details of creating, saving, loading and organizing your projects.
- **Viewer**, **Layer sidebar**, and **Canvas settings** focus on specific elements of the interface.
- **Green screen photography** explains the basics of shooting and processing green screen images,

one of Imerge Pro's primary functions.

- **Application preferences**, **Keyboard shortcuts**, and **Import file formats** look at some finer details of configuring and using the software.

Last modified: Dec 24, 2021

4.1. Finding your way round

Imerge is composed of three primary screens. The **Projects Screen** is shown when the software opens, and is used to access and manage your project files. The **Edit screen** is shown when a project is opened or created, and is where all of the image processing and compositing tools are accessed. It is where the bulk of your work in Imerge Pro is done. The **Batch screen** is accessed through the Batch tab at the top right of the Edit screen, and is used for exporting images from your project.

Familiarize yourself with the layout and tools of each screen below.

Projects screen

When you open Imerge Pro, you see the Projects Screen. This screen gives you quick access to all recent projects, as well as tools to create new projects, open older projects, and access to training resources such as this manual, video tutorials, and blog posts.
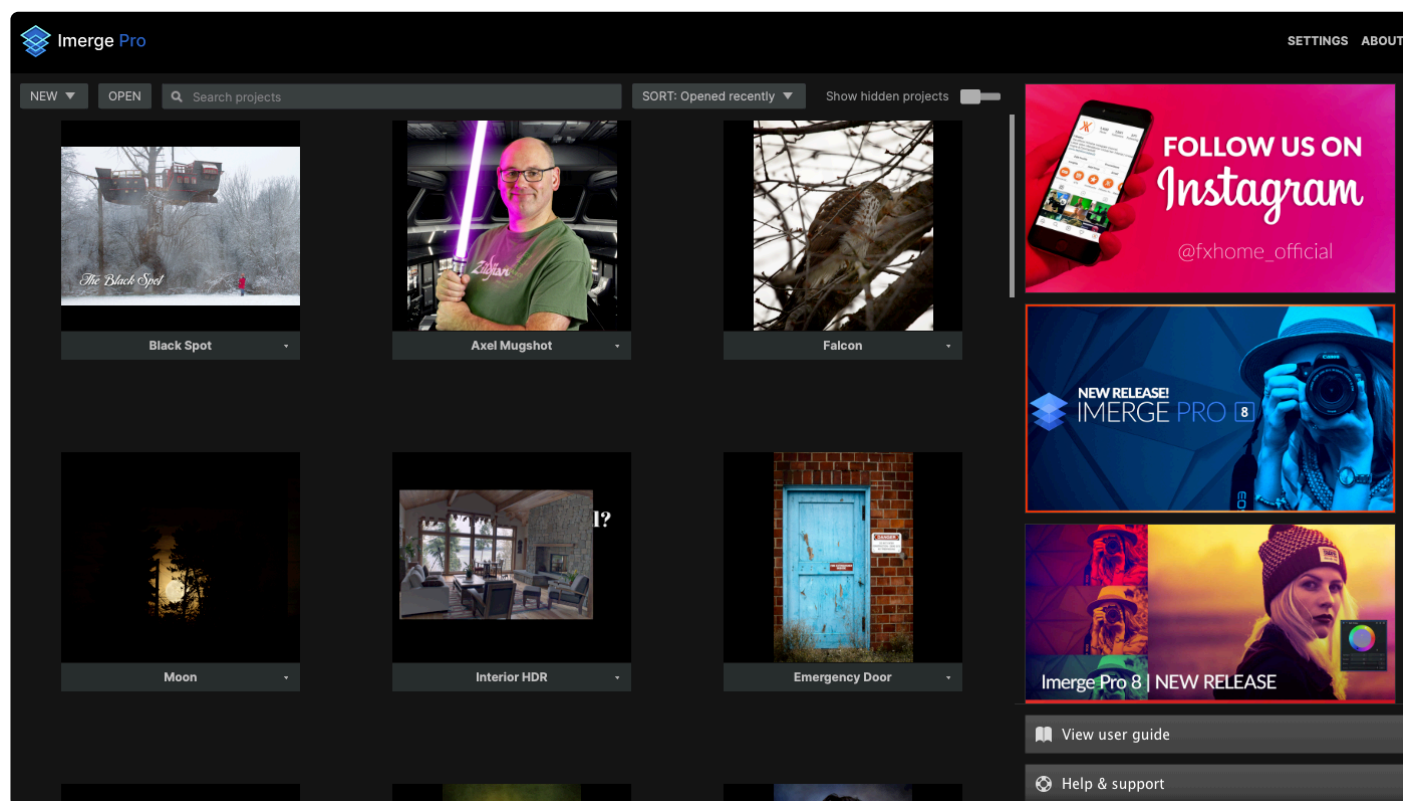
Header bar

At the top left of the header bar is the Imerge Pro logo. If you are working at an event or other public-facing environment, and prefer not to have the Imerge logo visible, it can be replaced with a different logo through the program Settings. At the top left you can access the program Settings, and the About page, which shows your current version, as well as the license agreement.
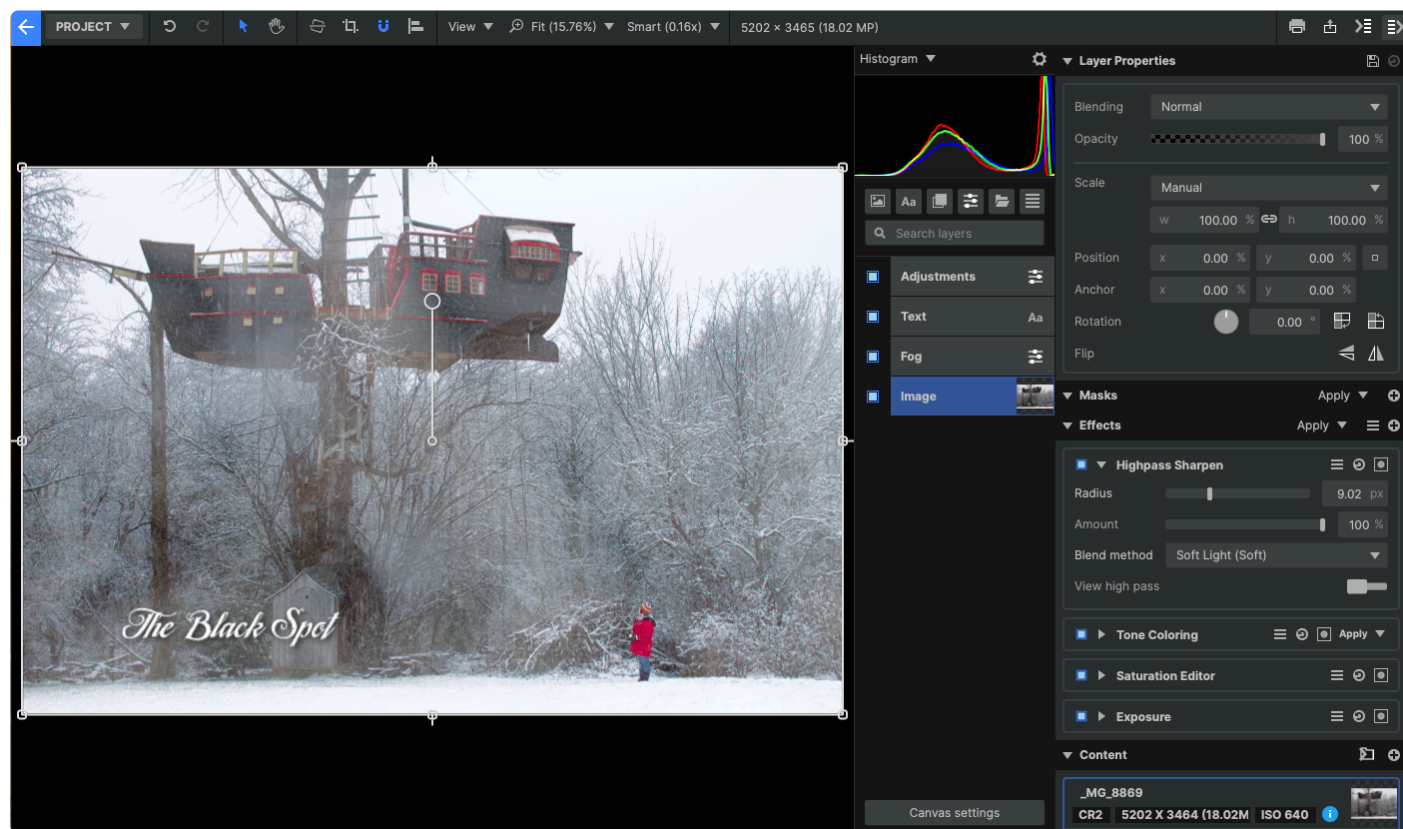
Project list

All projects, regardless of where they are stored on your computer, can be accessed through the Projects screen. The controls at the top of the screen can be used to search for specific projects, organize the projects, or create new projects. You can also double-click the thumbnail for any particular project to open it.

Online content

The right side of the Projects screen provides links to online tutorials, documentation, support, blog posts, and other useful content. The links will differ as new material is published and updated.

Edit screen

When you open a project, the interface shifts to the Edit Screen, where your compositing work is performed. All of your image editing tools are found in the Edit screen.

Top toolbar

The toolbar at the top of the interface provides access to your project tools.

Project menu

The **Project menu** provides quick access to project-level controls. You can quickly open, save or create new projects from this menu. You can import images into a project, and export or print completed projects. You can also access the Application Settings.

Viewer

The Viewer is the largest area of the Edit screen, and is where your image is displayed, and the results of your adjustments can be previewed. Full details on the viewer and the viewer tools are available on the [Viewer](#) page of this manual.

Viewer tools

The Viewer tools at the top right of the Viewer can be used to adjust your view. The **Select** tool allows you to directly manipulate the contents of the Viewer, while the **Pan** tool lets you reposition the visible portion of the viewer without altering the contents of the project. The **Crop** tool can be used to adjust the size or shape of your canvas. The **Snapping Menu** lets you enable or disable snapping, and control what features of your project snapping will snap to.

The **View Menu** controls setup details of the viewer, including what channels are displayed, and the visibility of image evaluation tools like grids and highlight overexposure warnings. The **Zoom Menu** adjusts the zoom level of the image, so you can quickly switch between a close-up view that lets you evaluate fine details, and a full view of the overall layout and color.

Layer list

Layers are the basic element from which your projects are built. The layer list shows the stacking order of all layers in your project, as well as the effects and masks applied to them. The controls for the layers, effects and masks are displayed in the Layer Inspector.

Layer inspector

The Layer Inspector shows the controls for the currently selected layer. **Transform** controls adjust the layer itself. The **Masks** section shows any masks applied to the layer to control the transparency data of specific sections. **Effects** shows the controls for any effects applied to the layer, and allows you to add additional effects. Any masks applied to specific effects will be displayed in the controls for that effect, and not in the layer-level Masks controls. The **Content** section shows the image that currently populates the layer. You can switch the contents of a layer at any time without altering the masks or effects applied to the layer.

Export screen

Imerge features powerful tools for exporting your images, individually or in batches.
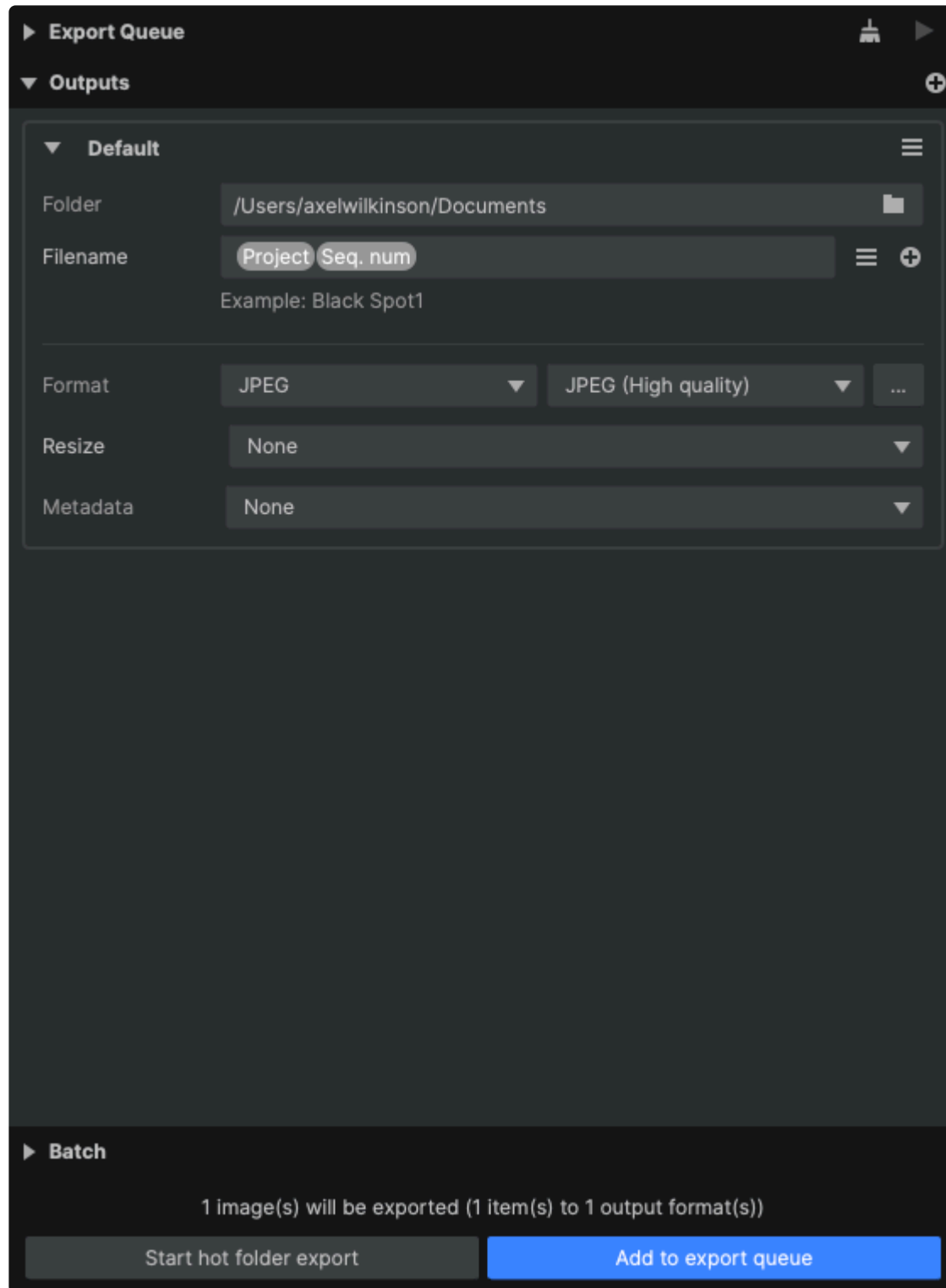
Export Queue

The Export Queue lists your export tasks. You can queue up multiple jobs to export them all at once, or set tasks to automatically process in the background as soon as they are queued.

Outputs

The Outputs section lists the details used to encode your exports, including the file format details, the destination, and what naming will be applied to the new images.

Batch

The Batch section is where you manage which combinations of layers and content are exported, in complex projects using layers with multiple content items.

Last modified: Dec 24, 2021

4.2. Project management

The projects screen provides access to all of your Imerge projects. No matter where the projects are saved on your system or network, they can be accessed through this screen. Thumbnails provide a quick preview of the contents of each project for quick identification.

Use the options at the top of the project list to locate the project you want, then double-click the project to open it.

Project list

The majority of the projects screen shows the Project List. The first time you open the software, this area will be empty, but as you create projects, they will populate this area so you can quickly access them again. Each project has a thumbnail to provide a preview of its contents. By default the most recent projects are listed first, as they are the ones you are likely going to need to access, but you can sort the list using a variety of criteria.

New projects NEW ▼

The **New** menu is where you create a new project. It contains templates for popular image sizes. Select the template you need to create a new project. If you aren't sure what size you need, choose **Empty Document**. When you import an image into an empty document, you will be given an option to match the size of the document to the image you have imported.

Opening projects OPEN

Click the Open button to use a standard file browser to select a project file anywhere on your computer. In most cases it is easier to use the Project List to find and open your project, but when you have hundreds or thousands of projects on your system, it can sometimes be faster to use the Open button to navigate straight to it.

Searching projects Q Search projects

Type the name of a project into the Search box to locate it. The contents of the project list update dynamically as you type, so only projects containing the exact characters you have typed will be displayed.

Sorting the project list SORT: Opened recently ▼

The Project list will sort the order of the projects using the criteria you have selected in this menu.

- **Opened recently:** The projects you have opened most recently are shown at the top of the list. This is the default option, so you can quickly access recent projects and continue working on them.
- **Modified recently:** Places the projects that have been saved most recently at the top of the list.
- **Created recently:** Places the most recently created projects at the top of the list, regardless of what other projects have been opened or saved since their creation.
- **Project name A-Z:** Lists all projects in alphabetical order by name.
- **Project Name Z-A:** Lists all projects in reverse alphabetical order, by name.

Hidden projects

By default all available projects are shown in the project list. If you wish to remove a project from the list, without deleting it from your computer, you can **Hide** the project. Right-click any project in the project list, and select Hide from the contextual menu to change its status.

Toggle the **Show hidden projects** option on or off to show or hide any projects that are Hidden. When the toggle is blue, all projects will appear in the list, whether they are hidden or not. When the toggle is gray, hidden projects will not appear in the project list.

Last modified: Dec 24, 2021

4.3. Importing images

The process of bringing an image into Imerge Pro, where it can be edited, is called **importing**. Once you have created a project, you will want to import some images to work with. There are many ways to do so, allowing you to use whichever method you are most comfortable with, or whichever option works best for your current needs.

Import images to new layer

All images you import will be stored in image layers. Each image layer can potentially contain multiple images.

To create a new image layer and import an image or images into it:

Option 1: The add image layer button.

- At the top of the layer stack, click the Add image layer button and select one of the options.
  - **Image from folder:** Use this option to navigate to any folder on your system and select one or more images for direct import.
  - **Import folder:** Use this option to select a folder on your system, and import everything inside.
  - **Chroma image:** Use this image for importing green screen or blue screen photos. A chroma key effect will automatically be added to the layer, and set to remove the colored background.
  - **Raw image:** Use this image for importing Raw images for processing. A variety of basic processing effects will be added to the layer automatically, making it simple to process the raw image to a finished state.
  - **Stock image:** Use this image for importing stock images with a black or white background. The remove stock background and Matte cleaner effects will be added automatically, to facilitate clean removal of the background.

Option 2: The project menu

- In the project menu, select **Import to project**. Navigate to the image or images you want to import, and select them, then click Open.

Option 3: The insert menu

- Press CTRL+I to open the Insert menu, then select your preferred option.
  - **Image:** Use this option to navigate to any folder on your system and select one or more images for direct import.
  - **Chroma image:** Use this image for importing green screen or blue screen photos. A chroma key effect will automatically be added to the layer, and set to remove the colored background.
  - **Raw image:** Use this image for importing Raw images for processing. A variety of basic processing effects will be added to the layer automatically, making it simple to process the raw

image to a finished state.

- ◦ **Stock image:** Use this image for importing stock images with a black or white background. The remove stock background and Matte cleaner effects will be added automatically, to facilitate clean removal of the background.

Option 4: The keyboard

- On the keyboard, press **CTRL+SHIFT+I** in Windows or **CMD+SHIFT+I** on Mac. Navigate to the image or images you want to import, and select them, then click Open.

Option 5: Drag and drop

You can drag and drop images from the Windows File Explorer or Mac Finder directly into the Imerge interface.

- Drag an image onto the canvas and drop it, to import it into a new image layer.
- Drag an image onto the layer stack and drop it, to import it into a new image layer.

Import images into an existing layer

Images can be imported into any existing image layer as well. Each image layer can contain multiple content variations, but only one variation can be displayed at a time.

To import new content variations into an existing image layer:

Option 1: The add content item button ⊕

- Select the layer and navigate to its content list in the sidebar.
- Click the add content item button ⊕ at the top right of the content list.
- Choose the file or files you want to import, and click Open.

Option 2: Drag and drop

You can drag and drop images from the Windows File Explorer or Mac Finder directly into a layer's content list.

- Drag an image onto the content list and drop it, to add the image to the layer as a new content variation.
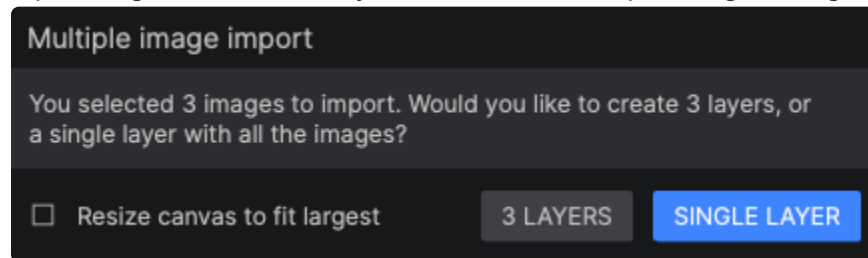
Automated hot folder import

Imerge allows you to select a specific folder or directory on your system as a hot folder. When you set up a hot folder, all images currently in the folder are imported into Imerge Pro as content variations. The folder is then continuously monitored for changes, and any time images are added to or removed from the folder, the content list for the layer in Imerge is updated accordingly. The chief use for this is working with a tethered

camera, which saves images to a specific folder on your computer as they are captured. Setting that folder as a hot folder in Imerge Pro means that every image you capture is immediately imported into Imerge, automatically.
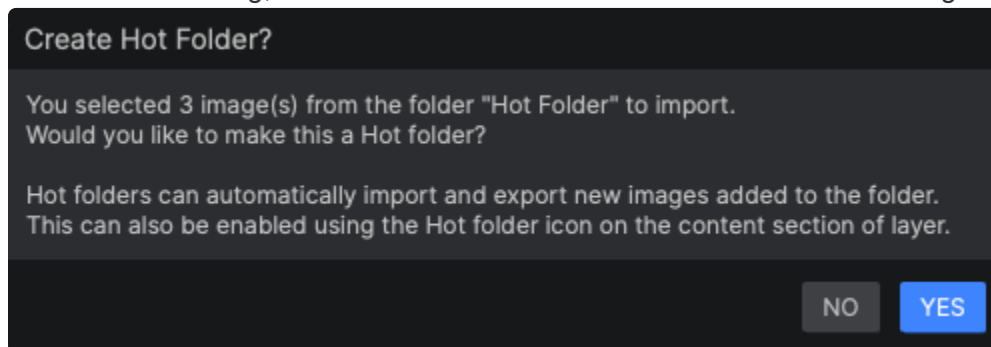
To set up a Hot Folder in Imerge Pro:
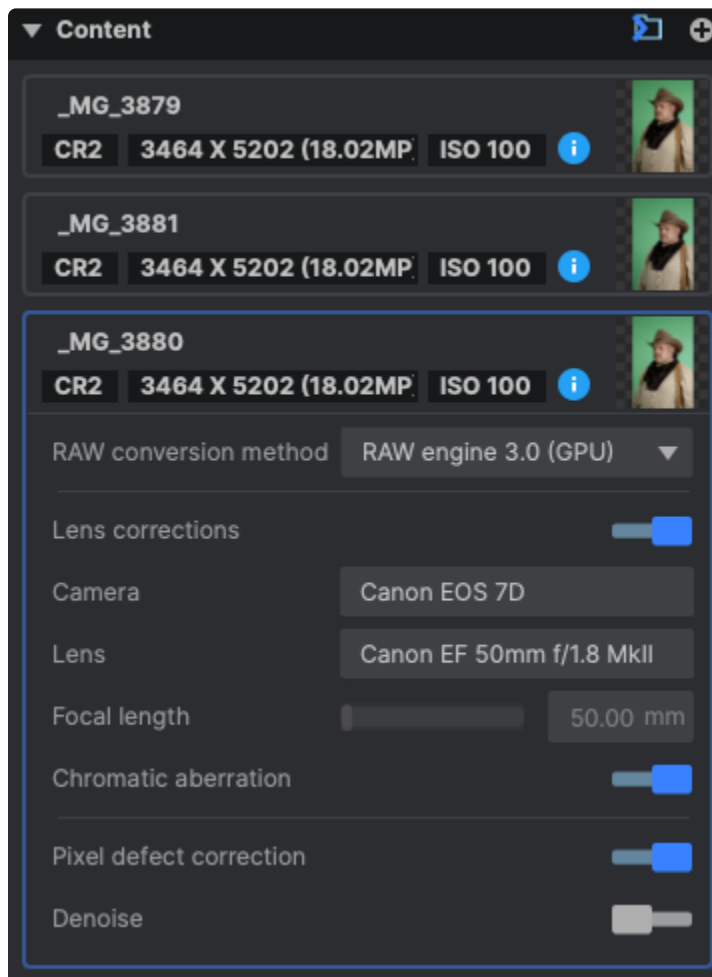
Option 1: The add image layer button.

- At the top of the layer stack, click the Add image layer button
- Select **Import folder**. Navigate to the folder whose contents you wish to import, then click the Select Folder button.
    - If there are multiple images in the folder, you will see the Multiple Image dialog:

    - **X layers:** This option imports each image in the folder into its own image layer. The number will vary based on how many images are in the folder.
    - **Resize canvas to fit largest:** Enable this option to ensure that your images all fit within the canvas. The canvas dimensions will be resized to match the largest image in the selected folder. To leave the canvas at its current size, leave this option disabled.
    - **Single layer:** Select this option to create a Hot Folder. All images in the selected folder will be imported into a single layer, as content variations.
    - **X layers:** This option imports each image in the folder into its own image layer. The number will vary based on how many images are in the folder.
- In the **Create hot folder?** dialog, click **Yes** to enable the hot folder status for the image layer.
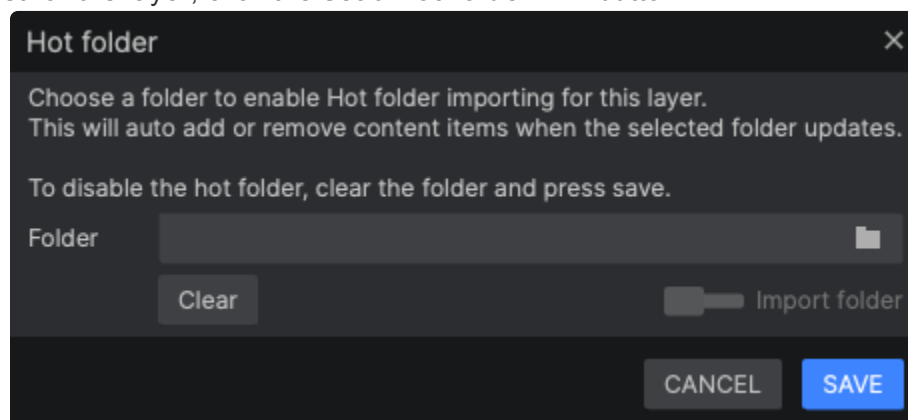

- When the layer is created, the hot folder icon will be enabled.

Option 2: Convert an existing layer using the hot folder button

- In the layer stack, select the layer you want to convert to hot folder status.

- In the content list for the layer, click the **set a hot folder** button.

- **Folder:** Click the folder icon to navigate to the folder whose contents you want to import, or manually enter a file path.
- **Clear:** Deletes the current file path from the folder property. If you wish to disable hot folder export, use this button to do so.

- ◦ **Import folder:** Enable this option to import all images currently in the selected folder. Leave it disabled to only import images added to the folder in the future.
- ◦ **Cancel:** Closes the dialog without implementing any changes to the layer status.
- ◦ **Save:** Stores the file path and enables the selected folder as a hot folder.

Last modified: Dec 24, 2021

4.3.1. Import file formats

Imerge Pro fully supports common file formats, so most images can be imported without requiring any conversion or modification.

Imerge Pro supports importing the following image formats:

- **JPEG**, **JPG**
- **BMP**
- **PNG**
- **TGA**
- **TIF**, **TIFF**
- Raw formats: **NEF**, **NRW**, **CRW**, **CR2**, **CR3**, **ARW**, **RAF**, **RW2**, **ORF**, **SRW**, **DNG**
- **EXR**
- **HDR**
- **PSD**, **PSB**

You can import images using the following methods:

- Open the Project menu, and select **Import to project**.
- Press the keyboard shortcut **CTRL+I** (**CMD+I** on Mac).

- In the Content controls for any image layer, press the **plus icon** ⊕ to add a new image.
- Drag and drop image files onto the canvas or the layer list.

Standard formats

Standard formats are the most commonly used, and support color at up to 8 bits per channel. Color data from these images will be converted up to 16-bits per channel by Imerge, for the best possible quality retention while processing. However, up-converting the color does not add additional color data or quality to the source images.

- **JPEG**, **JPG**
- **BMP**
- **TGA**

High quality formats

These formats support higher color bit depths and alpha transparency, and can take full advantage of Imerge's 16-bit processing. Using TIFF or Raw source files in Imerge Pro ensures the best possible quality.

- **PNG**
- **TIF**, **TIFF**
- RAW formats (file extensions vary per camera manufacturer)

- NEF, NRW, CRW, CR2, CR3, ARW, RAF, RW2, ORF, SRW, DNG

Imerge Pro offers several RAW engines for decoding your images. RAW engine 3.0 is GPU accelerated, and brings additional improvements to highlight recovery handling dead pixel management. Raw engine 2.0 allows for a wider range of adjustment on some features than RAW engine 1.0, particularly highlight recovery. When you import a RAW image, you can choose which engine is used to decode it.

If you have one of the few cameras out there that do not use a Bayer filter, your RAW images will be processed with RAW engine 1.0. For Fujifilm cameras which use the X-Trans sensor, the XT engine will be used.

Specialist formats

These formats are not commonly used for delivery of final images, but are capable of storing extended color data, for the widest color range possible.

- **EXR** (single layer)
- **HDR**
- **PSD**

Note that while it is possible to import .psd files that contain multiple layers, they will import into Imerge as a flattened image. The contents of all visible layers will be included, but the separate .psd layers cannot be accessed or edited in Imerge.

For details on what formats you can save to, see Exporting.

Last modified: Dec 24, 2021

4.4. Viewer

The viewer shows the composited result of all of your layers, masks and effects as you edit. The viewer tools assist with the editing process.

Viewer Toolbar

The tools in the top bar of the Viewer control how your image is displayed.

Selection

The Select tool is the most commonly used tool in the Viewer Toolbar. When it is active, you can click any layer of your composite to select it, and you can directly interact with each layer on the Viewer to adjust its position, scale, and other properties.

- **V:** Press the V key on your keyboard to enable the Selection tool.

Panning

The Pan tool repositions your composite within the viewer, without altering the contents. When the viewer is zoomed in so only part of the composite is visible, you can use the Pan tool to shift the visible portion and view any area of your composite.

- **H:** Press the H key on your keyboard to enable the Pan tool.

Straighten Tool

If you have an image that is not level, you can quickly straighten it using this tool. Select the Straighten tool, click on one end of any line or object in the image which should be horizontal, hold the mouse button and drag to the other end of the line or object, and release. The image will automatically be rotated to make the line you selected perfectly level.

Crop Menu

The Crop Menu provides access to tools for cropping your image.
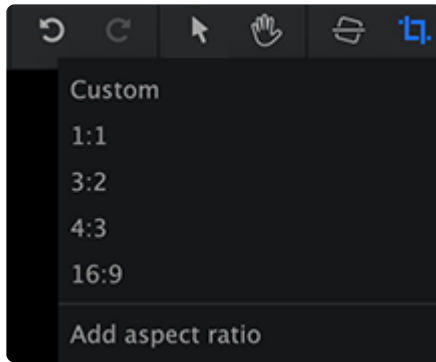
Common aspect ratios are available in the menu, along with a Custom option. If you need the image constrained to a specific aspect ratio, choose it from the menu. If you want free reign to crop to any size and shape you might need, choose the Custom option. Use the **Add aspect ratio** option to add your own aspect ratio presets to the menu.

- **Custom:** Allows you to crop the image however you like, without any aspect ratio constraints.
- **1:1:** Locks the crop to a square, which you can resize by dragging any corner.
- **3:2:** Locks the crop to a 3:2 aspect ratio, which you can resize by dragging any corner.
- **4:3:** Locks the crop to the 4:3 aspect ratio used by many cameras and SD television, which you can resize by dragging any corner.
- **16:9:** Locks the crop to the 16:9 widescreen video aspect ratio, which you can resize by dragging any corner.
- **Add aspect ratio:** If there is an aspect ratio you commonly use that is not in the crop menu, you can permanently add it to the menu for easy access. Selecting this option opens the **Manage aspect ratios** dialog.
  - **Label:** Enter the name that will appear in the menu for the new aspect ratio.
  - **Width / Height:** Enter the aspect ratio you wish to use, with width first, followed by height.
  - **Add:** Click the add button to save your changes and add the new aspect ratio to the menu.

Snapping Menu

Snapping is a powerful tool for quickly and precisely aligning layers, control points, and other items within your project. This menu allows you to enable or disable snapping, and to control which properties of objects will be factored into the snapping process.
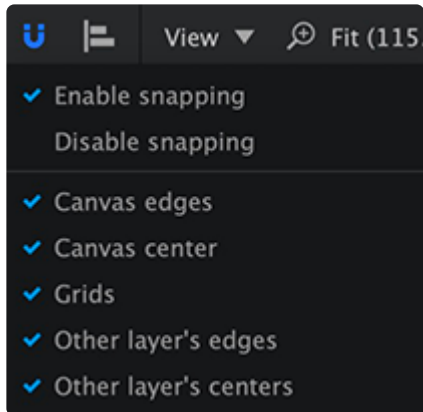
- **Enable snapping:** Toggles the snapping behavior on.
- **Disable snapping:** Toggles the snapping behavior off.

The remaining controls toggle specific properties on and off, to determine whether they will snap or not.

- **Canvas edges:** When enabled, as the selected object approaches any edge of the canvas it will snap into precise alignment with the canvas edge.
- **Canvas center:** When enabled, as the selected object approaches the center of the canvas it will snap into precise alignment with the canvas center.
- **Grids:** When enabled, the selected object will snap into alignment with any visible grids in your project.
- Other layers' edges:* When enabled, the selected object will snap into alignment with the edges of other layers in your project.
- **Other layers' centers:** When enabled, the selected object will snap into alignment with the center of other layers in your project.

Align Tools

The Align tools offer a number of tools for fast and precise layout of layers.

Align to Canvas

- **Align Left:** Aligns the left edge of the selected layer with the left edge of the frame.
- **Align Horizontally:** Centers the selected layer horizontally within the frame.
- **Align Right:** Aligns the right edge of the selected layer with the right edge of the frame.
- **Align Top:** Aligns the top edge of the selected layer with the top edge of the frame.
- **Align Vertically:** Centers the selected layer vertically within the frame.

- **Align Bottom:** Aligns the bottom edge of the selected layer with the bottom edge of the frame.

Align to Selection

- **Align Left:** Aligns the left edge of all selected layers with the left edge of the selected layer that is farthest to the left.
- **Align Horizontally:** Centers all selected layers between the left and right edges of the selection.
- **Align Right:** Aligns the right edge of all selected layers with the right edge of the selected layer that is farthest to the right.
- **Align Top:** Aligns the top edge of all selected layers with the top edge of the selection.
- **Align Vertically:** Centers all selected layers between the top and bottom edges of the selection.
- **Align Bottom:** Aligns the bottom edge of all selected layers with the bottom edge of the selection.

Distribute

The Distribute controls allow you to evenly space multiple layers very quickly, along either a horizontal or vertical axis.

- **Distribute Left:** Spaces the selected layers evenly, based on the left-most pixel in each layer. The layers farthest to the left and farthest to the right remain in place, and all other layers will shift horizontally to create even spacing.
- **Distribute Horizontally:** Spaces the selected layers evenly, based on the center pixel in each layer. The layers farthest to the left and farthest to the right remain in place, and all other layers will shift horizontally to create even spacing.
- **Distribute Right:** Spaces the selected layers evenly, based on the right-most pixel in each layer. The layers farthest to the left and farthest to the right remain in place, and all other layers will shift horizontally to create even spacing.
- **Distribute Equally Horizontally:** Equally spaces the selected layers on the horizontal axis.
- **Distribute Top:** Spaces the selected layers evenly, based on the top pixel in each layer. The highest and lowest layers included in the selection remain in place, and all other layers will shift vertically to create even spacing.
- **Distribute Vertically:** Spaces the selected layers evenly, based on the center pixel in each layer. The highest and lowest layers included in the selection remain in place, and all other layers will shift vertically to create even spacing.
- **Distribute Bottom:** Spaces the selected layers evenly, based on the bottom pixel in each layer. The highest and lowest layers included in the selection remain in place, and all other layers will shift vertically to create even spacing.

- **Distribute Equally Vertically:** Equally spaces the selected layers on the vertical axis.

The View Menu

Imerge offers several options for viewing your image to evaluate its content in various ways. The View Menu is where you access them.
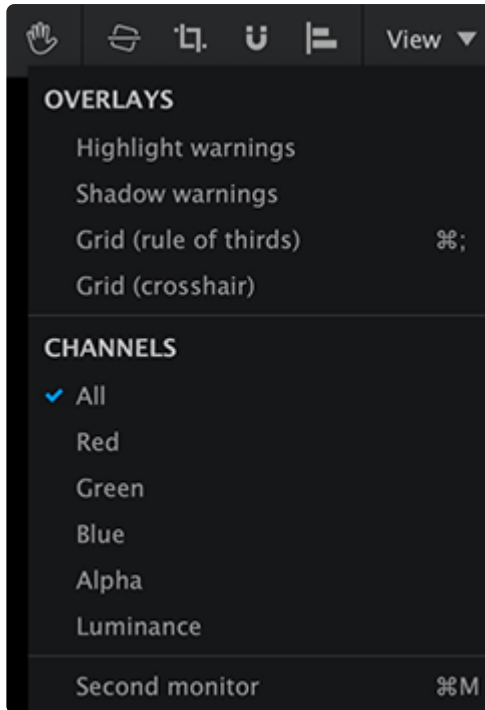
Overlays

The Overlays section of the menu contains options that are rendered over the top of your viewer image. Open the menu and select any item to toggle it on or off.

- **Highlight warnings** – fills all pixels that contain pure white with a solid color. By default the highlight warning color is red, but you can edit the color in the options screen.
- **Shadow warnings** – fills all pixels that contain pure black with a solid color. By default the shadow warning color is blue, but you can edit the color in the options screen.
- **Grid (rule of thirds)** – adds an overlay dividing the image into thirds, both horizontally and vertically. If you need help with laying out your image, you can place the focal points of your composite on the intersections of these lines and ensure a pleasing composition.
- **Grid (crosshair)** – adds center lines to your image, both horizontally and vertically. Especially for graphic design, being able to quickly reference the center for layout is useful.

Channel views

You can also control what channel or channels of the image are displayed through this menu. Individual color channels are displayed as grayscale images.

- **All** – The standard view, which combines the red, green, and blue channels to create a full color image.
- **Red** – Shows the values of red in each pixel, from no red (which displays as black) to pure red (which displays as white).
- **Green** – Shows the values of green in each pixel, from no green (which displays as black) to pure green (which displays as white).
- **Blue** – Shows the values of blue in each pixel, from no blue (which displays as black) to pure blue (which displays as white).
- **Alpha** – Displays the transparency data of the image in grayscale. Black areas are completely transparent. White areas are completely opaque. Gray areas indicate partial transparency, with darker grays being more transparent.
- **Luminance** – Shows the luminance values of the image, in grayscale.

Second monitor

If you wish to display the Viewer contents on a second display, for your clients to preview or any other reason, you can enable the second monitor option. This will open a new window showing only the Viewer, which you can then place on your secondary display.

Zoom menu

Select the size at which the viewer is rendered. Reduce the scale to see the entire image, or increase the scale to focus on a specific portion of the image.

- **Scale to fit:** Auto-fits the canvas to the largest size that will fit in the available space.
- **Scale to extent:** Auto-fits the largest layer in your project to fit into the available space. When working with layers that are larger than your project, and extend beyond the edges of the canvas, this option scales everything to the edges of the largest layer are accessible in the viewer area.

Downsample menu

Here you can control how the image is downsampled for display in the viewer preview. Downsampling high resolution images can improve performance by allowing the previews to be calculated more quickly. If you find that some effects take longer than you would like to render, adjusting the downsampling can help.
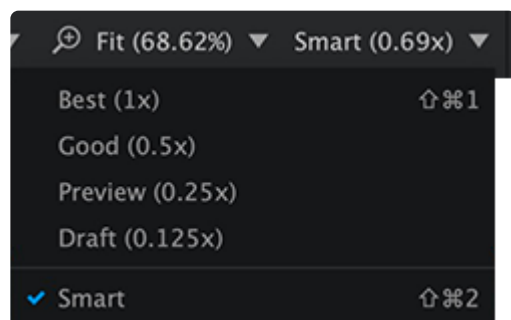
- **Best (1x):** The preview is calculated using the image's full resolution for maximum quality.

- **Good (0.5x):** The preview is calculated at half of the image's original resolution.
- **Preview (0.25x):** The preview is calculate at one quarter of the image's original resolution.
- **Draft (0.125x):** The preview is calculate at one eighth of the image's original resolution.
- **Smart (variable):** The software calculates the optimum downsampling amount, based on the image resolution and the viewer size.

Canvas controls

The images and layers contained in your project can be directly manipulated using the controls displayed on the canvas. This allows you to view the changes as they are made, and dial in the exact results you want. The controls displayed on the canvas will vary based on the current selection. Different kinds of layers, masks, and effects each have their own controls, specific to the adjustments available for the selection.

- **Transform:** Canvas controls can be used to adjust the position, rotation, and scale of the layer.
- **Masks:** Canvas controls can be used to edit the position, rotation, corner radius, scale, and edge feather of a mask. The direction of linear gradient masks can also be adjusted on the canvas.
- **Effects:** Some effects benefit from canvas controls. Distortion effects, zoom blur, and gradients, for example, provide intuitive controls on the canvas to dial in the exact results you require.

Last modified: Dec 24, 2021

4.5. Layer Sidebar

The Layer Sidebar is located to the right of the viewer. It is the primary area that you will interact with when editing projects, and how you build up composites and edit layers.

It can be broken down into the following parts.

Histogram

The histogram provides an objective, scientific way to evaluate the color data in your image. It graphs the color data in your image in a way that is simple to read. The horizontal axis of the graph represents the luminance range of the image, from pure black on the left to pure white on the right. The vertical axis of the graph represents the quantity of pixels, so the higher the graph line is at any point the more pixels of that luminance value the image contains.
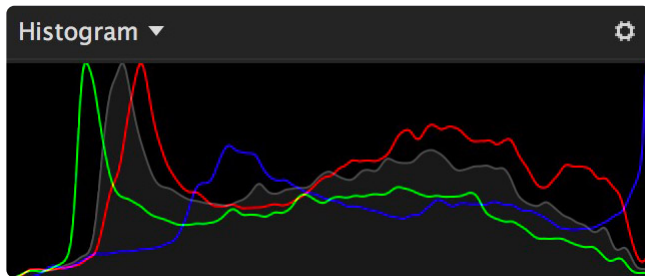
The default RGB option uses separate lines to graph the contents of each color channel in the image, but this can be adjusted through the settings.
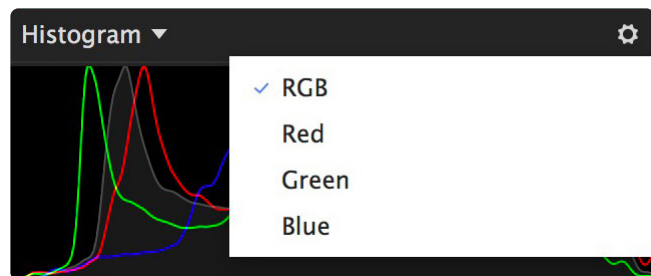
Show/Hide Histogram
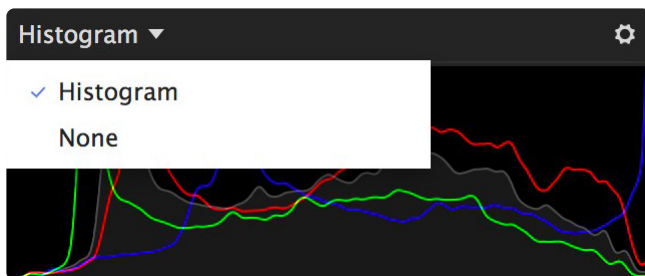
You can open the histogram title menu to show or hide the graph. Select **Histogram** to show the graph, or select **None** to hide it.

Channel Menu

Select the channel or channels that are displayed in the graph.

- **RBG:** Displays four histograms at once. The red, green, and blue histograms are colored to match the channel they represent. The gray histogram represents the Luminance channel.
- **Red:** Displays the tonal values of the Red channel of the image.
- **Green:** Displays the tonal values of the Green channel of the image.
- **Blue:** Displays the tonal values of the Blue channel of the image.

Layer List

All of the layers in your project are managed here. New layers can be created, and the stacking order of existing layers can be viewed and altered.
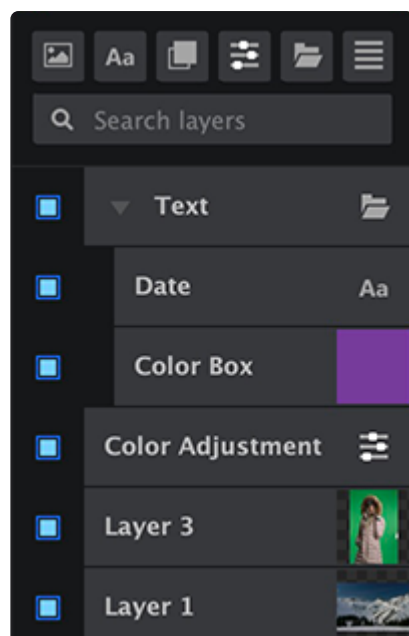
New Layers

There are five buttons to create different sorts of new layers.

- **Image:** Image layers are used to store any images you want to import into Imerge Pro. Each image layer is a container, and can store as many image variations as you require.

- **Text:** Text layers are used to generate text. All features of the text remain fully editable, so you

can change the contents, the font, the color, or other aspects of the text whenever you need to. Each text layer is a container, and can store as many text items as you require.

- **Solid:** A solid layer is simple a rectangle filled with a single color. This can be further modified by applying effects or mask to adjust the color, pattern , or shape.

- **Adjustment:** Adjustment layers apply effects to all layers below them. This makes it easy to apply effects to multiple layers in a project, without needing to apply the effect to each layer individually. You can also mask an adjustment layer to apply its effects to only specific areas of the layers below.

- **Group:** This layer serves as a container for other layers, to group them together. This is useful for keeping your project organized when many layers are involved. It also allows you to apply masks or effects to multiple layers at once. When a mask or effect is applied to a layer group, all layers inside the group will be affected.

- **Stacked:** Stacked layers are used to combine multiple images into a single result.
  - ◦ **HDR Merge:** Combines multiple exposures of an image, each with different exposure compensation, to create an image with increased dynamic range.
  - ◦ **Focus Stack:** Combines multiple exposures of a scene, each with a different focal distance, by using the in-focus area from each image, to create a final image with deep focus or infinite depth of field.

Search Layers

Use this search box to quickly find a layer by name. For complex composites with large layer stacks this can be especially helpful. The results update dynamically as you type, so only layers that match the characters currently in the search box are displayed.

Layer List

The majority of the layer list area is used to show your actual layers. The layer order directly corresponds to how the layers are stacked in the composite, with layers at the top of the stack appearing in front of the layers below them.
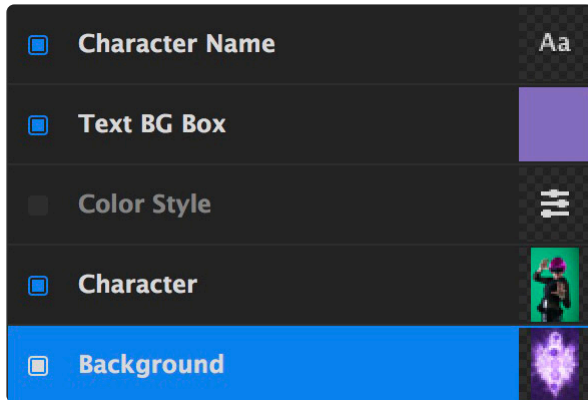
Layer Inspector

To the right of the layer stack is the layer inspector, which shows details and controls for the currently selected layer.

Transform

Transform controls adjust fundamental properties of the layer as a whole, such as its size, position, and how it is blended with other layers in the project.

Blending Controls

- **Blending Menu**: Blending modes control how the colors in the selected layer are blended with the layers beneath it in the layer stack. See Blend modes for full details.
- **Opacity**: Adjusts the percentage at which the results of the selected blend mode are applied. 100% is full opacity. For the standard Normal blend mode, which is the default, reducing the Opacity makes the layer more transparent. When other blend modes are selected, the results can differ somewhat.

Position Controls

All controls for adjusting the position, rotation, and orientation of the layer are accessed here. Many of these properties can also be accessed on the canvas, using the canvas controls. See Transforming layers for full details.

Masks

The selected layer can be masked to control what parts of it are transparent or opaque. Click the Plus icon to add a new mask to the layer, then select the kind of mask you want. There are six kinds of masks available:

- **Gradient Mask:** Creates a mask with a large feather, based on a linear gradient. The direction and intensity of the gradient can be adjusted.
- **Area Mask:** A quick option for creating rectangular or elliptical masks.
- **Vector Mask:** Allows you to draw a specific mask shape, in any shape you desire.

- **Image Color Mask:** Creates a mask based on a selected color. A pipette is used to select a specific color from the layer, and you can then adjust the range of colors that are included in the mask.
- **Image Alpha Mask:** For images with a built-in alpha channel, this allows you to modify the existing alpha information.
- **Image Luminance Mask:** Creates a mask based on tonal value. Either the brightest areas or the darkest areas of the image can be removed.

Each mask can be enabled or disabled using the blue square toggle to the left of the mask name. Full details about each kind of mask can be found in the masking chapter of this manual.

Display mode menu

The display mode menu at the top of the masks section controls how the masks are displayed on the canvas.

- **Apply:** Shows the final results of the mask, after it is applied to the images's current state
- **Replace:** Applies the mask before any other adjustments, so any existing transparency data is replaced by the mask shape.
- **Show:** Displays the actual mask itself, in grayscale, while hiding the layer contents. The full range of transparency is covered, with completely transparent areas being black, and completely opaque areas being white.
- **Overlay:** Renders the mask in transparent red over the top of the layer, so both the layer contents and the mask are visible.
- **Disable All:** Disables all masks so you can view the original image.

Full details on using masks can be found on the Masking page of this manual.

Effects

Effects can be added to the layer here. All controls for effects already added to the layer can also be accessed here. Click the Plus icon 🟦 to add a new effect, then select the specific effect you need from the list. There are many effects available. For full details, see the chapter on Effects.

Each effect can be enabled or disabled using the blue square toggle to the left of the effect name.

Resetting Values

- **Full Reset:** Clicking the circular reset arrow to the right of any effect name will reset all properties in that effect to their default values.
- **Individual Property Reset:** Any individual property can be reset to its default value by double-clicking the name of the property.

Effects Masks

If you want to apply an effect to only specific parts of a layer, you can use an effects mask to do so. Click

the effect mask icon at the far right of the effect title bar to add a new mask, then select the kind of mask you want. There are five kinds of masks available:

- **Gradient Mask:** Creates a mask with a large feather, based on a linear gradient. The direction and intensity of the gradient can be adjusted.
- **Vector Mask:** Allows you to draw a specific mask shape, in any shape you desire.
- **Area Mask:** A quick option for creating rectangular or elliptical masks.
- **Image Luminance Mask:** Creates a mask based on tonal value. Either the brightest areas or the darkest areas of the image can be removed.
- **Image Color Mask:** Creates a mask based on a selected color. A pipette is used to select a specific color from the layer, and you can then adjust the range of colors that are included in the mask.

Display Mode Menu

Once an effect mask is added to an effect, the display mode menu will appear at the top of the effect masks section. This menu controls how the masks are displayed on the canvas.

- **Apply**: Shows the final results of the mask
- **Show**: Displays the actual mask itself, in grayscale, while hiding the layer contents. The full range of transparency is covered, with completely transparent areas being black, and completely opaque areas being white.
- **Overlay**: Renders the mask in transparent red over the top of the layer, so both the layer contents and the mask are visible.
- **Disable All:** Disables all masks so you can view the original image.

Font

The Font section is only available for text layers. It provides access to edit all formatting details of the text contained in the layer, including the font, size, style and alignment.

Content

Image and text layers serve as containers. The layer exists independently of its contents, and here is where you can change what the layer contains.

Image Layer Content

Image layers can contain one or more images. You can easily batch process multiple images using the same settings by importing them all into the same image layer. The Content section of the layer sidebar list all images contained in the layer.
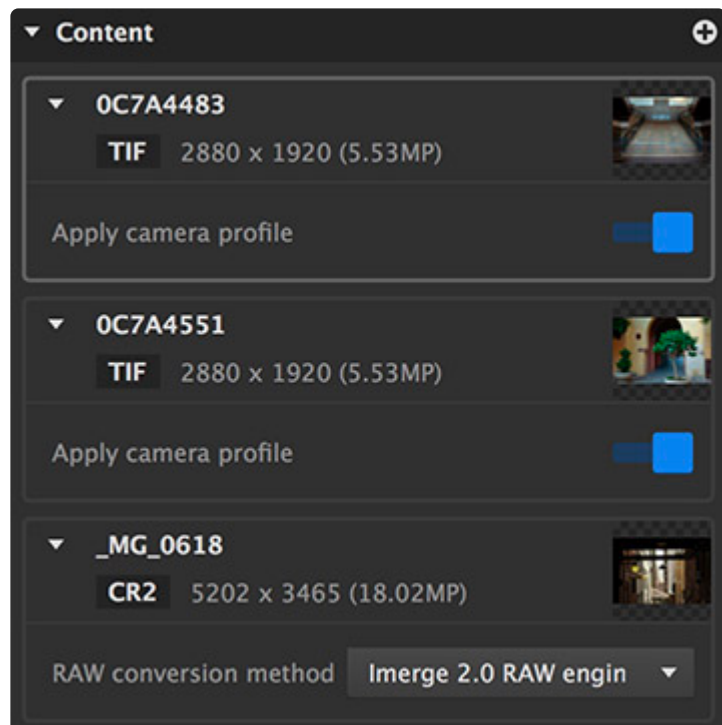
Click the plus icon to open a file browser and select additional images to import.

Right-click the triangle next to the image name to open the image management menu.

- **Remove**: Deletes the image from the layer contents.
- **Reveal in File Explorer**: Opens a new Windows file explorer for the folder containing the source image. On a Mac, this option is called **Reveal in Finder**.

Each image listing will have some additional options, which will vary based on the image format.

- **Apply Camera Profile**: By default, Imerge displays your images based on the color profile embedded in the image by the camera that captured it. You can disable this option and use the color profile selected in the canvas settings by disabling this option.

- **RAW Conversion Method:** For Raw files, you can choose the conversion method used to convert the raw data into an image.
    - **Imerge 1.0 RAW Engine (GPU):** The Raw engine built into Imerge Pro 1.0 uses the GPU to convert files using a Raw library with wide compatibility.
    - **Imerge 2.0 RAW Engine (CPU):** The Raw engine in version 2 of Imerge is much faster, as it is GPU accelerated. It also provides a greater range of adjustment for recovering highlights. It supports all cameras that use a Bayer filter color array on the sensor. Any images from cameras that do not use a Bayer filter will be processed using the Imerge 1.0 Raw engine.

Text Layer Content

The content area of a text layer is where you can edit the actual text contained in the layer. The currently selected text can also be edited directly on the viewer.

A text layer can contain multiple text items, all of which will be listed in the Content area. Click the plus icon to add a new text item.

4.6. Canvas settings

Canvas settings can be accessed using the button at the bottom of the layer list.

Canvas settings

Clicking the button opens the Canvas Settings dialog, where you can edit the fundamental aspects of the settings used by the canvas in your current project.
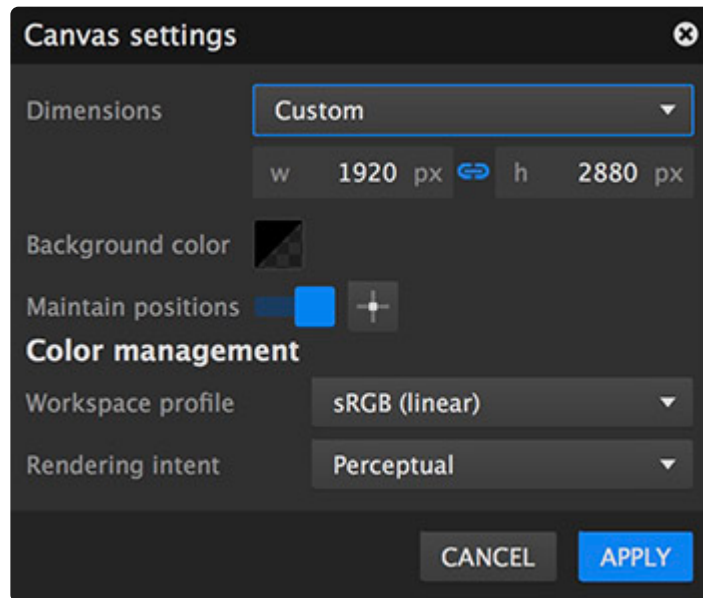
Dimensions
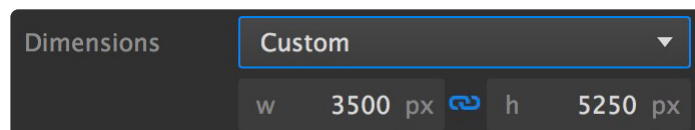
Use the Dimensions menu to select a specific size preset. If you want to dial in a custom size, select the Custom option and then enter the width and height, in pixels, that you require. The listed presets cover the majority of common and popular image sizes, and the Custom option will work for any sizes not available as presets.

Custom
Match Layer 1
Match Layer 2
2 x 2.5 inch
2.5 x 3.5 inch
3 x 7 inch
4 x 6 inch
5 x 7 inch
8 x 10 inch
8.5 x 11 inch
10 x 15 cm
11 x 15 cm
13 x 18 cm
20 x 30 cm
A5
A4
YouTube channel banner
Facebook page cover
Facebook profile image
Twitter profile cover
Twitter profile image
Full HD 1080P (1920x1080)
Ultra HD 2160P (3840x2160)
Save preset

Creating presets

If you have a specific canvas size that you use frequently, you can create your own preset for those canvas dimensions. Your personal canvas presets will be listed at the bottom of the canvas preset menu.

To create a preset:

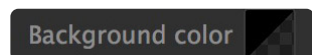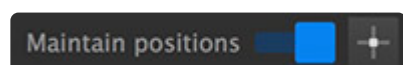1. Open the Dimensions menu and select **Save Preset**.
2. Enter a name for the new preset and click **SAVE**.

Background color

Background color

The canvas can be filled with a solid color. Click the swatch to select the color used, and to adjust its opacity.

Maintain positions

Maintain positions

Controls whether the layers in your project are repositioned when the canvas dimensions are changed, or if the layers maintain their relative positions. When this option is toggled on, you will want to select an anchor point that will be used to define the relative positions of existing layers.
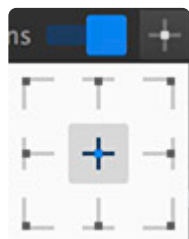
Click the anchor point button to open the matrix shown above. Then, click on the anchor point you wish to use. When the canvas dimensions are changed, the position of each layer in the project relative to the selected anchor point will be retained.

When Maintain Positions is disabled and the canvas dimensions are changed, Imerge will redistribute existing layers into the new canvas size, to maintain the general layout of the canvas as a whole.

Color management

When compositing images, it is not uncommon for a project to contain multiple images that use different color profiles. Color management defines how the colors contained in your images will be handled.

Workspace profile   sRGB (linear)   ▼

- **Workspace profile**: sets the color profile to which all imported images will be converted.
    - **sRGB (linear)** The sRGB color space is the standard color space used for final viewing of digital images.
    - **ROMM RGB (linear)** ROMM RGB, also known as ProPhoto, is a large gamut color space ideal for photo editing. It allows for maximum accuracy in the reproduction of colors.

Rendering intent   Perceptual   ▼

- **Rendering intent:** if the source color space exceeds that of the destination, this setting determines how the adjustment is handled.
    - **Perceptual** – good for highly saturated images intended for printing. The entire tonal range of the source image is compressed to fit into the available gamut of the destination profile, which retains the relative difference between different colors in the image. If your images contain many out-of-gamut colors, perceptual often gives the best result.
    - **Absolute** – aims to retain the original colors as accurately as possible, regardless of whether they fit the gamut of the destination color space. Exactly maintains the values of all source colors that fall within the destination color space. Out of gamut colors are clipped. If the destination color space uses a different white point than the source, absolute color uses the white point of the source, and does not convert it to the destination.

Last modified: Dec 29, 2021

4.7. Insert Object Menu

The insert menu gives you direct access to multiple functions regardless of where you are in the program. It is contextual, so the options it shows will vary based on the current selection, but they include:

- Inserting new layers
- Adding content to an existing layer
- Adding masks to an existing layer
- Adding effects masks to an existing effect
- Adding effects to a layer
- Creating a custom export item
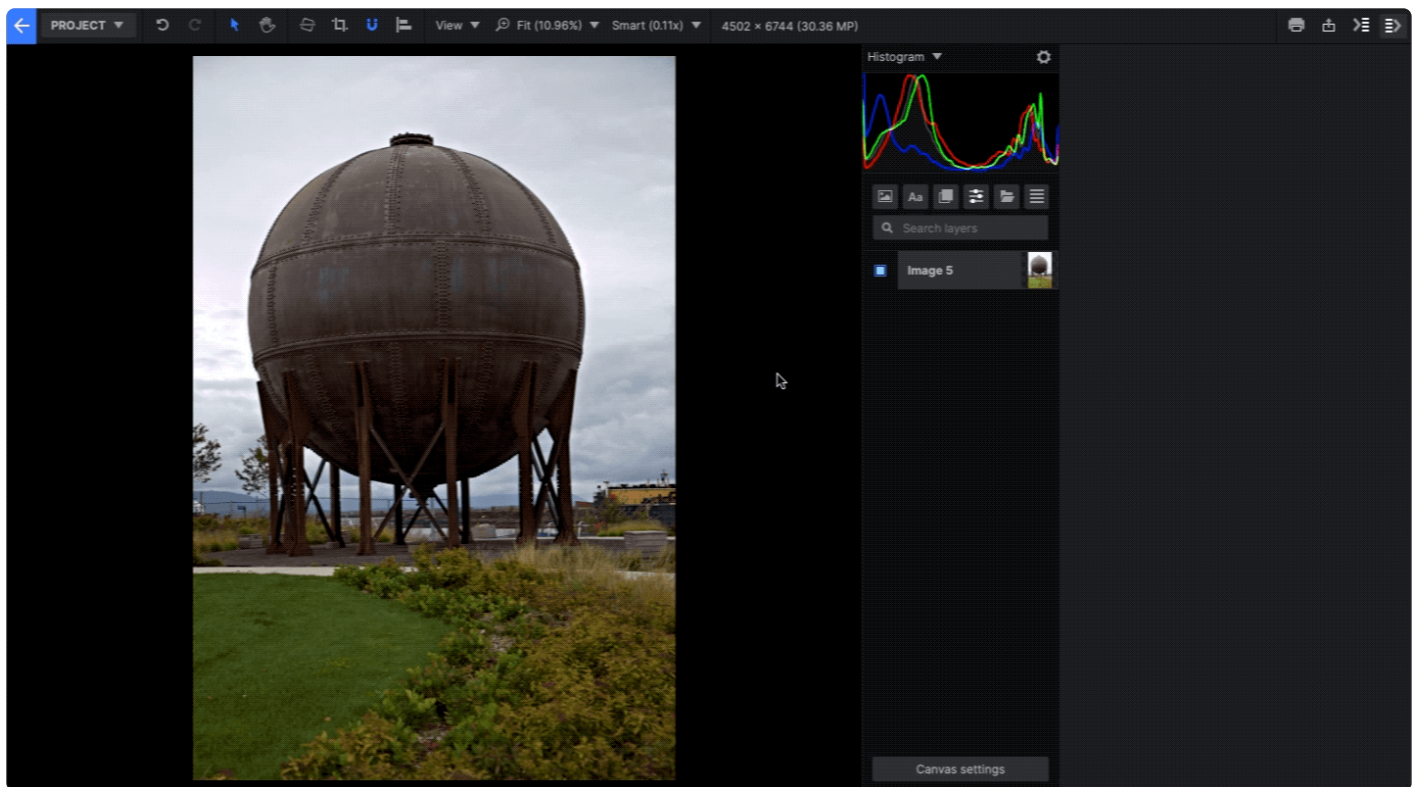
Accessing the insert object menu

You can access the insert object menu in two ways:

- **Keyboard:** Press CTRL+I to open the menu at any time (CMD+I on Mac)
- **Project menu:** Open the project menu and select Insert to project to open the menu.

The contents of the Insert Object menu are specific to the current selection. This way it provides very quick access to whatever functions you need. If a layer is selected, you can quickly add effects, masks, or content to that layer. If an effect is selected, you can add masks directly to that effect.

Navigating the insert menu using your keyboard

The insert menu allows you to perform many editing tasks using only the keyboard. This can greatly speed up your workflow, compared to using the mouse to open menus and scroll down to make selections.

At the top of the Insert menu is a dynamic **search box**. As you enter text into the search box, the list of items in the menu is limited to only items that contain the search term.

You can then use the **arrows** on your keyboard to move through the list to the option you want to choose. Press **enter** to select the currently highlighted menu item.

Last modified: Dec 24, 2021

4.8. Green screen photography

Green screens and blue screens have been used for decades for filmmaking and photography and have become an invaluable part of a photographer's toolkit. By photographing subjects against a green screen or a blue screen, the subjects can be easily isolated and placed onto a new background.

Here is an example of a model photographed against a green screen:

Imerge Pro provides a range of effects that remove the green screen background and any extraneous elements from the photo, leaving a cleanly isolated version of the woman:

Imerge Pro can then be used to add in a new background and make other adjustments to positioning and appearance:

Automatically removing the green screen or blue screen from the original image is known as 'keying', a process designed to eliminate or reduce the amount of manual work required. Imerge Pro is designed for both individual portrait work and mass processing at major live events.

Green screen or blue screen?

The most important aspect of keying is to ensure that the background screen can be easily separated from the foreground subject. You want your screen to be as different to your subject in color as possible.

This is why red screens are not commonly used – due to the amount of red in human skin, it's impossible to get good results with a red screen. Yellow screens would have a similar problem. Green and blue are both far less prominent in skin tones and therefore work as successful keying colors. Take careful note of clothing, hair and other objects in the shot and make sure that you choose an appropriate backdrop.

If you absolutely can't avoid some color clashes, take a look at the Masks chapter.

Some digital cameras also have a tendency to retain more green data than blue, so if you are in a position to freely use either green or blue it is generally advisable to choose green. Blue screen was the best option for the optical keying processed used for handling film, but the different methods used for digital processing favor green. Either color is still capable of excellent results.

Types of blue or green screens

Blue screens and green screens can be purchased or rented, or you can build your own using appropriate materials. Each has it own advantages and disadvantages.

- **Fabric:** Soft fabric screens are very portable, and so can be set up anywhere. They are durable, and can be washed or pressed when necessary. On the other hand, they can easily get wrinkled or stained. Pop-up screens, similar to pop-up reflectors, are another option for portability.
- **Paper:** A pull-down paper screen which can be rolled up when not in use is ideal for a studio. They are very affordable, but delicate, and can easily be wrinkled or torn. Their delicate nature makes them a poor choice for location work.
- **Paint:** If you have a permanent studio space for green screen work you can also consider chroma green paint. Green paint is excellent for durability, as there are no concerns about wrinkles, but it is not at all portable, and requires a dedicated space.

Setting up your green screen

Green screen and blue screen photography has a few unique factors you will want to bear in mind while planning your shoot. Taking a little more time during setup to ensure everything is set up properly can save you a huge amount of time when you get on the computer, and ensure the best possible results.

- **Non-reflective background:** Make sure your background material is matte, not shiny. Shiny backgrounds will reflect too much light and have bright 'hotspots'.
- **Avoid backdrop textures:** Smooth materials that won't cast any shadows. Creases, wrinkles, or even an excessively heavy fabric weave can create shadows which make it difficult to separate the subject from the background.
- **Clean separation:** Clear separation between your subject and the background is the key to high quality results.
- **Distance from backdrop:** Always try to position your subject as far away from the backdrop as possible. This will reduce the amount of green or blue that is reflected onto them and avoid casting shadows onto the screen. Aim for a minimum of 6 feet when possible, but a greater distance will reduce color spill even more.
- **Avoid shadows:** Make sure your subject is not casting any unwanted shadows on the backdrop. Shadows will make compositing much more difficult. If you need a shadow in your composite, it is often easier to create it in post, rather than trying to retain a shadow throughout the keying process.
- **Lighting:** Light your backdrop independently from your subject. This enables you to light your background smoothly while retaining a more dramatic setup for your subject. Trying to light your background and subject with the same lights will make it difficult to avoid shadows, to maintain even lighting, and to get clear separation of your subject.
- **Reducing spill:** If you are getting a lot of bounced green spill light on your subject try moving your subject farther from the backdrop. If this is not possible, you can try adding a very subtle magenta backlight to your subject. Magenta light on the back of your subject can help to counter green spill reflecting from the greenscreen, and increase separation.

4.8.1. Auto import using Hot Folders

Configuring Imerge Pro to automatically import images as you capture them can be very useful for shooting at events, for real-time evaluation of images in a studio setting, and in other situations. For example, when shooting green-screen photography at an event, you can set up your final composite as a project, then auto-import each photo into that project as soon as it is shot, to immediately view the photo in the context of your finished composite.
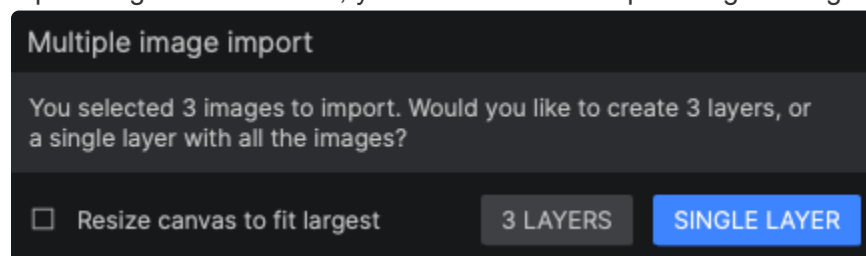
In overview, this is the basic process:

1. **Tethering your camera.** The auto-import process requires setting up a tethered camera, and configuring a Hot Folder. When you tether a camera to your computer, you will configure it so that each time you press the shutter button, the image is saved directly to your computer. Popular applications for configuring a tethered camera are Adobe Lightroom CC and Canon EOS Utility, but there are many others as well. The specific steps for setting up the tether will vary based on the specific software you are using.See the documentation for your tethering software to find detailed instructions.
2. **Configuring a hot folder.** In Imerge, select the folder or directory where your tethered camera is saving captured images as a hot folder. When you set up a hot folder, all images currently in the folder are imported into Imerge Pro as content variations. The folder is then continuously monitored for changes, and any time images are added to or removed from the folder, the content list for the layer in Imerge is updated accordingly.
3. **Shoot images.** Now each time you press the shutter button on your camera, the image is imported into Imerge as soon as it is saved to your hard drive. Any effects, masks, and transformations applied to the image layer are applied immediately, and the canvas updates to show you the result.

Configuring a hot folder in Imerge Pro:

Option 1: The add image layer button.
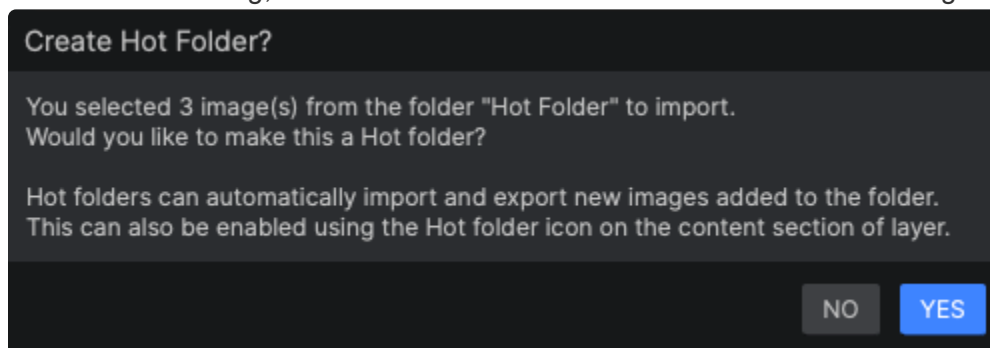
- At the top of the layer stack, click the Add image layer button
- Select **Import folder**. Navigate to the folder whose contents you wish to import, then click the Select Folder button.
  - ◦ If there are multiple images in the folder, you will see the Multiple Image dialog:

  - ▪ **X layers:** This option imports each image in the folder into its own image layer. The

number will vary based on how many images are in the folder.

- ▪ **Resize canvas to fit largest:** Enable this option to ensure that your images all fit within the canvas. The canvas dimensions will be resized to match the largest image in the selected folder. To leave the canvas at its current size, leave this option disabled.
- ▪ **Single layer:** Select this option to create a Hot Folder. All images in the selected folder will be imported into a single layer, as content variations.
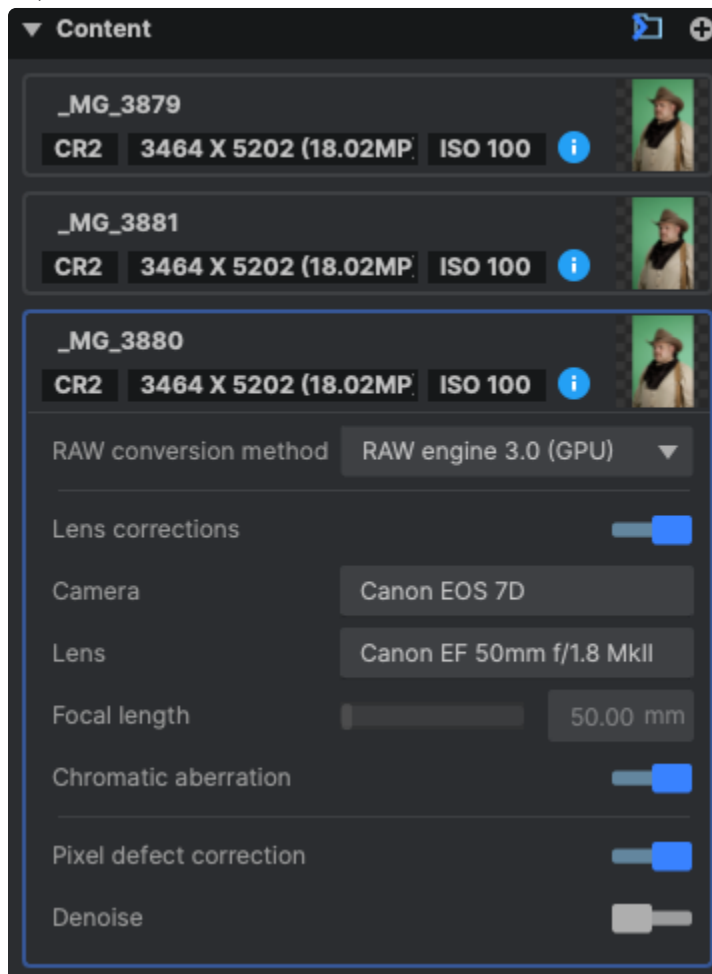- ▪ **X layers:** This option imports each image in the folder into its own image layer. The number will vary based on how many images are in the folder.
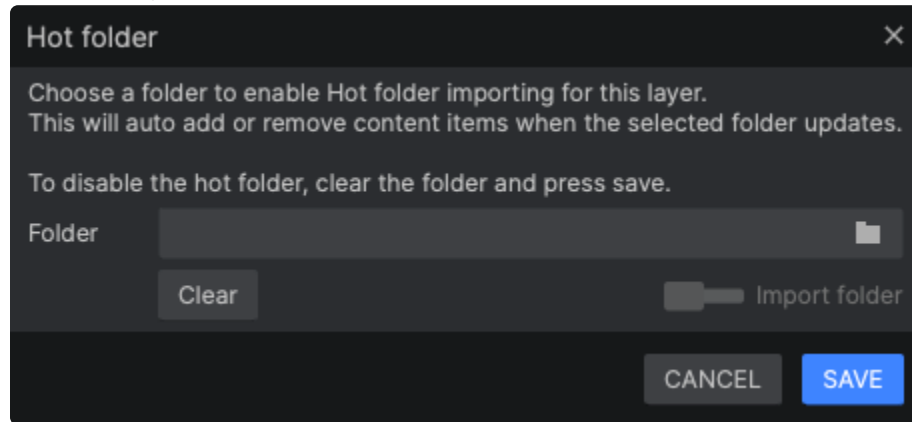- In the **Create hot folder?** dialog, click **Yes** to enable the hot folder status for the image layer.

- When the layer is created, the hot folder icon will be enabled.

Option 2: Convert an existing layer using the hot folder button

- In the layer stack, select the layer you want to convert to hot folder status.

- In the content list for the layer, click the **set a hot folder** button.

- **Folder:** Click the folder icon to navigate to the folder whose contents you want to import, or manually enter a file path.
- **Clear:** Deletes the current file path from the folder property. If you wish to disable hot folder export, use this button to do so.
- **Import folder:** Enable this option to import all images currently in the selected folder. Leave it disabled to only import images added to the folder in the future.
- **Cancel:** Closes the dialog without implementing any changes to the layer status.
- **Save:** Stores the file path and enables the selected folder as a hot folder.

Last modified: Dec 24, 2021

4.9. Application settings

Many aspects of Imerge Pro include options in addition to the defaults. You can specify your personal preferences in the Settings window. You can open the settings by opening the Project menu and selecting Settings. If you are running a Mac, you can also access settings by opening the Imerge Pro menu and selecting Preferences.

Each category of application settings has a tab at the top of the Settings window. Complete details of each category are available on the following pages.

- **General Settings:** Settings which affect the general operation of the software.
- **Edit Settings:** Settings related to the editing interface.
- **Export Settings:** Settings involving the export interface and usage of system resources.
- **Activation Settings:** Your license and activation settings.
- **Shortcuts Settings:** All keyboard shortcuts for Imerge Pro can be viewed and edited here.
- **Presets Settings:** Manage your various presets for use within the software.

Last modified: Dec 24, 2021

4.9.1. General Settings

The general options allow you to configure some of the common features and functions of the software.
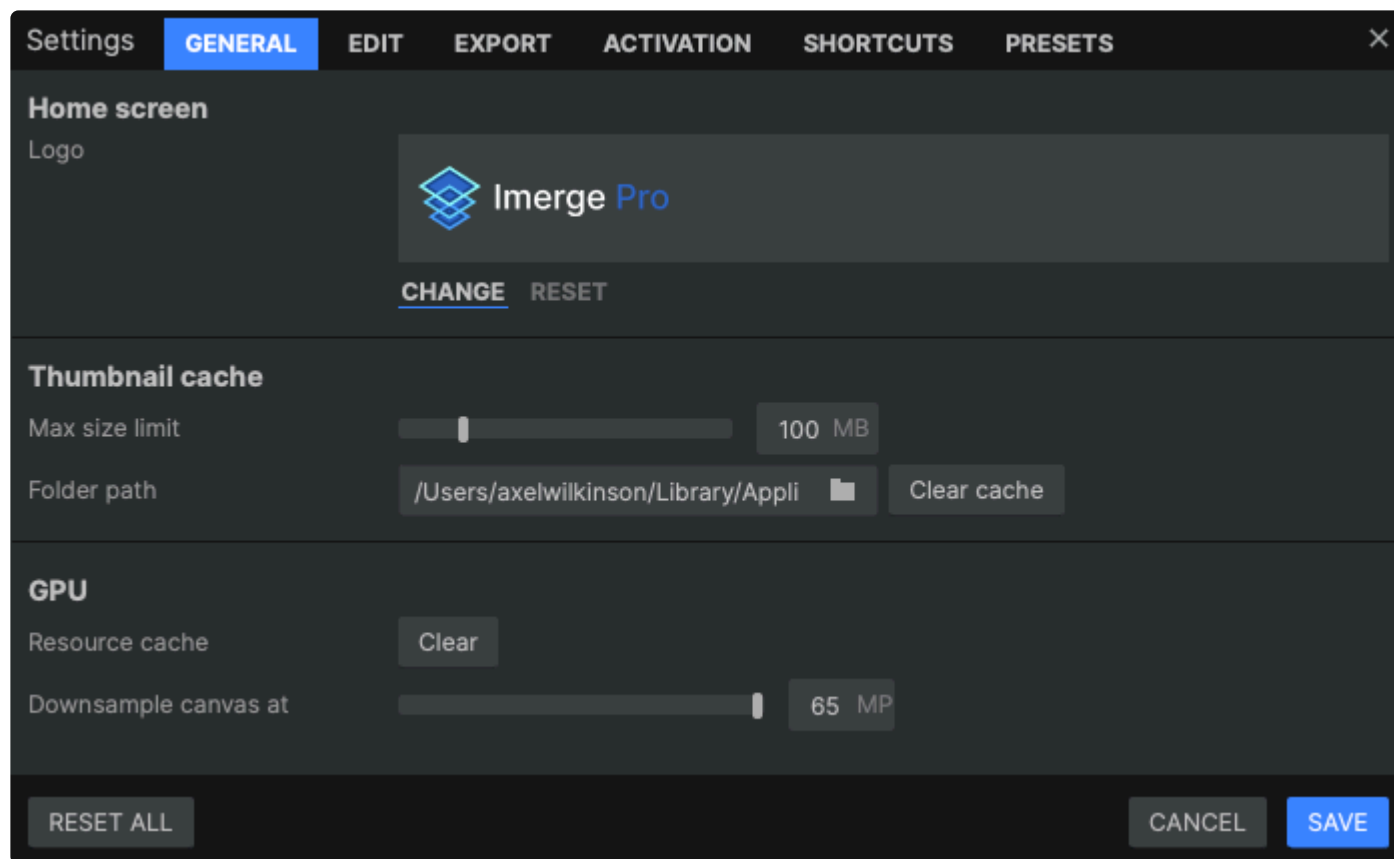
Home screen logo

By default the Imerge Pro logo is displayed in the top left corner of the interface. If you wish to hide the logo, or replace it with your company logo while working on location at an event, you can swap out the logo here.

- **Change:** Click here to replace the logo with your own logo. Use a logo image sized to 640 × 640 or less. If you plan to use a HiDPI or Retina display with the software, place a second image exactly double the size of the primary image, in the same folder as the primary image.
- **Reset:** Removes any custom logo you have applied, and restores the default Imerge Pro logo.

Thumbnail cache

Imerge uses a cache to store thumbnails of all images loaded into the project, so you can quickly preview their contents and select the images you need. The more cache space is available, the more thumbnails can be stored to maintain optimal performance.

- **Max size limit:** Adjust the slider from 10 MB to 500 MB to set the amount of space that can be used to store cache files. The default value of 100 should be sufficient for most projects.

- **Folder path:** Sets the location at which the cache images will be stored. Click the folder icon to open a file browser and select a new location for the cache to be stored.
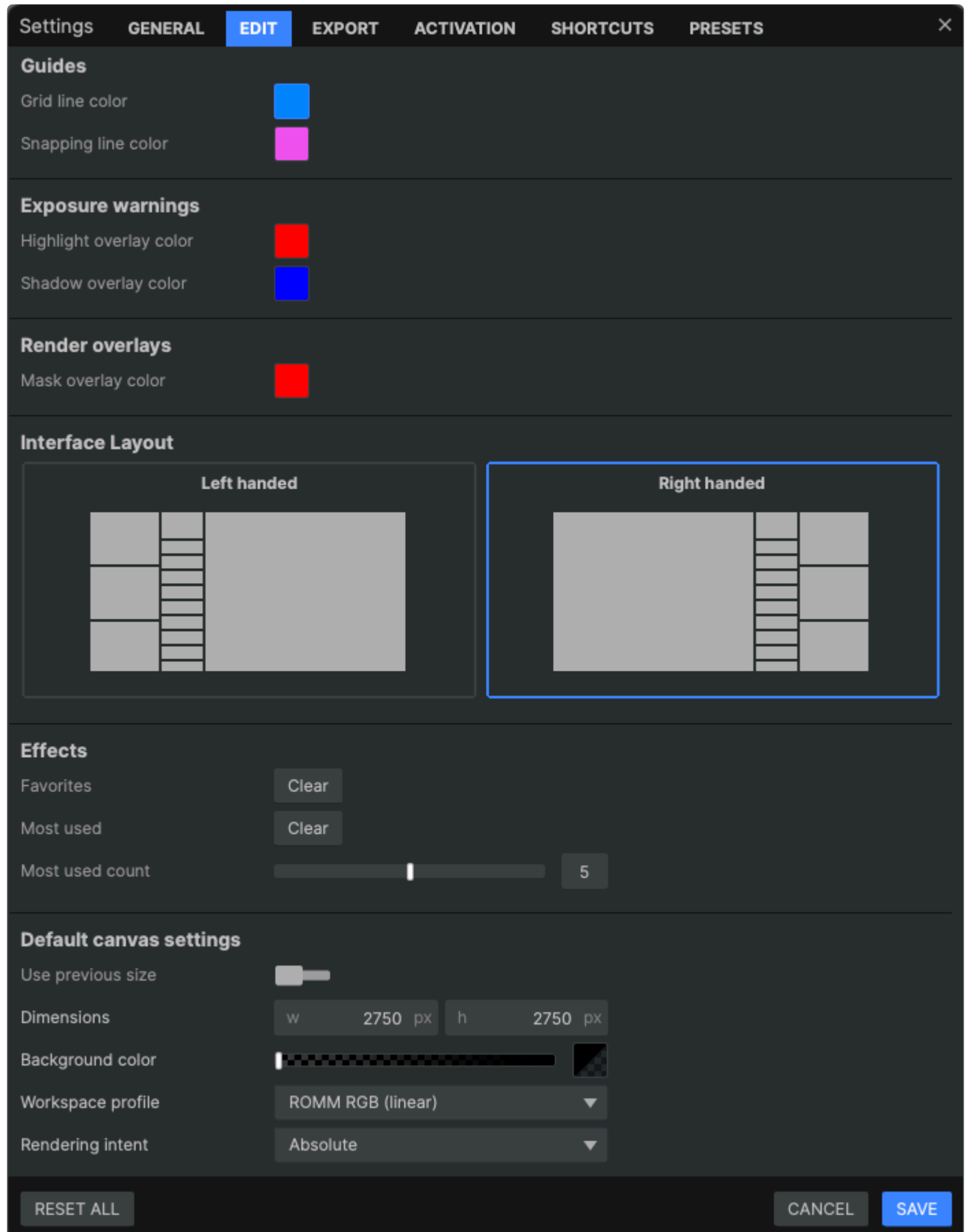
GPU

Imerge uses the GPU to accelerate rendering. The first time the software is loaded, it compiles a small bit of code which allows Imerge to access the GPU for processing. This code is then cached, so that it does not need to be re-compiled every time the software launches.

- **Resource Cache:** This cache stores data used to access the GPU to boost performance of the software .
  - **Clear:** Click this button to clear the GPU cache and force it to recompile. This may be useful in some special situations, such as when you install a new GPU, or if you are seeing rendering glitches.
- **Downsample Canvas At:** Select the image resolution at which downsampling will be applied. Downsampling very large images reduces the processor load, and will help improve performance.

Last modified: Dec 24, 2021

4.9.2. Edit Settings

The edit options are used to configure features specific to the process of editing your images.

Settings **GENERAL** **EDIT** **EXPORT** **ACTIVATION** **SHORTCUTS** **PRESETS** ✕

Guides

Grid line color

Snapping line color

Exposure warnings

Highlight overlay color

Shadow overlay color

Render overlays

Mask overlay color

Interface Layout

Left handed	Right handed

Effects

Favorites   Clear

Most used   Clear

Most used count   [slider]   5

Default canvas settings

Use previous size

Dimensions   w   2750   px   h   2750   px

Background color

Workspace profile   ROMM RGB (linear)   ▼

Rendering intent   Absolute   ▼

RESET ALL   CANCEL   SAVE

Guides

Imerge offers several overlays that can be useful for alignment and layout of your project. Select the color used by the overlay lines here.

- **Grid line color:** Click the color swatch to open a color picker and choose a new color for the guides.
- **Snapping line color:** Click the color swatch to open a color picker and choose a new color for the lines used to indicate layer alignment.

Exposure warnings

Imerge can use overlays to identify areas in your image that are out of gamut and may be clipped when exported. The colors of the overlays can be chosen here.

- **Highlight overlay color:** Click the swatch to open a color picker and choose the color that will be used to identify areas that are too bright to fit into the destination color space.
- **Shadow overlay color:** Click this swatch to open a color picker and choose the color that will be used to identify areas that are too dark to fit into the destination color space.

Interface layout

The layer list and layer inspector can be positioned on the left hand side or right hand side of the screen. Click the thumbnail for your preferred layout to select it.

- **Left handed:** Places the layer controls on the left hand side of the screen.
- **Right handed:** Places the layer controls on the right hand side of the screen.

Effects

Control your personalized settings for effects usage here.

- **Favorites:** Use the **Clear** button here to remove the favorite setting from all effects at once. The favorite status of any individual effect can be toggled at any time in the Add effects menu.
- **Most used:** Use the **Clear** button here to clear all effects out of the most used list. The most used list keeps track of how many times each effect is used in your projects, and shows the effects you use most frequently. Clearing the list here resets the usage count for all effects back to zero.
- **Most used count:** Specify how many effects are included in the most used list here.

Default canvas settings

You can set the default size used when a new canvas is created. Regardless of the default, any canvas can be modified at any time after it is created.

- **Use previous size:** When this toggle is activated, Imerge will use the dimensions of whatever project was most recently opened in the software.

- **Dimensions:** If you prefer to use a specific size as the default, disable the use previous size toggle above, and enter the dimensions here.
- **Background color:** Define the default background color used for the canvas. Click the swatch to open a color picker and select any color you desire. Use the slider to adjust the opacity of the selected color.
- **Workspace profile:** When compositing images, it is not uncommon for a project to contain multiple images that use different color profiles. Color management defines how the colors contained in your images will be handled. Choose the color profile to which all imported images will be converted.
  - **sRGB (linear)** The sRGB color space is the standard color space used for final viewing of digital images.
  - **ROMM RGB (linear)** ROMM RGB, also known as ProPhoto, is a large gamut color space ideal for photo editing. It allows for maximum accuracy in the reproduction of colors.

- **Rendering intent:** if the source color space exceeds that of the destination, this setting determines how the adjustment is handled.
  - **Perceptual:** Good for highly saturated images intended for printing. The entire tonal range of the source image is compressed to fit into the available gamut of the destination profile, which retains the relative difference between different colors in the image. If your images contain many out-of-gamut colors, perceptual often gives the best result.
  - **Absolute:** Aims to retain the original colors as accurately as possible, regardless of whether they fit the gamut of the destination color space. Exactly maintains the values of all source colors that fall within the destination color space. Out of gamut colors are clipped. If the destination color space uses a different white point than the source, absolute color uses the white point of the source, and does not convert it to the destination.

Last modified: Dec 29, 2021

4.9.3. Export Settings

Manage the default settings and hardware parameters used for exports here.

Performance

These settings determine how much of your system resources are allocated to Imerge export tasks.

- **Processor usage:** For systems with multiple CPU cores, you can specify how many cores will be used for Imerge exports. The number of cores selected here determines how many export tasks can be processed concurrently.
- **Memory usage:** Specify how much of the system RAM is available for Imerge to access when exporting.
- **File storage limit:**

Options

- **Auto start export:** Enable this option to have export jobs start immediately when added to the queue.

Disable it if you wish to add multiple jobs to the queue, and manually start exporting them all at once.

- **Auto expand new jobs:** Enable this option to have export jobs auto expand in the Export queue, so the individual images within the job are visible.
- **Conflict resolution:** Determine how file name conflicts are handled. If an exported image cannot be saved because there is already an existing image at its intended destination which uses the desired file name, this setting tells Imerge how to handle the situation.
  - **Always ask:** This option alerts you every time an export conflict arises, so you can choose how to handle them on a per-case basis.
  - **Skip:** This option cancels any export tasks where there is a conflict, keeping the older image intact.
  - **Overwrite:** This option replaces the older image with the new one.
  - **Keep both:** This option keeps both images. The older image remains intact, and the new export is saved with an iteration number added to its file name.
- **Default folder:** Select the default destination folder to which new export jobs will be assigned.

Metadata

You can enter specific metadata here, including copyright information, to automatically add it to the metadata of all images you export. Metadata is never visibly displayed on the images, but is stored in the image file for proof of copyright.

- **Export metadata:** Specify what metadata is added to your exported images.
  - **Edit overrides:** Click this button to open the metadata editor.
    - **Contact:** Enter contact info here, including **Author, Author Title, Address, City, Region, Postcode/Zip,Country, Phone, Email, and Website**.
    - **Rights:** Enter rights and copyright info, including **Copyright, Rights Marked, Statement, URL, CC, More perms URL, Attribution URL, and Attribution name**.
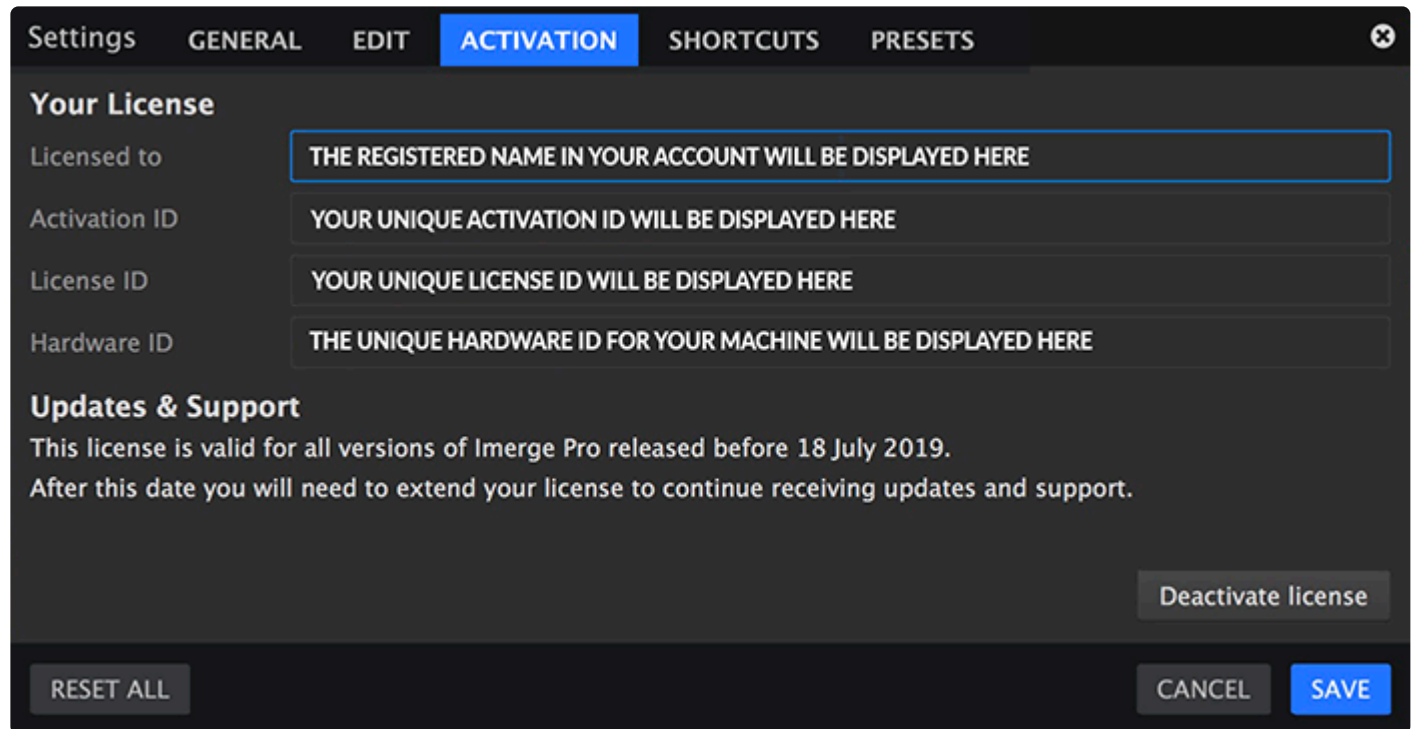
Last modified: Dec 24, 2021

4.9.4. Activation Settings

Activation and deactivation of the software is handled here. When the software is not activated, the screen above will be shown.
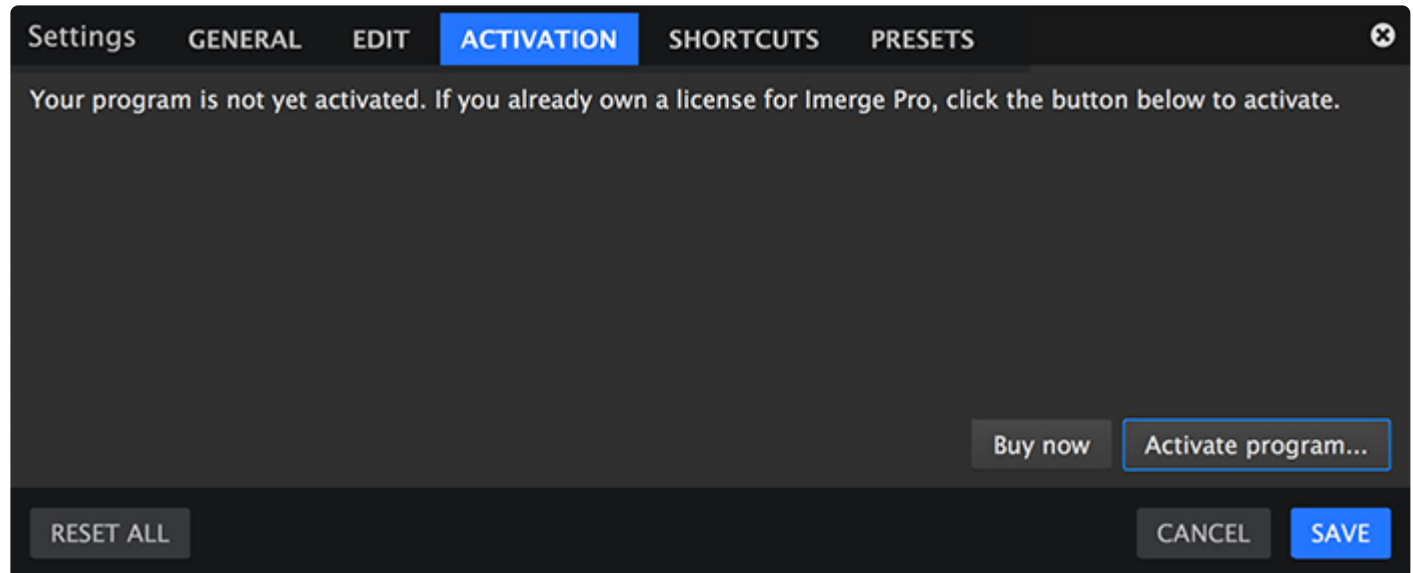
- **Buy now:** Click this button if you have not yet purchased a license but wish to activate the software. You will be taken to the FXhome online store, where you can purchase a license for immediately activating the software.
- **Activate program:** If you already own a license, click this button to enter your serial code and activate the software.

Once activated, the contents of the Activation screen will change to show your unique activation details.

Your license

The details of this specific activation of the software are displayed here, including **Activation ID**, **License ID**, and **Hardware ID**.

Updates and support

Every license of Imerge Pro is permanent, and will never expire. It also includes 12 months of updates to the software. The details of your license period are displayed here, including the date at which free updates will cease. After that date, you can continue forever using the most recent version released prior to that date, or purchase an upgrade of another 12 months of updates at any time.

*Last modified: Dec 24, 2021*

4.9.5. Shortcuts Settings

All keyboard shortcuts can be viewed and edited here. Getting familiar with the keyboard shortcuts for frequently used commands can greatly speed up your workflow. For complete details, see the page on Keyboard shortcuts.

Settings	GENERAL	EDIT	ACTIVATION	SHORTCUTS	PRESETS	✕
Undo				⌘Z		
Redo				⇧⌘Z		
Open project				⌘O		
New project				⌘N		
Quit				⌘Q		
Delete				⌫, ⌦		
Cut				⌘X		
Copy				⌘C		
Paste				⌘V		
Lock				⌘L		
Duplicate				⌘J		

RESET ALL   CANCEL   SAVE

Last modified: Dec 24, 2021

4.9.6. Presets Settings

Your custom presets can be managed here. In addition to viewing your presets, you can export presets and import additional presets from this panel. For full details on working with presets, see the Presets page of this manual.
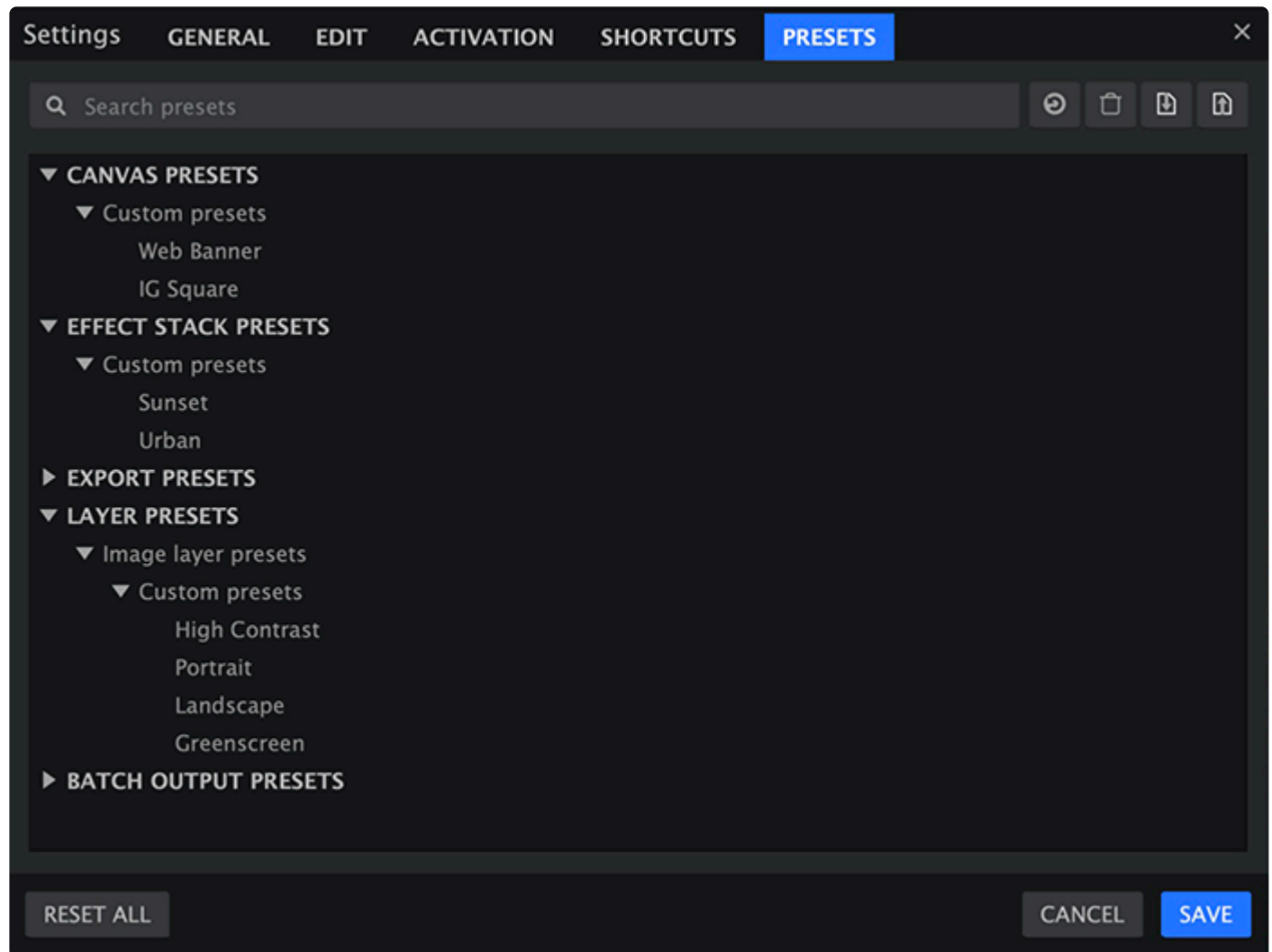
- **Canvas presets:** All custom presets you have saved for creating canvases will be listed here.
  - These presets can be accessed through the **New from template** menu.
- **Effect stack presets:** All custom presets you have created for the effect stack will be listed here.

  - These presets can be accessed through the preset menu ≡ to the right of the effect stack header.
- **Export presets:** All custom presets you have created for canvas export will be listed here.
  - These presets can be accessed through the **Export Canvas > Format** menu.
- **Layer presets:** All custom presets you have saved for creating new layers will be listed here. The presets will be grouped by layer type.
  - These presets can be accessed through the **New from template** menu.
- **Batch output presets:** Your presets for batch exports will be listed here.

◦ These presets can be accessed in the batch panel, through the New output button ⊕ or the Output menu ≡ .

Managing presets

You can manage your presets by first selecting them in the list, then either using the buttons at the top of the panel, or using the right-click menu.

- 🔍 **Search presets:** Use this search box to quickly find specific presets by name.
- ↻ **Restore presets:** when any of the built-in presets are deleted, they will be added to the list of presets in the Preset Settings. You can select and restore them here.
- 🗑 **Delete presets:** Removes the selected presets from the software.
- ⬇ **Import presets:** Opens a file browser so you can select any .imergepr files on your system and import them into your installation of the software.
- ⬆ **Export presets:** Exports the selected presets in the .imergepr format.

Last modified: Dec 24, 2021

4.10. Keyboard shortcuts

Keyboard shortcuts can be very useful for speeding up your workflow and getting results quickly. They can execute commands or modify the results of adjustments made with interface controls. Some controls are selection specific, meaning the results will vary depending on whether a layer, a mask, or an effect is currently selected.

Interface modifiers

These keyboard commands will modify the results of adjustments made to the selection on the viewer.

- **ALT:** Holding ALT while resizing a selection will resize it from the anchor point rather than from the opposite corner.
- **SHIFT when rotating:** When rotating a selection, holding SHIFT will snap the rotation to 15 degree increments.
- **SHIFT when resizing:** When resizing a selection, holding Shift unlocks the aspect ratio, so the height and width can be adjusted independently.

These keyboard modifiers will alter the results of adjustments made when changing a property value with the arrow keys. Select a value and use the up/down arrow keys to move the value in either direction.

- **ALT:** Hold ALT while editing the value to change it more quickly, in units of 10.
- **SHIFT:** Hold SHIFT while editing any floating point value to increase precision, and adjust it in increments of 0.

Keyboard Commands

A complete list of keyboard shortcuts built into the software is listed in the Application Settings, and can be accessed by clicking the Shortcuts tab. They are also listed below, for reference.

Command	Windows shortcut	Mac shortcut
Undo	CTRL+Z	⌘Z
Redo	CTRL+Y	SHIFT⌘Z
Open project	CTRL+O	⌘O
New project	CTRL+N	⌘N
Quit	ALT+F4	⌘Q
Delete	BACKSPACE or DEL	BACKSPACE or DEL
Cut	CTRL+X	⌘X
Copy	CTRL+C	⌘C

Paste	CTRL+V	⌘V
Lock	CTRL+L	⌘L
Unlock	SHIFT+CTRL+L	SHIFT⌘L
Duplicate	CTRL+J	⌘J
Group from selection	CTRL+G	⌘G
Ungroup	SHIFT+CTRL+G	SHIFT⌘G
Collapse all groups	CTRL+ALT+G	OPTION⌘G
Rename	F2 or ENTER	RETURN
Find	CTRL+F	⌘F
Application settings	CTRL+,	⌘,
Save project	CTRL+S	⌘S
Save as	CTRL+ALT+S	SHIFT⌘S
Insert	CTRL+I	⌘I
Import	CTRL+I	⌘I
Export	CTRL+E	⌘E
Print	CTRL+P	⌘P
Close project	CTRL+F4 or CTRL+W	⌘W
Insert text	CTRL+T	⌘T
Grid	CTRL+G	⌘G
Secondary monitor	CTRL+M	⌘M
Pan	SPACE	SPACE
Zoom to fit	CTRL+0	⌘0
Zoom to extent	CTRL+ALT+0	Option⌘0
Zoom in	CTRL+=	⌘=
Zoom out	CTRL+-	⌘-
Zoom to 100%	CTRL+1	⌘1
Zoom to 200%	CTRL+2	⌘2
Zoom to 300%	CTRL+3	⌘3
Zoom to 400%	CTRL+4	⌘4

Zoom to 800%	CTRL+8	⌘8
Sample at 1x	CTRL+SHIFT+1	SHIFT⌘1
Smart downsample	CTRL+SHIFT+2	SHIFT⌘2
Add effect	CTRL+/	⌘/
Add mask	CTRL+\	⌘\
Select mode	V	V
Pan mode	H	H
Show mask	M	M
Overlay mask	O	O
Disable effect	/	/
Increase brush radius	]	]
Decrease brush radius	[	[
Increase brush softness	SHIFT+]	SHIFT]
Decrease brush softness	SHIFT+[	SHIFT[
Increase brush opacity	Alt+]	Opt]
Decrease brush opacity	Alt+[	Opt[
Increase brush rotation	Shift+R+Up arrow	Shift+R+Up arrow
Decrease brush rotation	Shift+R+Down arrow	Shift+R+Down arrow
Increase brush scale	Shift+S+Up arrow	Shift+S+Up arrow
Decrease brush scale	Shift+S+Down arrow	Shift+S+Down arrow
Toggle brush mode	~	~

Last modified: Dec 24, 2021

4.11. Project files

Project files created by Imerge use a unique file format, and are saved with the .imerge file extension. Imerge scans your file system to find all .imerge files on your machine and lists them on the projects screen.

Backward compatibility

Project files created by Imerge are backward compatible, meaning that any project files saved with an older version of the software can be opened in a newer version of Imerge. However, projects saved with a new version, cannot be opened in older versions of the software.

Therefore, if you have a project file that was created in an older version, and want to open it in the current version, you can do without issue. However, if you think you may have any reason to open the file later in the previous version, then it is recommended to copy the project file first, so the original remains intact, and you can open the copy in the current version, and save it to the updated format.

Image referencing

When you import images into your project, the actual images are not copied or stored in the project file. Instead, Imerge uses referencing – it stores the location of the source file, so it can open the file into the project. The original source image remains unchanged on your drive. Any adjustments made to the image, such as color adjustments or keying, are stored in the Imerge project file, so the adjustments can be applied each time the project is opened.

Transferring project files

Image referencing has a decided advantage in that the editing process in Imerge is non-destructive, and never alters or damages your source images. However, it also means that if you want to transfer the project from one computer to another, you need to remember to transfer the source images as well.

Integrating projects with HitFilm

Imerge projects can be exported as HitFilm composite shots (.hfcs), for use in FXhome's video editing products, HitFilm Express and HitFilm Pro. This allows you to retain all layers in your Imerge project, so they can be edited independently in HitFilm to create motion graphics. Each layer in your Imerge project will be rendered to a new image, factoring any transformations, effects and masks applied to the layer. The layers will then be combined as layers in the HitFilm comp.

> ✳ The maximum resolution supported in HitFilm Express is 4096 × 2160. If your project exceeds these dimensions, it will not be openable in HitFilm Express.

> ✱ The maximum resolution supported in HitFilm Pro is 8192 × 8192. If your project exceeds these dimensions, reduce the size before exporting it to a HitFilm composite shot.

To export a HitFilm comp:

1. Open the Export Canvas dialog, by clicking the export canvas button ⬆, by pressing **CTRL+E** on your keyboard (**CMD+E** on Mac), or selecting Project > Export in the top menus.
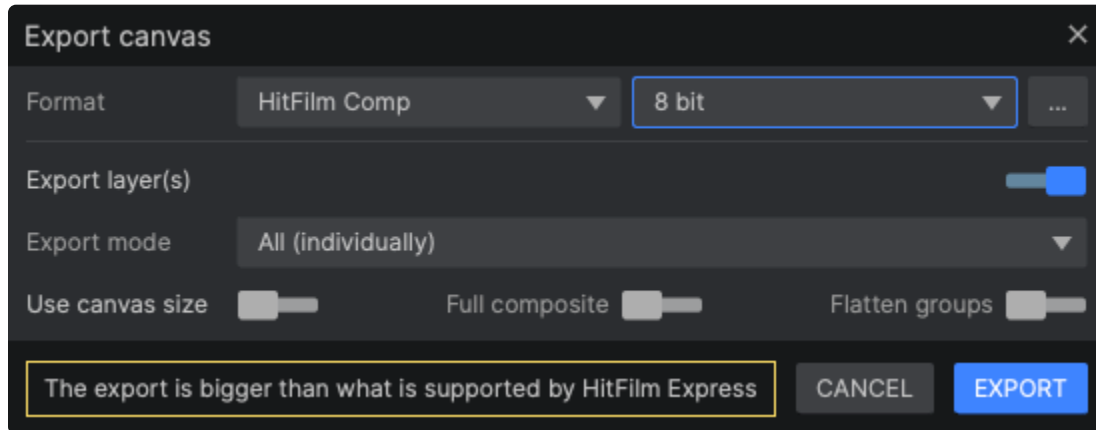
2. In the Format menu, select **HitFilm Comp**, then adjust the settings as needed.
   - **Bit depth:** Select the bit depth used to render the project.
     - **8-bit:** 8-bit color is the standard for video delivery formats. It provides good color reproduction and relatively small file sizes.
     - **8-bit (w/o file):** This option saves the separate layer images using 8-bit color, but does not write the .hfcs file. It is useful for updating the components of a project which was previously exported, and is already being worked on in HitFilm. Enable this option to update the layers in place, within the existing HitFilm project where the comp has been imported.
     - **16-bit:** 16-bit color is preferred for intermediate stages of editing, as it provides better quality retention through a greater range of color or tonal adjustments. It also allows for high dynamic range (HDR), for more lifelike color reproduction.
     - **16-bit (w/o file):** This option saves the separate layer images using 16-bit color, but does not write the .hfcs file. It is useful for updating the components of a project which was previously exported, and is already being worked on in HitFilm. Enable this option to update the layers in place, within the existing HitFilm project where the comp has been imported.
   - **Export layer(s):** Exports each layer of the Imerge project as a separate layer in the HitFilm comp. If you disable this option, then the entire Imerge project will be flattened into a single layer in the HitFilm comp.
   - **Export mode:** Determines which layers in the Imerge project are included in the export.
     - **All (individually):** All layers in the Imerge project are included in the exported HitFilm composite shot.
     - **Selected layer(s):** Only the selected layers are included in the exported HitFilm composite shot.

- **Use canvas size:** Enable this option to export all layers at the canvas size. Layers smaller than the canvas will be filled with transparency around the image, so they match the canvas size. Layers larger than the canvas will be trimmed, and any area outside the canvas will be removed. When this option is disabled, each layer will use its original size.
- **Full composite:** Enable this option to include a rendering of the complete Imerge project, in addition to the individual layers.
- **Flatten groups:** Enable this option to flatten all groups in the Imerge project into single layers in the exported HitFilm composite shot.

3. Once the settings are correct, click the **Export** button.
4. In the file browser which opens, enter a name and select a location where the .hfcs file should be saved.

4.12. Presets and templates

Presets allow you to quickly add predefined groups of settings, effects, or adjustments, greatly speeding up your workflow and making it simple to apply the same settings to multiple images, in multiple projects. Presets are beneficial in a number of different situations:

- Canvas size templates
- Project templates
- Layer presets
- Effects stack presets
- Effect presets
- Contour presets
- Export output presets
- Output filename pattern presets

The details of where you find presets and how you create your own presets vary based on the type of preset involved. Each is explained in detail below.

Canvas size templates

Canvas size contain preconfigured details of the project canvas: canvas dimensions, color handling, and background color. When creating a new project, select any canvas size preset to assign the project the specific combination of settings contained in that preset. Users can create custom canvas presets as well, so if there are particular settings that you use repeatedly, creating a preset with those settings will save you some time.

Using canvas size templates

The location where you find canvas size templates varies based on what screen you are currently viewing in the software.

- **On the projects screen:** Open the **New** menu, and select your desired canvas size template from the menu.
- **On the edit screen:** In the menu at the top left, select **Project** > **New from template** and select your desired canvas size template from the menu.

Creating canvas size templates

Custom canvas size templates can be created from the Edit screen.

1. At the bottom of the layer stack, open the **canvas settings**, and adjust them to your desired values.
2. Open the Dimensions menu in the canvas settings, and select **Save preset** at the bottom of the menu.
3. In the dialog which opens, enter a name for the new template, and click **save**.

Project templates

Project templates are a more comprehensive template option than the canvas size presets. Project templates store everything in the project, including layers, layer content, effects, and masks. You can then set up a template with a specific overlay, text label, color adjustment, and background, for example, and slot in different green screen foregrounds at any time.

Using project templates

The location where you find project presets varies based on what screen you are currently viewing in the software. Project templates are listed at the bottom of the menu, below the horizontal dividing line. There are no project templates included by default, so you need to create one before any will be listed in the menu.

- **On the projects screen:** Open the **New** menu, and select your desired project template from the menu.
- **On the edit screen:** In the menu at the top left, select **Project** > **New from template** and select your desired project template from the menu.

Creating project templates

Custom project templates can be created from the Edit screen.

1. Configure your entire project to use the settings you want to store in the template.
2. At the top left of the interface, select **Project** > **Save as template**
3. In the dialog which opens, enter a name for the new template, and click **save**.

Layer presets

Each kind of layer in Imerge can contain layer presets, for creating layers with preconfigured properties and settings. Some kinds of layers include presets when installed, and you can create custom presets for any kind of layer.

Using layer presets

Layer presets can be used when creating a layer.

- At the top of the layer stack, click the **New layer** button for any kind of layer. A menu listing all available layer presets for that kind of layer will open, so you can select one. In this example, the presets for an image layer are shown.
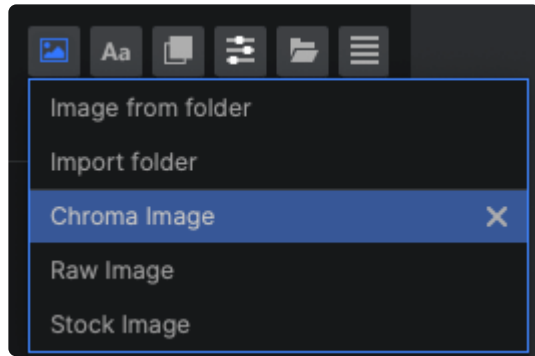
Creating layer presets

Any time you have a layer whose settings would be useful to access again in the future, you can create a layer preset to store those settings, so they won't need to be manually configured next time. This could be an adjustment layer with specific effects applied, a solid layer containing a specific color and blend mode, a group layer with certain blend and passthrough settings, or any other layer configuration you find useful.

1. At the top right of the layer sidebar, click the **save layer preset** 💾 button.

2. In the dialog that opens, enter a name for the new layer preset, and click **save**.

Effects stack presets

Effects stack presets allow you to store a combination of multiple effects, each with specific settings, for use in any project. Effects stack presets are most commonly used to create 'looks', or specific color and tonal adjustments, which can easily be applied to any image in the future. But they can also be beneficial for common utility tasks, such as chroma keying.

Effects stack presets are created, accessed, organized, and otherwise managed in the presets sidebar. See the Presets sidebar page for full details.

Effect presets

Effect presets are similar to effects stack presets, but store settings for a single effect, rather than a combination of effects. When you find a combination of settings for any effect which you are quite happy with and would like to be able to use again, save it as a preset for future use.

Using effect presets

- Click the **Preset menu** ≡ icon to the right of the effect name, and select any preset from the list inside. The settings for the effect will be adjusted to use the values stored in that preset.

Creating effect presets

1. Click the **Preset menu** ☰ icon in the Effects header and at the bottom of the menu, select the **Save Preset** command to create a new preset, containing all effects currently applied to the layer.
2. In the dialog that opens, enter a name for the new effects stack preset, and click **save**. The values currently selected in the effect settings will be stored in the preset, which will be listed in the preset menu.

Contour presets

Contour presets are used by the bevel & emboss effect. Bevel & emboss adds illumination and shading to simulate depth, and the contour defines the profile shape of the edges which catch the shadows and light. See the [Stylize](#) page of this manual for full details on using the bevel & emboss effect.

Using contour presets

- In the bevel & emboss effect, open the Contour menu and select any preset from the list. See the [Stylize](#) page of this manual for full details on using the bevel & emboss effect.

Creating contour presets

1. In the controls for the bevel & emboss effect, edit the contour curve to create your desired shape.
2. Open the bevel menu, and select **Save preset** at the bottom of the list.
3. In the dialog that opens, enter a name for the new contour preset, and click **save**.

Output presets

Output presets store a configuration of output settings, including format, compression, filenaming and resizing details. They allow you to easily export images for specific purposes, such as uploading to the web, print, or delivering client previews.
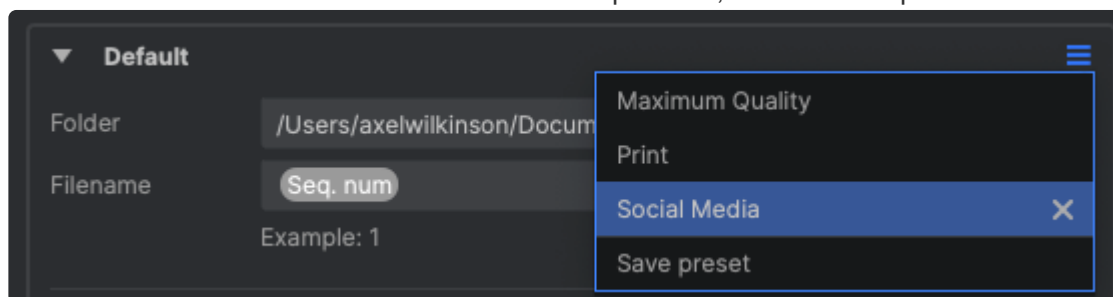
Using output presets

Output presets can be accessed in two places, both of which are in the output section of the batch export tab.

- **Adding a new output item:** In the header of the Output section, click the plus icon ⊕ to add a new output item from the list. A new output will be added, using the settings stored in your selected output preset.
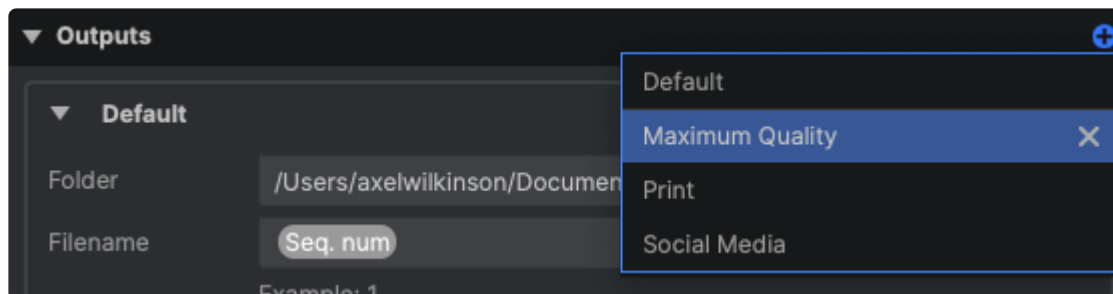
- **Editing an existing output item:** Presets can also be applied to any existing output item. Click the

  Preset menu ☰ icon in the header of the output item, and select a preset from the list.

Creating output presets

When you have a specific output configuration that you would like to be able to reuse in future projects, you can save it as an output preset.

1. Edit the output settings as you want them to be stored in your new preset.
2. Click the **Preset menu** ☰ icon in the header of the output item, and select **save preset** from the bottom of the list.
3. In the dialog that opens, enter a name for the new output preset, and click **save**.

Filename pattern presets

Outputs use filename patterns to generate names for each exported image. Filename pattern presets give you direct access to any naming patterns you create.

Using filename patterns

- Within the output item, click the **Filename presets menu** ☰ icon to select a preset from the list.

Creating filename presets

1. Configure the filename pattern you want by entering any combination of text and tags into the filename field.
2. Within the output item, click the **Filename presets menu** ☰ icon and select **Save preset** from the bottom of the list.
3. In the dialog that opens, enter a name for the new filename preset, and click **save**.

4.12.1. The presets sidebar

The presets sidebar is where you create, access and organize effects stack presets. It can be opened from the top toolbar whenever you need it, and hidden away to save space when it is not required. When viewing the presets sidebar, hovering the mouse over any preset will show a preview of that preset on the viewer.

Accessing the presets sidebar

- 🔲**Sidebar Button:** Click the sidebar toggle button to open or close the presets sidebar.

Browsing and applying presets

When the sidebar is open, all preset categories are displayed. Click the thumbnail for any category to view the presets it contains. When inside any category, click the **Return To Categories** link at the top of the sidebar to view the categories again.

- **Previewing Presets:** When inside any category, hover the mouse over any preset, and the Canvas will display a preview of that preset.
- **Applying Presets:** When you have found a preset you want, click the preset's thumbnail to apply the preset to the currently selected layer.
  - **Replace existing effects:** This toggle, found at the bottom of the sidebar, allows you to choose whether your new preset is appended after any existing effects on the layer, or removes any existing effects and replaces them with the selected preset.

- ⭐ **Favoriting Presets:** Each preset thumbnail includes an outlined star icon, which toggles the Favorite status of that preset.

  - ☆ **Not Favorited:** The preset is not included in your favorites.

  - ⭐ **Favorited:** The preset is included in your favorites. Once at least one preset has been favorited, a new category of **Favorites** will be added to the sidebar, so you can quickly access all of your favorite presets.

- **Search:** The search bar allows you to quickly locate presets by name, regardless of what category they are stored in.

- **Hide unsupported presets:** By default, any presets which are not compatible with the current selection show a message that they are not supported (i.e. *"This preset is not supported on Solid layers."*). Enable this option to hide unsupported presets entirely, so only presets that are compatible with the current selection are displayed.

Creating and organizing presets

Imerge installs a wide variety of effects stack presets, but you can also create your own, and import presets created by other people. As the number of presets you have installed increases, you may find it beneficial to organize them by grouping them into different categories. You can also create new categories and move presets between categories using the sidebar. Additional controls for managing presets are found in the [Presets tab of the Imerge Settings](#).

Creating a new preset

You can create a preset to store the specific effects and settings you have applied to a layer, so you can quickly reuse those effects and settings on other layers later. So the first step of creating a preset is to add effects to a layer, and adjust the settings within those effects to get the result you want. Then you can save those effects as a preset, and give it a name.

1. Apply one or more effects to a layer, and adjust the values for any properties within those effects to get the result you want.

2. Make sure the layer containing the effects is selected, and click the 🔲**sidebar button** to open the presets sidebar.

3. Open the ≡ hamburger menu in the presets sidebar, and select **create preset**.

4. In the **Create preset** dialog which opens, enter a name for your new preset and select a category.

   - If you wish to create a new category for the preset, click the ➕ **add** button next to the categories menu.

5. Click the **Add** button to close the dialog and create the preset.

≡ The hamburger menu

The hamburger menu at the top of the sidebar is where you add presets and categories.

- **Create preset:** Creates a preset out of all effects present on the currently selected layer, using the current values for each property in those effects.
- **Create category:** Creates a new preset category and allows you to name the new category.
- **Import preset(s):** Opens a file browser window where you can select .imergepr preset files and import them into the software.

Organizing presets

Most organizational tasks, including moving presets from one category to another or renaming presets, are accessed through the right-click contextual menus in the presets sidebar.

- **Right-click a category:** When you are viewing the categories in the sidebar, right-clicking any category displays the following options.
    - **Rename category:** Opens a dialog where you can enter a new name for the category.
    - **Delete category:** Removes the category and all the presets it contains from the sidebar.
        - Note that default categories can be recovered after being deleted, through the Preset Settings. User created categories cannot be recovered.
    - **Import preset(s):** Opens a file browser window where you can select .imergepr preset files and import them into the category on which you right-clicked.
    - **Export preset(s):** Exports all presets contained in the category to a file directory of your choice. They are saved as .imergepr files which can then be imported into other Imerge installations.
- **Right-click a preset:** When you right-click any preset in the sidebar, the following options are displayed.
    - **Apply preset:** Adds all effects contained within the preset to thee currently selected layer.
    - **Rename preset:** Opens a dialog where you can enter a new name for the preset.
    - **Move preset:** Opens a dialog where you can choose a different category for the preset.

        - If you wish to create a new category for the preset, click the ⊕ **add** button next to the categories menu.
    - **Delete preset:** Removes the preset from the sidebar.
        - Note that default presets can be recovered after being deleted, through the Preset Settings. User created presets cannot be recovered.
    - **Update preset:** Overwrites the preset with the selected layers's current effects and settings.
    - **Add to favorites:** Flags the preset as a favorite, and adds it to the Favorites category in the sidebar.
    - **Import preset(s):** Opens a file browser window where you can select .imergepr preset files and import them into the software.
    - **Export preset:** Exports the preset to a file directory of your choice. It is saved as .imergepr files which can then be imported into other Imerge installations.

Last modified: Dec 24, 2021

5. Layers

Imerge is a layer-based compositor, so layers are the fundamental element from which your composite is built. The layer stack controls how the contents of the layers will be combined.

Layer types

Each of the six kinds of layer in Imerge Pro serves a different purpose.

- **Image:** Image layers are used to store any images you want to import into Imerge Pro. Each image layer is a container, and can store as many image variations as you require. Image layers can also be configured with [Hot Folders](), to auto-import images as you capture them with a tethered camera.

- **Text:** Text layers are used to generate text. All features of the text remain fully editable, so you can change the contents, the font, the color, or other aspects of the text whenever you need to. Each text layer is a container, and can store as many text items as you require.

- **Solid:** A solid layer is simple a rectangle filled with a single color. This can be further modified by applying effects or mask to adjust the color, pattern , or shape.

- **Adjustment:** Adjustment layers apply effects to all layers below them. This makes it easy to apply effects to multiple layers in a project, without needing to apply the effect to each layer individually. You can also mask an adjustment layer to apply its effects to only specific areas of the layers below.

- **Group:** This layer serves as a container for other layers, to group them together. This is useful for keeping your project organized when many layers are involved. It also allows you to apply masks or effects to multiple layers at once. When a mask or effect is applied to a layer group, all layers inside the group will be affected.

- **Stacked:** Stacked layers are used to combine multiple images into a single result.
  - **HDR Merge:** Combines multiple exposures of an image, each with different exposure compensation, to create an image with increased dynamic range.
  - **Focus Stack:** Combines multiple exposures of a scene, each with a different focal distance, by using the in-focus area from each image, to create a final image with deep focus or infinite depth of field.

Layers as containers

As noted above, image layers and text layers serve as containers. The contents of the layer are separate from the layer itself, and so each layer can contain multiple images, or multiple text items. This is primarily used for batch processing multiple images, or creating multiple variations of a layout. See the [layer content]() page for full details.

Layer functionality

- **Visibility:** The visibility of any layer can be enabled or disabled using the square toggle next to the layer's name.

  - ☐ **Visible:** When the toggle is filled, the layer is visible. When the layer is not selected, the fill will be blue. when the layer is selected, the toggle will be filled with white.

  - ☐ **Invisible:** When the toggle is empty, the layer is invisible.

- **Locking:** Any layer can be locked to prevent accidental changes to its contents.

  - 🔒 **Locking:** To lock a layer, right-click the layer in the layer stack, and select Lock from the menu. The lock icon will be displayed next to the layer name when it is locked. You can also select a layer and use the keyboard shortcut CTRL+L (CMND+L on Mac) to lock the layer.

  - 🔓 **Unlocking:** To unlock a layer, right-click the locked layer and select Unlock from the menu. The lock icon will be removed. You can also select a locked layer and use the keyboard shortcut CTRL+SHIFT+L (CMND+Shift+L on Mac) to unlock the layer.

- **Naming:** When working in projects with multiple layers, taking a moment to rename your layers logically can make it much faster to find the specific layer you need. There are several options for renaming layers.

  - **Double-click:** Double-click the name of any layer to select the name, then type the new name you wish to use.
  - **Right-click:** Right-click the layer you wish to rename, and select Rename from the menu. Then type the new name you wish to use.
  - **Keyboard shortcut:** Select the layer you wish to rename and then press F2 on Windows, or Return on Mac, to select the name. then type the new name you wish to use.

- **Previews:** To the right of each layer name is a preview thumbnail, which provides a quick indication of the layer's contents. For image and Solid layers, the thumbnail is dynamic, and represents the actual contents of the layer. For other kinds of layers, a default preview indicates the kind of layer.

  - **Image preview:** For image layers, which can contain multiple variations, the currently selected variation will be displayed in the preview. The preview represents the original image, before any effects, masks or adjustments are applied.

  - **Text preview:** Text layers use a generic preview, so you can easily identify text layers in the stack. The preview is too small to represent the actual contents, so you may want to rename your text layers to indicate their contents.


  - **Solid preview:** Solid layers contain a single color. The Preview will be filled with the current color of the solid. If you change the color of the solid, the preview will update to the new color.

  - **Adjustment Preview:** Adjustment layers have no actual contents, instead they store effects or settings that are applied to the layers below them. Therefore, a generic preview is applied to all

adjustment layers. You may want to rename your adjustment layers to indicate what they contain.

| ■ **Adjustment** | ⇌ |
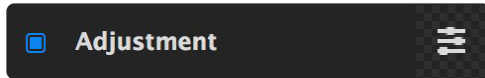
- **Search:** At the top of the layer stack is a search box. For projects involving large numbers of layers, this can be helpful for quickly locating a specific layer in the stack. The search is dynamic, so as you type, the layer stack will update to show only layers that match the current search term.

🔍 Search layers
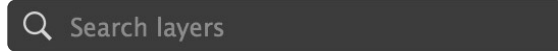
Rendering overview

Understanding the rendering process used by Imerge Pro is beneficial to determining how to set up your project. All projects are rendered by going through the following process:

1. Create a new image with the size and color profile defined by your canvas settings.
2. For each layer, working from the bottom to the top of the layer stack, complete the following:
   a. Take the active content variation and render it onto a layer the size of that content. For solid layers, the color defined in the transform section is used to fill the layer. For Adjustment Layers, it copies what was composited onto the canvas at the end of the previous layer.
   b. Apply any layer masks. When multiple masks exist on a single layer, the masks are applied in order from top to bottom.
   c. Apply any effects contained in the layer. When multiple effects are contained in a layer, the list of effects is applied from top to bottom. For each effect, if an effect mask exists then the results of the effect are limited to the area defined by the mask.
   d. Composite the layer onto the canvas with the layer's transformation settings.

So in summary, rendering flows up the layer list, and down the layer inspector.

Last modified: Dec 24, 2021

5.1. Layer content

Layer content allows you to define multiple images or pieces of text which can be substituted in the layer. This is useful for managing variations or setting up batch processing workflows.

Only the following kinds of layers support multiple content items:

- ![image]**Image layers**

- **Aa** **Text layers**

- ![solid]**Solid layers**

Each item in the contents list is called a **variation**. Each layer will display only one variation at a time.

> ✳ Image layers allow you to import multiple content variations automatically, by setting up a Hot Folder. For more information on auto-importing and using hot folders, see Auto import using hot folders.

## Working with layer contents

Adding contents

The list of contents for a layer is displayed at the bottom of the layer sidebar. To add a new variation, click the Plus icon next to the content title.

- **Adding image variations:** Click the plus icon to open a file browser window, where you can navigate to the image or images you wish to import, and select them.
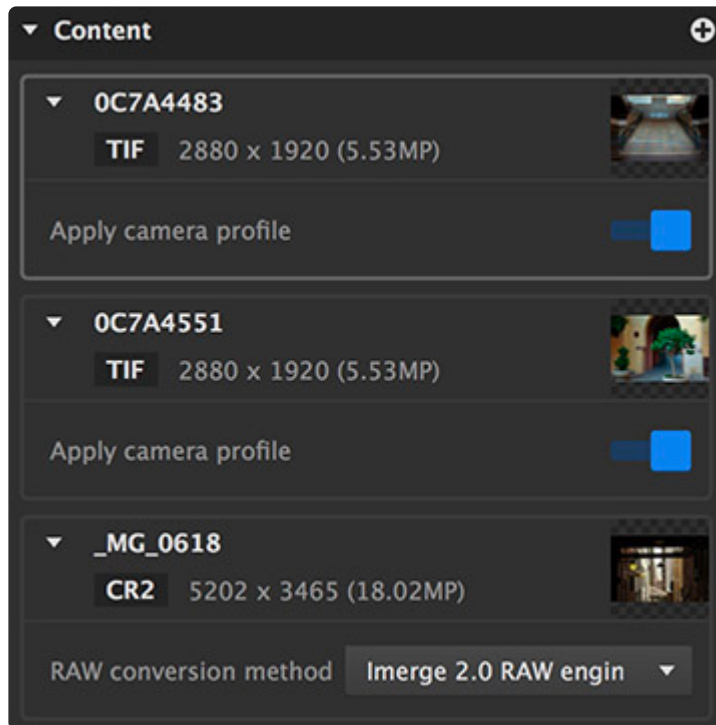
- **Adding text variations:** Click the plus icon to immediately add a new text variation. Click the new text variation to select it, and enter the text you want it to contain. The appearance of the text can then be set up in the Font controls.
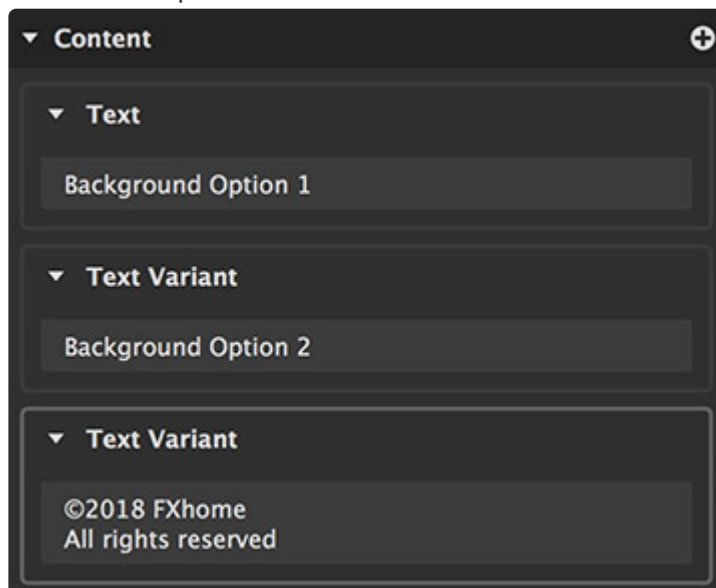
- **Adding solid variations:** Click the plus icon to immediately add a new solid variation. Click the color swatch in the new variation to open a color picker, and choose a color for the new solid variation.

Removing contents

Any variation can be removed by clicking the triangle at the right side of its listing, and selecting Remove.

Setting a variation as active

Each layer will display only one variation at a time. The active variation is highlighted in the content list, and displayed on the canvas.

- **Setting a variation as active:** Click any variation in the contents list to set it as the active variation.

Relinking image contents

If any image in your project becomes offline, it will be labeled as such in the Viewer, and highlighted in red in the contents list. The thumbnail of the image will also not be displayed.
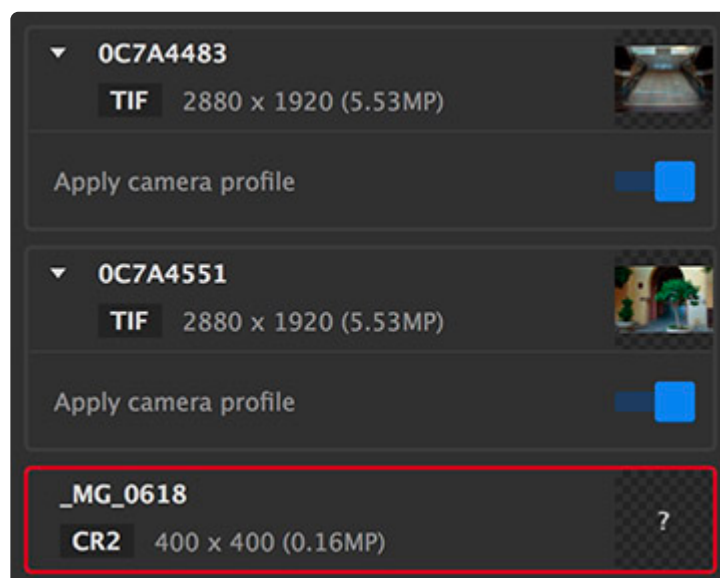
In the above image, the bottom two images are offline. Images can go offline for a variety of reasons:

- The image was moved to a new location on your computer.
- The name of the source image was changed.
- The name of the folder containing the image was changed.
- The drive containing the image was disconnected from your computer.

Regardless of the cause of the image going offline, the process for relinking the image is the same.

- **Relink an image:** To relink any image, click the triangle to the right of its name, and select Relink. Imerge will attempt to intelligently relink all images based on this selection, if the folder structure allows the software to find additional images where it expects them to be.
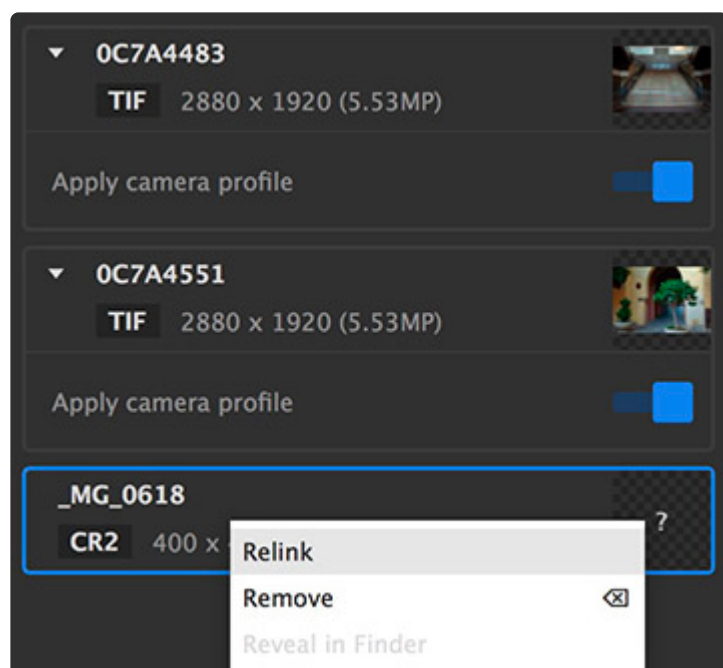
RAW Content

When images in any RAW format are imported, there will be additional controls included in the Content listing, for adjusting how the RAW image is displayed.
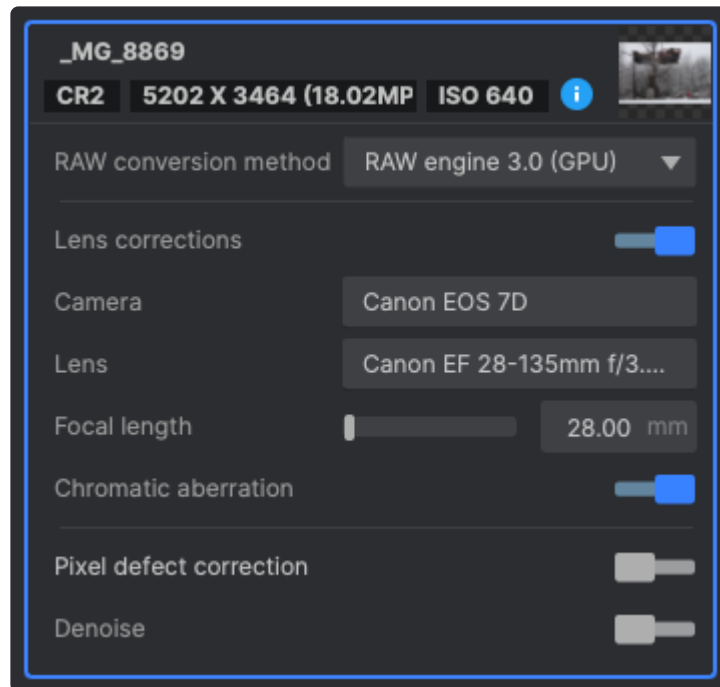
- **Metadata:** Some basic information about the image is listed in its title bar, but space there is limited. Click the blue info icon to view or edit all metadata for any image in the content list. This will open a metadata dialog, with the following tabs.
    - **EXIF:** EXIF data includes details of the camera, lens, and settings used to capture an image. This data cannot be edited.
    - **File:** File data includes a description of the image, embedded keywords for cataloging the image, and info about its creator.
    - **Image:** The Image tab contains information on the location where the image was taken.
    - **Contact:** Provides details of the image creator, and how they can be contacted.
    - **Rights:** Copyright data for the image is accessed or entered here.
    - **Detail:** A summary of all metadata is provided here in tree view. No data can be edited in the Details tab.
- **RAW conversion method:** Imerge offers several options for how the decoding of your RAW images is handled.
    - **None:** The pixel data is decoded, but is displayed in the bayer pattern used by the sensor. Therefore each pixel will contain data for only one color; red, green, or blue.
    - **Raw engine 1.0 (CPU):** This option runs on your CPU, and may therefore be slower than the other options. However, it does offer wider compatibility, and supports cameras which do not use a Bayer color array on the sensor.
    - **Raw engine 2.0 (GPU):** This engine offers faster performance and a wider range of adjustments for many properties of the image, particularly highlight recovery.
    - **Raw engine 3.0 (GPU):** This engine improves the color accuracy of highlight recovery, and handles dead pixels better.
    - **Raw engine XT (GPU):** This option will only be used for certain Fujifilm cameras which use an X-Trans sensor rather than a Bayer sensor array. It will only be listed for images captured with an X-Trans sensor.

- **Lens corrections:** This toggle enables or disables automatic lens correction. The auto correction is calculated based on the optical properties of the selected camera and lens combination.
- **Camera:** The camera used to capture the image should be listed here. If the wrong camera is selected, click the camera name to open a menu and select the correct hardware.
- **Lens:** The lens used to capture the image should be listed here. If the wrong lens is displayed, click the lens name to open a menu and select the correct lens.
- **Focal length:** The focal length at which the image was captured will be displayed here. If a zoom lens is selected, there will be a slider which can be used to select the relevant focal length for the image.
- **Chromatic aberration:** This toggle enables or disables automatic removal of chromatic aberration.

Last modified: Dec 24, 2021

5.2. Stacked layers

Stacked layers differ from other image layers in the way they handle the layer contents. With a stacked layer, the image which is displayed as the layer content is generated by combining multiple source images, to create a new result with characteristics of each of the source images. There are two kinds of stacked layers:

- **HDR Merge Layers:** Dynamic range refers to the number of steps between the brightest and darkest areas displayed in an image. HDR, or High Dynamic Range, combines multiple exposures to create a single image with a wider dynamic range than can be captured in-camera.
- **Focus Stack Layers:** Focus stacking combines multiple images with different focal distances to create an image with greater depth of field than any individual source image. It is effective for any situation where individual images have a very shallow depth of field, such as macro photography, or in landscape photography, where the distance between the foreground and distant background is too great to get everything in focus at the same time.

HDR Merge layers

High Dynamic Range, or HDR, photography is a technique developed to overcome the luminance limitations of modern cameras. Using the f/stop system used by cameras as a measurement, a good camera can capture a range of around 14 stops, from the brightest to darkest values in an image. Values outside that range will be clipped, and appear as either pure black or pure white. The human eye, by comparison, can see around 30 stops. In an effort to create images which convey more accurately how the world looks to our eyes, a technique was developed where the same scene is photographed multiple times, with each image using a different exposure compensation, to include a greater amount of the tonality visible to our eyes. These exposures are then combined into a single image using a higher color depth, allowing details to be seen in the brightest highlights and the darkest shadow areas.

For example, the lighting in this library is much brighter on the top shelves than the lower shelves. As a result, trying to capture the scene in a single exposure means that some areas are too bright, while other areas are too darkly shadowed to read the book titles:

By shooting three exposures, with exposure compensation set to -2, 0, and +2, we are able to capture greater detail in the shadow and highlight areas. These three exposures are them combined to create an HDR image. Note that while three exposures were used here, you are not limited to only three, and can use whatever number of exposures are required to cover the dynamic range of your scene.

The brighter exposure on the right reveals additional details in the shadow areas, while the darker exposure on the left brings the highlights down to reveal additional detail there. By using the HDR technique to combine these images, we have increased the dynamic range of the image, and can now have a single image including a range of tones which would require three ordinary exposures to capture.

Note that the HDR merge is not necessarily intended to create the final image, but rather creates a source image which can then be refined or processed to get the results you desire.

Creating an HDR Merge

1. In the sidebar, click the ☰ New Layer Stack button, and select **HDR Merge**.
2. Select the images which should be merged, and click **Open**.
3. It may take a few moments for the images to process and for Imerge to build and display the merged final image.
4. The HDR Merge layer which is created will have the **Tone Map** effect applied, which you can use to modify how the dynamic range is mapped into the new image.
   a. See Tone Effects for full details on using the Tone Map effect.

Alternate workflow for pre-imported images

Alternately, if you already have the images imported into Imerge as separate layers, you can use the

following workflow:

1. In the layer stack, select the layers you want to merge (Shift-click to select contiguous layers, or CTRL+Click to select layers out of order).
2. Right-click one of the selected images, and choose **HDR from selection** from the menu.
3. An alert will ask you to confirm that you want to merge the layers. Click **Yes**:

Create HDR Merge from selection ✕

Are sure you want to make a HDR Merge layer using your current selection?

This will clear the layer properties section and remove all content items that are not currently in use on the selected layers.

NO   YES

4. It may take a few moments for the images to process and for Imerge to build and display the merged final image.

Focus Stack Layers

The amount of any scene which can be captured in-focus by a camera is dependent on several factors, including the aperture, stability of the camera, the proximity of the subject to the camera, and the total depth of the scene itself. Focus stacking is a technique for overcoming these limitations, and creating a single image where the focal range includes everything you want.

In this product shot of a firefly pendant, It is not possible to get the bulb in focus at the same time as the head, in a single exposure:

By shooting three images, each focused on a different part of the pendant, we can capture all of the detail we need. Then, by focus stacking those images, we can combine the in-focus areas of each image to create a new image where everything is in focus. Note that you are not limited to three images, you can use as many images are required to cover the range of focus you are dealing with.

This allows us to present the detail of the product in a way that better matches how it would actually appear to the human eye.
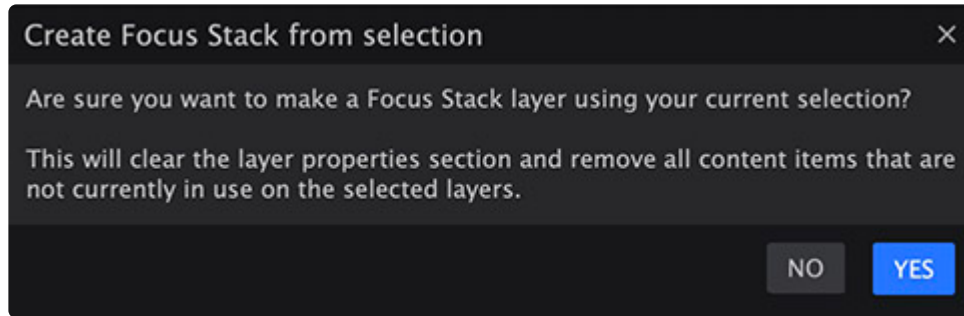
Creating a focus stack

1. In the sidebar, click the ☰ New Layer Stack button, and select **Focus Stack**.
2. Select the images which should be stacked, and click **Open**.
3. It may take a few moments for the images to process and for Imerge to build and display the merged final image.

Alternate workflow for pre-imported images

Alternately, if your images are already imported into Imerge as separate layers, you can use the following workflow:

1. In the layer stack, select the layers you want to merge (Shift-click to select contiguous layers, or CTRL+Click to select layers out of order).
2. Right-click one of the selected images, and choose **Focus Stack from selection** from the menu.
3. An alert will ask you to confirm that you want to merge the layers. Click **Yes**:

Create Focus Stack from selection ✕

Are sure you want to make a Focus Stack layer using your current selection?

This will clear the layer properties section and remove all content items that are not currently in use on the selected layers.

NO   YES

4. It may take a few moments for the images to process and for Imerge to build and display the merged final image.

5.3. Text layers

Text layers feature an additional section in the layer sidebar labeled **Font**, which gives you full control over the styling of the layer's contents.
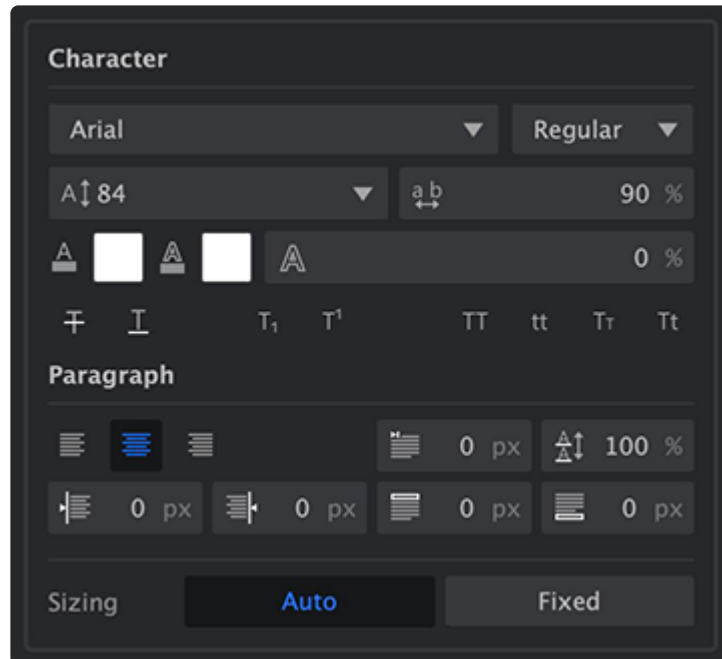

Character settings

These settings define the shape and size of the text, as well as the spacing between the letters and lines of text.

- **Font Menu:** The font menu provides access to all fonts installed on your system. Choose a font from this menu to apply it to the text. The selected font will be applied to all text contained in the layer, including all content variations.
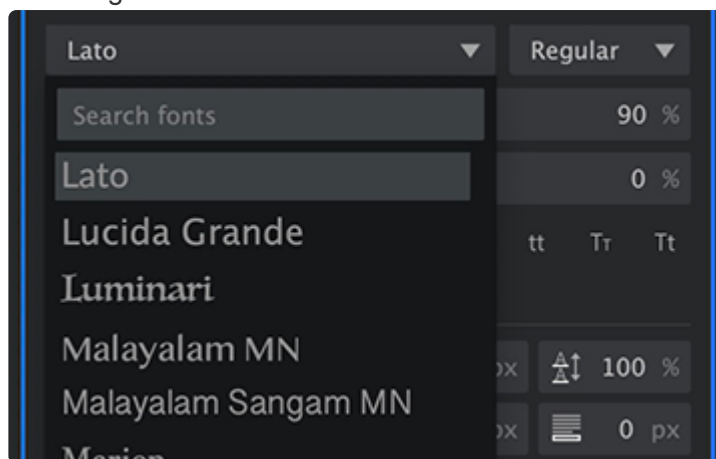
- **Weight:** If the selected font includes multiple weight variations, you can choose between them in this

menu.
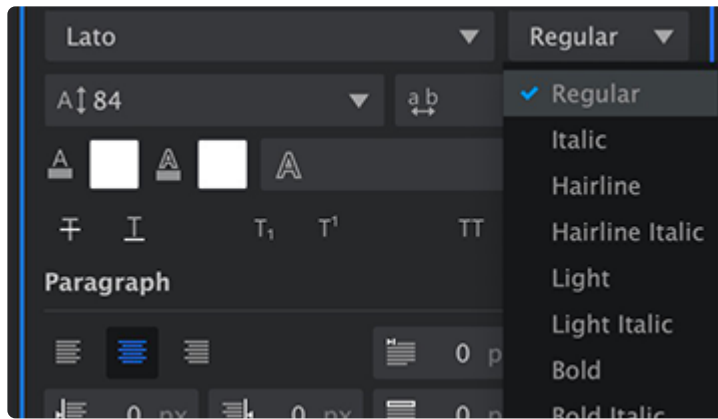
- **Font size:** Sets the size of your text, in points. A variety of size options are available in the menu, or you can type in any specific size you need. If you click on the size value, the size can also be adjusted using the up and down arrows on the keyboard.

- **Letter spacing:** Adjusts the kerning, or the horizontal space between the individual letters. Each font has a default kerning value, which is defined as 100%. Setting percentages above 100% increases the space between letter, while percentages lower than 100% brings the letters closer together.

- **Font Fill Color:** Click the color swatch to open a color picker and choose the color for your text. The color swatch will indicate your currently selected color.

- **Font Outline Color:** Click the color swatch to open a color picker and choose the color for your text outline. The color swatch will indicate your currently selected color.

- **Font outline size:** Sets the thickness of the outline applied to your text. The default value of 0% creates no outline.

- **Styles:** You can further control the styling of the text using various toggles, to turn different style options on or off. The four style options on the right side control which characters are uppercase and which are lowercase. Only one of those four options can be enabled at a time. Compare this example text with each of the styles below to see the effects they have.

-

-   **Strikethrough:** Adds a horizontal line through the center of the text.

-   **Underline:** Adds a horizontal line below the baseline of the text.

-   **All capitals:** Displays all characters in the text as capital letters, regardless of the case in which they were entered.

-   **All lowercase:** Displays all characters in the text as lowercase letters,

regardless of the case in which they were entered.

- **EXAMPLE TEXT** T_T **Small capitals:** Capital letters in the source remain unchanged, and all lowercase letters in the text are changed to capital letters at a smaller size.

- **Example Text** Tt **First letter capitalized:** The first letter of each word is capitalized, regardless of whether it was typed in uppercase or lowercase.

Paragraph

Use these settings to adjust how the text conforms to its bounding box.

- **Align left:** Aligns the left edge of the text with the left edge of the bounding box.

- **Center horizontally:** Aligns the center of the text with the horizontal center of the bounding box, so there is even spacing on the left and right sides.

- **Align right:** Aligns the right edge of the text with the right edge of the bounding box.

- **Text indent:** Sets the width, in pixels, of the indent applied to the start of each paragraph.

- **Line height:** Defines the distance between lines of text within paragraphs.

- **Left margin:** Determines the distance from the left edge of the bounding box to the left edge of the text paragraph.

- **Right margin:** Specifies the distance from the right edge of the bounding box at which a line break will be applied to lines of text.

- **Gap before paragraph:** Determines the distance from the top edge of the bounding box to the top edge of the text paragraph.

- **Gap after paragraph:** Sets the amount of spacing which will be used between one paragraph and the next.

Sizing

The size of the text box can be adjusted automatically or manually.

- **Auto:** When Auto is selected, the text box will automatically resize as you type, to ensure your text fits within the bounding box.
- **Manual:** Select manual to specify an exact size for your text box, regardless of what text is entered. This is useful for specific layout, where the text needs to be conformed to fit a specific space. When the Manual option is selected, some additional controls appear.
- **Width:** Specifies the width of the text box.

- **Height:** Sets the height of the text box.

  - **Align bottom:** Aligns the bottom edge of the text with the bottom edge of the bounding box, so any extra space appears at the top.

  - **Center vertically:** Aligns the center of the text with the vertical center of the bounding box, so there is even spacing on the top and bottom.

  - **Align top:** Aligns the top edge of the text with the top edge of the bounding box.

Last modified: Dec 24, 2021

5.4. Masking

Masking is used to select specific portions of a layer, so only part of a layer visible, or to limit the area of a layer that is altered by an effect. The different kinds of masks available allow you to select the best option for the results you require. There are six kinds of masks:

- **Gradient Mask**: Creates a mask with a large feather, based on a linear gradient. The direction and intensity of the gradient can be adjusted.
  Learn more about gradient masks
- **Area Mask**: A quick option for creating rectangular or elliptical masks.
  Learn more about area masks
- **Vector Mask**: Allows you to draw a specific mask shape, in any shape you desire.
  Learn more about vector masks
- **Image Color Mask**: Creates a mask based on a selected color. A pipette is used to select a specific color from the layer, and you can then adjust the range of colors that are included in the mask.
  Learn more about image color masks
- **Image Alpha Mask:** For images with a built-in alpha channel, this allows you to modify the existing alpha information.
  Learn more about image alpha masks
- **Image Luminance Mask**: Creates a mask based on tonal value. Either the brightest areas or the darkest areas of the image can be removed.
  Learn more about image luminance masks

Layer masks vs. effects masks

The primary mask controls in Imerge Pro exit at the layer level, and any layer can have masks applied to it to control what areas of the layer are visible. However, masks can also be applied at the effects level, to limit the area to which a specific effect is applied. The basic controls for the masks remain the same in both cases. For further details on masking effects, please see the Applying masks to effects page of this manual.

General mask controls

All kinds of masks share some general controls, which are located at the top of the mask controls palette.
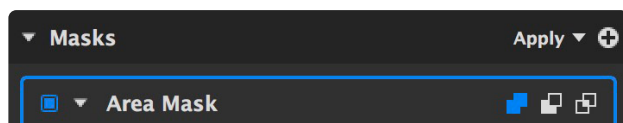
Expand/collapse all masks

The White triangle to the left of the Masks heading is used to expand or collapse all masks for the current selection. Click the triangle to toggle between the two states.

- ▼ **Expand:** Expand the controls any time you need to access them to adjust their settings.

- ▶ **Collapse:** Collapse the masks when the controls aren't needed, to save space in your sidebar and limit the amount of scrolling you need to do to access other controls.

A similar triangle exists to the left of each individual mask's name, and can be toggled to collapse or expand that specific masks's controls.
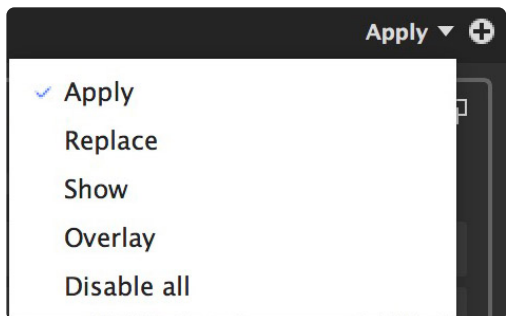
Display mode menu

The display mode menu at the top of the masks section controls how the masks are displayed on the canvas. The menu shows the currently selected option, which by default is Apply. Thus the appearance of the menu will change if you have a different option selected, but its location remains constant.

- **Apply**: Shows the final results of the mask, after it is applied to the images's current state.
- **Replace:** Applies the mask before any other adjustments, so any existing transparency data is replaced by the mask shape.
- **Show**: Displays the actual mask itself, in grayscale, while hiding the layer contents. The full range of transparency is covered, with completely transparent areas being black, and completely opaque areas being white.
- **Overlay**: Renders the mask in transparent red over the top of the layer, so both the layer contents and the mask are visible.
- **Disable All:** Disables all masks so you can view the original image.

Create new mask

The plus icon opens the new mask menu, so you can choose the kind of mask you want to add.

Enabling/disabling masks

Each mask can be enabled or disabled using the square toggle immediately to the left of the mask name.

- **Enabled:** A blue square indicates the mask is enabled and actively affecting the layer or effect it is applied to.
- **Disabled:** A dark grey square indicates the mask is disabled, and will have no effect.

Boolean operators

The three boolean operators to the right of the mask name control how it interacts with the masks below it in the mask list. Click any option to immediately activate it.

- **Union:** The entire contents of the previous mask and the current mask are visible.
- **Subtract:** The area of the current mask is removed from any areas where it overlaps the previous mask.
- **Intersect:** Only the areas where the current mask overlaps the previous mask are visible.

Working with masks

Full details on using masks can be found on the following pages of this manual. Select the appropriate page for the type of mask you need.

All kinds of masks support a full range of transparency, although Image Alpha Masks rely on the transparency built into the image's alpha channel. Each type of mask is explained on its own page of this manual. We will use the following example image, which is made from a green screen image placed above a colored solid layer, to demonstrate the results of each kind of mask.

5.4.1. Brush masks

Brush masks are used to easily paint the visibility of a layer or effect. The mask can be adjusted at any time while painting using the controls displayed above the Viewer. Any adjustments made will define the mask shape used to create the next stroke. The controls panel contains additional controls, which alter the entire painted mask as a whole.

While applying a mask, it is often most effective to use keyboard shortcuts to manipulate the brush's shape and behavior.

- **Brush mode: Shift** + **~** toggles the brush mode between Brush in and Brush out.
- **Radius: [** key will reduce the radius. **]** key will increase the radius.
- **Softness: Shift** + **[** will decrease the softness. **Shift** + **]** will increase the softness.
- **Opacity: Alt** + **[** will decrease opacity. **Alt** + **]** will increase opacity.

Viewer controls
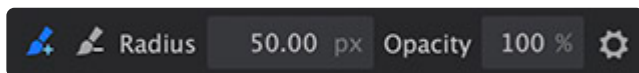
Once a brush mask is added, the viewer automatically switches to brush mode, and relevant controls are displayed in the top toolbar.

- **Brush in:** The layer will be revealed in the areas you paint.

- **Brush out:** The layer will be hidden in the areas where you paint.

> ✳ **Shift** + **~** toggles the brush mode between Brush in and Brush out.

- **Radius:** Defines the radius of the brush, in pixels.
- **Opacity:** Determines how opaque the brush stroke is. 100% is fully opaque, while 0% is completely transparent.
- **Settings:** Additional brush settings can be accessed here.

- ◦ **Radius:** Defines the radius of the brush, in pixels.
  - ▪ **[** key will reduce the radius.
  - ▪ **]** key will increase the radius.
- ◦ **Softness:** Controls the width of the feathered edge around the brush.
  - ▪ **Shift** + **[** will decrease the softness.
  - ▪ **Shift** + **]** will increase the softness.
- ◦ **Opacity:** Determines how opaque the brush stroke is. 100% is fully opaque, while 0% is completely transparent.
  - ▪ **Alt** + **[** will decrease opacity.
  - ▪ **Alt** + **]** will increase opacity.
- ◦ **Spacing:** Controls the distance, as a percentage of the radius, between each instance of the brush shape, as you paint. For a continuous line a low value should be used. Increasing the value will create a visible scalloped edge, and once you exceed 100% there will be gaps between the separate instances of the brush shape.
- ◦ **Smoothing:** Adjusts the overall smoothness of the brush path, to reduce unwanted shake or jitter and create a smoother line.

Sidebar controls

The controls in the right sidebar will modify the entire mask. The mask can contain multiple strokes which each use individual opacity, radius, or softness settings, by using the Viewer controls. But these controls will adjust the mask as a whole.

- • **Invert:** Swaps the visible and masked areas of the layer.
- • **Softness:** Applies a feather, or blur, to the entire mask.
- • **Opacity:** Determines how opaque the mask is. 100% uses the original opacity settings for each

stroke, while 0% is completely transparent.

5.4.2. Gradient masks

Gradient masks create a mask with a soft edge, based on a linear black-to-white alpha gradient. Alpha gradients are not visible, but rather, the black end of the gradient registers as completely transparent, and the white end registers as completely opaque. The direction and length of the gradient can be adjusted on the Viewer or in the layer sidebar controls.

Viewer controls
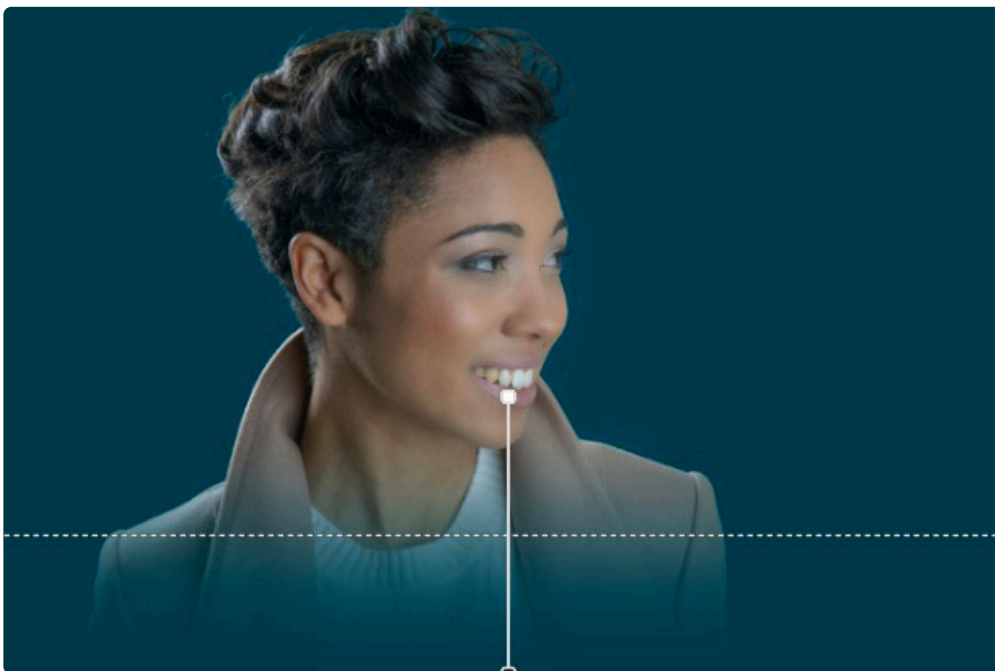
The viewer controls overlaid onto the second image above show the current layout of the mask, and allows

you to edit it further.

- **Solid Line:** The solid line indicates the direction of the gradient. The handles on each end indicate the white end (opaque) and the black end (transparent) of the gradient.
- **Dashed line:** The dashed line indicates the mid-line of the gradient. It can also be useful for noting the alignment of the gradient, in cases where the gradient is quite short. The longer dashed line can make it easier to see minor shifts in the angle.
- **Handles:** The Handles on either end of the solid line contain a center dot, indicating the white end (opaque) and the black end (transparent) of the gradient.

Sidebar controls
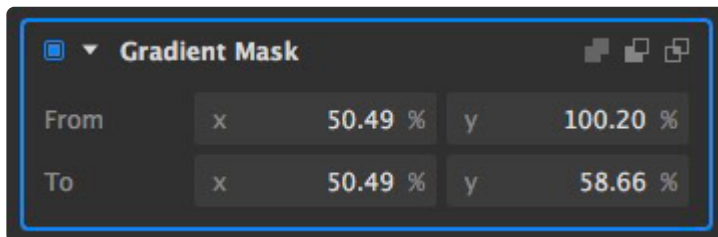
- **From:** Defines the X (horizontal) and Y (vertical) positions of the transparent end of the gradient. X values run from 0 on the left to 100 on the right. Y values run from 0 at the top to 100 at the bottom.
- **To:** Defines the X (horizontal) and Y (vertical) positions of the opaque end of the gradient. X values run from 0 on the left to 100 on the right. Y values run from 0 at the top to 100 at the bottom.

Last modified: Dec 24, 2021

5.4.3. Area masks

An area mask quickly creates a rectangular, rounded rectangle, or elliptical mask shape.

Viewer controls
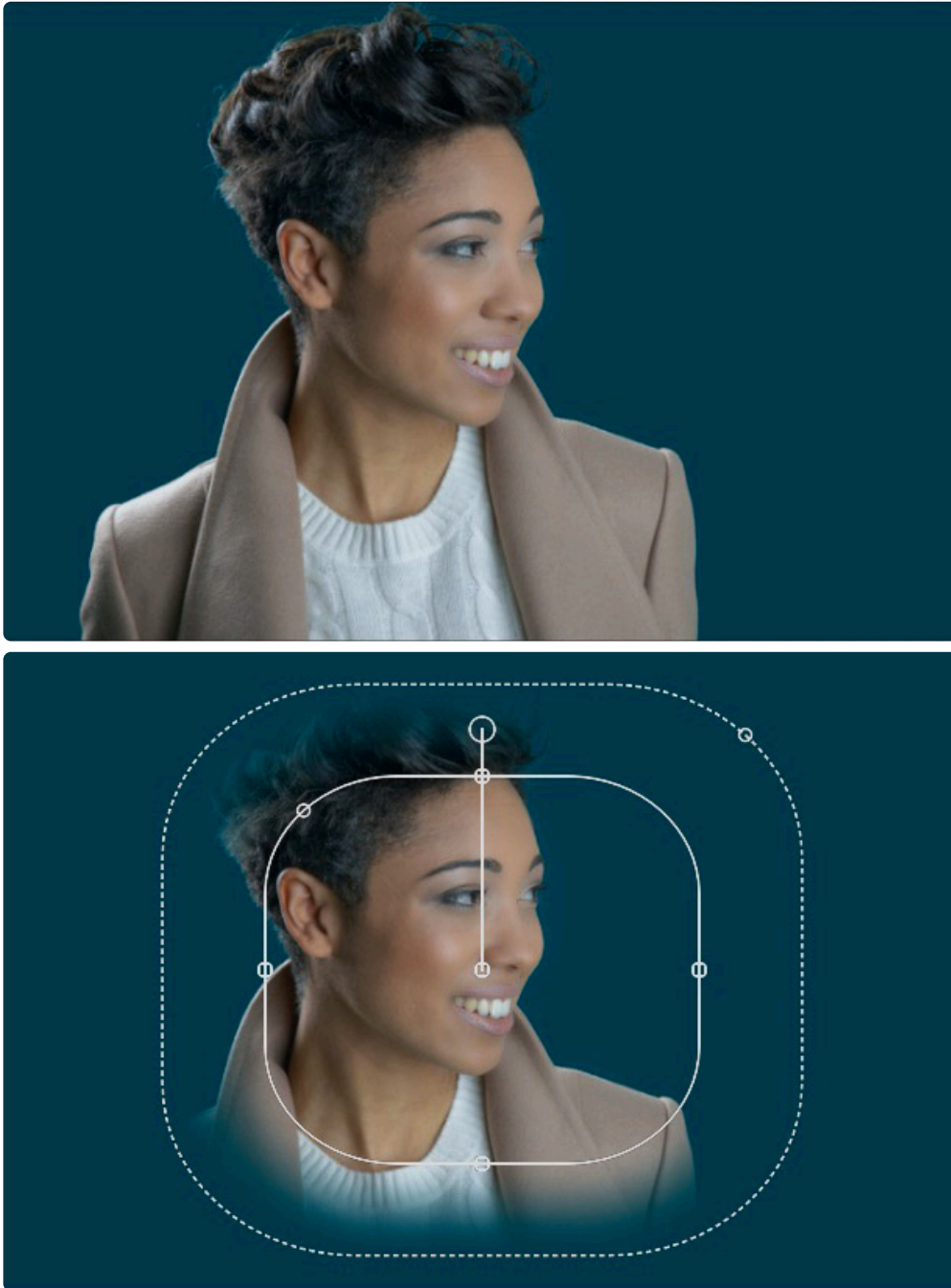
The viewer controls overlaid onto the second image above show the current mask shape, and allows you to edit the shape further in several ways. The solid inner line indicates the outer limits of the solid mask area. The outer dashed line indicates the outer limit of the mask feather. The handles can be used to make adjustments.

- **Radial:** The radial handle emanating from the center of the mask indicates the rotation of the mask. By default, the line will run vertically, straight up from the center. The handle at the outer end of the radial can be dragged to rotate the mask.
- **Side Handles:** On the solid inner lines of the mask, each side contains a handle. Drag these handles to move any edge of the mask and resize it.
- **Corner Handle:** On the solid inner line of the mask, one corner has a handle. Click this handle and drag to adjust the radius of the mask corners. By default the handle will be at the top left, but if the mask is rotated it could appear elsewhere.
- **Feather Handle:** The dashed outer line features a single corner handle. Drag this handle to change the width of the mask feather. You can also drag the dashed line itself.

Sidebar controls
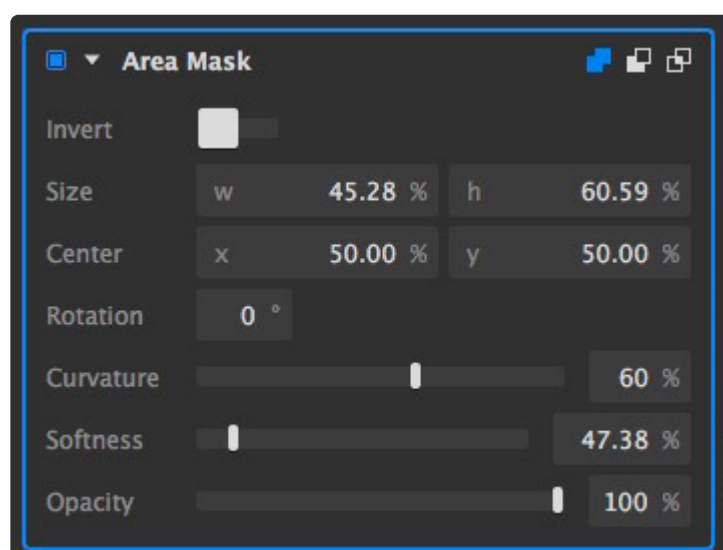
- **Invert:** This toggle inverts the mask, so only the area outside of the mask is visible.
- **Size:** Denotes the width of the opaque center area of the mask, as a percentage of the image width and height.
- **Center:** Defines the X (horizontal) and Y (vertical) positions of the mask center. X values run from 0 on the left to 100 on the right. Y values run from 0 at the top to 100 at the bottom.
- **Rotation:** Indicates the rotation of the mask, in degrees.
- **Curvature:** Adjusts the radius of the mask corners, from a value of 0, which creates square corners, to a value of 100, which creates a smooth elliptical shape.
- **Softness:** Adjusts the width of the feathered area around the edge of the mask.
- **Opacity:** Alters the overall opacity of the mask.

Last modified: Dec 24, 2021

5.4.4. Vector masks

Vector masks are drawn point by point, and allow you to isolate any shape or area within a layer. The points are connected by dashed line segments, which can be either straight or curved, which make vector masks an excellent toll for very quickly selecting an area, or very carefully following an edge within the image with high precision. When you click to create a point, you can drag while holding the mouse button to change the point from the default Straight point to a curved point.
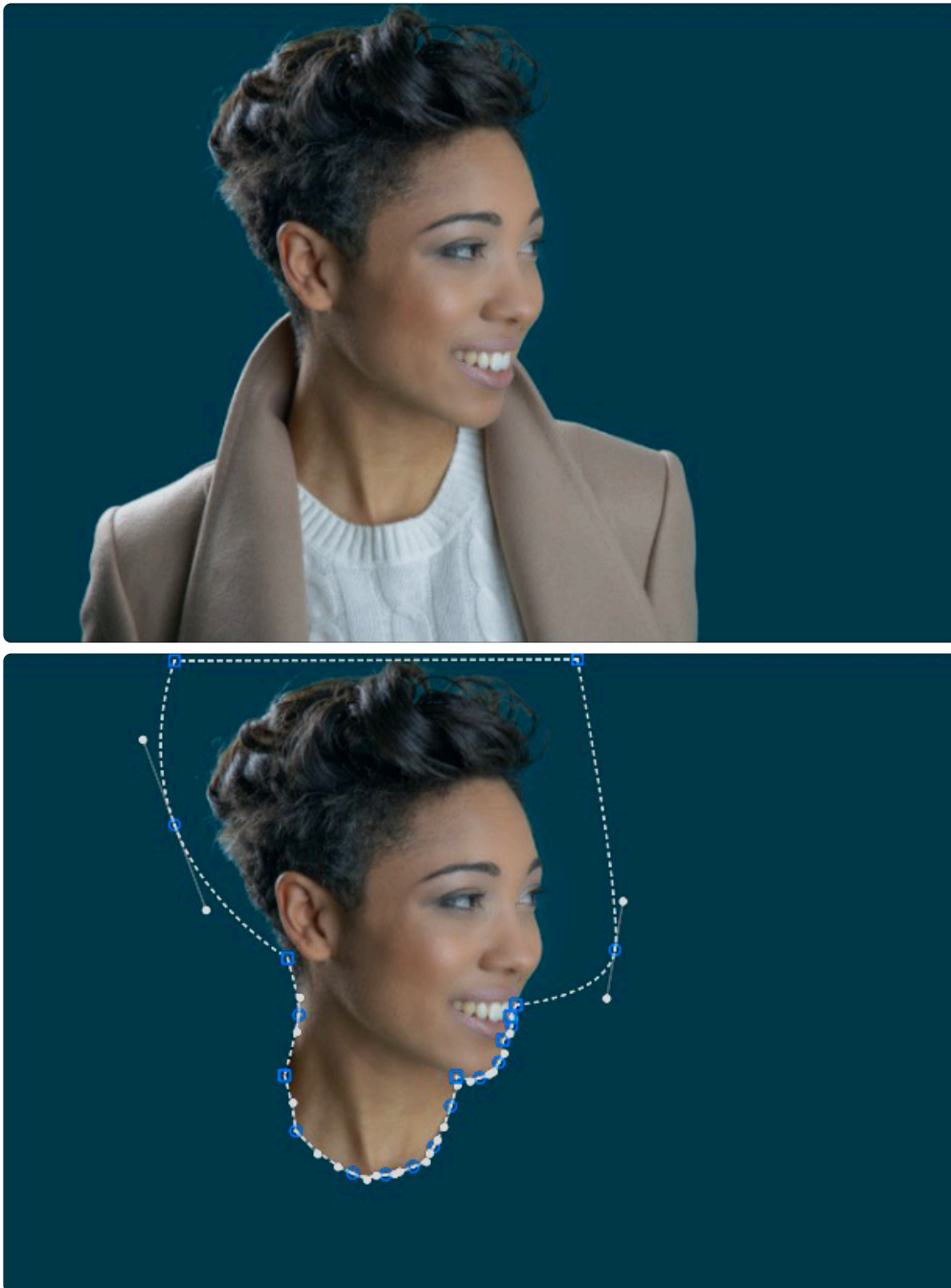
Viewer controls

The far majority of your work with vector masks will be handled on the viewer, using the viewer controls. paths and controls points will be white by default, and turn blue when selected. Vector masks can be scaled indefinitely without losing fidelity

- **Dashed path:** The dashed line indicates the path of the mask, which designates its shape. The path is divided into segments, with control handles on each end of each segment.
- **Control points:** The larger handles at each end of a path segment are control points. Moving a control point will alter the shape of the path. The shape of the handle indicates the type of control point.
    - **Square points:** Indicate a straight control point, where the path on each side will exit the point in a direct line toward the next control point.
    - **Round points:** Indicate a curved control point, where bezier handles will be available to adjust the direction and shape of the connected path segments. Curved control points could be of the mirrored, asymmetric, or disconnected varieties.
- **Bezier handles:** All types of curved control points will have Bezier handles which control the shape of the curve. These handles appear as a solid line, with a round handle on the end. The angle of the handle controls the angle of the path exiting the control point. The length of the handle controls the distance from the control point to the apex of the curve.
    - **Straight:** Straight points have no Bezier handles, as there are no curves in the path.

    - **Mirrored curves:** The angle and length of the two Bezier handles are linked, so you always get a smooth curve through the point. Adjusting one handle automatically adjusts the other. If you click and drag when creating a new control point, it is converted to a mirrored curve when you drag.

    - **Asymmetric curves:** The angle of the two Bezier handles is linked, so adjusting one handle automatically adjusts the other to a mirror angle. However, the length of the handles can be adjusted independently. The result is still a smooth curve through the point, but you can create more complex compound curves than with the mirrored option.

    - **Disconnected curves:** The two Bezier handles are separate, and both the angle and the length of each handle can be adjusted independently.

Sidebar controls
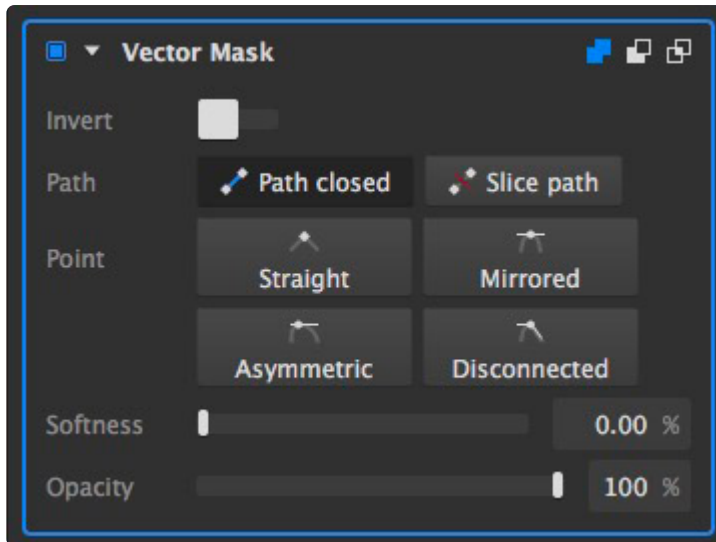
- **Invert:** Toggles between having the area inside of the mask retained (the default), or removed.
- **Path:** These options relate to the path's status of being open or closed. A path must be closed before it will take effect.
  - **Path open/closed:** The path's current status is displayed on this button. Toggling the button changes to the other state. For a closed path, toggling to the open state will remove the path segment between the first and last points created. For an open path, toggling to the closed state will add a path segment between the first and last points on the path.
  - **Slice path:** If you wish to open the path at any point other than between the first and last points created, click this button, then click on the path segment that you want to open.
- **Point:** These buttons assign the currently selected point(s) to a specific path shape.
  - **Straight:** Straight points have no Bezier handles, as there are no curves in the path.

  - **Mirrored curves:** The angle and length of the two Bezier handles are linked, so you always get a smooth curve through the point. Adjusting one handle automatically adjusts the other. If you click and drag when creating a new control point, it is converted to a mirrored curve when you drag.

◦ **Asymmetric curves:** The angle of the two Bezier handles is linked, so adjusting one handle automatically adjusts the other to a mirror angle. However, the length of the handles can be adjusted independently. The result is still a smooth curve through the point, but you can create more complex compound curves than with the mirrored option.

◦ **Disconnected curves:** The two Bezier handles are separate, and both the angle and the length of each handle can be adjusted independently.

- **Softness:** Adjusts the width of the soft edge applied to the the mask. 0.00% creates a hard edge, while 100.00% provides maximum feathering

- **Opacity:** Controls how opaque the visible area of the mask is. Areas outside the mask remain completely transparent.

Last modified: Dec 24, 2021

5.4.5. Image color masks

Image color masks are used to isolate an area of the image based on a color selection. Any color in the image can be selected, to create a mask containing a range of RGB values similar to the selected color.
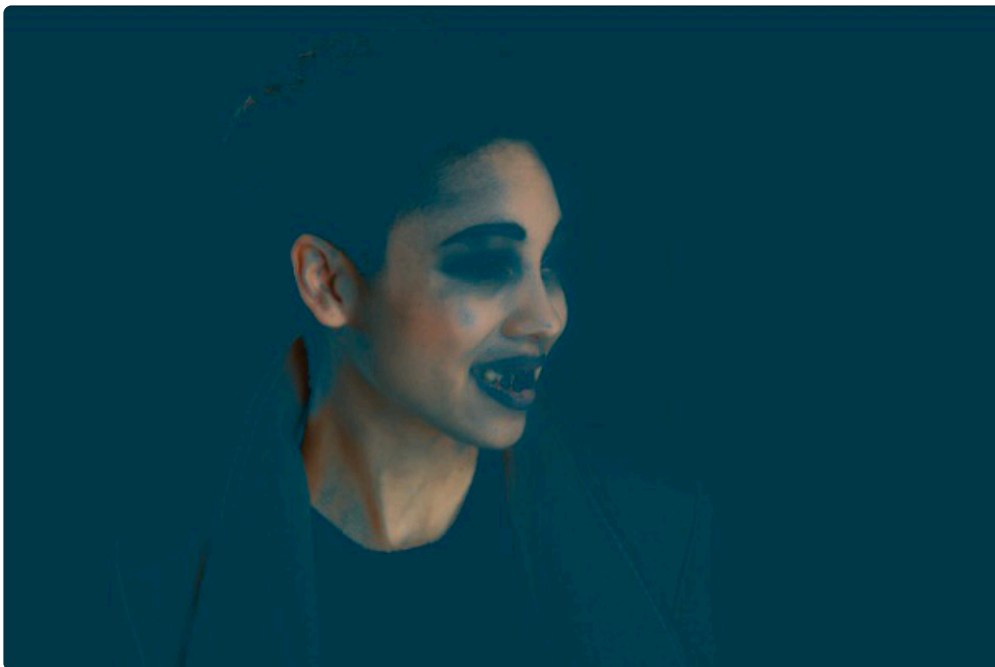
There are no viewer controls, but the viewer provides a real-time representation of the current mask selection, like the example in the second image above.

Sidebar controls
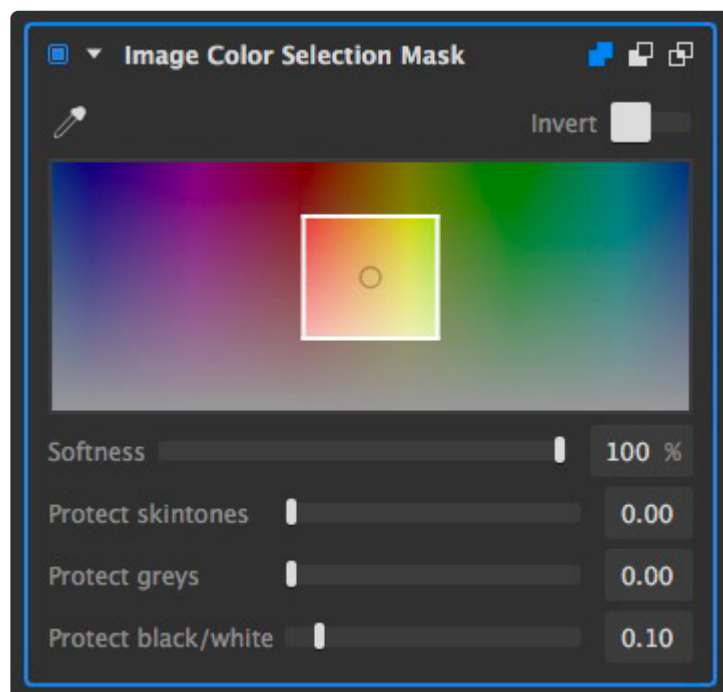
- **Pipette:** Used to select a color to base your mask on. Click on the pipette to open selection loupe, then move it over your image to find the color you wish to select. Click again to select that color for the mask.
- **Invert:** Toggles between retaining (the default) or removing the selected color range.
- **Spectrum selection indicator:** Provides a visual representation to see and modify the range of colors selected.
    - ◦ **Center point:** Indicates the base color from which the selection extends. To change the color, click anywhere in the spectrum and drag sideways to shift the base color, or use the pipette to select a different specific color from your image.
    - ◦ **White edges:** Indicate the entire range of colors that is included in the selection. Drag any edge to adjust the range of colors in the selection
- **Softness:** Softens the selection at the edges of the selected color range. Increasing softness often creates more natural results when adjustments are applied to a color selection.
- **Protect skintones:** Prevents skin tones from being included in the selection. Effective for retaining accurate, natural skin tones when applying color shifts or adjustments to the image.
- **Protect greys:** Higher values exclude neutral mid-tones with low saturation from the selection
- **Protect black/white:** Higher values exclude the darkest and brightest areas of the image from the selection. This is frequently useful for preventing over-saturation of color noise in the shadow areas of your image.

Last modified: Dec 24, 2021

5.4.6. Image alpha masks

An image alpha mask apples the existing alpha channel of the imported image as a mask. The primary use case in which this is beneficial is when you have an image where the key removes areas that you need to retain. For example, a highly reflective subject may become green by reflectance, and get removed in the key. By applying an Alpha Mask, you can then apply a Vector mask to restore specific areas from the original image.

In the first image above, the reflective surface of the car has captured the green color of the backdrop, so that the top edge of the car is essentially green. In the second image, notice how keying out the green removes that edge, which we would then need to restore. To do so, we follow these steps:

1. Apply an image alpha mask to the layer.
2. Apply a vector mask to the layer.
3. In the display mode menu for the vector mask, set the display mode to Replace. This allows the vector mask to replace the areas it contains with contents from the original image's alpha channel.
4. Draw the vector mask around the area you want to restore, as shown in the third image above.

Sidebar controls
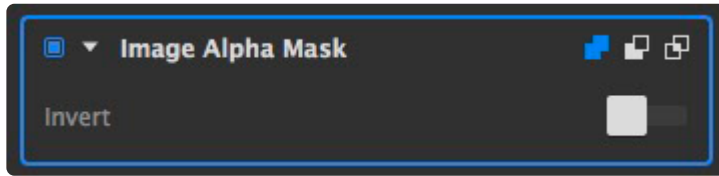
- **Invert:** Toggles between retaining (the default) or removing the selected color range.

✳ Image alpha masks can only be applied to image layers, and can not be applied to effects.

Last modified: Dec 24, 2021

5.4.7. Image luminance masks

An image luminance mask isolates an area of the image or based on tonal values. Some tasks luminance masks are useful for include:

- Applying natural color adjustments to the shadows, mid-tones, or highlights of the image, without affecting other areas.
- Protecting the shadows or highlights of an image from being affected by adjustments.
- Removing black or white backgrounds from a layer.

There are no viewer controls for luminance masks, but the viewer provides a real-time representation of the current mask selection, like the example in the second image above.

Sidebar controls
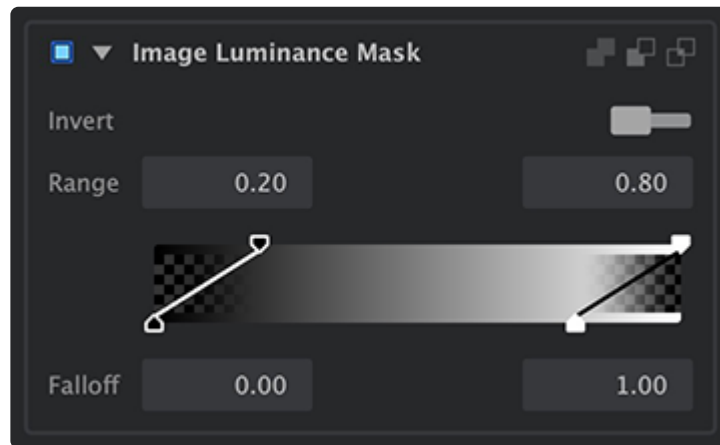
- **Invert:** Toggles between retaining (the default) or removing the selected luminance range.
- **Range:** These values define the size of the tonal range which will be included in the selection.
- Sliders:* Use the sliders to control what areas of the layer are visible, based on the layer contents. The top and bottom control handles are linked in pairs. The angle between the two handles in each pair controls the feathering of the selection. The slider has four control handles:
  - **Bottom Black:** Areas of the selected layer darker than this tone will be completely invisible. Tonal values between the bottom black and top black sliders will gradually be more opaque as they move toward the top black slider.
  - **Top Black:** Areas of the selected layer lighter than this tone will be completely visible. All tones within the selected layer that fall between the top black handle and the bottom white handle will be completely visible.
  - **Bottom White:** Areas of the selected layer darker than this tone will be completely visible. All tones between the top black handle and the bottom white handle will be completely visible.
  - **Top White:** Areas of the selected layer lighter than this tone will be completely invisible. The tones between the bottom white and top white sliders will gradually be more transparent as they move toward the top white slider.

Last modified: Dec 24, 2021

5.4.8. Applying masks to effects

Any effect can be masked to limit the area of the layer that the effect will be applied to. Effects masks are edited the same way as layer masks, but are created differently.

At the top of each effect, as shown above, the Mask button is located all the way to the right of the effect name. Once applied, each kind of mask can be edited the same way as its equivalent layer mask.

- **Mask menu:** Click this icon to open the Mask menu and select the kind of mask you want.
   - **Brush Mask:** Allows you to brush in areas which will be affected by the effect, or brush out areas which should not be affected.
   Learn more about brush masks
   - **Gradient Mask**: Creates a mask with a large feather, based on a linear gradient. The direction and intensity of the gradient can be adjusted.
   Learn more about gradient masks
   - **Area Mask**: A quick option for creating rectangular or elliptical masks.
   Learn more about area masks
   - **Vector Mask**: Allows you to draw a specific mask shape, in any shape you desire.
   Learn more about vector masks
   - **Image Color Mask**: Creates a mask based on a selected color. A pipette is used to select a specific color from the layer, and you can then adjust the range of colors that are included in the mask.
   Learn more about image color masks
   - **Image Luminance Mask**: Creates a mask based on tonal value. Either the brightest areas or the darkest areas of the image can be removed.
   Learn more about image luminance masks

Last modified: Dec 24, 2021

5.5. Effects

Effects can be added to a layer in the Effects area of the sidebar. After effects are added, the controls to edit the effects are also accessed here. Each effect can be enabled or disabled using the blue square toggle to the left of the effect name.

Imerge offers 12 categories of effects for modifying the contents of your layers.

- **Blur:** make the details of the image indistinct.
- **Color:** artistically modify the colors in your image.
- **Color Corrections:** fine tune the colors in the image, and correct for unwanted color shifts.
- **Corrections:** modify the perspective of the image.
- **Details:** edit the details in the image dealing with things like noise, blurring and sharpening.
- **Distort:** move the pixels in your image around.
- **Generate:** primarily focuses on adding computer generated content to your image. Things like clouds, vignettes and scanlines.
- **Keying:** remove areas of a photo based on color or luminance levels.
- **Lights & Flares:** create light and lens-based effects.
- **Styles:** add graphical effects to elements like color fills, gradients, outlines and glows.
- **Stylize:** apply an artistic effect to your image and typically combines color modifications with tonal modifications.
- **Tone:** change the brightness and contrast of the image. This is where you will find the Exposure plugin which is a useful effect used to process most images.

The specific effects found in each category are explained in detail in the Effects chapter of this manual.

Adding Effects

To add effects to a layer, click the Plus icon ⊕ in the Effects header, and the Add Effects menu will open. All available effect are listed on the left. As your cursor hovers over each effect, a preview image showing that effect applied to the layer is displayed on the right. When you find the effect you want. click the effect to close the menu and apply the effect to the layer. For full details on individual effects, see the chapter on Effects.

- **Effects list:** All effects available for the currently selected layer are listed on the left side of the Menu.
  - **Most Used:** Your most used effects are displayed at the top of the effects list. An effect must be used at least three times before it will appear in this list. For all effects used three or more times, the most used effects will be listed here. The number of effects included in the Most Used list can be edited in the Settings, at File > Settings > Edit.
- **Effect preview:** The preview image allows you to evaluate the results of any effect before applying it to the layer. Hover the mouse over any effect in the list to preview the results of that effect on the current layer.
- **Search:** The search bar allows you to quickly locate effects by name, regardless of which category they are in. The effects list will update dynamically as you type, so only effect which match the current search term are displayed in the list.

- 📌 **Add multiple effects:** Click the pin icon to stop the menu from closing when an effect is added. While the pin is toggled on, you can add multiple effects to the layer. Click the X at the top right to close the menu when you are finished.

- ⭐ **Favoriting effects:** Each effect listing includes an outlined star icon, which toggles the Favorite status of that effect.

  ○ ⭐ **Not favorited:** The effect is not included in your favorites.

  ○ ⭐ **Favorited:** The effect is included in your favorites. Once at least one effect has been favorited, a new category of **Favorites** will be added to the menu, so you can quickly access all of your favorite presets.

Last modified: Dec 24, 2021

5.6. Transforming Layers

The Transform controls for a layer allow you to manipulate the size and shape of the layer, and how it is combined with the other layers in your project. Each kind of layer has its own unique set of transform controls, though there is some overlap in the controls between layer kinds.

Transforming image layers

Image layers contain the largest number of transform controls.
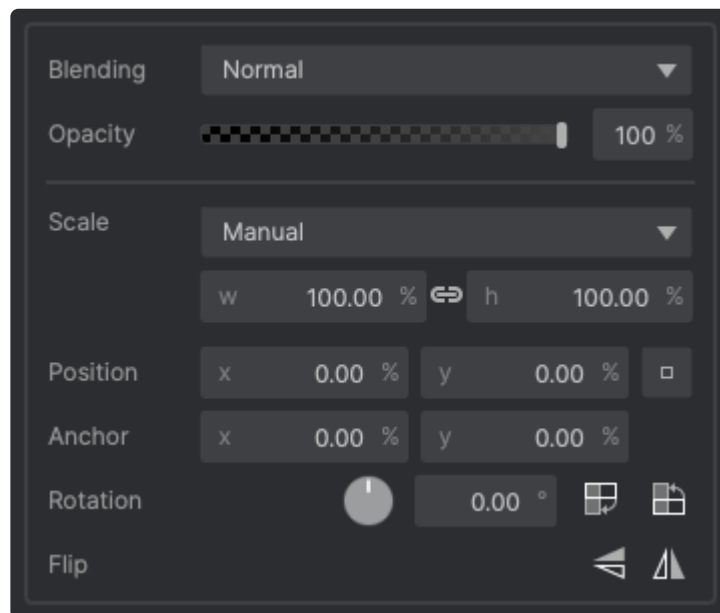
- **Blending:** The blending menu define how the colors in the selected layer are combined with the layers farther down in the layer stack. Full details of the blending mode options are available on the blending modes page of this manual.
- **Opacity:** Adjusts how opaque or transparent the layer is. 100% is fully opaque, and 0% is completely transparent.
- **Scale:** Scale controls adjust the size of the layer relative to the canvas, and are used to enlarge or reduce the size of the layer.
  - **Scale mode menu:** There are three modes that determine how the layer is scaled.
    - **Manual:** This is the default mode, and gives you full manual control over the size of the layer.
    - **Fill canvas:** Auto adjusts the layer size so that it completely fills the canvas. If the layer and the canvas are different shapes, then some of the layer will be cropped.
    - **Fit to canvas:** Auto adjusts the layer so the entire layer fits within the canvas. This gives you the largest possible layer size without any of the layer falling outside the canvas.
  - **Width and height:** When manual mode is selected, the width and height of the layer are displayed in percentages. Decrease the value to make the layer smaller, or increase the value to make it larger.

- ◦ **Linking/unlinking the scale ratio:** By default the width and height are linked, so adjusting one automatically adjusts the other as well, and the image will not get distorted. Click the blue chain icon between the width and height to unlink them, if you need to edit them independently.
- **Position:** Adjusts the location of the layer on the canvas. For basic adjustments, you can simply click and drag the layer directly on the canvas. But precise adjustments can also be made in the controls here.
    - ◦ **X and Y:** Defines the X (horizontal) and Y (vertical) position of the selected origin point. You can edit the values to change the origin point's position.
    - ◦ **Anchor matrix:** You can select the origin point from which the layer's position will be defined by clicking the point you wish to use. By default, the position is defined using the center point, but you can select any corner or and edge center if it works better for the alignment you need.

- **Anchor point:** Offsets the layer from the selected anchor point. The origin point will stay in place, while the image moves.
- **Rotation:** Spins the layer around the anchor point.
    - ◦ **Rotate 90° clockwise:** Use this button to quickly rotate the layer in a clockwise fashion, in precise 90° increments.
    - ◦ **Rotate 90° counter-clockwise:** Use this button to quickly rotate the layer in a counter-clockwise fashion, in precise 90° increments.
- **Flip:** These two buttons reverse the image in either direction.
    - ◦ **Flip horizontal:** Flips the image on a horizontal axis, so the bottom becomes the top and the top becomes the bottom.
    - ◦ **Flip vertical:** Flips the image on a vertical axis, so the left side becomes the right side and the right side becomes the left side.

Transforming text layers

Text layers have similar transform controls similar to image layers. There are no Scale controls for text layers, though, because the size of the text is controlled in the Font settings.
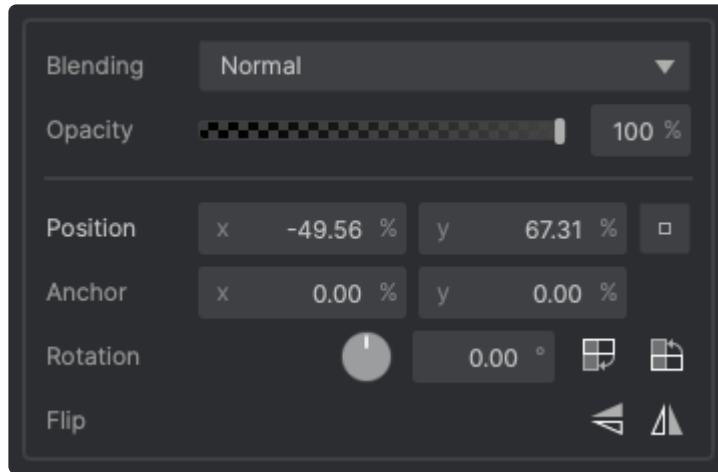
- **Blending:** The blending menu define how the colors in the selected layer are combined with the layers farther down in the layer stack. Full details of the blending mode options are available on the [blending modes page](#) of this manual.
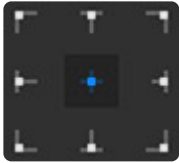- **Opacity:** Adjusts how opaque or transparent the layer is. 100% is fully opaque, and 0% is completely transparent.
- **Position:** Adjusts the location of the layer on the canvas. For basic adjustments, you can simply click and drag the layer directly on the canvas. But precise adjustments can also be made in the controls here.
    - **X and Y:** Defines the X (horizontal) and Y (vertical) position of the selected origin point. You can edit the values to change the origin point's position.
    - **Anchor matrix:** You can select the origin point from which the layer's position will be defined by clicking the point you wish to use. By default, the position is defined using the center point, but you can select any corner or and edge center if it works better for the alignment you need.

- **Anchor point:** Offsets the layer from the selected anchor point. The origin point will stay in place, while the image moves.
- **Rotation:** Spins the layer around the anchor point.
    - **Rotate 90° clockwise:** Use this button to quickly rotate the layer in a clockwise fashion, in precise 90° increments.
    - **Rotate 90° counter-clockwise:** Use this button to quickly rotate the layer in a counter-clockwise fashion, in precise 90° increments.
- **Flip:** These two buttons reverse the image in either direction.
    - **Flip horizontal:** Flips the image on a horizontal axis, so the bottom becomes the top and the top becomes the bottom.
    - **Flip vertical:** Flips the image on a vertical axis, so the left side becomes the right side and the right side becomes the left side.

Transforming solid layers

Solid layers simply fill the canvas area with a solid color, so the Transform controls focus on how that color is blended with the other layers in your project.

- **Blending:** The blending menu define how the colors in the selected layer are combined with the layers farther down in the layer stack. Full details of the blending mode options are available on the blending modes page of this manual.
- **Opacity:** Adjusts how opaque or transparent the layer is. 100% is fully opaque, and 0% is completely transparent.

Transforming adjustment layers

Adjustment layers have no positioning controls, because they have no actual rendered contents. They alter other layers in your project, so the transform controls only include properties which affect how the adjustment layer is blended with other layers.
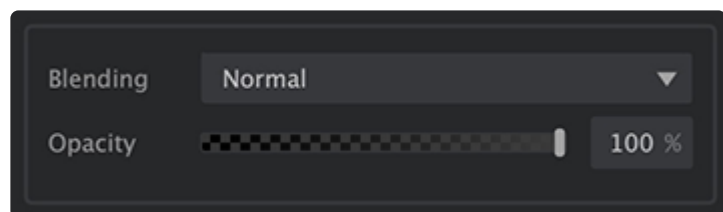
- **Blending:** The blending menu define how the colors in the selected layer are combined with the layers farther down in the layer stack. Full details of the blending mode options are available on the blending modes page of this manual.
- **Opacity:** Adjusts how opaque or transparent the layer is. 100% is fully opaque, and 0% is completely transparent.

Transforming group layers

Group layers serve as folders which contain other layers, allowing you to use multiple layers as a single object. They can be used for organization, or to control the order in which processing is applied.
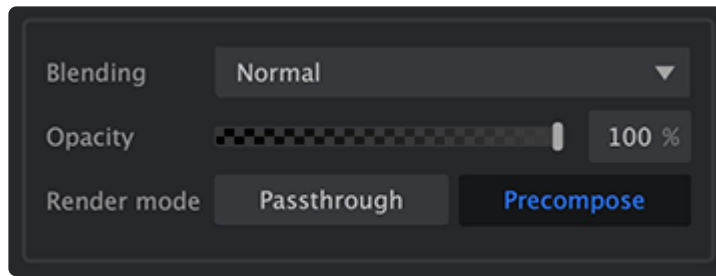
- **Blending:** The blending menu define how the colors in the selected layer are combined with the layers farther down in the layer stack. Full details of the blending mode options are available on the blending modes page of this manual.
- **Opacity:** Adjusts how opaque or transparent the layer is. 100% is fully opaque, and 0% is completely transparent.
- **Passthrough:** Passthrough blends the layers within the group in order, as if the group did not exist. This option allows the blend modes of individual layers within the group to interact with layers below the group.
- **Precompose:** Precompose processes all layers within the group first, and then layers the precomposed image created by the group over any layers below the group.This option means that only the bend mode of the group itself will be used to combine the layers within the group with any layers below the group.

Transforming HDR stack layers

HDR stack layers combine multiple images with different exposures to create a single image with expanded dynamic range. Most of their transform controls match those of a standard image layer.

- **Blending:** The blending menu define how the colors in the selected layer are combined with the layers farther down in the layer stack. Full details of the blending mode options are available on the blending modes page of this manual.
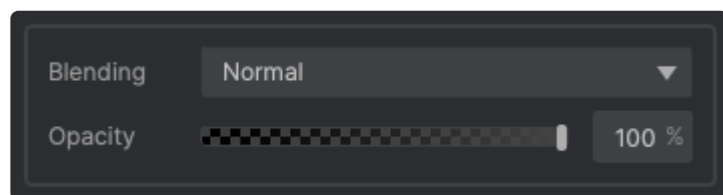- **Opacity:** Adjusts how opaque or transparent the layer is. 100% is fully opaque, and 0% is completely transparent.
- **Image alignment:** Specifies how the multiple images used to create the final exposure are aligned.
   - **None:** All images are left in their original position. If all of your images were shot from a solid tripod, this option can speed up processing times.
   - **Translate & rotate:** The images in the stack can be moved horizontally or vertically, or rotated, but no distortion will be applied during the alignment process.

- **Perspective:** In addition to translation and rotation adjustments, this option will also use perspective distortions when necessary, to improve the alignment results.
- **Deghost:** Ghosting refers to areas of the image where multiple edges are visible for a single object. After the images are aligned, there might be areas where not everything perfectly aligns Leaves moving in the wind, or the surface of a lake for example. Deghosting removes the unwanted duplicate edges, to improve image clarity.

The remaining transform controls (not pictured) exactly match those of a standard image layer, and function in the same way.

Transforming focus stack layers

Focus stack layers combine multiple images with different focal distances to create a single image with expanded depth of field. Most of their transform controls match those of a standard image layer.

- **Blending:** The blending menu define how the colors in the selected layer are combined with the layers farther down in the layer stack. Full details of the blending mode options are available on the blending modes page of this manual.
- **Opacity:** Adjusts how opaque or transparent the layer is. 100% is fully opaque, and 0% is completely transparent.
- **Image alignment:** Specifies how the multiple images used to create the final exposure are aligned.
    - **None:** All images are left in their original position. If all of your images were shot from a solid tripod, this option can speed up processing times.
    - **Translate & rotate:** The images in the stack can be moved horizontally or vertically, or rotated, but no distortion will be applied during the alignment process.
- **Perspective:** In addition to translation and rotation adjustments, this option will also use perspective distortions when necessary, to improve the alignment results.

The remaining transform controls (not pictured) exactly match those of a standard image layer, and function in the same way.

Last modified: Dec 24, 2021

5.6.1. Blending modes

Blending modes define how the colors in the selected layer (Blend Layer) are combined with the layers beneath it in the layer stack (Base Layer). They are divided into groups based on general behavior, though the groups are not labeled in the software.

Normal blending modes

- **Normal:** The default blend mode. Layers are not mixed at all. The Blend Layer is displayed without mixing any of the colors with the Base Layer. The Blend Layer will completely obscure the Base Layer, unless the Blend Layer contains its own masking or alpha channel.
- **Dissolve:** For each pixel, the value is randomly picked from either the Base or Blend Layer. Some pixels will use the color data of the Base, and others will use the color data from the Blend. When first applied it often appears as if the blend mode has no effect, because its results depend on adjustment to the layer opacity. At 100% opacity of the layer, all pixels will take values from the Blend Layer. At 0% opacity, all pixels use Base values. At any value in between, pixels will be randomly chosen from the Base and Blend Layers. Dissolve does not apply any kind of smoothing, blurring or anti-aliasing, so the result tends to look very grainy.

Knockout blending modes

- **Knockout:** Removes the shape of the Blend Layer from the alpha of all layers beneath it.
- **Clip:** Clips the alpha transparency of all layers beneath it to the exact shape of the Blend Layer.

Darkening blending modes

- **Darken:** For each pixel, Darken compares the color value of the Base Layer to that of the Blend Layer and displays whichever is darker. Darken can be useful for combining the black areas of multiple layers when creating or refining masks. It is the opposite of Lighten.
- **Multiply**: Multiplies the Base value by the Blend value, resulting in a darker image overall. Any color multiplied by black (0.0) creates black, and any color multiplied by white (1.0) remains unchanged. Thus multiply can be effective for removing white areas of the Blend Layer. It gives the opposite result of the Screen blend mode.
- **Color Burn**: Simulates "burning" film in a darkroom by increasing the contrast of the Base Layer, based on the color values of the Blend Layer. To do this it inverts the values of the Base Layer, divides the result by the Blend Layer, then inverts the results. Like Multiply, Color Burn darkens the image overall, but reduces highlights even more, and gives more saturated mid-tones. It is basically the opposite of Color Dodge.

Lightening blending modes

- **Lighten**: For each pixel, Lighten compares the color value of the Base Layer to that of the Blend Layer and displays whichever is lighter. Lighten can be useful for combining the white areas of multiple layers when creating or refining masks. It is the opposite of Darken.
- **Screen**: The pixel values of both layers are inverted, multiplied, then inverted again, resulting in a

brighter picture. Effective for compositing transparent stock elements such as smoke and glows. It is similar to Add in its results, but tends to be more subtle. It gives the opposite result of the Multiply blend mode.

- **Color Dodge**: Simulates the effect of "dodging" film in a darkroom by decreasing the contrast of the Base Layer based on the color values present in the Blend Layer. To do this it inverts the values of the Blend Layer, then divides the Base Layer by those inverted values. Like Screen mode, Color Dodge lightens the overall image, but tends to result in intense, saturated mid-tones and blown-out highlights. It is basically the opposite of Color Burn.
- **Add**: Pixel values are added together, resulting in a brighter image. Any pixels where the sum of the addition produces a value higher than 1.0 will be clipped to 1.0 and will display as white. Useful for compositing light-based visual effects such as light flares, muzzle flashes, lightswords and stock explosions.Similar to Screen blend, but with somewhat more intense results.

Contrast enhancing blending modes

- **Overlay**: Increases contrast using a combination of Multiply and Screen blend modes. Overlay applies the Screen Blend mode to areas where the Base layer contains values greater than 50%, and applies the Multiply Blend mode to areas where the Base Layer contains values less than 50%. Similar to Soft Light and Hard Light in the results it produces. It is essentially the same as Hard Light, except that Overlay is based on the values of the Base Layer.
- **Soft Light**: Increases overall contrast and vibrance of an image, in a manner similar to Hard Light and Overlay. Soft Light applies a half-strength Screen Blend mode to areas of the Blend Layer with values greater than 50%, and applies the half-strength Multiply Blend mode to areas of the Blend Layer with values less than 50%. The results are more subtle than Hard Light and Overlay.
- **Hard Light**: Increases contrast using a combination of Multiply and Screen blend modes. Hard Light applies the Screen Blend mode to areas of the Blend Layer with values greater than 50%, and applies the Multiply Blend mode to areas of the Blend Layer with values less than 50%. Hard Light is similar to Overlay and Soft Light, but more extreme than both. It is essentially the same as overlay, except that Hard Light is based on the values of the Blend Layer.

Inversion blending modes

- **Difference**: Takes the color value for each pixel, and subtracts the Base value from the Blend value. The difference between these values is used as the new color value for the pixel. If the resulting number is negative the positive equivalent value is applied (Example: "-64" would become "64"). If the Blend color is pure white (255,255,255), the Base color will be inverted. This effect can yield dramatic and psychedelic color shifts. Difference can be very useful for comparing identical layers to ensure correct alignment. The Difference Key effect is based off this blend mode: a clean "background plate" is used, and the identical areas in the footage to be keyed go completely to black, allowing the areas isolated by the Difference blending to be enhanced and separated by means of a luma key.
- **Exclusion**: Similar to Difference blending. However, in Exclusion the calculation ignores positive/negative values, using absolute values only. This means similar values tend to get shifted to mid-greys rather than black, resulting in a lower contrast image. Unlike Difference, which can be used in keying, Exclusion is pretty much only useful for surreal, solarized color effects.
- **Subtract**: Subtracts the Blend Layer value from the Base Layer value, resulting in a darkening of the

overall image. Negative values are clipped to 0 (black).

- **Divide**: Divides the Base value by the Blend value, resulting in a lightening of the image. Since any value divided by itself results in 0, this can be useful for removing color tints or casts from an image. By using a plane of the color you want to remove as the Blend Layer, any areas in the Base Layer containing the color of the plane will be neutralized to grey.

Component blending modes

- **Average**: Adds the Base value and Blend value, then divides by the number of layers (2) to get an average value for each pixel.
- **Hue**: Converts both layers to HSL color, then combines the Luminance and Saturation values of the Base Layer with the Hue of the Blend Layer. Used carefully, this can alter colors while retaining the tonal and saturation values of the image, which can result in accurate, subtle tonal shifts.
- **Saturation**: Converts both layers to HSL color, then combines the Luminance and Hue values of the Base Layer and the Saturation values of the Blend Layer. This can be used for artistic effects, or for selectively de-saturating parts of an image.
- **Color**: Converts both layers to HSL color, then combines the Hue and Saturation values from the Blend Layer with the Luminance values of the Base Layer. This is often used to quickly tint images, by using the Blend Layer as a color map.
- **Luminosity**: Converts both layers to HSL color, then combines the hue and saturation values from the Base Layer with the Luminance values of the Blend Layer. Luminosity can be particularly useful for sharpening. By blending a sharpened greyscale duplicate of a layer back onto the full color original, you can effectively sharpen the image without creating undesirable color halos or artifacting.

Blend-If blending mode

Blend-If is a simple way to blend layers based on their tonal values. It is the only blend mode to include additional controls for managing the blend. By adjusting the sliders, you can control what areas of the layer are visible, based on the contents of the layer you are on, or based on the contents of the underlying image. These sliders can be used independently or in conjunction. The top and bottom control handles are linked in pairs. The distance between the two handles in each pair controls the feathering of the blend.

- **This Layer:** This slider uses the contents of the selected layer itself to determine what areas of the layer will be visible. The slider has four control handles:
  - **Bottom Black:** Areas of the selected layer darker than this tone will be completely invisible.

Tonal values between the bottom black and top black sliders will gradually be more opaque as they move toward the top black slider.

- ◦ **Top Black:** Areas of the selected layer lighter than this tone will be completely visible. All tones within the selected layer that fall between the top black handle and the top white handle will be completely visible.
- ◦ **Bottom White:** Areas of the selected layer lighter than this tone will be completely invisible. The tones between the top white and bottom white sliders will gradually be more transparent as they move toward the bottom white slider.
- ◦ **Top White:** Areas of the selected layer darker than this tone will be completely visible. All tones between the top black handle and the top white handle will be completely visible.
- **Underlying Layer:** This slider uses the contents of all layers below the selected layer to determine what areas of the selected layer will be invisible and allow the lower layers to show through. The slider has four control handles:
  - ◦ **Bottom Black:** Areas of the underlying image which are darker than this tone will show through the selected layer. Tonal values of the underlying image that fall between the bottom black and top black sliders will gradually be more transparent as they move toward the top black slider.
  - ◦ **Top Black:** Areas of the underlying image which are lighter than this tone will be completely invisible. All tones within the underlying image that fall between the top black handle and the top white handle will be completely invisible.
  - ◦ **Bottom White:** Areas of the underlying image which are lighter than this tone will show through the selected layer. Tonal values of the underlying image that fall between the top white and bottom white sliders will gradually be more opaque as they move toward the bottom white slider.
  - ◦ **Top White:** Areas of the underlying image which are darker than this tone will be completely invisible. All tones of the underlying image that fall between the top black handle and the top white handle will be completely obscured by the selected layer.

Last modified: Dec 24, 2021

6. Effects

Effects can be applied to all kinds of layers, but not all effects are available for every layer kind. All effects are explained in this chapter. If you do not see any specific effect in the effects list for a particular layer, then the two are not compatible.

General effects controls

These general controls apply to the Effects section of the sidebar as a whole, and to all individual effects. The controls unique to each effect are explained on the following pages, under each specific effect's heading.

- **Expand/collapse all effects:** The white triangle to the left of the Effects heading is used to expand or collapse all effects for the currently selected layer. Click the triangle to toggle between the two states.
    - ▼ **Expanded:** Expand the controls any time you need to access them to adjust their settings.
    - ▶ **Collapsed:** Collapse the effects when the controls aren't needed, to save space in your sidebar and limit the amount of scrolling you need to do to access other controls.
    - A similar triangle exists to the left of each individual effect's name, and can be toggled to collapse or expand that specific effect's controls.
- **Display mode menu:** The display mode menu at the top right of the effects section controls how the effects are displayed on the canvas. The menu shows the currently selected option, which by default is Apply. Thus the appearance of the menu will change if you have a different option selected, but its location remains constant.
    - **Apply:** The viewer shows the final resulting image, after all effects are applied to the image's current state.
    - **Disable All:** Disables all effects so you can view the original image.
- **Add new effect menu:** The ⊕ button opens the add new effect menu. Due to the number of effects available, they cannot all be displayed on-screen at once. Scroll down through the list to access the effects you don't see at first.

General controls for individual effects

Each individual effect contains several controls in its header for general control of the effect.

- **Visibility:** The visibility of any layer can be enabled or disabled using the square toggle next to the layer's name.
    - ◻ **Visible:** When the toggle is filled, the layer is visible. When the layer is not selected, the fill

will be blue. when the layer is selected, the toggle will be filled with white.

- ◦ ☐**Invisible:** When the toggle is empty, the layer is invisible.
- **Preset menu:** Use this menu to access or create presets for any specific effect.

  - ◦ ☰ Click this icon in the title bar for any specific effect and select any preset from the list inside, to use the settings stored in the selected preset. You can also use the **Save Preset** command at the bottom of the list to save all settings contained in the effect as a new preset.

- ↺**Reset:** All controls for the effect can be reset to their defaults by clicking this button.

- ◉**Add effect mask:** This button opens the effect mask menu, from which you can select the specific type of mask you wish to apply to the effect.

Adding effects

To add effects to a layer, click the Plus icon in the Effects header, and the Add Effects menu will open. All available effect are listed on the left. As your cursor hovers over each effect, a preview image showing that effect applied to the layer is displayed on the right. When you find the effect you want. click the effect to close the menu and apply the effect to the layer. For full details on individual effects, see the chapter on Effects.

- **Effects list:** All effects available for the currently selected layer are listed on the left side of the Menu.
  - ◦ **Most Used:** Your most used effects are displayed at the top of the effects list. An effect must be used at least three times before it will appear in this list. For all effects used three or more times, the most used effects will be listed here. The number of effects included in the Most Used list can be edited in the Settings, at File > Settings > Edit.
- **Effect preview:** The preview image allows you to evaluate the results of any effect before applying it to the layer. Hover the mouse over any effect in the llst to preview the results of that effect on the current layer.
- **Search:** The search bar allows you to quickly locate effects by name, regardless of which category they are in. The effects list will update dynamically as you type, so only effect which match the current search term are displayed in the list.
- 📌 **Add multiple effects:** Click the pin icon to stop the menu from closing when an effect is added. While the pin is toggled on, you can add multiple effects to the layer. Click the X at the top right to close the menu when you are finished.

- ⭐ **Favoriting effects:** Each effect listing includes an outlined star icon, which toggles the Favorite status of that effect.
    - ☆ **Not favorited:** The effect is not included in your favorites.
    - ⭐ **Favorited:** The effect is included in your favorites. Once at least one effect has been favorited, a new category of **Favorites** will be added to the menu, so you can quickly access all of your favorite presets.

Effects categories

Effects are grouped into several categories, based on how they alter the image. Each group has its own page in the section that follows, with specific details of all the effects in that category.

- **Blurs**
    - Directional Blur
    - Gaussian Blur
    - Lens Blur
    - Median Blur
    - Rotational Motion Blur
    - Surface Blur
    - Zoom Blur
- **Brushes**
    - Clone Stamp
    - Healing Brush
- **Color**
    - Black & White
    - Channel Viewer
    - Color Vibrance
    - Colorize Black & White
    - Gradient Map
    - Hue Colorize
    - Invert
- **Color Corrections**
    - Color Adjustment
    - Color Balance
    - LUT
    - Saturation Editor
    - Shadows & Highlights
    - Skin Retouch
    - Split Tone
    - Tone Coloring
    - White Balance
- **Corrections**
    - Keystone Correction

- **Details**
  - Denoise
  - Grain
  - Highpass
  - Highpass Sharpen
  - Inverted Highpass
  - Noise
  - Unsharp Mask
- **Distort:**
  - Caustics
  - Displacement
  - Fractal Distortion
  - Lens Distortion
  - Magnify
  - Quad Warp
- **Generate**
  - Clouds
  - Dot Matrix
  - Fractal Noise
  - Long Shadow
  - Reflection
  - Scan Lines
  - Tile
  - Vignette
- **Keying**
  - Chroma Key
  - Color Difference Key
  - Color Match Background
  - Light Wrap
  - Luminance Key
  - Matte Cleaner
  - Remove Color Matting
  - Remove Stock Background
  - Spill Removal
- **Lights & Flares**
  - Chromatic Aberration
  - Glow
  - Light Rays
- **Styles**
  - Color Overlay
  - Inner Glow
  - Linear Gradient
  - Multi-point Gradient
  - Outer Glow

- ◦ Outline
- ◦ Pattern Overlay
- ◦ Pencil Sketch
- ◦ Radial Gradient
- ◦ Roughen Edges
- **Stylize**
  - ◦ Bevel & Emboss
  - ◦ Bleach Bypass
  - ◦ Cartoon
  - ◦ Emboss
  - ◦ Halftone
  - ◦ Leave Color
  - ◦ Mosaic
  - ◦ Pixelate
  - ◦ Posterize
  - ◦ Solarize
  - ◦ Threshold
- **Tone**
  - ◦ Clarity
  - ◦ Curves
  - ◦ Dehaze
  - ◦ Dynamic Contrast
  - ◦ Exposure
  - ◦ Levels
  - ◦ Tone Map

Last modified: Dec 24, 2021

6.1. Blur effects

Directional Blur

This effect blurs the image in a specific, user-defined direction.
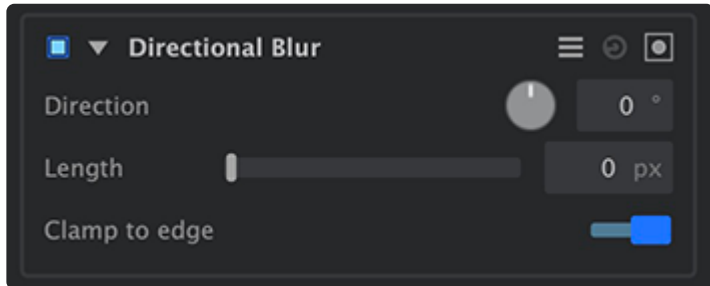
- **Direction:** Turn the dial to indicate the direction in which the image should be blurred. The current angle is indicated in the readout next to the dial.
- **Length:** Sets the distance, in pixels, that each pixel of the image will be blurred.
- **Clamp to edge:** When enabled, this option ensures that the edges of the image do not become semi-transparent when the blur is rendered.

Here is an example showing the results of the directional blur:

Gaussian Blur

A simple blur which blends each pixel with the pixels surrounding it on all sides, to a radius defined by the user.
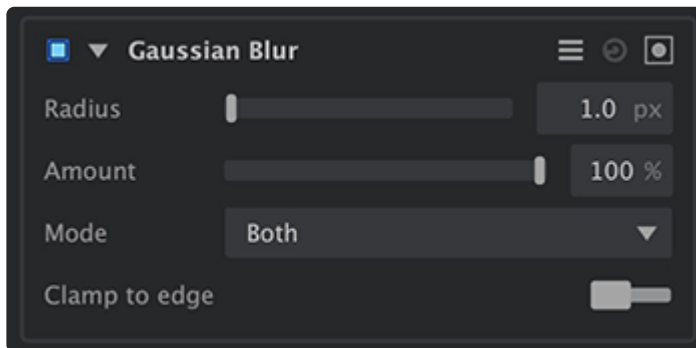
- **Radius:** Sets the range, in pixels, of the blur. A radius of 10, for example, means that each pixel will have its color value averaged with all value of all pixels within a 10 pixel radius.
- **Amount** Adjusts the balance of the blurred image and the source image. An amount of 100% shows only the blur, and an amount of 0 shows only the original image.
- **Mode:** Sets the orientation in which the blur is calculated.
  - **Both:** The default option, which blurs the image both horizontally and vertically
  - **Horizontal:** Blurs the image left to right, calculating the blur based only on the values of other pixels to the left and right.
  - **Vertical:** Blurs the image top to bottom, calculating the blur based only on the values of other pixels above and below.
- **Clamp to edge:** When enabled, this option ensures that the edges of the image do not become semi-transparent when the blur is rendered.

Here is an example showing the results of the gaussian blur:

Lens Blur

Replicates the blur created by a camera lens which is out of focus.
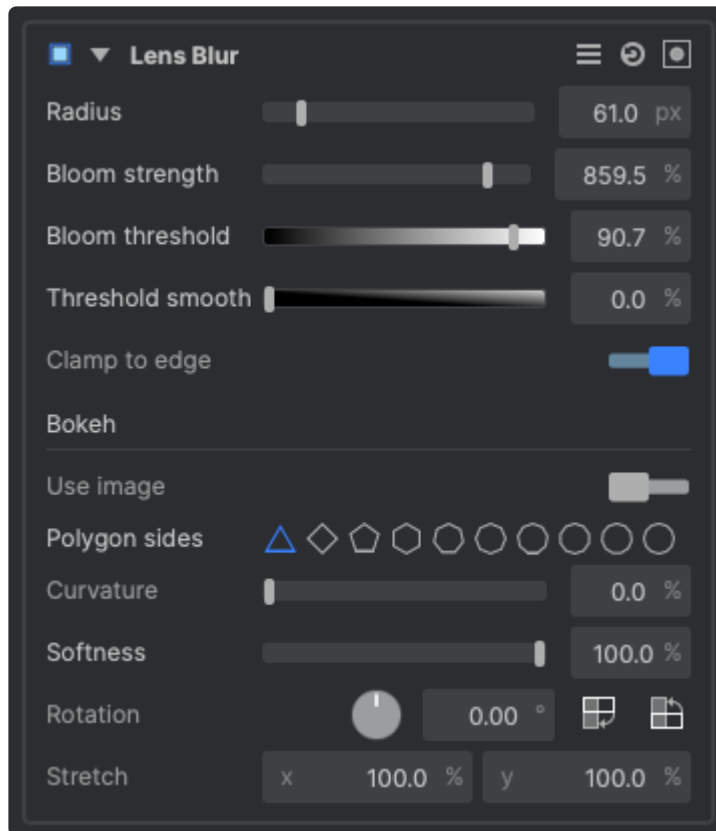
- **Radius:** Sets the range, in pixels, of the blur. A radius of 10, for example, means that each pixel will have its color value averaged with all value of all pixels within a 10 pixel radius.
- **Bloom strength:** Bloom boosts the brightness of the highlight areas of the image. Bloom Strength defines how much the brightness of the highlights is increased.
- **Bloom threshold:** Bloom threshold specifies the brightness level above which bloom will be applied.
- **Threshold smooth:** This property apples a feather to the brightness selection
- **Clamp to edge:** This option forces the effect to be applied all the way to the edges of the image.

Bokeh

- **Use image:** Enable this image to use your own image to define the shape of the aperture on which the blur is based. When enabled, a file picker is displayed.
    - **File Picker:** Select an image to define the aperture shape. The alpha channel of the selected image will be used as the shape of the lens blur bokeh.
    - **Rotation:** Adjusts the rotation of the selected image.
    - **Stretch:** Modifies the aspect ratio of the selected image, to stretch the shape horizontally or vertically.
- **Polygon sides:** By default, the lens blur is calculated based on a standard aperture shape created by the software. Click any shape to select it for use. High quality lenses tend to use apertures with more sides, for a smoother blur. If you are trying to match the look of existing blur in a photo, match the number of blades in the aperture of the lens used to capture the image.
- **Curvature:** Increasing the curvature adds a curve to each side of the selected polygon
- **Softness:** Feathers the edges of the polygon. This will be most visible around the edges of the bloom areas.

- **Rotation:** Rotates the selected polygon shape.
- **Stretch:** Modifies the aspect ratio of the polygon, adjusting the horizontal and vertical dimensions of the shape independently.

Here is an example showing the results of the lens blur:

Median Blur

Median blur effectively removes pixel noise from an image, while retaining sharp edges and image detail. It functions by running a median filter on the image, then applying a blur based on the results.
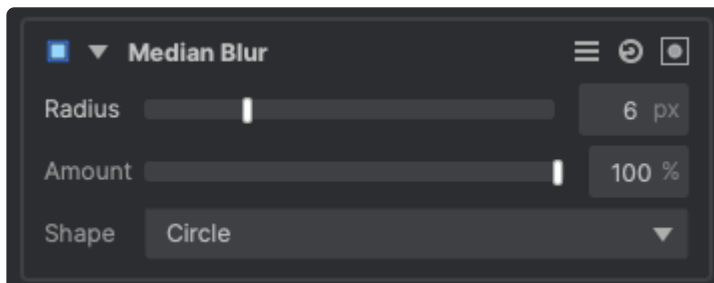
- **Radius:** Defines how many adjacent pixels are included in the blur result for each pixel in the image.
- **Amount:** Adjusts how much of the blur result is blended with the source image.
- **Shape:** Select the shape of the pixel range used to calculate the median filter.
  - **Circle:** Uses a circular radius of pixels, the size of which is determined by the Radius control above.

- ◦ **Square:** Uses a square block of pixels, the width and height of which is determined by the Radius control above.

Here is an example showing the results of the median blur:

Rotational Motion Blur

A simulated motion blur, based on rotational movement of the layer.
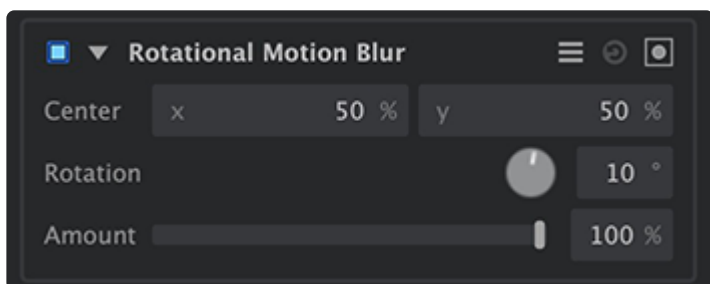
- **Center:** Sets the center point around which the blur will rotate. The center is also identified on the viewer as a white circle, which can be dragged to set the center position.
- **Rotation:** Set the number of degrees to which the image will be blurred.
- **Amount:** Adjusts the balance of the original image and the blurred image. Reducing the Amount will reveal more of the source image.

Here is an example showing the results of the rotational motion blur:

Original | With Rotational Motion Blur

Surface Blur

Surface Blur locates edges within the layer, and applies a blur to the areas between the edges, while leaving the edge detail intact.
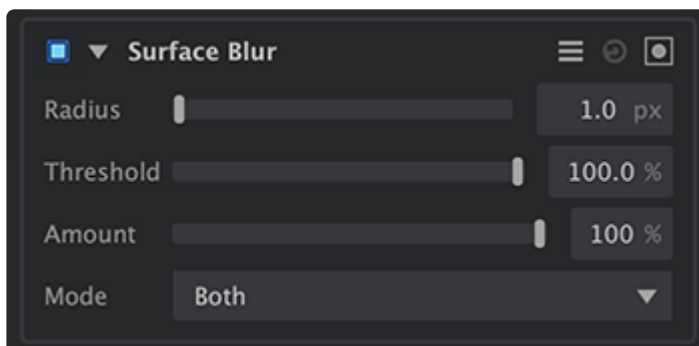
- **Radius:** Sets the range, in pixels, of the blur. A radius of 10, for example, means that each pixel will have its color value averaged with all value of all pixels within a 10 pixel radius.
- **Threshold:** Sets the level of contrast required for an edge to be recognized. Lower threshold setting will retain more of the original detail.
- **Amount:** Adjusts the balance of the original image and the blurred image. Reducing the Amount will reveal more of the source image.
- **Mode:** Sets the orientation in which the blur is calculated.
  - **Both:** The default option, which blurs the image both horizontally and vertically
  - **Horizontal:** Blurs the image left to right, calculating the blur based only on the values of other

pixels to the left and right.

- **Vertical:** Blurs the image top to bottom, calculating the blur based only on the values of other pixels above and below.

Here is an example showing the results of the surface blur:

Zoom Blur

This effect works by blurring the image outward from a specified center point. It creates a similar effect to quickly extending a zoom lens during an exposure.
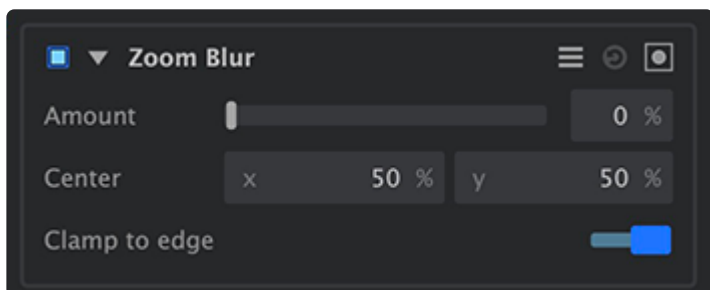
- **Amount:** Sets the length of the blur, as a percentage of the source image size.
- **Center:** Sets the center point from which the blur will emanate. The center is also identified on the viewer as a white circle, which can be dragged to set the center position.
- **Clamp to edge:** When enabled, this option ensures that the edges of the image do not become semi-

transparent when the blur is rendered.

Here is an example showing the results of the zoom blur:

IMAGE-LINK+example-zoom-blur}!

Last modified: Dec 31, 2021

6.2. Brush effects

Clone Stamp

The clone stamp allows you to sample from one location in your image, and paint the sampled area elsewhere in the image. This is effective for removing unwanted objects from the scene.
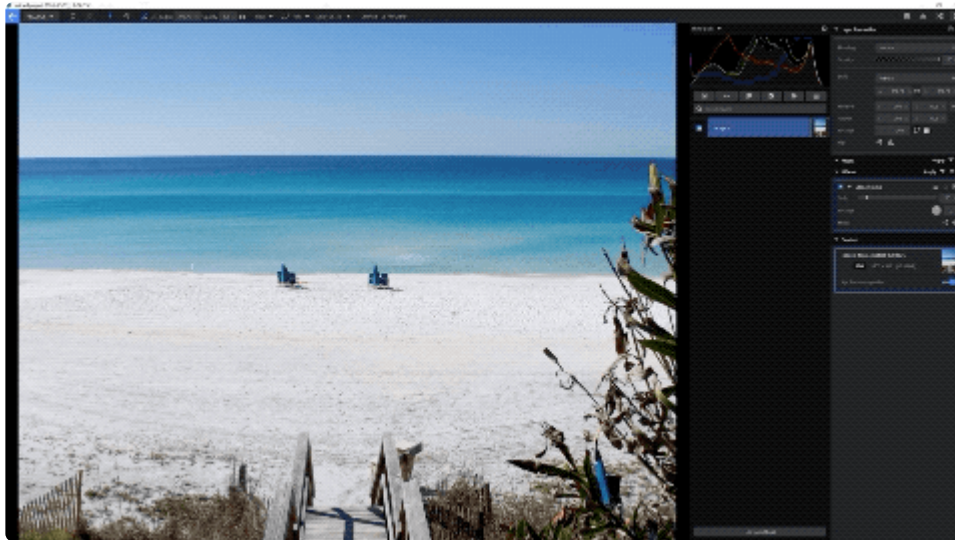
Using Clone Stamp

There are two fundamental steps to using the clone stamp, which take place on the canvas:

1. **Sample the area you wish to copy:** Place the cursor for the Clone Stamp tool on the area of your selected layer which you wish to copy. Hold down **Alt** (**Option** on Mac) and the cursor will change to crosshairs to indicate sample mode. Click to sample that area, then release the Alt button.
2. **Paint over the area you wish to conceal:** When you move the cursor, a reticle will remain to indicate the sample source. Brush anywhere else in the image, and the sampled area will be painted in there. Once you start painting, the reticle will move in tandem with your brush, to indicate the current sample source.

Top Toolbar Controls
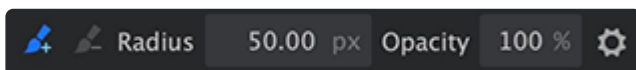
When the Clone Stamp is active, the top toolbar will show several tools for defining the brush shape used by the effect.
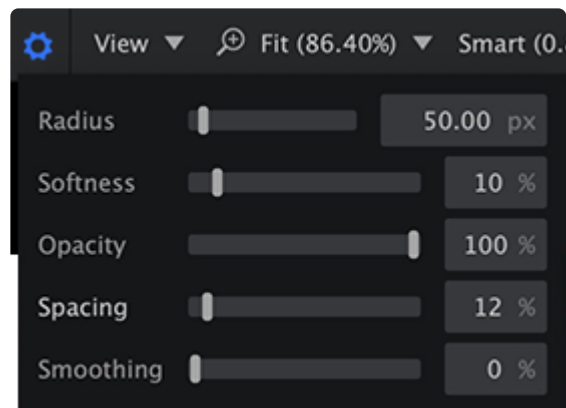
- **Radius:** Adjusts the size of the brush.
- **Opacity:** Controls how opaque the brush is, when used to paint in the clone stamp.

- ⚙ **Settings:** The settings menu contains additional controls for the clone stamp.
  - **Radius:** Defines the radius of the brush, in pixels.
    - **[** key will reduce the radius.
    - **]** key will increase the radius.
  - **Softness:** Controls the width of the feathered edge around the brush.
    - **Shift** + **[** will decrease the softness.
    - **Shift** + **]** will increase the softness.
  - **Opacity:** Determines how opaque the brush stroke is. 100% is fully opaque, while 0% is completely transparent.
    - **Alt** + **[** will decrease opacity.
    - **Alt** + **]** will increase opacity.
  - **Spacing:** Controls the distance, as a percentage of the radius, between each instance of the brush shape, as you paint. For a continuous line a low value should be used. Increasing the value will create a visible scalloped edge, and once you exceed 100% there will be gaps between the separate instances of the brush shape.
  - **Smoothing:** Adjusts the overall smoothness of the brush path, to reduce unwanted shake or jitter and create a smoother line.

Sidebar Controls

The sidebar controls adjust the contents of the clone stamp, rather than the brush used to sample or apply the effect. Areas already painted will not be affected. The current settings in the sidebar apply to the next brush stroke.

- **Scale:** Adjusts the size of the sampled image within the brushed area. A value of 100% exactly matches the size of the original sample.
- **Rotation:** Changes the rotation of the sampled image within the brush area. This allows you to compensate for perspective in the image, or match the angle of lines which are not parallel.
- **Mirror:** Allows you to flip the sampled image horizontally or vertically.
  - ◦ **Mirror Vertical:** Flips the image so the bottom becomes the top and the top becomes the bottom.
  - ◦ **Mirror Horizontal:** Flips the image so the left side becomes the right side and the right side becomes the left side.

Healing Brush

The healing brush is used to replace the texture in an area of your image, while retaining the original color data. It is effective for removing blemishes from skin. To use it, you take a texture sample from one location in your image, and paint the sampled texture elsewhere in the image.


Using Healing Brush

There are two fundamental steps to using the healing brush, which take place on the canvas:

1. **Sample the texture you wish to copy:** Place the cursor for the Healing Brush tool on the area of your selected layer which you wish to copy. Hold down **Alt** (**Option** on Mac) and the cursor will change to crosshairs to indicate sample mode. Click to sample the texture of that area, then release the Alt button.
2. **Paint over the area you wish to conceal:** When you move the cursor, a reticle will remain to indicate the sample source. Brush anywhere else in the image, and the texture from the sampled area will be painted in there. Once you start painting, the reticle will move in tandem with your brush, to indicate the current sample source.
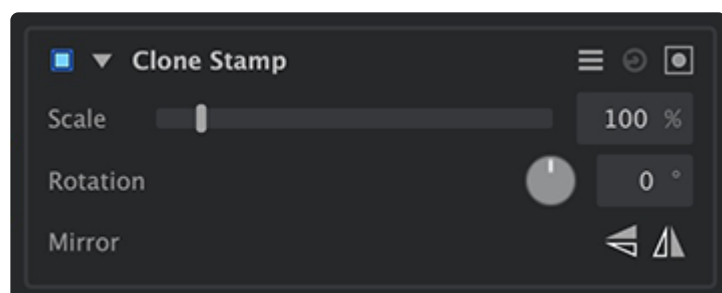
Top Toolbar Controls
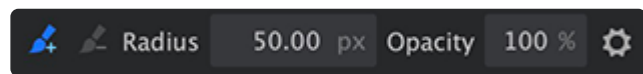
When the Healing Brush is active, the top toolbar will show several tools for defining the brush shape used by the effect.
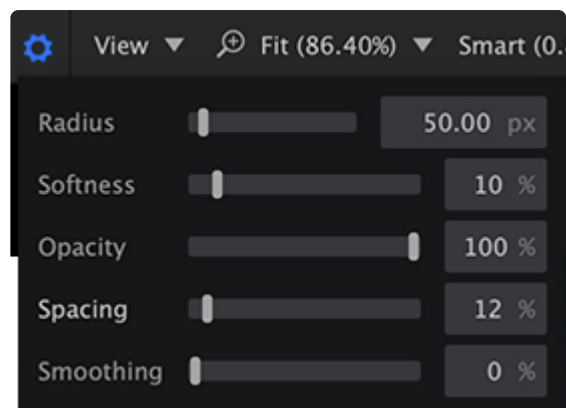
- **Radius:** Adjusts the size of the brush.
- **Opacity:** Controls how opaque the brush is, when used to paint in the healing brush texture.

- ⚙**Settings:** The settings menu contains additional controls for the healing brush.
    - ◦ **Radius:** Defines the radius of the brush, in pixels.
        - ▪ **[** key will reduce the radius.
        - ▪ **]** key will increase the radius.
    - ◦ **Softness:** Controls the width of the feathered edge around the brush.
        - ▪ **Shift** + **[** will decrease the softness.
        - ▪ **Shift** + **]** will increase the softness.
    - ◦ **Opacity:** Determines how opaque the brush stroke is. 100% is fully opaque, while 0% is completely transparent.
        - ▪ **Alt** + **[** will decrease opacity.
        - ▪ **Alt** + **]** will increase opacity.
    - ◦ **Spacing:** Controls the distance, as a percentage of the radius, between each instance of the brush shape, as you paint. For a continuous line a low value should be used. Increasing the value will create a visible scalloped edge, and once you exceed 100% there will be gaps between the separate instances of the brush shape.
    - ◦ **Smoothing:** Adjusts the overall smoothness of the brush path, to reduce unwanted shake or jitter and create a smoother line.

Sidebar Controls

The sidebar controls adjust the contents of the healing brush, rather than the shape of the brush used to sample or apply the effect. Areas already painted will not be affected. The current settings in the sidebar apply to the next brush stroke.

- **Scale:** Adjusts the size of the sampled image within the brushed area. A value of 100% exactly matches the size of the original sample.
- **Rotation:** Changes the rotation of the sampled image within the brush area. This allows you to compensate for perspective in the image, or match the angle of lines which are not parallel.
- **Mirror:** Allows you to flip the sampled image horizontally or vertically.
    - **Mirror Vertical:** Flips the image so the bottom becomes the top and the top becomes the bottom.
    - **Mirror Horizontal:** Flips the image so the left side becomes the right side and the right side becomes the left side.

Last modified: Dec 24, 2021

6.3. Color effects

Black & White

Use this effect to convert your image to black and white, or to reduce the saturation of your image. Imerge Pro's black and white tool gives you full control over the luminosity of specific colors in your image, so you can dial in the exact results you desire.
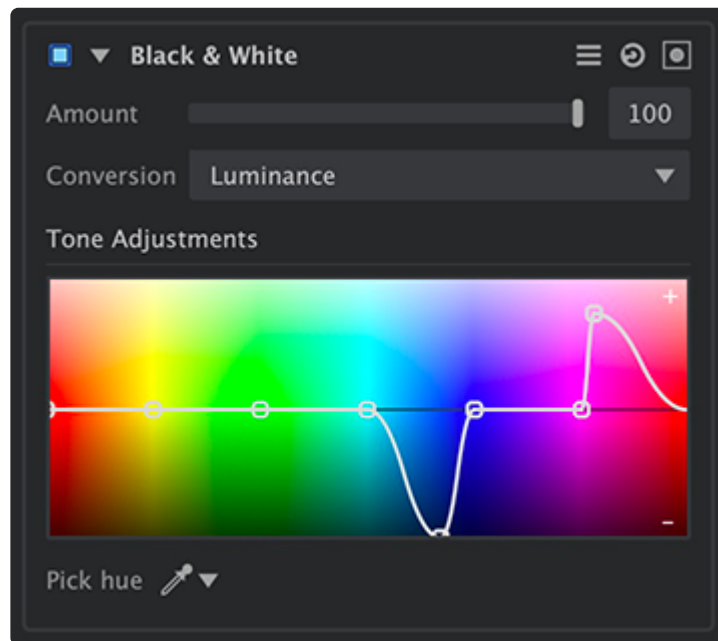
- **Amount:** Adjusts the intensity of the black and white effect. A value of 100 creates a black and white image. Lowering the amount blends the original image with the black and white result, effectively lowering the saturation of the image. The higher the amount, the more desaturated the result will be.
- **Conversion:** Defines the method of conversion used to map the original colors to a black and white result. You can select a specific color channel of the image, the luminance of the image, an average of all color channels, or create a custom map.

Tone Adjustments

The spectrum map under tonal adjustments allows you to customize the results. There are a number of control points on the spectrum curve, and you can create additional control points as well.
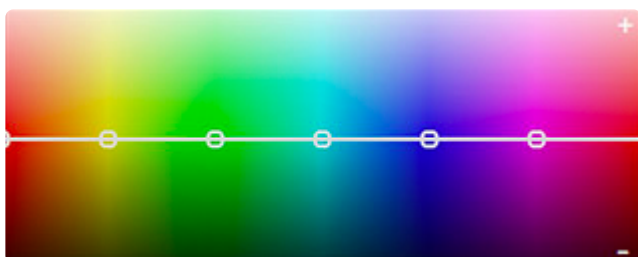
- **Control points:** Drag the controls points to reposition them. The horizontal position defines the specific hue that will be modified by that point. Position the point so it is in the center of the hue you want to modify. The vertical position controls the lightness of that hue in the black and white result. Raising the point will lighten that hue, and lowering the point will darken that hue. Raising the yellow/ orange hue common in skin tones will lighten the skin tones in the image, for example, to draw the viewer's eye to the human subjects.

- 🔍 **Pick Hue:** Use the eyedropper to select a specific hue from your image, for precise adjustments. Click the eyedropper icon to enable the tool, then click on the color in the image which you want to adjust. When you click, you can drag upward or downward while the mouse button is held down, to dynamically adjust the tonality of the selected color. Dragging upward lightens the tone, and dragging downward darkens it.

  ◦ **Sample size:** Use the triangle next to the pipette to access the sample size menu. The selected hue will be an average of the pixel area you choose. Smaller samples allow for more precise selections, while larger samples allow you to select a broader hue range for adjustment.

Here is an example showing the results of the black & white effect:

Channel Viewer

The channel viewer lets you quickly exchange individual channels in your image into other result. They are typically used as a diagnostic tool inspecting a particular color space channel from an image.
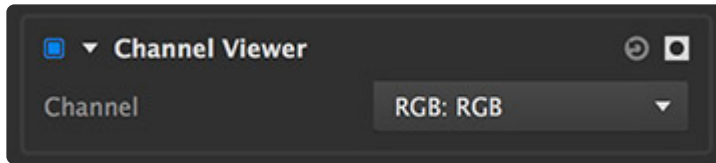
- **Channel:** there are numerous options in this menu. You can choose individual RGB channels, HSV channels, HSL channels, YUV channels, or the luminance channel, and view them directly in the viewer image.

Here is an example showing the results of the channel viewer, set to RGB: Red, so the red channel is shown as the final RGB image:

Colorize Black & White

Use this effect to apply color to any source. Most commonly this is used with a black and white source, to add color, but it can also be applied to color images. The color is applied based on the tonal range of the source image, so pure white areas remain white, pure black areas remain black, and middle grey is fully converted to the selected color.
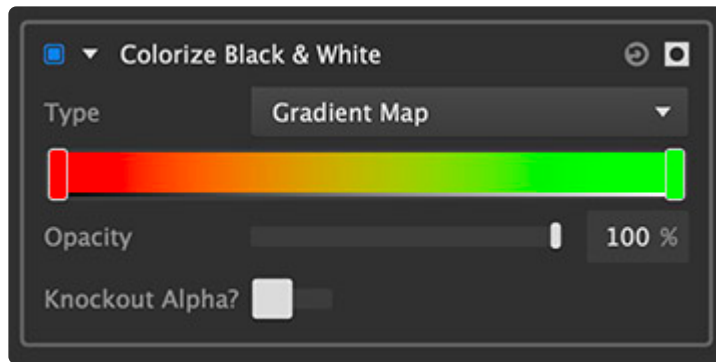
- **Type:** Choose the type of colorization used.
    - **Solid Color:** A single color of your choice is applied based on the tonal range of the source image, so pure white areas remain white, pure black areas remain black, and middle grey is fully converted to the selected color.
    - **Gradient Map:** A color gradient is applied based on the tonal range of the source image. Pure white areas remain white, pure black areas remain black. All tonal values in between are blended with their corresponding color values in the gradient.
- **Color:** When the Type is set to Solid Color, a color picker appears where you can choose the color you wish to use.
- **Gradient:** When the Type is set to Gradient Map, a visual gradient appears. Use the gradient to define the range of colors that will be applied to the layer. Click anywhere on the gradient to specify the color for that point. A handle will be added, which can then be dragged to reposition it if needed.
- **Opacity:** Controls the balance of the source layer with the colorized version. 100% gives the full color value, while 0% gives the original source image color.
- **Knockout Alpha:** Creates transparency based on the tonal values of the source image. Completely black areas in the source will become completely transparent. Other areas will be progressively more opaque, based on their brightness.

Here is an example showing the results of the colorize black & white effect, when applied to a color image:

Original | With Colorize Black & White

Color Vibrance

This effect is ideal for adding color to greyscale procedural effects such as particles and textures. It is particularly effective at retaining detail in bright areas without creating excessive bloom. The strength of the vibrancy and the luminance preservation can be adjusted, as can the color and phasing of the effect.
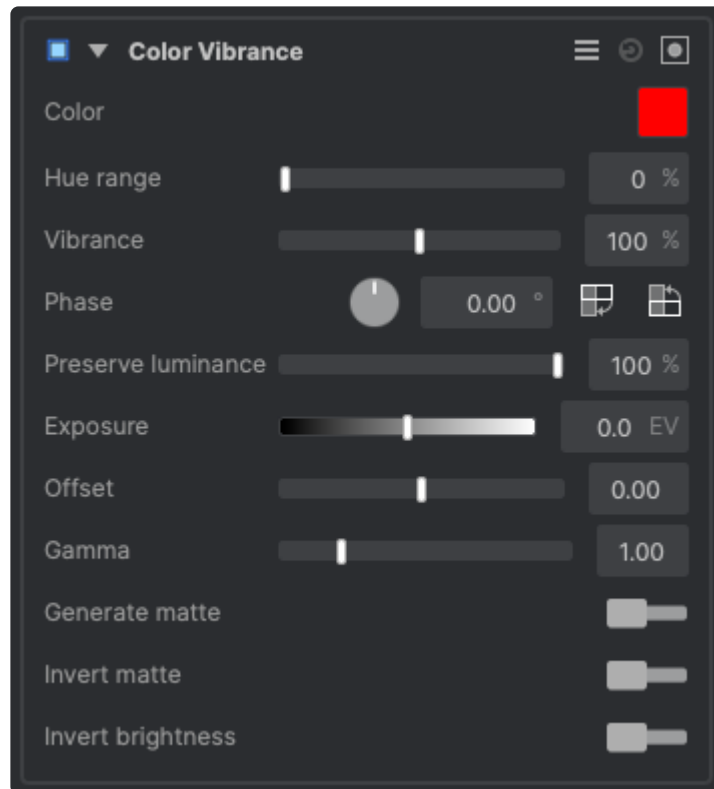
- **Color:** Select the base color which will be applied to the layer. Click the swatch to open a color picker and select any color you wish.
- **Hue range:** Adjusts the range of hues which will be affected by the colorization.
- **Vibrance:** Sets the intensity of the colorization.
- **Phase:** Shifts the hue of the colorization.
- **Preserve Luminance:** Defines how much the total luminance of each pixel is affected by the colorization. Higher values retain more of the original luminance, while lower values allow the added color to alter the luminance value if necessary.
- **Exposure:** Brightens or darkens primarily the highlights of the image, with minimal effects on the shadows.
- **Offset:** Brightens or darkens the shadow areas of the image, with minimal effects on the Highlights. Start with minor adjustments, as excessive changes here can create unnatural results.
- **Gamma:** Brightens or darkens the midtones of the image.
- **Generate matte:** Creates a matte based on the colorization, when toggled on.
- **Invert matte:** Inverts the transparency values of the generated matte, when toggled on.
- **Invert brightness:** Inverts the luminance values of the image, when toggled on.

Gradient Map

Gradient map replaces or blends the color of your image with a gradient of your creation. The left end of your gradient is mapped to the blacks in your image, and the right end of the gradient is mapped to image whites.
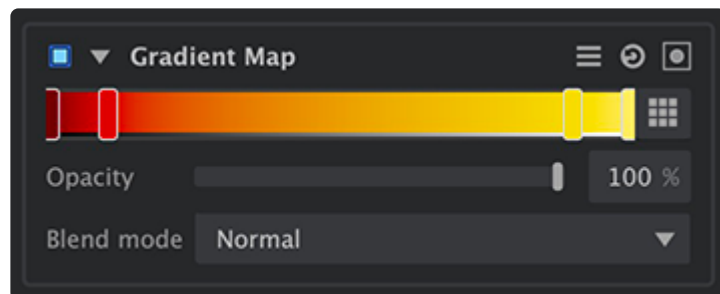
- **Gradient:** The colors of your gradient are defined here. The rectangular control handles define specific colors, and the effect generates the transitional gradients between them. The dots between handles indicate the mid-points, which can be positioned independently of the color points.
  - **Edit a color point:** Double-click any color point to open a color picker and adjust the assigned color. Drag the handle to reposition the color within the gradient range.
  - **Add a new color point:** Double-click anywhere on the gradient to add a new color point. A color picker will open where you can select the color you wish to assign at that point.
  - **Edit a mid-point:** Drag any mid-point to reposition it between the color points to either side.
- **Opacity:** Controls the blend of the source layer with the gradient version. 100% gives only the gradient color, while 0% gives the original source image color.
- **Blend Mode:** Choose the blend mode used to combine the gradient with the contents of the layer it has been added to. Full details of all blend mode options can be found on the Blending modes page of this manual.

Here is an example showing the results of the gradient map effect, with the blend mode set to soft light:

Hue Colorize

Hue colorize adds a single hue to the image while retaining all luminance data. It is particularly effective for colorizing black and white images, but can also be used on color images, to replace the color with a single hue, or to blend the selected hue with the original colors.
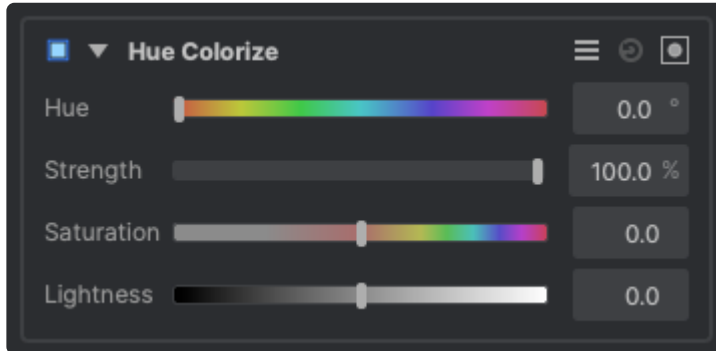
- **Hue:** Select the target hue that will be used to colorize the image.
- **Strength:** Adjusts the intensity of the hue replacement. A value of 0 will have no effect, while a value of 100 will completely replace the source colors with the target hue.
- **Saturation:** Increases (positive values) or reduces (negative values) the saturation of the selected hue range.
- **Lightness:** Brightens (positive values) or darkens (negative values) the colorized image.

Here is an example showing the results of the hue colorize effect:

Invert

Allows you to invert individual channels of the image. By default all color channels are inverted, which inverts the entire image. You can also invert specific channels individually.
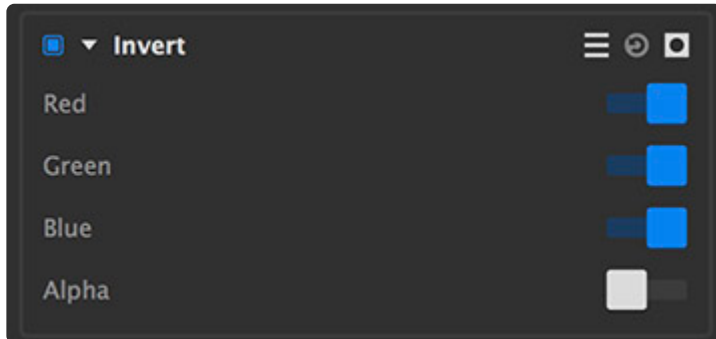
- **Red:** Inverts the red channel of the image, when enabled.
- **Green:** Inverts the green channel of the image, when enabled.
- **Blue:** Inverts the blue channel of the image, when enabled.
- **Alpha:** Inverts the alpha channel of the image, when enabled. This factors in not only any alpha channel embedded within the source image, but also the results of any masks that have been applied to the image.

Here is an example showing the results of the invert effect:

6.4. Color correction effects

Color Adjustment

Your image can be altered with this tool to correct colors when required, or to alter colors for artistic effect.
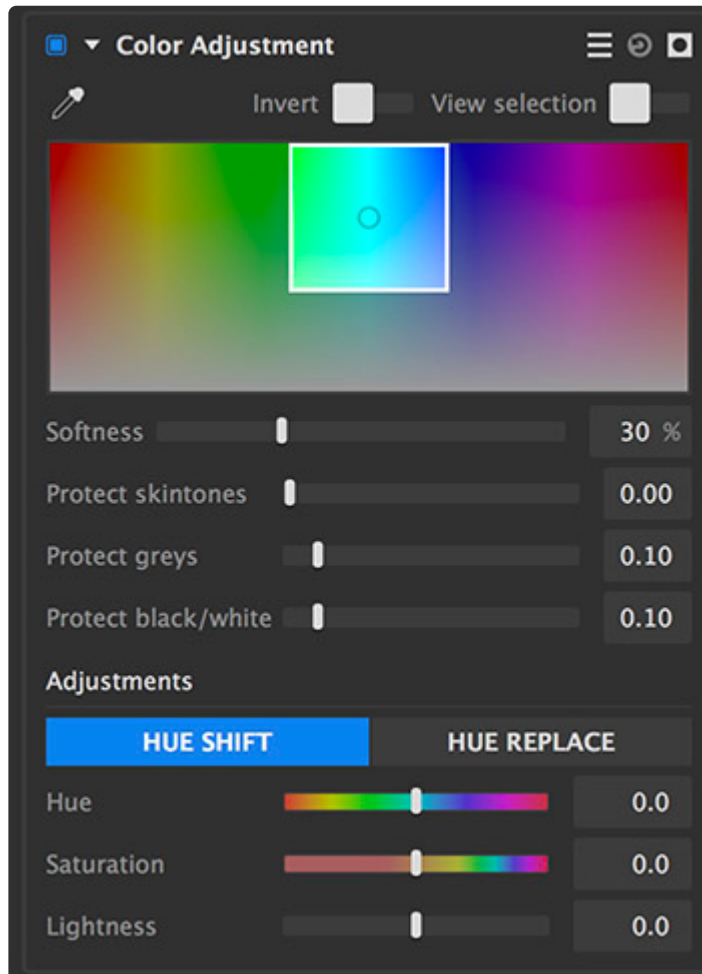
- **📋Presets menu:** Use this menu to select from several presets, to quickly select all colors, or to select a specific primary color group.
- **🖊Pipette:** Used to select a color for adjustment. Click on the pipette to open selection loupe, then move it over your image to find the color you wish to select. Click again to select that color for adjustment.
- **Invert:** Inverts the selection, so everything except the chosen color is altered by the effect.
- **View selection:** Displays the current selection on the viewer using a matte view.
- **Spectrum selection indicator:** Provides a visual representation to see and modify the range of colors selected.
  - **Center point:** Indicates the base color from which the selection extends. To change the color, click anywhere in the spectrum and drag sideways to shift the base color, or use the pipette to select a different specific color from your image.

◦ **White edges:** Indicate the entire range of colors that is included in the selection. Drag any edge to adjust the range of colors in the selection

- **Softness:** Softens the selection at the edges of the selected color range. Increasing softness often creates more natural results when adjustments are applied to a color selection.
- **Protect skintones:** Prevents skin tones from being included in the selection. Effective for retaining accurate, natural skin tones when applying color shifts or adjustments to the image.
- **Protect greys:** Higher values exclude neutral mid-tones with low saturation from the selection
- **Protect black/white:** Higher values exclude the darkest and brightest areas of the image from the selection. This is frequently useful for preventing over-saturation of color noise in the shadow areas of your image.

Adjustments

The adjustments section provides two main methods of adjustment.

Hue Shift

Hue shift is best for minor adjustments, where you are fine-tuning the existing hues in the image.

- **Hue:** Shifts the selected hue range through the color spectrum.
- **Saturation:** Increases (positive values) or reduces (negative values) the saturation of the selected hue range.
- **Lightness:** Brightens (positive values) or darkens (negative values) the selected hue.

Hue Replace

Hue replace is a better option for major adjustments, where you are changing the selected hue to a completely different hue.

- **Hue:** Shifts the selected hue range through the color spectrum.
- **Strength:** Adjusts the intensity of the hue replacement. A value of 0 will have no effect, while a value of 100 will completely replace the source hue with the target hue.
- **Saturation:** Increases (positive values) or reduces (negative values) the saturation of the selected hue range.
- **Lightness:** Brightens (positive values) or darkens (negative values) the selected hue.

Here is an example showing the results of the color adjustment, where the lightness and saturation of green hues have been increased:

Color Balance

Individually adjust the balance of red, green and blue in the layer's shadows, midtones and highlights.
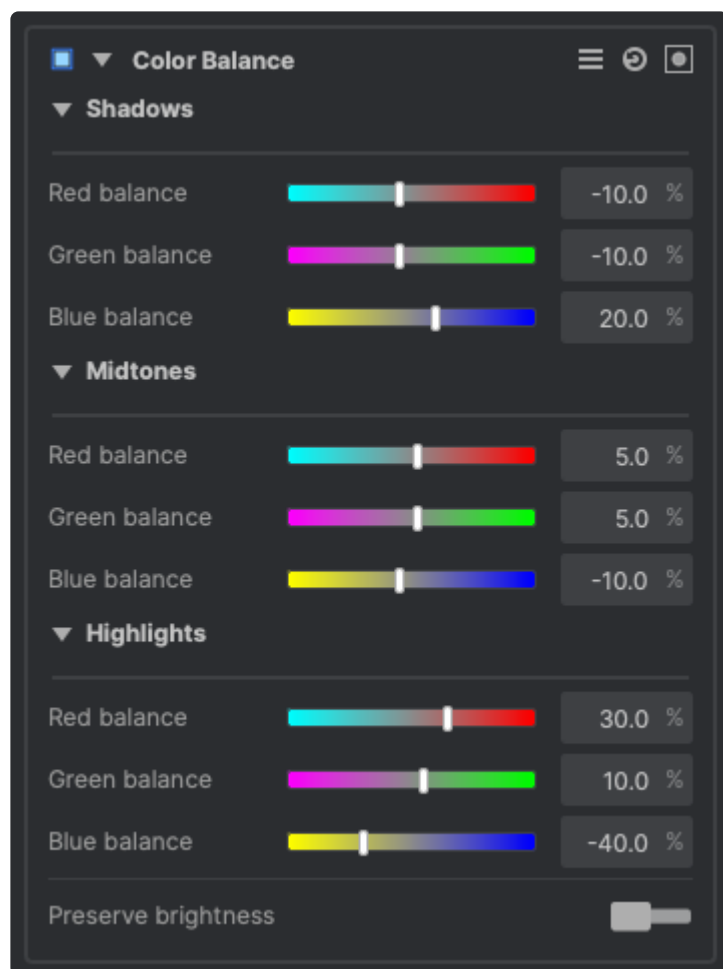
Shadows

- **Red Balance:** Adjust to the left to reduce red tones in the shadow areas, or to the right to increase red tones in the shadow areas.
- **Green Balance:** Adjust to the left to reduce green tones in the shadow areas, or to the right to increase green tones in the shadow areas.
- **Blue Balance:** Adjust to the left to reduce blue tones in the shadow areas, or to the right to increase blue tones in the shadow areas.

Midtones

- **Red Balance:** Adjust to the left to reduce red tones in the midtones, or to the right to increase red tones in the midtones.
- **Green Balance:** Adjust to the left to reduce green tones in the midtones, or to the right to increase green tones in the midtones.
- **Blue Balance:** Adjust to the left to reduce blue tones in the midtones, or to the right to increase blue tones in the midtones.

Highlights

- **Red Balance:** Adjust to the left to reduce red tones in the highlights, or to the right to increase red

tones in the highlights.

- **Green Balance:** Adjust to the left to reduce green tones in the highlights, or to the right to increase green tones in the highlights.
- **Blue Balance:** Adjust to the left to reduce blue tones in the highlights, or to the right to increase blue tones in the highlights.

- **Preserve brightness:** Retains the layer's original brightness while altering the colors.

Here is an example showing the results of adjusting the color balance settings:

LUT

Look Up Tables (LUTs) are files which store a specific map for color adjustment, and allow you to apply a pre-defined color grade or adjustment to your layer very quickly.
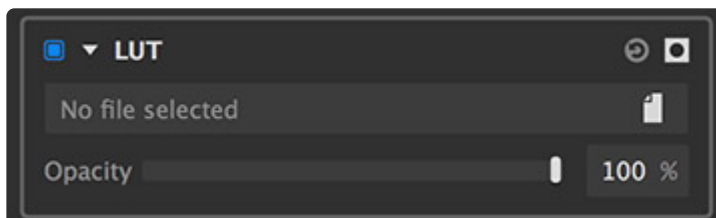
- **File path:** Click the file icon to the right to open a file browser and select the LUT file you wish to apply to the layer.

- **Opacity:** Reducing the opacity decreases the intensity of the LUT filter.

Saturation Editor

The saturation editor is optimized for fine tuning the intensity of each color in the layer. It uses a curve to control the saturation of different colors.
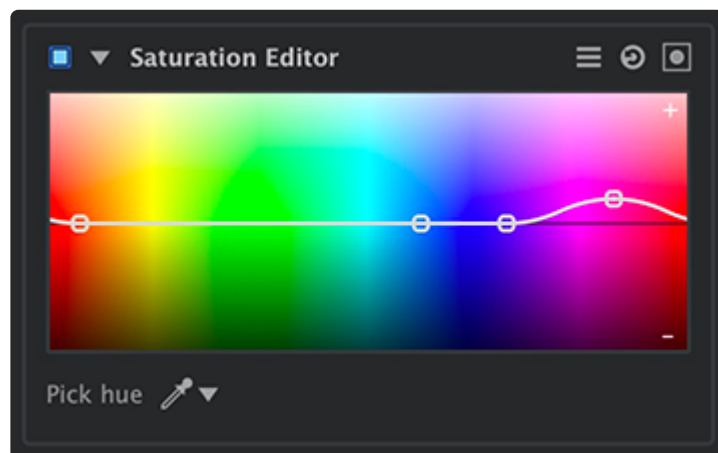
- **Editing the curve:** The horizontal line running through the center of the spectrum is a curve. You can add points to the curve above any hue, and reposition them to adjust the saturation of that hue.
  - **Adding points:** Click anywhere on the curve to add a new point. When the first point is added, two additional points will be added on either side of it, so that the adjustment is limited to a specific hue range.
  - **Adjusting points:** Drag any point to edit the effect it has on your image colors. Drag the point sideways to alter the primary hue it affects. Drag it upwards to increase the saturation of that hue, and drag it downwards to reduce the saturation of the selected hue.
- 🔍 **Pick Hue:** Use the eyedropper to select a specific hue from your image, for precise adjustments. Click the eyedropper icon to enable the tool, then click on the color in the image which you want to adjust. When you click, you can drag upward or downward while the mouse button is held down, to dynamically adjust the saturation of the selected color.
  - **Sample size:** Use the triangle next to the eyedropper to access the sample size menu. The selected hue will be an average of the pixel area you choose. Smaller samples allow for more precise selections, while larger samples allow you to select a broader hue range for adjustment.

Shadows & Highlights

Shadows and highlights provides fine control over the visible detail in the extreme areas of the layer's tonal range.
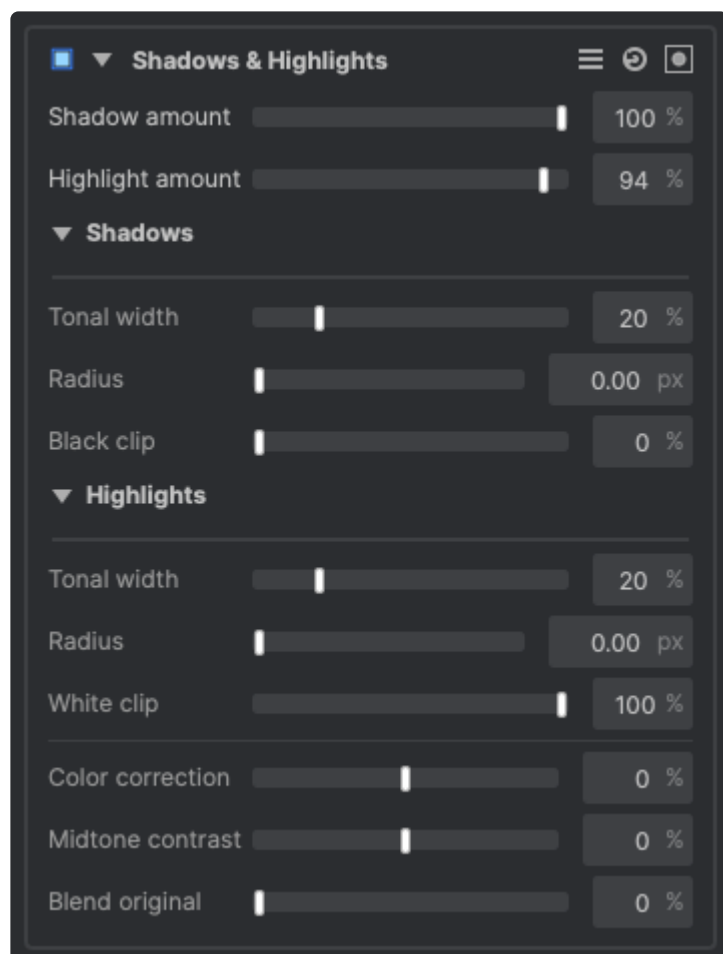
- **Shadow amount:** Raises the tonal value of the shadow areas, to reveal detail that is hidden in the shadows.
- **Highlight amount:** Lowers the tonal value of the highlight areas, to reveal detail that is blown out.

Shadow

- **Tonal width:** Determines the range of tones that will be included in shadow adjustments. Higher values will include more midtones and brighter areas.
- **Radius:** Defines how many surrounding pixels will be averaged in when adjusting shadow areas.
- **Black clip:** Pushes all areas at or below the selected tonal value to pure black.

Highlight

- **Tonal width:** Determines the range of tones that will be included in highlight adjustments. Higher values will include more midtones and darker areas.
- **Radius:** Defines how many surrounding pixels will be averaged in when adjusting highlight areas.
- **White clip:** Pushes all areas at or above the selected tonal value to pure white.

- **Color correction:** Allows you to boost or reduce color saturation in the altered shadow and highlight areas.
- **Midtone contrast:** Shifts the midtones of the image to make them brighter (right) or darker (left).
- **Blend original:** Combines the adjustments with the original colors of the image. The percentage

FXHOME

Imerge Pro - 2021.5_en

indicates how much of the original image is included.

Skin Retouch

The skin retouch effect is effective for beauty applications, when the subject's skin must be smoothed, and blemishes minimized.
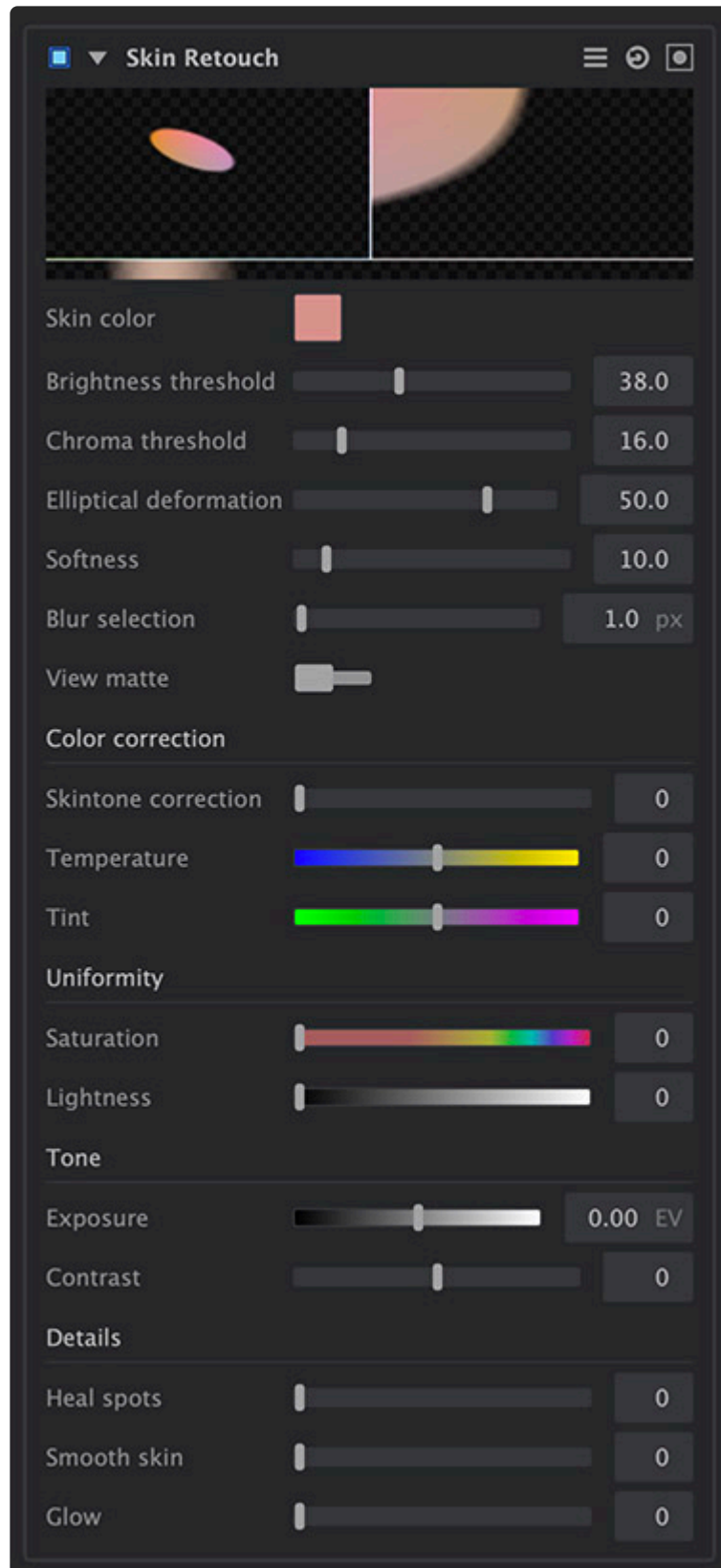
Skin Color

The color selection is displayed in a small window with three components. They represent the total selected range (top left), the chroma range (top right), and the luminance range (bottom). All colors and tones outside

of the selected range are hidden, so you can easily visualize the selection:

- **Skin color:** Select the median skin tone on which the selection will be based. Generally it works best to select a skin tone from the image itself. The selected color is shown in the swatch, and in the color selection window.
- **Brightness threshold:** Adjusts the tonal range of the skin color which is included in the selection. Increasing the threshold selects a wider range of tones.
- **Chroma threshold:** Adjusts the color range, of colors surrounding the skin color, which is included in the selection. Increasing the threshold selects a wider range of colors.
- **Elliptical deformation:** Changes the direction, within the color wheel, of the tones included by the chroma threshold. As you adjust the value, the ellipse shown in the color selection window will rotate. and change shape to show the tones which are included.
- **Softness:** Feathers the edges of the color selection, to help blend the results back into the original image.
- **Blur selection:** Blurs the matte, which softens the edges of the color selection.
- **View matte:** Enable this feature to view a black and white matte of the current selection on the canvas. Using the matte view simplifies the process of ensuring you have the skin isolated.

Color Correction

- **Skintone correction:** Increase this value to eliminate color shifts present in the selection, and bring the color back to an accurate skin color.
- **Temperature:** Adjust the color temperature of the selected colors, so they better match your image.
- **Tint:** Adjust the tint of the selected colors, so they better match your image.

Uniformity

- **Saturation:** Reduces any extremes in the saturation of the selected colors, to make the saturation of the skin more consistent.
- **Lightness:** Reduces any light or dark extremes in the selected colors, to make the brightness of the skin more consistent.

Tone

- **Exposure:** Adjusts the exposure of the selected colors, to brighten or darken the skin area.
- **Contrast:** Modifies the range between the lightest and darkest areas of the selected range.

Details

- **Heal spots:** Attempts to locate small blemishes or spots within the selected skin tone, and hide them using the surrounding image data.
- **Smooth skin:** Applies a blur to the selected skin area, to reduce blemishes or imperfections.
- **Glow:** Duplicates the selected area, blurs it, and uses a screen blend to overlay it back onto the original image. The result smooths and brightens the skin.

Here is an example showing the results of the skin retouch effect:
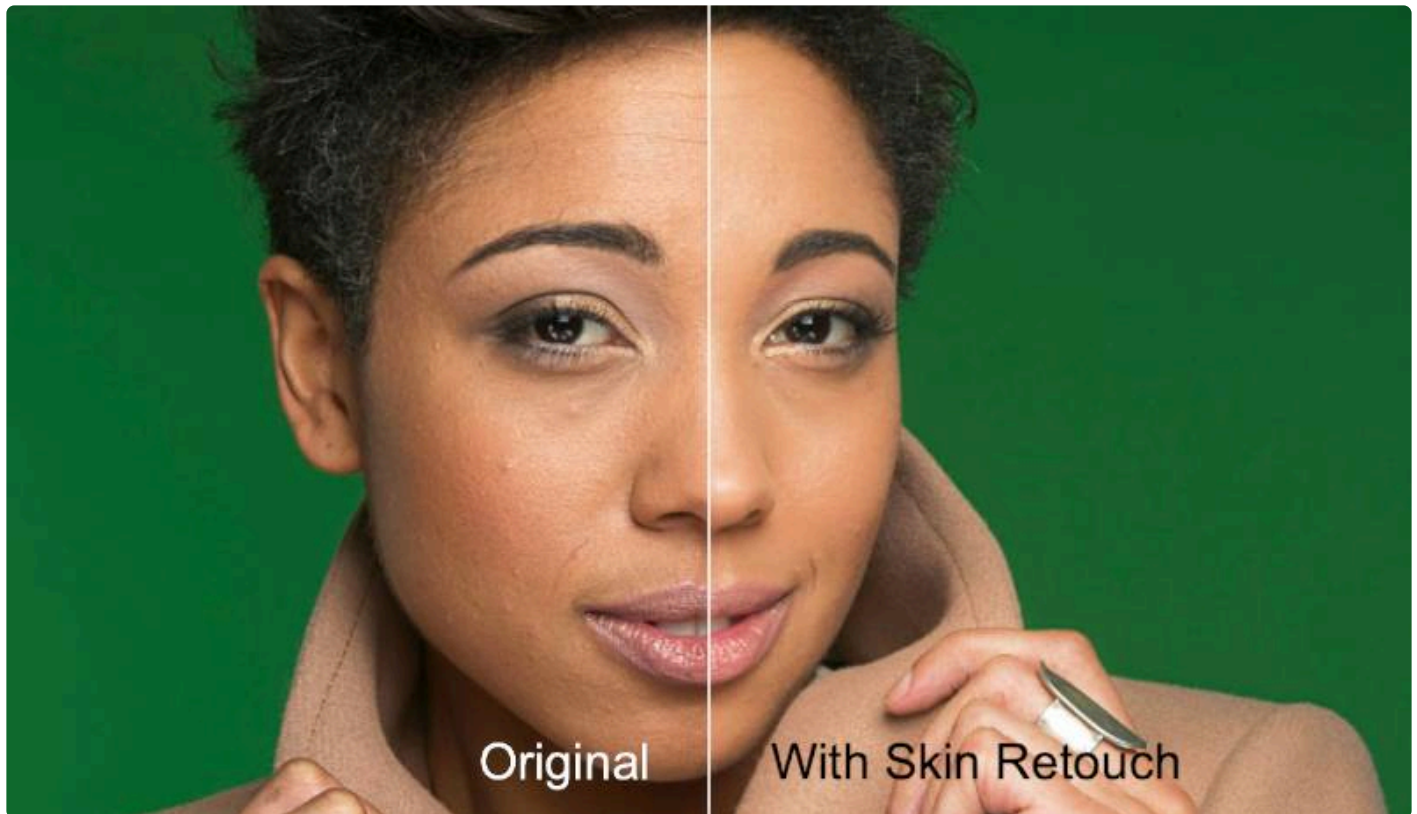
Split Toning

Split toning uses complimentary colors to adjust the highlights and shadows of your image. The two points in the outer circle define the colors used. The central circle defines the strength of those colors.
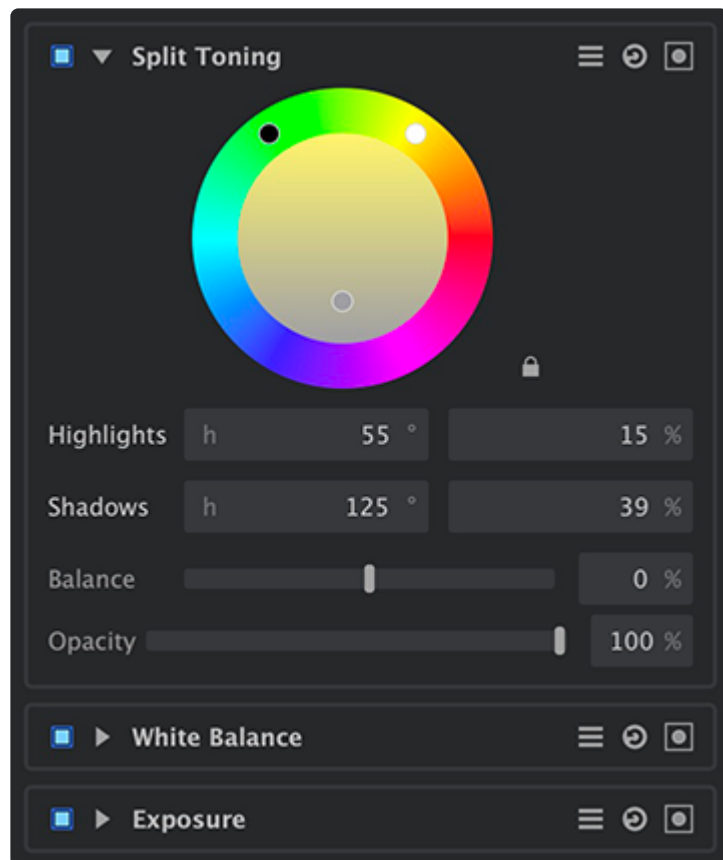
- **Highlights:** The highlight color can be adjusted using the white handle in the outer circle of the color wheel, or by editing the numerical value, which describes the highlight color in degrees.
    - **Strength:** The strength of the highlight color can be adjusted using the central gray handle, after the white highlight handle is selected, or by editing the second numerical value for the highlights property.
- **Shadow:** The shadow color can be adjusted using the black handle in the outer circle of the color wheel, or by editing the numerical value, which describes the shadow color in degrees.
    - **Strength:** The strength of the shadow color can be adjusted using the central gray handle, after the black highlight handle is selected, or by editing the second numerical value for the shadows property.
- 🔒 **Lock:** The lock toggle controls the relationship between the highlight and shadow colors.
    - 🔒 **Locked:** When locked, both colors will always move together, maintaining the relationship, or angle, between them.
    - 🔓 **Unlocked:** When unlocked, each color can be repositioned independently.
- **Balance:** Adjusts the midpoint between the two colors, weighting the gradient toward either the shadow color (left), or the highlight color (right).
- **Opacity:** Controls the blend of the source layer with the gradient version. 100% gives only the gradient color, while 0% gives the original source image color.

Tone coloring

Tone coloring applies hue shifts to specific tonal ranges of your layer. Unlike color adjustment, which applies adjustments based on color selections, Tone coloring alters color based on tonal selections, or luminosity.
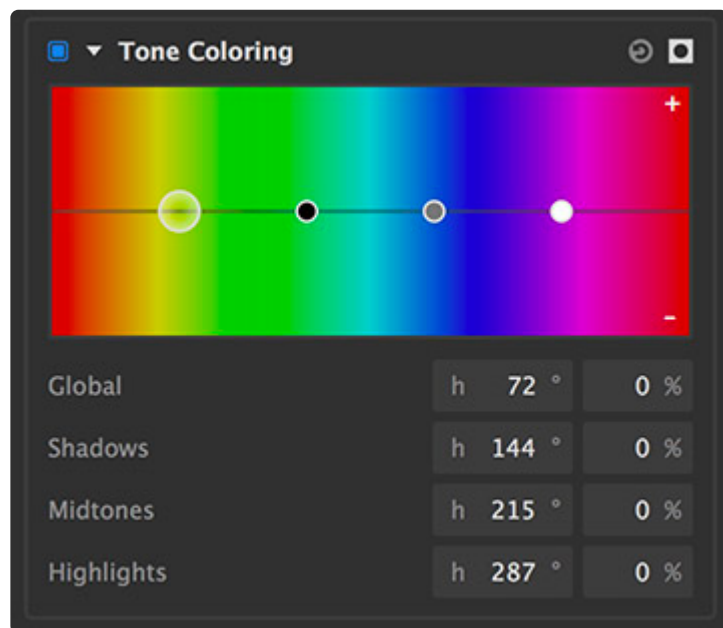
- **Editing the curve:** The tone coloring curve has four control points. Each controls a different tonal range. The points correspond to the controls listed below the spectrum. Drag a point sideways to determine the color that is edited within its tonal range. Drag the point upward to add more of the selected color, or drag it downward to remove the selected color.
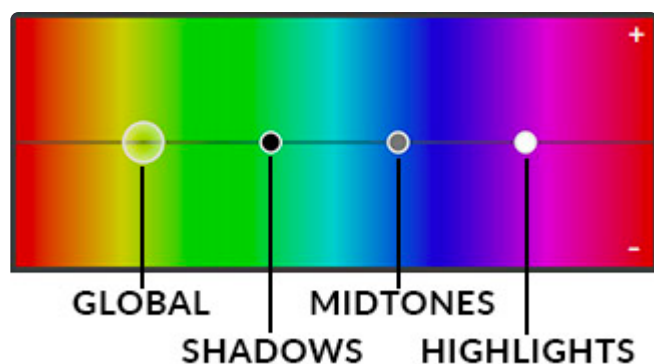
- **Global:** Affects the entire tonal range of the image. Edit the hue value (in degrees) to change the hue that is selected. Increase the percentage to add more of the selected hue, or lower the percentage to a negative value to reduce the selected hue.
- **Shadows:** Affects only the darker, shadow tones if the image. Edit the hue value (in degrees) to change the hue that is selected. Increase the percentage to add more of the selected hue, or lower the percentage to a negative value to reduce the selected hue.
- **Midtones:** Affects the middle tones of the image, while leaving the shadows and highlights

unaffected. Edit the hue value (in degrees) to change the hue that is selected. Increase the percentage to add more of the selected hue, or lower the percentage to a negative value to reduce the selected hue.

- **Highlights:** Affects only the bright highlight tones of the image. Edit the hue value (in degrees) to change the hue that is selected. Increase the percentage to add more of the selected hue, or lower the percentage to a negative value to reduce the selected hue.

White Balance

If your image has inaccurate whites, you can correct the color with this tool. You can also use it to warm or cool the colors in the image overall. You can manually correct the white balance using the temperature and tint sliders, but it is usually faster and more effective to start by setting the neutral color.
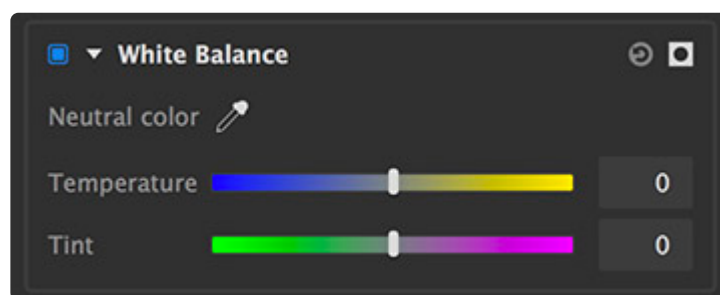
- **Neutral color:** Use the pipette to select a color in your image that should be neutral. White is preferred, but neutral gray or black can also work. In many cases, this is all that is necessary. If you need to adjust things further, you can use the sliders to do so.
- **Temperature:** Combining two colors which are opposite on the color wheel creates white light. Cyan and yellow are opposite each other, so by adding whichever one is lacking in the image, you can neutralize a color shift and balance the color. You are also able to warm up or cool the colors of the image for artistic effect.
- **Tint:** Combining two colors which are opposite on the color wheel creates white light. Green and magenta are opposite each other, so by adding whichever one is lacking in the image, you can neutralize a color shift and balance the color.

Here is an example showing how white balance was used to remove a warm color cast from our sample image and create a neutral color palette:

6.5. Correction effects

Keystone Correction

Correct perspective errors in your image, to ensure that vertical lines are truly vertical.
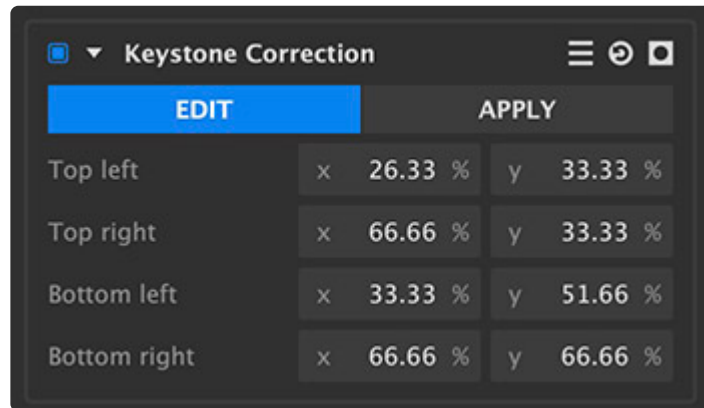
There are two buttons in the effect.

- **Edit:** The Edit button allows you to quickly align the four corner points with edges in your image. The distortion is not yet applied, which ensures alignment is simple. Once the alignment is correct, click the Apply button to apply the correction to the image.
- **Apply:** The Apply button renders the results of the correction in the canvas. Changes made to the alignment are updated in real time. If you find it difficult to get the correct alignment using the Apply button, click the Edit button to more easily align the effect with the contents of your image.

- **Top left:** Set the X (horizontal) and Y (vertical) position of the top left corner.
- **Top right:** Set the X (horizontal) and Y (vertical) position of the top right corner.
- **Bottom left:** Set the X (horizontal) and Y (vertical) position of the bottom left corner.
- **Bottom right:** Set the X (horizontal) and Y (vertical) position of the bottom right corner.

Canvas controls

In addition to editing the position values in the sidebar, you can drag the controls on the canvas to more easily align the effect with your image. Click and drag any of the four corner circles to edit the dotted lines so they match the perspective in your image.

Last modified: Dec 24, 2021

6.6. Details effects

Denoise

Denoise is a quick and effective way to reduce digital noise in your images.
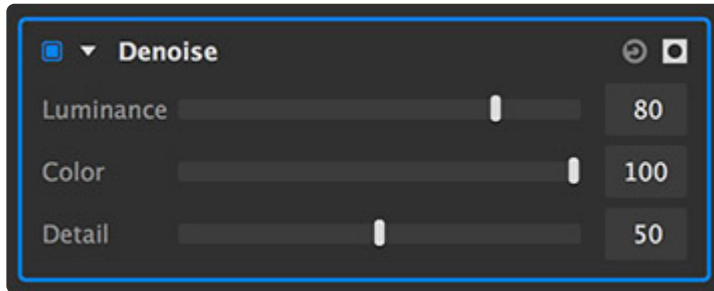
- **Luminance:** Sets the percentage of noise which is removed from the luminance channel of the image. Luminance noise tends to be less offensive to viewers than color noise, and also has a more noticeable impact on the sharpness of the image. Watch the sharpness of the image while adjusting this value, to see how far you can go.
- **Color:** Color noise tends to be more obvious than luminance noise, and is usually more important to remove. In general the Color value should be set higher than the Luminance value.
- **Boost:** Adjusts the amount of edge detail and sharpness which is retained. Lower values retain more fine detail, but potentially also retain more noise. Higher values remove more noise, but potentially also remove more edge detail. Find a balance that works best for your image.

Grain

Adding grain to your images can be useful for a variety of purposes, including matching existing grain in other elements of a composite, artificially aging an image, or artistic purposes. Grain is similar to noise, but more organic in nature. In general, grain is a property of film stock in traditional photography, in contrast to noise, which is created by digital cameras.
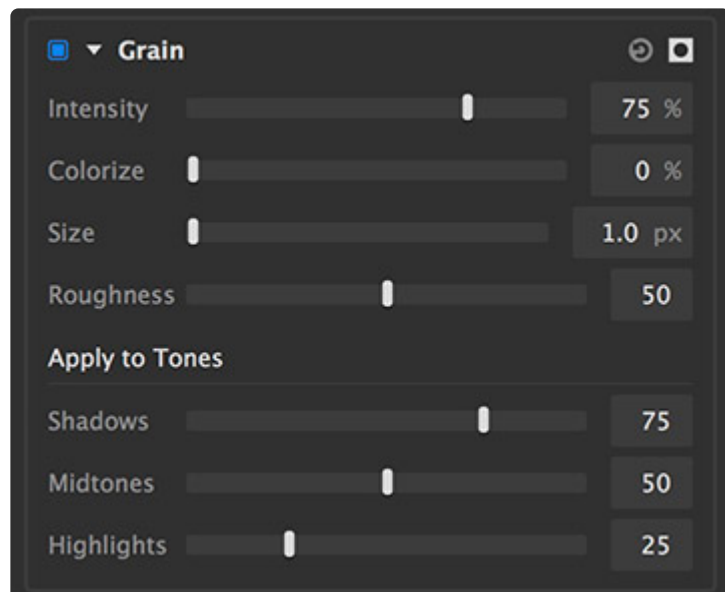
- **Intensity:** Sets the opacity of the grain that is overlaid onto your image.
- **Colorize:** Adjusts the amount of color in the grain. 0% gives a monochrome black grain, and increasing the value gradually introduces more color into the grain.
- **Size:** Sets the size of the individual grains.
- **Roughness:** Adds a second, finer layer of grain over the primary grain. Higher values add more of the finer grain.

Apply to Tones

The grain created by cameras tends to affect shadows more than other areas. For added realism, you can control the degree to which different tones of your image are impacted by the grain settings.

- **Shadows:** Sets how much grain is added to the shadow areas of your image.
- **Midtones:** Sets how much grain is added to the midtone areas of your image.
- **Highlights:** Sets how much grain is added to the highlight areas of your image.

Highpass

Highpass processing isolates detail, based on local contrast, while removing all other color data. The high pass image can then be blended back onto the original layer to improve sharpening.
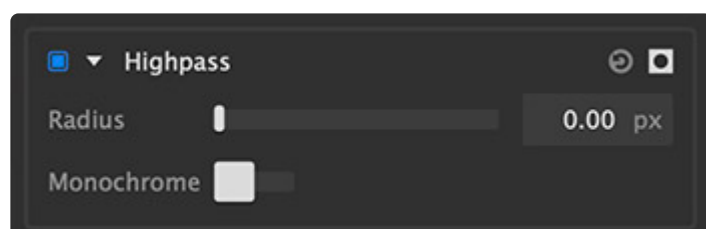
- **Radius:** Sets the radius, in pixels, which will be evaluated to identify contrast. Increasing the radius

allows larger details to be retained.

- **Monochrome:** Enable this option to desaturate the highpass image.

Highpass Sharpen

Sharpening is a common application for highpass filtering. To create the sharpening, a duplicate of the layer is created, a highpass filter is applied to the duplicate, and the result is then blended back onto the original. All of this is handled internally by the Highpass Sharpening effect, greatly simplifying the process.
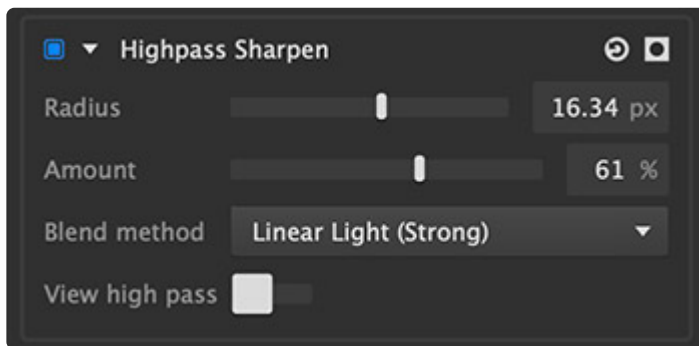
- **Radius:** Sets the radius, in pixels, which will be evaluated to identify contrast.
- **Amount:** Adjusts the intensity of the sharpening.
- **Blend Method:** Choose the blend method used to create the sharpening
    - **Soft Light (Soft):** Soft Light method gives the most subtle results.
    - **Overlay (Medium):** Overlay is the traditional blend mode used for highpass sharpening, and is good for general use.
    - **Linear Light (Strong):** Creates a stronger, more intense sharpening.
- **View Highpass:** Enabling this option shows the highpass filter used for the sharpening, in the viewer. Useful for viewing how large of an area around the edges is being affected.

Inverted Highpass

Inverted highpass is effective for smoothing surface areas while retaining edge detail. It is particularly useful for retouching skin in portraiture.
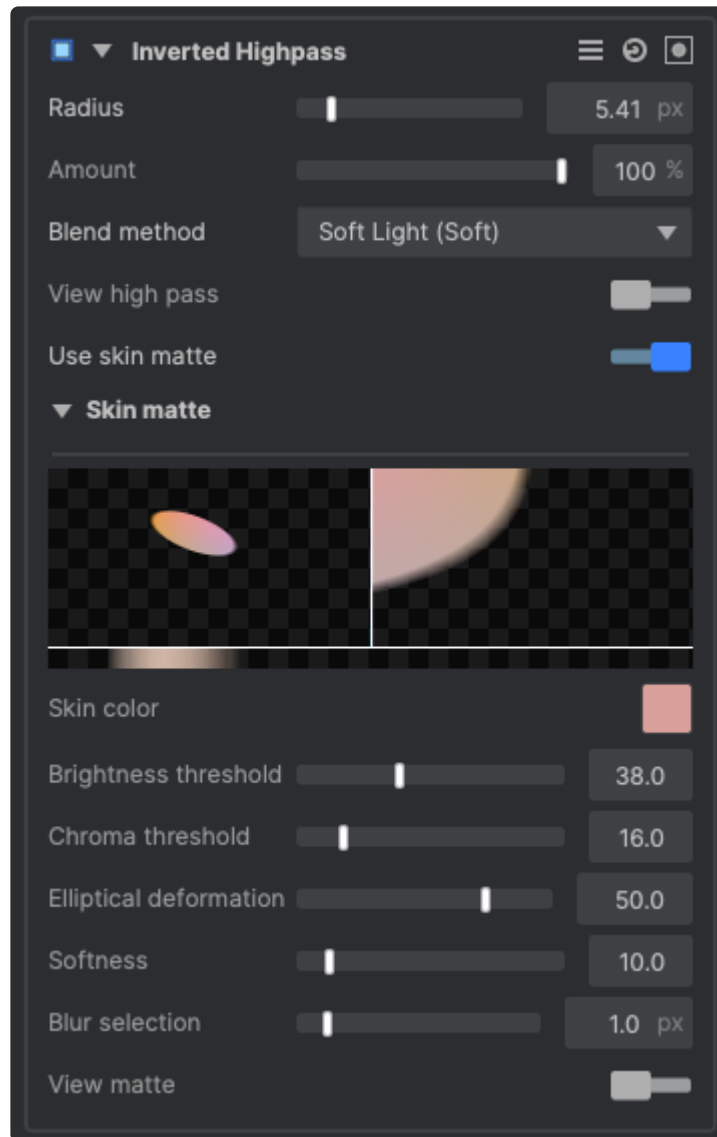
- **Radius:** Sets the radius if the highpass used to identify edge areas. Enable the View high pass option below, then adjust this slider until all the edges you want to be retained are visible. Areas that remain flat gray in the highpass will be smoothed.
- **Amount:** Adjusts how much of the smoothing is visible in the final image. Lower values reveal more of the original, unaltered image.
- *Blend method:*Select the blend mode used to combine the inverted highpass with the original contents of the layer.
- **View high pass:** Enable this toggle to view the highpass filter directly. The image will be shown as flat gray, except for edges which exceed a threshold which to specify using the Radius slider above.
- **Use skin matte:** Enable this toggle to limit the effect to a specific color range. Typically, this is used to smooth skin without affecting other ares of an image. Enabling this option reveals additional controls below.

Skin matte

When skin matte is enabled, a new section of controls is displayed to define the skin tone. The color

selection is displayed in a small window with three components. They represent the total selected range (top left), the chroma range (top right), and the luminance range (bottom). All colors and tones outside of the selected range are hidden, so you can easily visualize the selection:

Total Selected Range   Selected Chroma Range

Selected Luminance Range

- **Skin color:** Select the median skin tone on which the selection will be based. Generally it works best to select a skin tone from the image itself. The selected color is shown in the swatch, and in the color selection window.
- **Brightness threshold:** Adjusts the tonal range of the skin color which is included in the selection. Increasing the threshold selects a wider range of tones.
- **Chroma threshold:** Adjusts the color range, of colors surrounding the skin color, which is included in the selection. Increasing the threshold selects a wider range of colors.
- **Elliptical deformation:** Changes the direction, within the color wheel, of the tones included by the chroma threshold. As you adjust the value, the ellipse shown in the color selection window will rotate. and change shape to show the tones which are included.
- **Softness:** Feathers the edges of the color selection, to help blend the results back into the original image.
- **Blur selection:** Blurs the matte, which softens the edges of the color selection.
- **View matte:** Enable this feature to view a black and white matte of the current selection on the canvas. Using the matte view simplifies the process of ensuring you have the skin isolated.

Noise

Adding noise to your images can be useful for a variety of purposes, including matching existing noise in other elements of a composite, artificially aging or distressing an image, or artistic purposes. Noise is similar to grain, but digital in nature. In general, noise is created by digital cameras, in contrast to grain, which is a property of film stock in traditional photography.
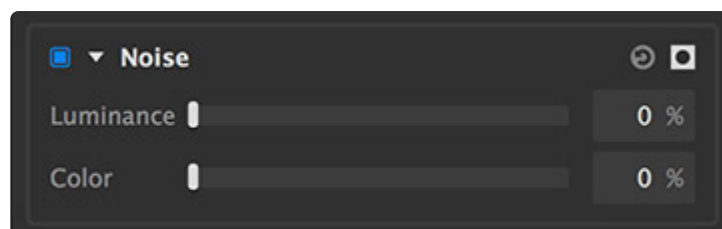
- Luminance: Raising this value increases the amount of luminance noise in your image. Luminance noise is black and white.

- Color: Raising this value increases the amount of chrominance noise in your image, which randomly affects the three color channels of the image.

Unsharp mask

Unsharp mask is used to sharpen an image by increasing micro contrast around fine edges on the image, which causes the edges stand out more and appear to be in sharper focus. It functions by creating a blurred, or 'unsharp' copy of your image, then laying that copy over the original for comparison. Oversharpening can result in unwanted halos near the edges, so this effect should be applied judiciously for best results. The settings used will vary based on the resolution of the image and the intended purpose of the final image. Sharpening for print will generally use slightly higher settings than sharpening for viewing on a screen, for example, and the size of the fine details in an image that is 600 × 800 pixels will be different than the same details in an image 4000 × 6000 pixels.
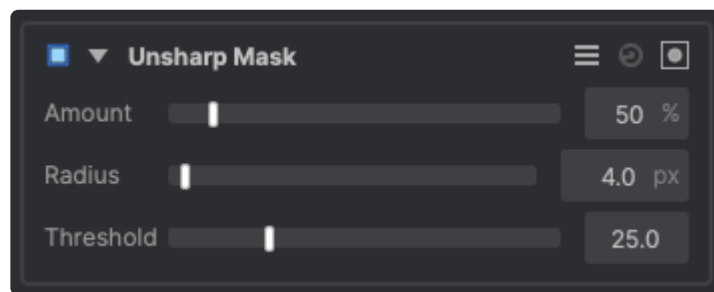
- **Amount:** Defines the amount of contrast added to the edges in the image.
- **Radius:** Sets the distance from the edges, in pixels, that the sharpening will affect. The finer the details you are sharpening, the lower this value should be.
- **Threshold:** Threshold sets the level of contrast which will be identified as an edge. In general, edges in your image are located where one color stops, and another begins. However, non-edge areas can also contain transitions of color. A very low threshold applies sharpening everywhere, while increasing the threshold will limit sharpening to edges with higher contrast.

While sharpening can be very useful for improving soft edges or drawing attention to a specific area of the frame, it cannot move the focal point to actually correct an out of focus image, nor can it remove motion blur that was captured in the camera. Best results will always come from capturing a properly focused image in camera.

Last modified: Dec 29, 2021

6.7. Distort effects

Caustics

Simulates the distortion created when looking through the surface of a volume of water.
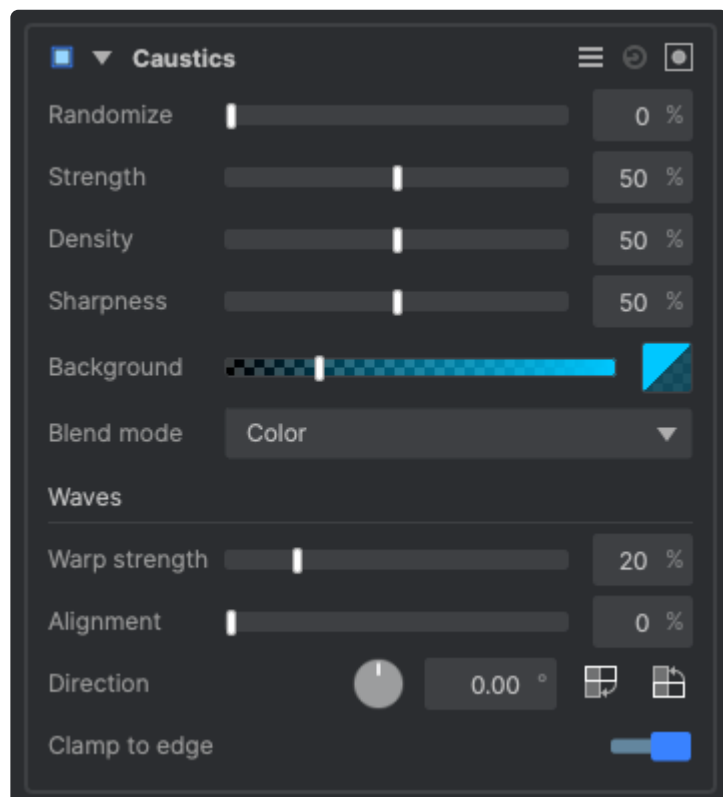
- **Randomize:** Randomizes the pattern within the style created by the other settings.
- **Strength:** Adjusts the brightness of the caustic pattern's refracted highlights.
- **Density:** Edits the frequency with which refracted highlights appear within the frame, by altering the scale of the fractal pattern on which the effect is based.
- **Sharpness:** Alters the edge softness of the caustic pattern's refracted highlights. Lower values create larger, softer highlights, while higher values create smaller highlights with harder edges.
- **Background:** The caustics effect tints the image or layer to which it is applied, to simulate the color distortion created by looking through a volume of water. You can adjust the opacity and color of the water here.
  - **Opacity:** Use the slider to adjust the opacity of the background color.
  - **Color:** Click the color swatch to open a color picker and select any color you desire.
- **Blend mode:** Select the blend mode used to combine your selected color with the underlying clip or layer.
  Waves
- **Warp strength:** Edits the amount of distortion applied to the underlying clip or layer
- **Alignment:** Changes the orientation of the individual waves in the pattern. The higher the value, the more parallel the waves become. Lower number generate a more randomized pattern.

- **Direction:** Specify the angle on which the alignment control above is based.
- **Clamp to edge:** Enable this option to ensure caustics affect the entire frame, right to the edge. Disable it to allow the effect to distort the frame edges.

Here is an example showing the results of the caustics effect:
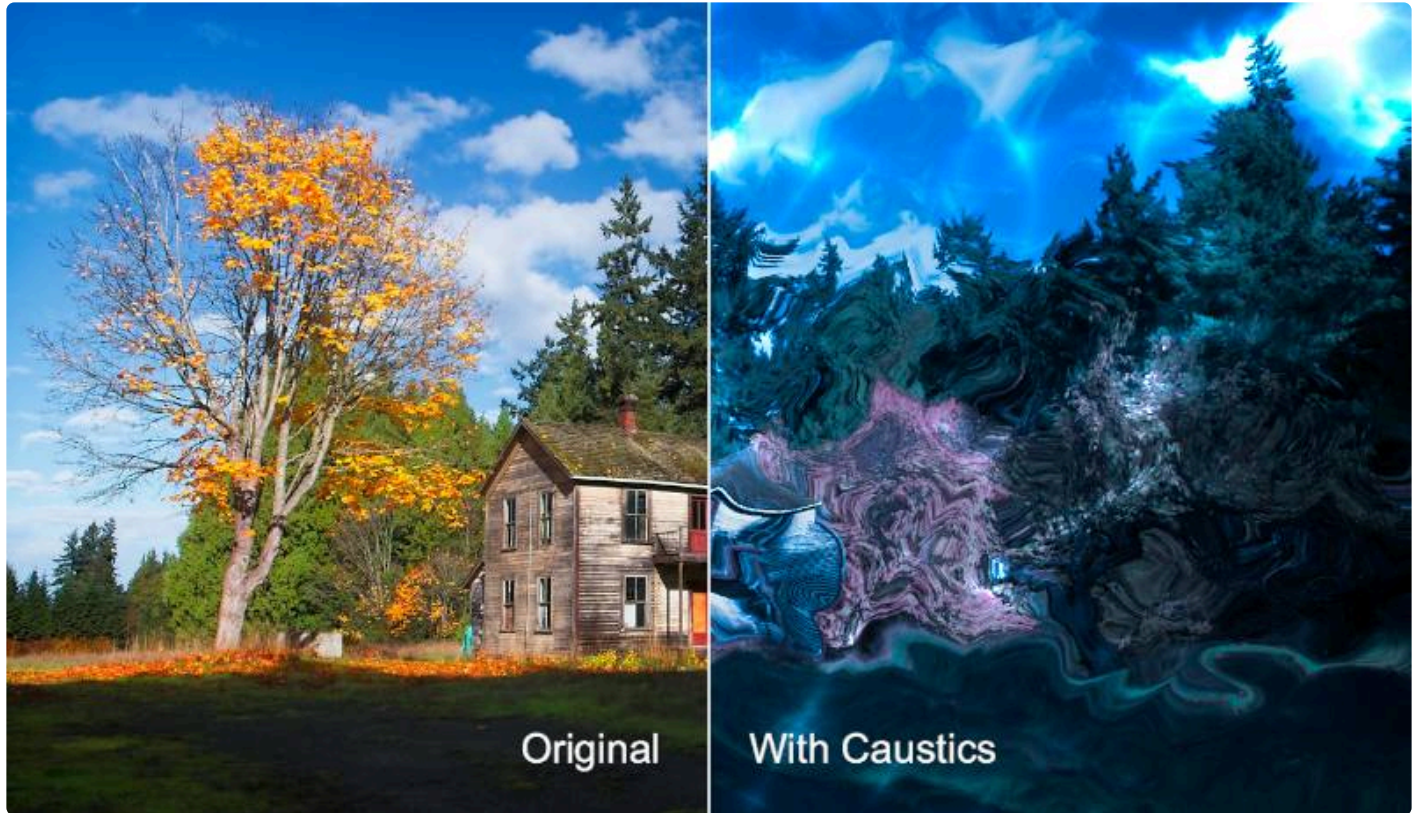
Displacement

Distorts the currently selected background based on color or tonal data.
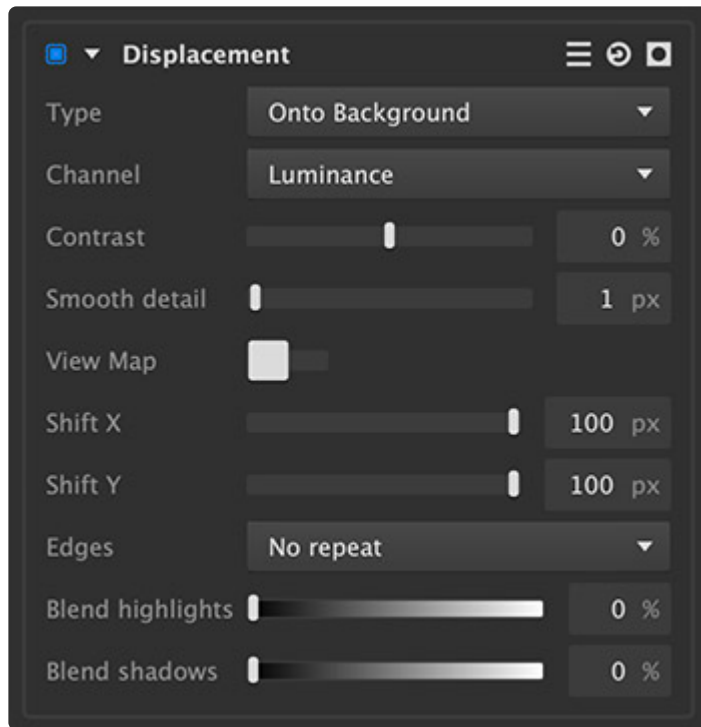
- **Type:** Select the type of displacement to be used, from this menu.
  - ◦ **From background:** Uses the image beneath the selected layer as the source for generating the displacement.
  - ◦ **From map:** Uses an external image of your choice as the source for generating the displacement.
  - ◦ **Select file:** When **Onto Map** is selected, this property will appear, where you can choose an image to be used as the source of the displacement. Click the file icon at the right to open a file explorer window and choose an image.
- **Channel:** Choose the channel of the source image that will be used to generate the distortion.
  - ◦ **Luminance:** Distorts the target layer based on the luminance channel of the selected image, which values of 0 in the luminance channel having no effect, and values of 255 having full effect.
  - ◦ **Red:** Distorts the target layer based on the red channel of the selected image, which values of 0 in the red channel having no effect, and values of 255 having full effect.
  - ◦ **Green:** Distorts the target layer based on the green channel of the selected image, which values of 0 in the green channel having no effect, and values of 255 having full effect.
  - ◦ **Blue:** Distorts the target layer based on the blue channel of the selected image, which values of 0 in the blue channel having no effect, and values of 255 having full effect.
  - ◦ **Alpha:** Distorts the target layer based on the alpha channel of the selected image, which values of 0 in the alpha channel having no effect, and values of 255 having full effect.
- **Contrast:** Modifies the contrast of the source image, to manipulate the results of the distortion.
- **Smooth detail:** Blurs the source image, to reduce the details used in the distortion.
- **View map:** Shows the map being used to generate the displacement.
- **Shift X:** Adjust the amount of distortion applied on the X (horizontal) axis.
- **Shift Y:** Adjust the amount of distortion applied on the Y (vertical) axis.
- **Edges:** Choose how the effect is handled around the edges of the image.

- **No Repeat:** When the edge of the image are distorted out of place, the space at the edges remains empty.
  - **Tile:** When the edge of the image are distorted out of place, the space at the edges is filled with a repeated copy of the image.
  - **Mirror:** When the edge of the image are distorted out of place, the space at the edges is filled with a mirrored copy of the image.
- **Blend highlights:** Increasing this value makes the highlights of the source image visible on the target image.
- **Blend shadows:** Increasing this value makes the shadows of the source image visible on the target image.

Here is an example image showing the results of displacing our sample image using a portrait as the source:

Fractal Distortion

Fractal distortion creates fractal noise patterns, then uses displacement to apply the noise to your image, thereby warping and distorting it.

Basic Controls
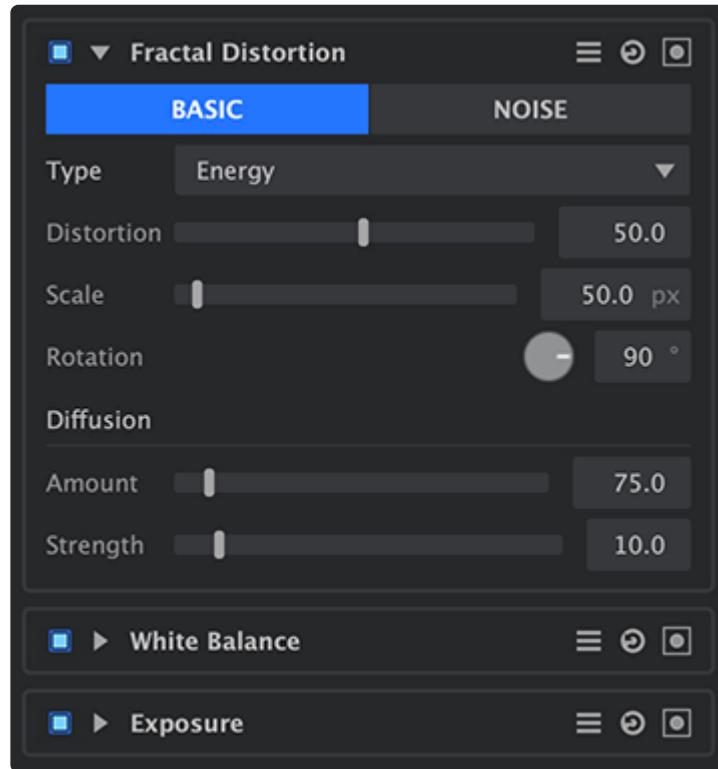
- **Type:** Each type uses a different fractal, to give a different appearance to the pattern.
    - **Heat:** Simulates the distortion of looking through a heat haze.
    - **Smoke:** Soft, billowing shapes like the texture of smoke.
    - **Energy:** A pattern of thin, energetic strings.
    - **Fluid:** Replicates a pattern similar to the caustics created by looking through a volume of water.
- **Distortion:** Adjusts the intensity of the distortion applied to the layer.
- **Scale:** Sets the overall scale of the distortion.
- **Rotation:** Sets the angle in which the distortion is applied.

Diffusion

- **Amount:** Adjusts the prevalence of areas which are blurred, or diffused, by the distortion.
- **Strength:** Sets the strength of the blur in the areas affected by diffusion.

Noise Controls
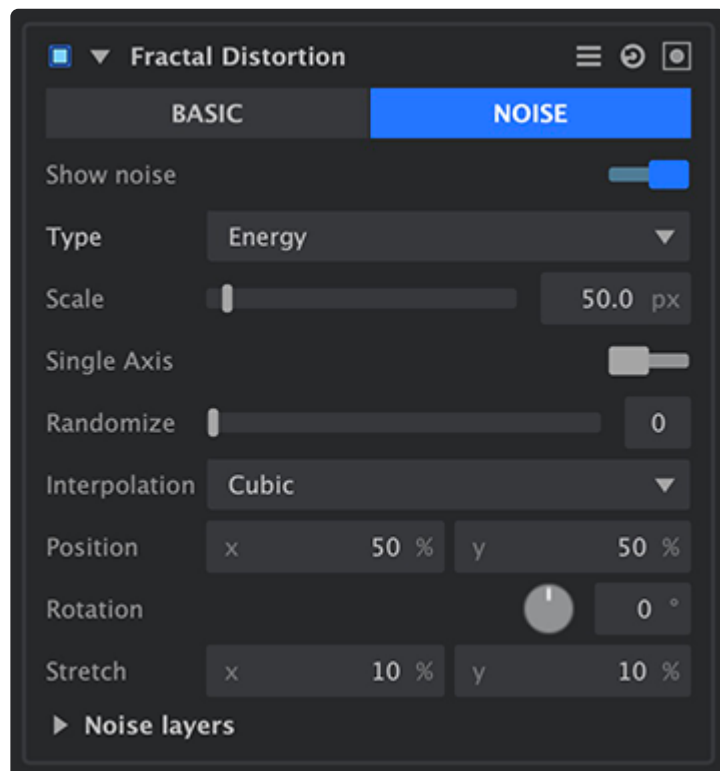
- **Show noise:** The final result of this effect is created by converting the noise it generates into distortion, and applying it to the image. Enable this option to view the noise directly.
- **Type:** Each type uses a different fractal, to give a different appearance to the pattern.
    - **Heat:** Simulates the distortion of looking through a heat haze.
    - **Smoke:** Soft, billowing shapes like the texture of smoke.
    - **Energy:** A pattern of thin, energetic strings.
    - **Fluid:** Replicates a pattern similar to the caustics created by looking through a volume of water.
- **Scale:** Adjusts the overall size of the noise pattern.
- **Single Axis:** Enabling this option applies the distortion in a single direction. The specific angle used can be set with the Distortion Rotation setting above.
- **Randomize:** Acts as a randomizer for the shape of the noise. Each seed value sets a unique starting shape for the procedurally generated noise.
- **Interpolation:** Choose the method used to build the texture from the fractal geometry.
    - **Block:** Creates a square, pixelated appearance.
    - **Linear:** Applies more gradual transitions from one block to the next.
    - **Cubic:** More dramatic gradients completely obscure the block pattern to create organic shapes.
- **Position:** Moves the origin point of the fractal pattern on the X (horizontal) and Y (vertical) axes. X values run from 0 on the left to 100 on the right. Y values run from 0 at the top to 100 at the bottom.
- **Rotation:** Rotates the pattern around the origin point.
- **Stretch:** Alters the width and height of the pattern independently, allowing you to stretch it into more linear patterns.

Noise Layers

The noise layer settings affect the additional iterations of the fractal which are used to break up the primary fractal and create the finer details.

- **Levels:** Sets the number of iterations of noise which will be combined to create the noise map.
- **Influence:** Adjusts the balance of the original fractal and the additional iterations. Values below 50% favor the original, and values above 50% favor the iterations.
- **Scale:** Adjusts the size of the iterations, without altering the original.
- **Rotation:** Rotates the iterations, without rotating the original.

Here is an example showing the results of the fractal distortion, using the energy distortion type:

Lens Distort

Simulates the spherical distortion created by camera lenses. In addition to creating distortion, this is useful for removing distortion from images, by counteracting any distortion caused by the physical lens used to capture the image.
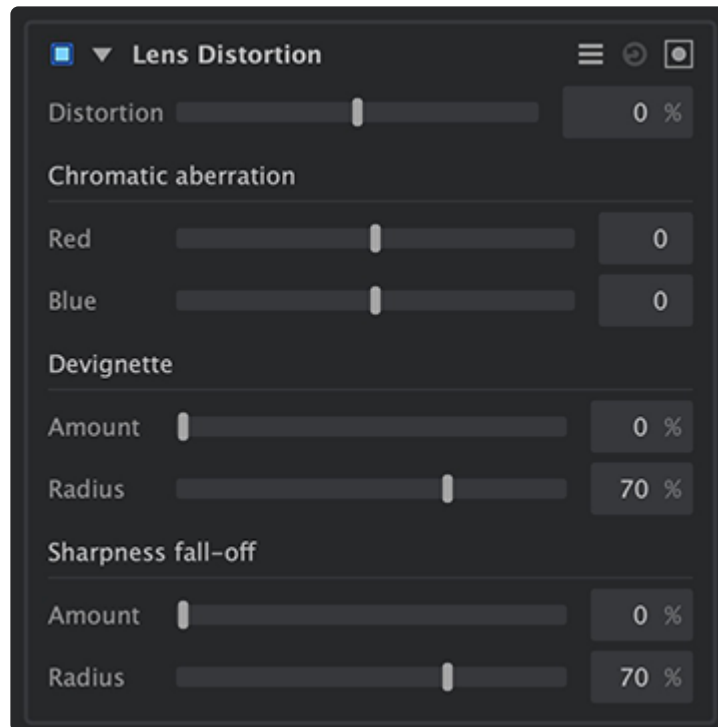
- **Distortion:** Adjusts the amount of rectilinear distortion applied to the image.
  - **Negative values create barrel distortion** by bringing in the corners of the image. The edges of the image will receive a convex curve.
  - **Positive values create pincushion distortion**, pinching the center of the image and adding a concave curve to the image edges.

Chromatic Aberration

Lens distortion often includes a subtle misalignment of the color channels in the image, a prismatic shift of certain colors near the edges of the lens. These controls adjust the relative position of colors in regard to the main image, either to simulate this effect or to counteract any aberration present in the original image. The degree to which the aberration is visible will also be affected by the amount of Distortion in effect.

- **Red:** Adjusts the relative position of the red and cyan near the edges of the image.
- **Blue:** Adjusts the relative position of the blue and yellow near the edges of the image.

Devignette

Counteracts any vignetting caused by the physical lens used to capture the image, to ensure an even exposure.

- **Amount:** Adjusts the brightness of the devignette used to brighten the edges of the image.
- **Radius:** Alters how much of the image edges are affected by the devignette.

Sharpness Fall-Off

Nearly all lenses are slightly sharper in the center of the lens than at the edges. You can simulate this fall-

off of sharpness here.

- **Amount:** Controls how much the sharpness is reduces at the image edges.
- **Radius:** Alters how much of the image edges are affected by the reduction in sharpness.

Here is an example showing the lens distort used stylistically to create distortion:

Magnify

Magnify creates a lenticular warp distortion, altering the size of a circular area of the image. The size of the area, the amount of distortion, and the blending of the edges can all be customized.
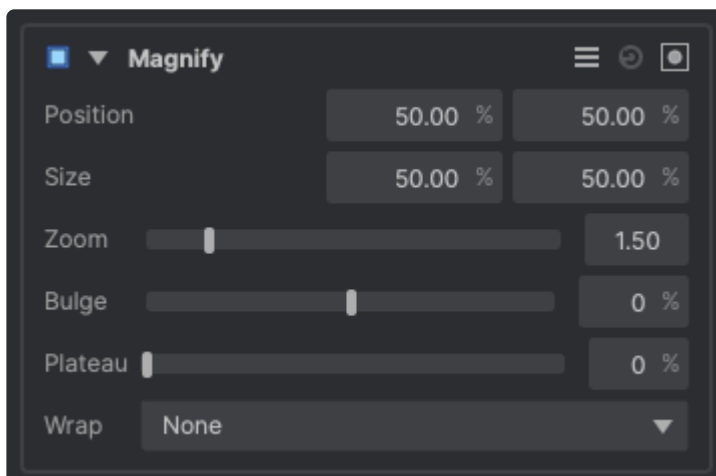
- **Position:** Adjusts the center of the Magnify distortion. You can move the position by editing the X and Y values, or by dragging the effect on the Canvas.
- **Size:** Defines the size of the distortion area, which is indicated by the outer of the two solid circles on the canvas. You can edit the numeric values to change the size, or drag the circle on the canvas to adjust the size visually.
  - ◦ **Control handles:** The two controls handles on the viewer circle allow you to edit the horizontal and vertical sizes independently.
- **Zoom:** Alters the amount of magnification applied by the effect. This can be edited on the viewer by dragging the dashed circle.
- **Bulge:** Controls the amount of distortion applied within the effect. On the viewer, you can edit the bulge by dragging the inner solid circle. Positive values generate convex distortion, and negative values generate concave distortion.
- **Plateau:** Increasing the plateau creates a flat area in the center of the effect where no distortion is present, and only zoom is applied.
- **Wrap:** The Wrap setting determines how the edges are handled. when the Magnify position causes it to distort the edges of the image.
  - ◦ **None:** The edge remains unaffected, and the area outside of the image edge remains empty.
  - ◦ **Tile:** A duplicate of the image is used to fill the area beyond the image's edge.
  - ◦ **Reflect:** A mirrored duplicate of the image is used to fill the area beyond the image's edge. This gives a more seamless result than the tile option.

Here is an example showing the results of the magnify effect:

Quad Warp

Use quad warp when you need to reposition the corners of a layer individually, to alter its perspective or to alter the scale of its contents non-uniformly. The effect provides controls for each individual corner of the layer.
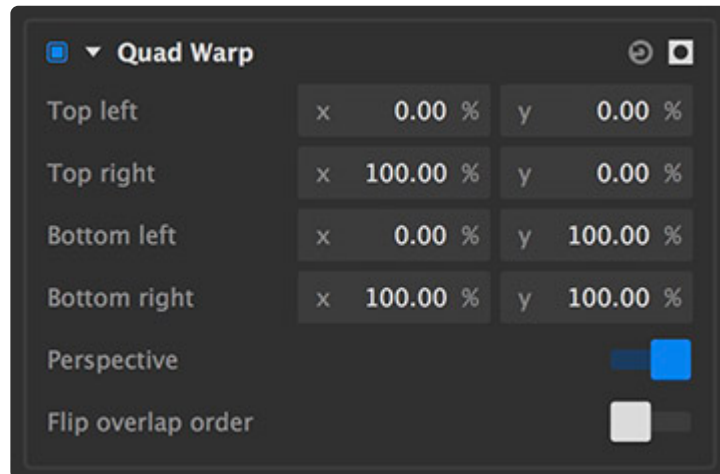
- **Top left:** Defines the X (horizontal) and Y (vertical) positions of the top left corner of the layer. X values run from 0 on the left to 100 on the right. Y values run from 0 at the top to 100 at the bottom.
- **Top right:** Defines the X (horizontal) and Y (vertical) positions of the top right corner of the layer. X values run from 0 on the left to 100 on the right. Y values run from 0 at the top to 100 at the bottom.
- **Bottom left:** Defines the X (horizontal) and Y (vertical) positions of the bottom left corner of the layer. X values run from 0 on the left to 100 on the right. Y values run from 0 at the top to 100 at the bottom.
- **Bottom right:** Defines the X (horizontal) and Y (vertical) positions of the bottom right corner of the layer. X values run from 0 on the left to 100 on the right. Y values run from 0 at the top to 100 at the bottom.

Viewer controls

The quad warp effect can also be controlled directly on the viewer, which in many cases is more intuitive and effective.
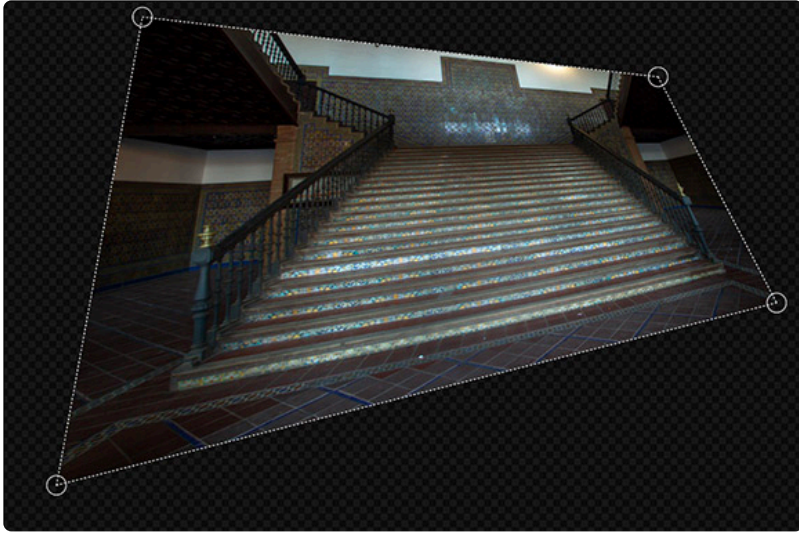
- **Corner handles:** On the viewer, when the quad warp effect is selected, circular control points will appear at each corner of the layer, connected by dotted lines. Dragging the corner handles to reposition them directly controls the warp effect.

Last modified: Dec 31, 2021

6.8. Generate effects

Clouds

This effect generates a randomized fractal pattern simulating the appearance of clouds. This is most commonly combined with other effects to produce computer-generated patterns and textures.
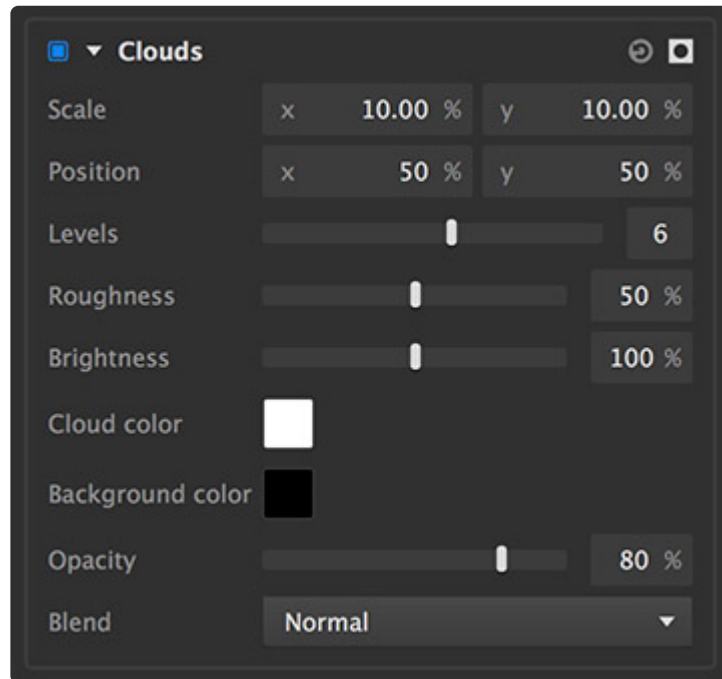
- **Scale:** Sets the granularity of the cloud effect, on the X and Y axes. X values run from 0 on the left to 100 on the right. Y values run from 0 at the top to 100 at the bottom.
- **Position:** Shifts the effect on the X and Y axes. X values run from 0 on the left to 100 on the right. Y values run from 0 at the top to 100 at the bottom.
- **Levels:** Sets the fineness of the effect. Higher levels create additional detail in the pattern.
- **Roughness:** Adjusts the visibility of the finer details, by tuning the contrast between the cloud color and background color.
- **Brightness:** Adjusts the brightness of the cloud color.
- **Cloud color:** Defines the color used for the cloud pattern. Click the swatch to open a color picker and select any color you desire.
- **Background color:** Defines the color used to fill in all areas around the cloud pattern. Click the swatch to open a color picker and select any color you desire.
- **Opacity:** Sets the opacity of the cloud effect. At 0% the clouds will not appear at all, while at 100% the layer itself will be completely obscured by clouds (assuming a normal blend mode).
- **Blend:** Choose the blend mode used to combine the cloud effect with the layer contents. Full details of all blend mode options can be found on the Blending modes page of this manual.

Dot Matrix

The dot matrix effect transforms the image into a grid of dots, simulating the appearance of an image produced by a dot matrix printer. The controls are split between three tabs: General controls, controls for the pattern of Dots, and Variation controls to add variety to the pattern.

General
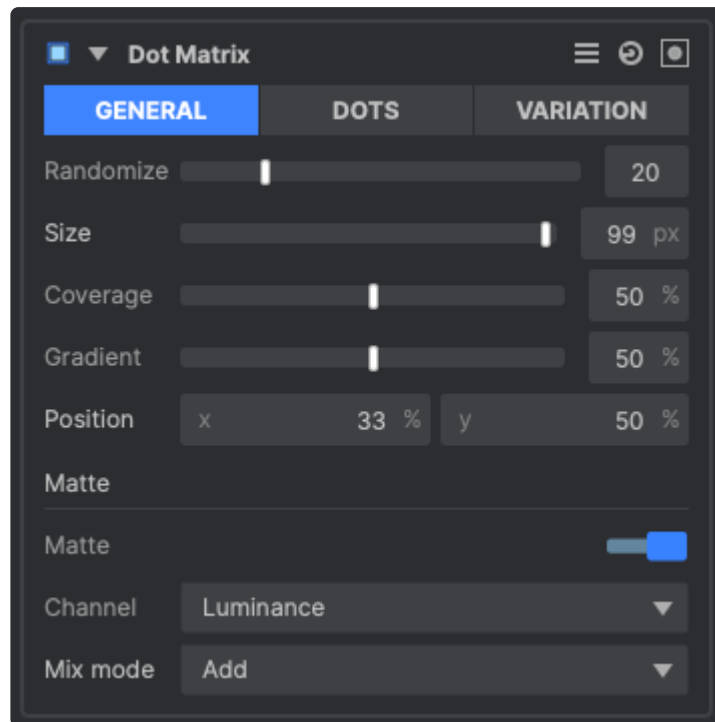
- **Randomize:** Randomizes the placement of the dot matrix pattern.
- **Size:** Controls the overall size of the effect.
- **Coverage:** Controls how much of the source image is covered by the dot matrix pattern.
- **Gradient:** Controls how many of the dots are affected by the variation settings
- **Position:** Offsets the entire pattern along the X (horizontal) axis or Y (vertical) axis.
- **Matte:** Control where the dot matrix pattern is applied in regard to the underlying image, by using a specific channel of the image as a matte.
- **Channel:** Select the channel from the source image which will be used as a matte. The dot matrix pattern will appear in white areas of the channel, and be masked out in black areas.
- **Mix mode:** Choose the method used to blend the dot matrix pattern onto the source image.

Dots
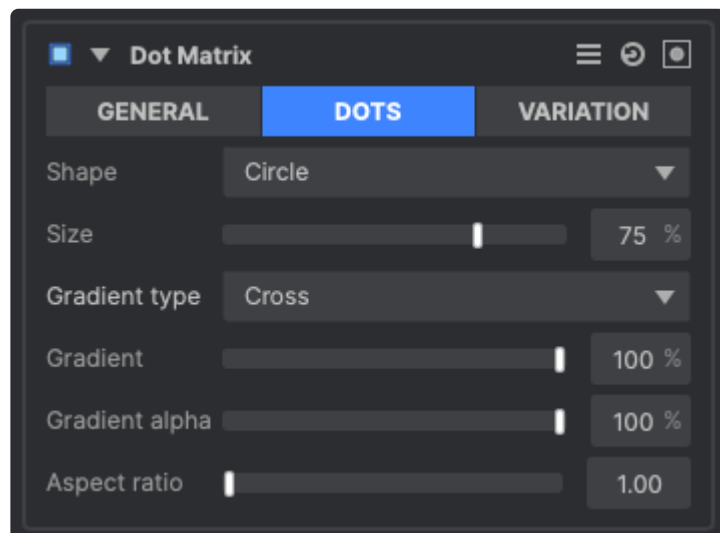
- **Shape:** Select the shape used for the dots.
    - ◦ **Circle:** Creates a grid of round dots. Note that the apparent shape of the dots will also be affected by the gradient type selected below.
    - ◦ **Square:** Creates a grid of square dots. Note that the apparent shape of the dots will also be affected by the gradient type selected below.
- **Size:** The size of each dot, within the available space for that dot.
- **Gradient type:** Each dot can be filled with a gradient to create finer detail within the effect. Use this menu to select the kind of gradient used.
    - ◦ **Radial:** A radial gradient with a bright center and dark edges is used for each dot.
    - ◦ **Pyramid:** A four-sided pyramid gradient is used for each dot, with the peak and edges of the pyramid being bright, and the sides gradually darkening toward the outside.
    - ◦ **Cross:** A cross with bright vertical and horizontal lines, darkening toward the corners, is used for each dot.
- **Gradient:** Defines how visible the gradient is on the dots.
- **Gradient alpha:** Adjusts the opacity of the gradient over the top of each dot.
- **Aspect ratio:** Stretches the dots horizontally, changing their width.

Variation
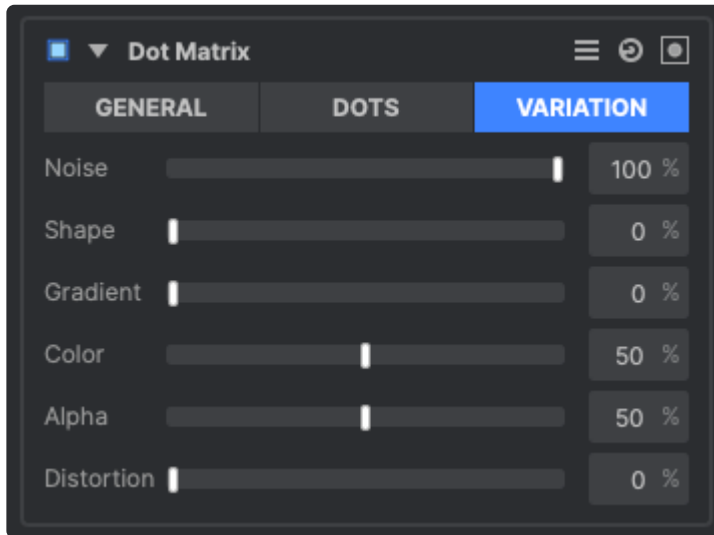
- **Noise:** Adjusts the randomization of which dots are visible within the pattern.
- **Shape:** Adjusts the range of variance available for the shape of each dot.
- **Gradient:** Defines the amount of variance available for the gradient of each dot.
- **Color:** Defines the range of variance available for the color of each dot.
- **Alpha:** Adjusts the range of variance available for the opacity of each dot.
- **Distortion:** Warps the grid matrix, distorting the shape of each dot.

Fractal Noise

Fractal noise procedurally generates a variety of patterns, based on multiple iterations of fractal geometry.
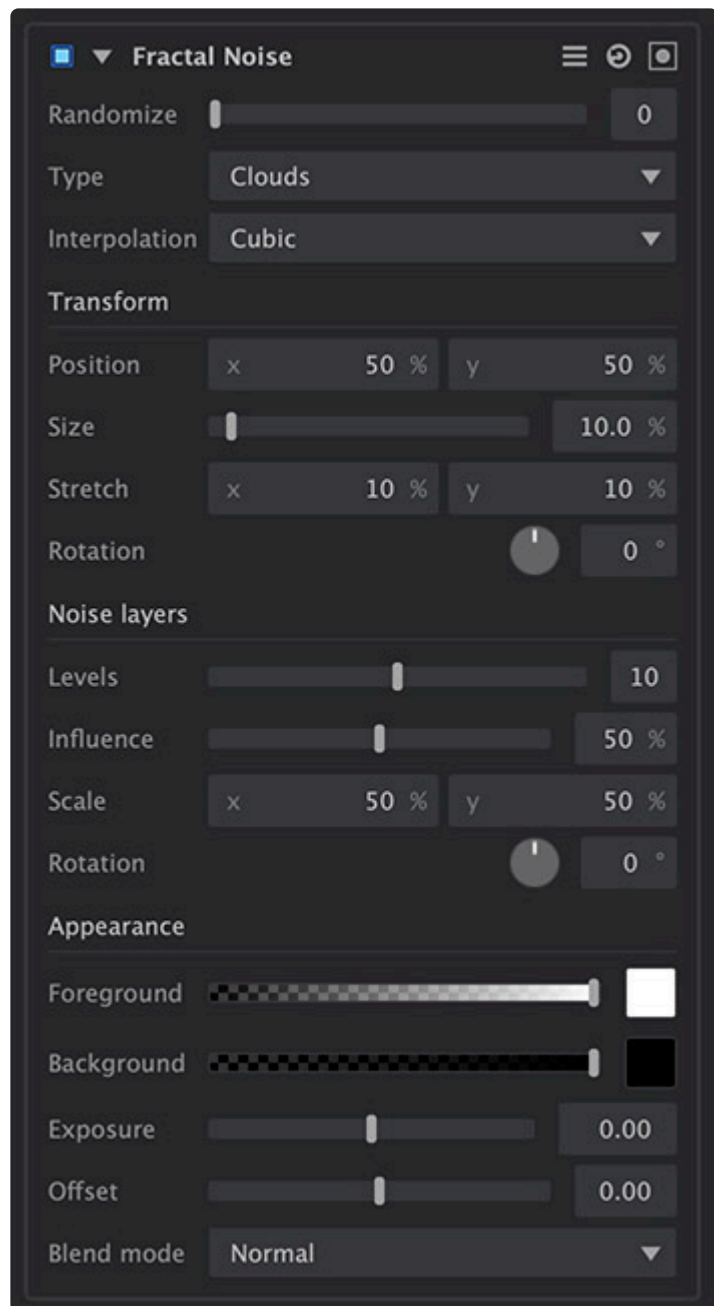
- **Randomize:** Randomizes the pattern within the style created by the other settings. The seed value can also be keyframed to create movement within the pattern.
- **Type:** Each type uses a different fractal, to give a different appearance to the pattern.
    - **Blob:** Creates a pattern of solid blobs with defined edges.
    - **Clouds:** Creates a pattern of gradual transitions with dithered edges, reminiscent of clouds.
    - **Colored Clouds:** Similar to clouds, but using the entire spectrum of colors.
    - **Emboss:** Uses a pattern similar to clouds, but then applies a height map, creating a stone-like texture.
    - **Marble:** A pattern of randomized fluid lines, giving the appearance of marble.
    - **Swirl:** A variation of clouds where each tone has a linear aspect, so the colors swirl softly together.
    - **Whisp:** Stringy, high contrast pattern.

- ◦ **Wood:** A strong linear pattern reminiscent of wood grain.
        - ◦ **Energy:** A pattern of thin, energetic strings.
        - ◦ **Fluid:** Replicates a pattern similar to the caustics created by looking through a volume of water.
        - ◦ **Smoke:** Soft, billowing shapes like the texture of smoke.
    - **Interpolation:** Choose the method used to build the texture from the fractal geometry.
        - ◦ **Block:** Creates a square, pixelated appearance.
        - ◦ **Linear:** Applies more gradual transitions from one block to the next.
        - ◦ **Cubic:** More dramatic gradients completely obscure the block pattern to create organic shapes.

Transform

- **Position:** Moves the origin point of the fractal pattern, thereby shifting the entire pattern by the value selected.
- **Size:** Adjusts the scale of the fractal pattern.
- **Stretch:** Allows you to scale the pattern on a single axis.
    - ◦ **X:** Scales the width of the pattern without affecting the height.
    - ◦ **Y:** Scales the height of the pattern, without affecting the width.
- **Rotation:** Rotates the pattern around the origin point.

Noise layers

These settings affect the additional iterations of the fractal which are used to break up the primary fractal and create the finer details.

- **Levels:** Sets the number of sub levels which will be applied.
- **Influence:** Adjusts the balance of the original fractal and the sub levels. Values below 50% favor the original, and values above 50% favor the sub levels.
- **Scale:** Adjusts the size of the sub levels, without altering the original.
- **Rotation:** Rotates the sub levels, without rotating the original.

Appearance

- **Foreground:** Controls for the first color used to generate the fractal pattern. You can use the eyedropper to choose a color from your image, or click the swatch to open a color picker and choose any color you prefer. Use the slider to adjust the transparency of the first color.
- **Background:** Controls for the second color used to generate the fractal pattern. You can use the eyedropper to choose a color from your image, or click the swatch to open a color picker and choose any color you prefer. Use the slider to adjust the transparency of the first color.
- **Exposure:** Adjusts the exposure of the fractal effect. The intensity of the results correspond directly to the to the brightness of the original colors, so bright areas are affected more strongly than dark areas. Positive values brighten the effect, and negative values darken it.
- **Offset:** Shifts the entire range of tonal values up or down. Values shifted beyond pure black or pure white will be clipped.
- **Blend:** Controls how the effect is combined with the contents of the layer to which it is applied.

Long Shadow

Generates a cast shadow based on the shape of your layer.
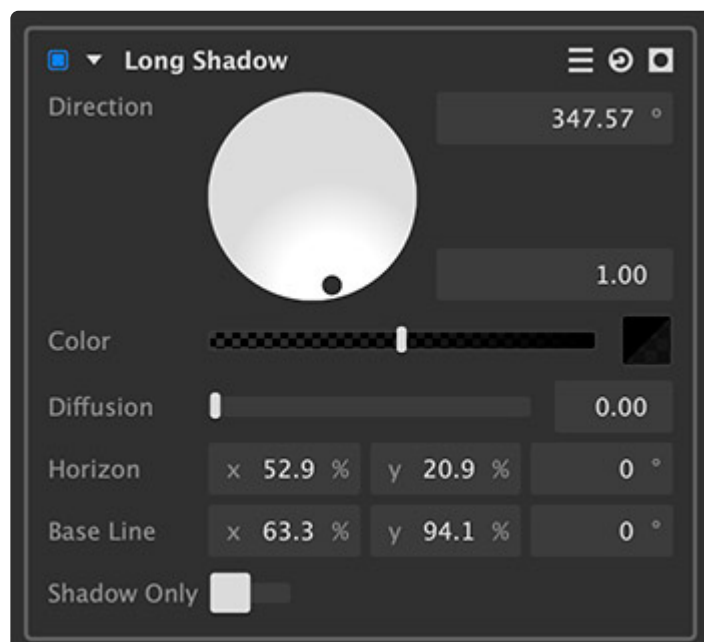
- **Direction:** Define the direction of the light source which is creating the shadow. The handle in the direction wheel can be dragged around the edge of the wheel to select the angle, and moved toward the center of the wheel to adjust the height of the light source. These values can also be edited directly using the readouts to the right of the wheel.
  - **Angle:** Sets the angle of the light source in relation to the layer. 0° is directly in front of the layer, and 180° is directly behind it.
  - **Height:** Set the height of the light source, in relation to the layer. 1.00 is right at the horizon, and 90 is directly overhead.
- **Color:** Choose the color of the shadow. Click the swatch to open a color picker and select any color you desire.
- **Diffusion:** Adjusts the penumbra, or edge softness, of the shadow The effect will become more pronounced as the shadow gets farther from the subject, just like real shadows.
- **Horizon:** Defines the top edge of the shadow effect.
  - **X:** Sets the X (horizontal) position of the horizon control point.
  - **Y:** Sets the Y (vertical) position of the horizon control point.
  - **Angle:** Rotates the horizon line around the horizon control point.
- **Baseline:** Defines the bottom edge of the shadow effect.
  - **X:** Sets the X (horizontal) position of the baseline control point.
  - **Y:** Sets the Y (vertical) position of the baseline control point.
  - **Angle:** Rotates the horizon line around the baseline control point.
- **Shadow Only:** Hides the layer and renders only the shadow effect.

Reflection

Creates a mirrored image, where one side of the image is duplicated and flipped one or more times.
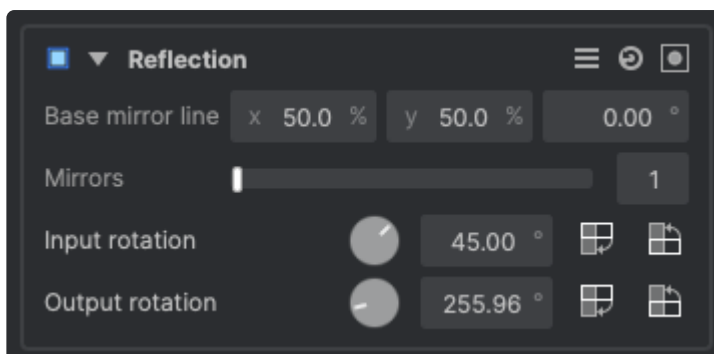
- **Base mirror line:** Controls the positioning of the line at which the mirroring occurs.
  - **X:** Shifts the anchor point used for rotation of the image, along the mirror line. The value can be edited here, or you can drag the smaller circle in the canvas widget.
  - **Y:** Moves the mirror line vertically within the image. 0% is the top of the image, and higher values move the mirror line lower. The value can be edited here, or you can drag the smaller circle in the canvas widget.
  - **Angle:** Rotates the mirror line, based on the anchor point. The value can be edited here, or you can drag the larger circle in the canvas widget.
- **Mirrors:** Defines the number of mirror lines. The mirror lines will be equally spaced around the anchor point.
- **Input rotation:** Rotates the source image, independently from the mirror line position.
- **Output rotation:** Rotates the final image, including the original image and all mirrors, around the anchor point.

Scan Lines

Creates a consistent pattern of light and dark lines. Effective for replicating the look of television or other electronic displays, or creating a pattern for graphic purposes.
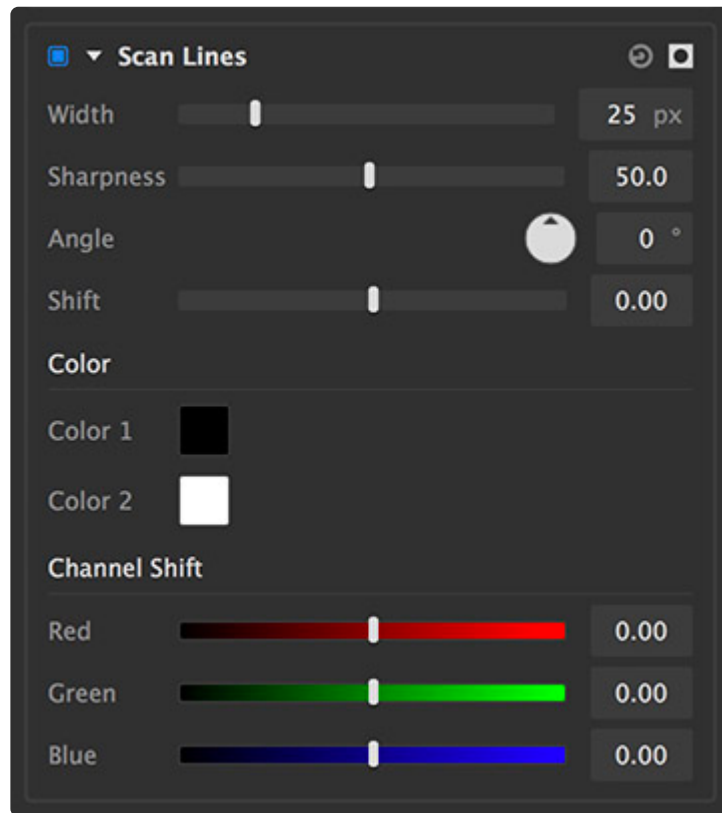
- **Width:** The width, in pixels, of each line in the pattern.
- **Sharpness:** Adjusts the sharpness of the lines. Lower settings make the lines softer, and more subtle, while higher settings create darker, hard-edged lines.
- **Angle:** The pattern of lines can be set to any angle you wish. Rotate the dial to define the angle, in degrees.
- **Shift:** Adjusts the position of the lines, perpendicular to the direction in which the lines themselves run. If important detail in your underlying image is obscured by the lines, you can use shift to fine-tune their position to better reveal the detail.

Color

- **Color 1:** Defines the color used for the odd-numbered lines. Click the swatch to open a color picker and select any color you desire.
- **Color 2:** Defines the color used for the even-numbered lines. Click the swatch to open a color picker and select any color you desire.

Channel shift

- **Red:** Adjusts the position of the red channel of the effect, perpendicular to the direction in which the lines run. Shifting individual color channels is a popular technique for adding digital grunge and cyber-

styling.

- **Green:** Adjusts the position of the green channel of the effect, perpendicular to the direction in which the lines run. Shifting individual color channels is a popular technique for adding digital grunge and cyber-styling.
- **Blue:** Adjusts the position of the blue channel of the effect, perpendicular to the direction in which the lines run. Shifting individual color channels is a popular technique for adding digital grunge and cyber-styling.

Tile

The tile effect creates multiple copies of a layer, arranged into rows and columns.
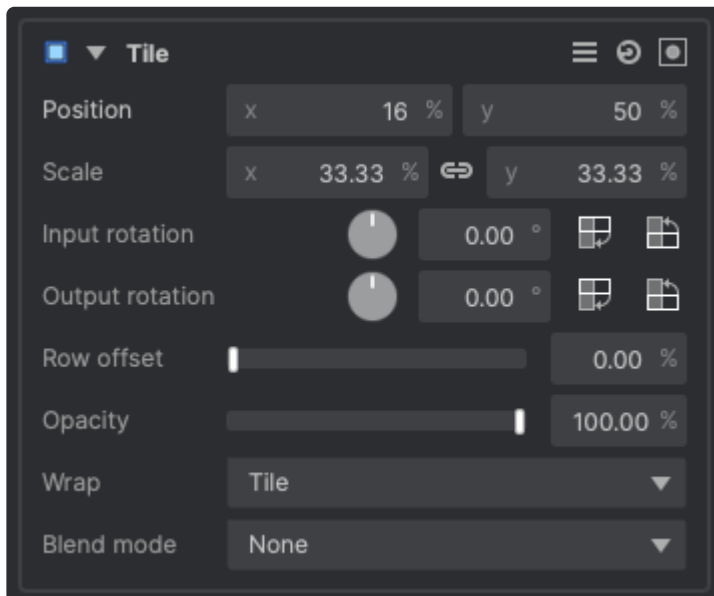
- **Position:** Adjusts the placement of the tiles, on the X (horizontal) and Y (vertical) axes.
- **Scale:** Defines the size of each tile, as a percentage of the layer's original size. The effect will generate as many tiles as are required by the scale value to fill the layer.
- **Input rotation:** Adjusts the rotation of the contents of each tile, without changing the actual tile placement.
- **Output rotation:** Changes the angle of the rows and columns of tiles.
- **Row offset:** Adjusts the offset of each row, as a percentage of the tile width.
- **Opacity:** Determines how opaque the tiles are. As the opacity is lowered, the original layer will show through.
- **Wrap:** This control determines how border areas within each tile are handled, when the Input rotation is changed to a value where the original image does not fill each tile.
  - **None:** The original image shows through any transparent border areas.
  - **Tile:** The original image is tiled within each tile, to fill any transparent border areas.
  - **Reflect:** The original image is tiled, but the tiles are reflected so that no hard edges are produced.
- **Blend Mode:** Choose the blend mode used to combine the tiles with the underlying source layer.

Vignette

Subtly or dramatically darken the edges of your frame using this effect. Vignettes help to naturally draw the viewer's eye toward the center of the frame, and your subject.
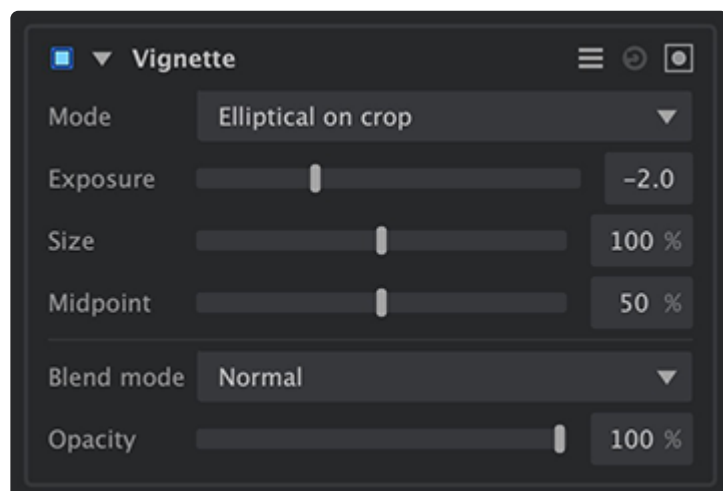
- **Mode:** Each mode available in this menu gives you a starting point from which to further edit the effect.
    - **Elliptical on crop:** Creates an ellipse which just touches all four sides of the layer, as the basis for the vignette shape.
    - **Circular on crop:** Creates a perfect circle which fits entirely within the layer, as the basis for the vignette shape. The diameter of the circle will be the distance between the two long sides of the layer.
    - **Circular on fill:** Creates a perfect circle which fits entirely with a diameter equal to the longer dimension of the layer, as the basis for the vignette shape.
- **Exposure:** Your vignette can brighten or darken the underlying image. Set exposure to a negative number to darken the edges, or to a positive number to brighten the edges.
- **Size:** The edges of the ellipse on which the vignette is based can be shifted inward or outward from their original position.
- **Midpoint:** Adjusts the softness of the vignette edge.
- **Blend Mode:** Select the blend mode used to composite the vignette onto the layer's contents. Full details of all blend mode options can be found on the Blending modes page of this manual.
- **Opacity:** Sets the opacity of the vignette. At 0% the vignette will not appear at all, while at 100% the vignette will be full strength, as defined by the values you have chosen.

Last modified: Dec 30, 2021

6.9. Keying effects

Chroma Key

The chroma key tool in Imerge Pro is among the best in the world for processing green screen photography. It makes stunning results almost effortless for most images, while at the same time providing intuitive yet powerful adjustments to bring even the most problematic images into line. Full details of all of its controls are available on the chroma key page of this manual.

Color Difference Key
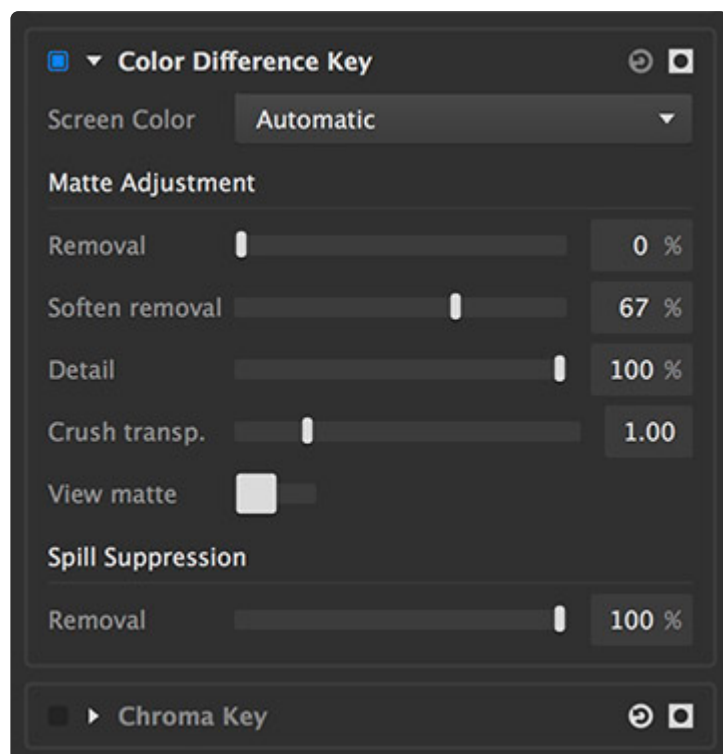
- **Screen color:** Choose the mode used to remove the backdrop.
    ◦ **Automatic:** Examines every pixel, and determines what color will remove the largest area of the image. In most cases, this effectively removes the backdrop automatically. In rare cases where the wrong color is selected, choose the correct color manually.
    ◦ **Green:** Removes chroma green from the image, for green screen photography.
    ◦ **Blue:** Removes chroma blue from the image, for blue screen photography.
    ◦ **Red:** Removes chroma red from the image, for red screen photography. Red should usually not be used for human subjects, but can be effective for products or other objects.

Matte adjustment

- **Removal:** Increasing this setting will remove a larger range of color from the image. If parts of your backdrop are still visible, raise the removal value.

- **Soften removal:** Targets areas of the image that are nearly transparent, and pushes them toward greater transparency.
- **Detail:** Targets areas that are nearly opaque and restores them to full opacity, thereby restoring edge detail that has been partially removed.
- **Crush transparency:** Removes artifacts remaining in the transparent areas, to clean up the key.
- **View matte:** Toggle this option on to view the matte created by the key as a grayscale image, which is useful for precisely dialing in optimum results.

Spill suppression

- **Removal:** Targets the screen color within the key result, and suppresses it to eliminate color spill.

Light Wrap

Light wrap adds realism to your composites by simulating light sources in the background wrapping around the edges of your subject.
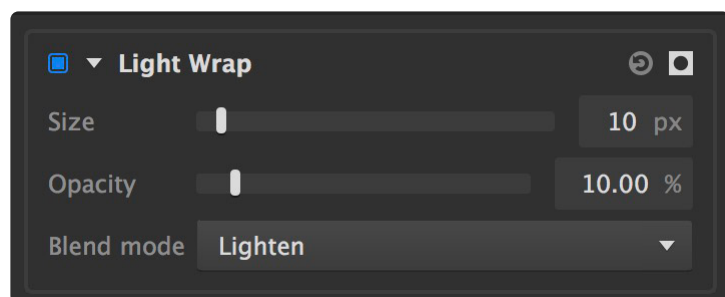
- **Size:** Defines the width, in pixels, of the swath of the edge that will be affected.
- **Opacity:** Sets the opacity of the light wrap effect. Increase the value for a more powerful effect.
- **Blend:** Select the blend mode used to combine the light wrap with the keyed image. See blend modes for more information.

Luminance Key

Luminance key is useful for removing white or black backgrounds, where there is not sufficient color data to use color-based keying tools.

The interface of the luminance key effect contains two tabs, available at the top of the effect's controls:

- **Basic:** Here is where you make the primary adjustments to your key.
- **Refine Key:** If you need to fine tune the results further than the Basic settings allow, this tab gives you full control over the range of colors that are removed.

Each will be discussed in detail in the sections below.

Basic

- **Channel to key:** Select the channel of the image that you wish the key to be based on. The results will be subtly different, and its best to test each one to determine which works best for any specific image.
  - **Luminosity:** Colors are mapped to grayscale values based on their perceived brightness to the human eye.
  - **Lightness:** Colors are mapped to grayscale values based on their brightness relative to a similarly illuminated white.
  - **Intensity:** Colors are mapped to grayscale values based on the average of the RGB components.
- **Key type:** Select which luminance range should be removed.
  - **Remove darker:** Extracts black and shadow areas from the image.
  - **Remove brighter:** Extracts white and highlight areas from the image.
- **Threshold:** Sets the edge softness of the tonal selection. Low threshold values will create a harder edge to the selection, while higher values will soften the edge and create more semi-transparent areas.
- **Tolerance:** Adjusts the tonal range that will be removed. Higher values will remove a larger range.
- **View matte:** Toggle this option on to view the matte created by the key as a grayscale image, which is useful for precisely dialing in optimum results.

Color Match Background

- **Enabled:** Enabling this option auto-adjusts the colors in your subject, to match the colors of the image below and improve the realism of your composite.
- **Strength:** Changes the intensity of the color match adjustment.

Light Wrap

- **Enabled:** Enabling light wrap will alter the edges of the result of your key, based on the colors present in the background. Specifically in cases where the background is bright, this creates a more realistic result, but light wrap is also useful in various other situations.
- **Size:** Defines the width, in pixels, of the swath of the edge that will be affected.
- **Opacity:** Sets the opacity of the light wrap effect. Increase the value for a more powerful effect.
- **Blend:** Select the blend mode used to combine the light wrap with the keyed image. See [blend modes](#) for more information.
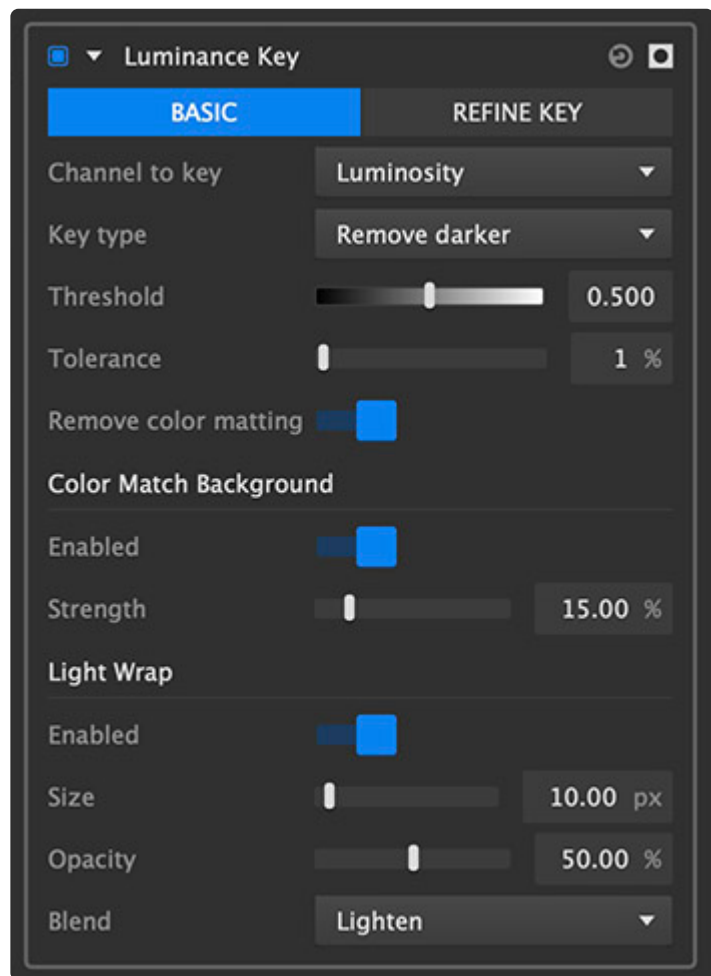
Refine Key

The first four controls in the Refine Key tab are duplicates of controls in the Basic tab. they are duplicated here so you can easily adjust them while editing the Refining tools, without needing to switch back and forth between tabs repeatedly.

- **Channel to key:** Select the channel of the image that you wish the key to be based on. The results will be subtly different, and its best to test each one to determine which works best for any specific image.
    - **Luminosity:** Colors are mapped to grayscale values based on their perceived brightness to the human eye.
    - **Lightness:** Colors are mapped to grayscale values based on their brightness relative to a similarly illuminated white.

- **Intensity:** Colors are mapped to grayscale values based on the average of the RGB components.
- **Key type:** Select which luminance range should be removed.
    - **Remove darker:** Extracts black and shadow areas from the image.
    - **Remove brighter:** Extracts white and highlight areas from the image.
- **Threshold:** Sets the edge softness of the tonal selection. Low threshold values will create a harder edge to the selection, while higher values will soften the edge and create more semi-transparent areas.
- **Tolerance:** Adjusts the tonal range that will be removed. Higher values will remove a larger range.

- **Clip Blacks:** Quickly removes areas from your background that remain after keying, to clean up the key. Increasing this setting pushes areas that are slightly semi-transparent into complete transparency.
- **Clip Whites:** Quickly restores areas in your subject that are partially removed by the key. Decreasing this setting pushes areas that are slightly transparent into complete opacity.
- **Gamma:** Adjusts the midpoint between values that are unaffected and values that are completely removed. Negative values increase the range of color that is completely removed. Positive values reduce the range of colors that are removed, allowing for a more precise key.
- **View Matte:** Toggle this option on to view the matte created by the key as a grayscale image, which is useful for precisely dialing in optimum results.
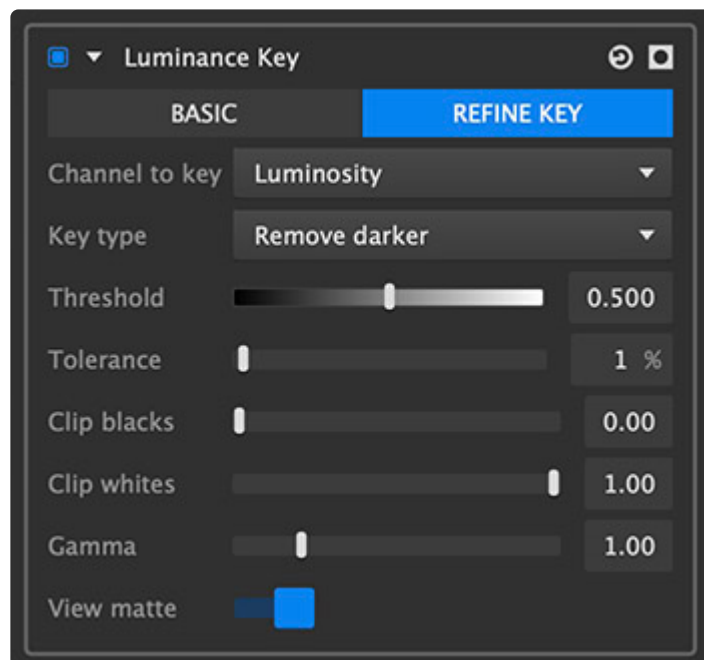
Matte Cleaner

Refine and adjust the results of your keying effects in a variety of ways, to improve the edges of the key.
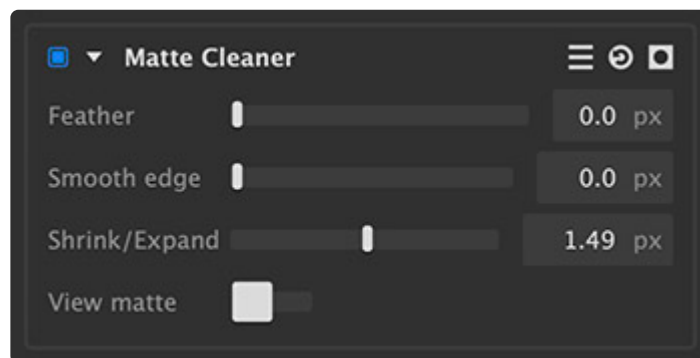
- **Feather:** Softens the edges of the key, by blurring the matte by the number of pixels selected.
- **Smooth edge:** Smooths the edge of the key by averaging out small variations in the edge. Any changes in the edge smaller than the selected value will be smoothed out.
- **Shrink/Expand:** Move the edge of the key inward (negative values) to remove edge pixels, or outward (positive values) to add additional pixels to the edge.
- **View matte:** Toggle this on to view the greyscale matte created by the key, or off to view the full color image.

Remove Color Matting

Eliminates halos from the edges of composited elements where the background has been removed. When a composited element has unwanted color around the edges, you can use this tool to remove that color, while still retaining transparency in those edge areas.
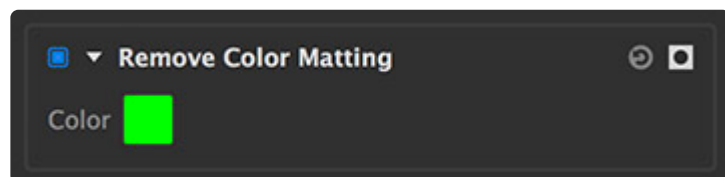
- **Color:** Click the swatch to open a color picker and select the color you want to remove from the image.

Remove Stock Background

For stock images shot on a black or white background, this tool makes it easy to remove those backgrounds.
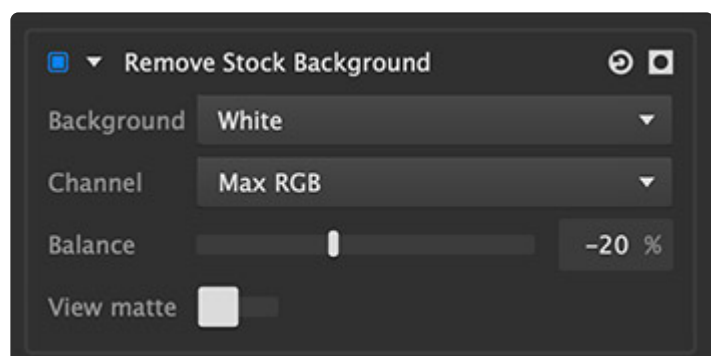
- **Background:** Choose whether **Black** or **White** is removed from the layer.
- **Channel:** Choose the channel used to determine what area is removed.
    - **Max RGB:** Uses the highest value among the RGB channels to calculate removal.
    - **Luminance:** Calculates the removal based on the luminance channel.
    - **Average RGB:** Averages the red, green and blue values, and uses the result to calculate the removal.
- **Balance:** Adjusts how much of the tonal range is removed.
- **View Matte:** Reveals, on the Viewer, the matte created by the removal calculations.

Spill Removal

Color spill occurs when light is reflected off of the backdrop and onto your subject, resulting in an unwanted color cast. This tool removes the unwanted color spill from your image.
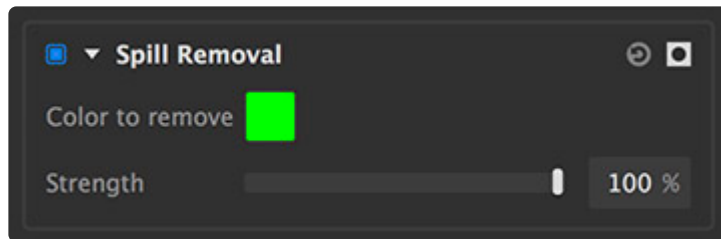
- **Color to remove:** Click the swatch to open a color picker and select the color you want to remove from the image.
- **Strength:** Adjusts the intensity of the adjustment used to remove the color spill.

6.9.1. Chroma key

The chroma key tool in Imerge Pro is among the best in the world for processing green screen photography. It makes stunning results almost effortless for most images, while at the same time providing intuitive yet powerful adjustments to bring even the most problematic images into line.

The interface of the chroma key effect is made up of three tabs, available at the top of the effect's controls:

- **Basic:** Here is where you make the primary adjustments to your key.
- **Refine Key:** If you need to fine tune the results further than the Basic settings allow, this tab gives you full control over the range of colors that are removed.
- **Spill Suppression:** Complete tools for removing any color spill from the backdrop, and ensuring accurate color in the final image.

Each will be discussed in detail in the sections below.

Basic controls
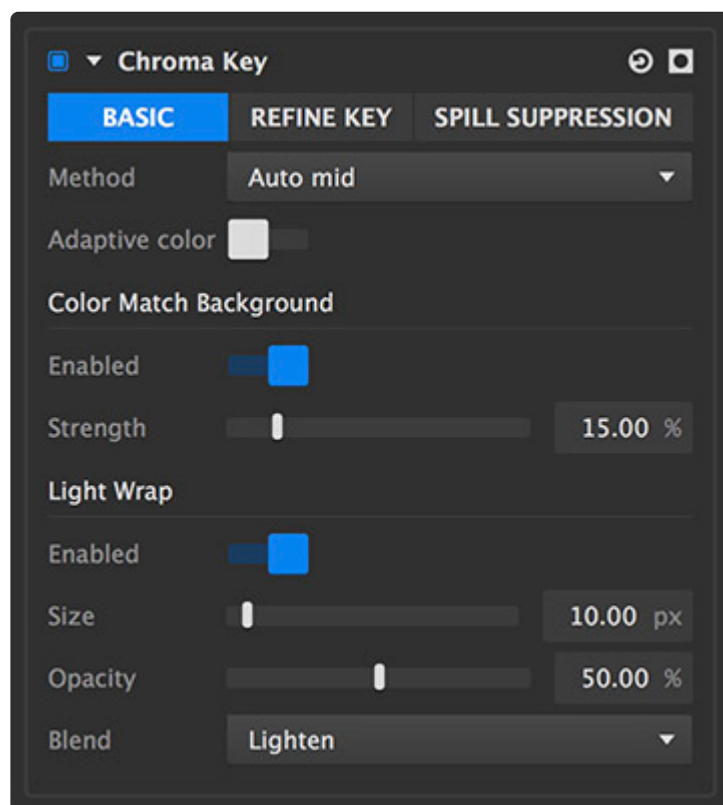
- **Method:** Chroma Key offers several methods for auto-selecting the color to be removed.
    - **Auto low:** Best for darker backdrops, with low color values
    - **Auto mid:** The default option, best for most images.
    - **Auto high:** Better for bright or over-lit images
    - **Manual:** Allows you to manually select the color.

- **Color to remove:** After selecting manual, click the pipette and drag onto your image to select the color you want to remove from the image.
- **Adaptive color:** This option is particularly helpful when working with uneven green screens. If your initial key leaves unwanted semi-transparent areas where the green screen was, try enabling the adaptive color to see if it improves things.

Color match background

- **Enabled:** Enabling this option auto-adjusts the colors in your subject, to match the colors of the image below and improve the realism of your composite.
- **Strength:** Changes the intensity of the color match adjustment.

Light wrap

- **Enabled:** Enabling light wrap will alter the edges of the result of your key, based on the colors present in the background. Specifically in cases where the background is bright, this creates a more realistic result, but light wrap is also useful in various other situations.
- **Size:** Defines the width, in pixels, of the swath of the edge that will be affected.
- **Opacity:** Sets the opacity of the light wrap effect. Increase the value for a more powerful effect.
- **Blend:** Select the blend mode used to combine the light wrap with the keyed image. See blend modes for more information.

Refine key controls
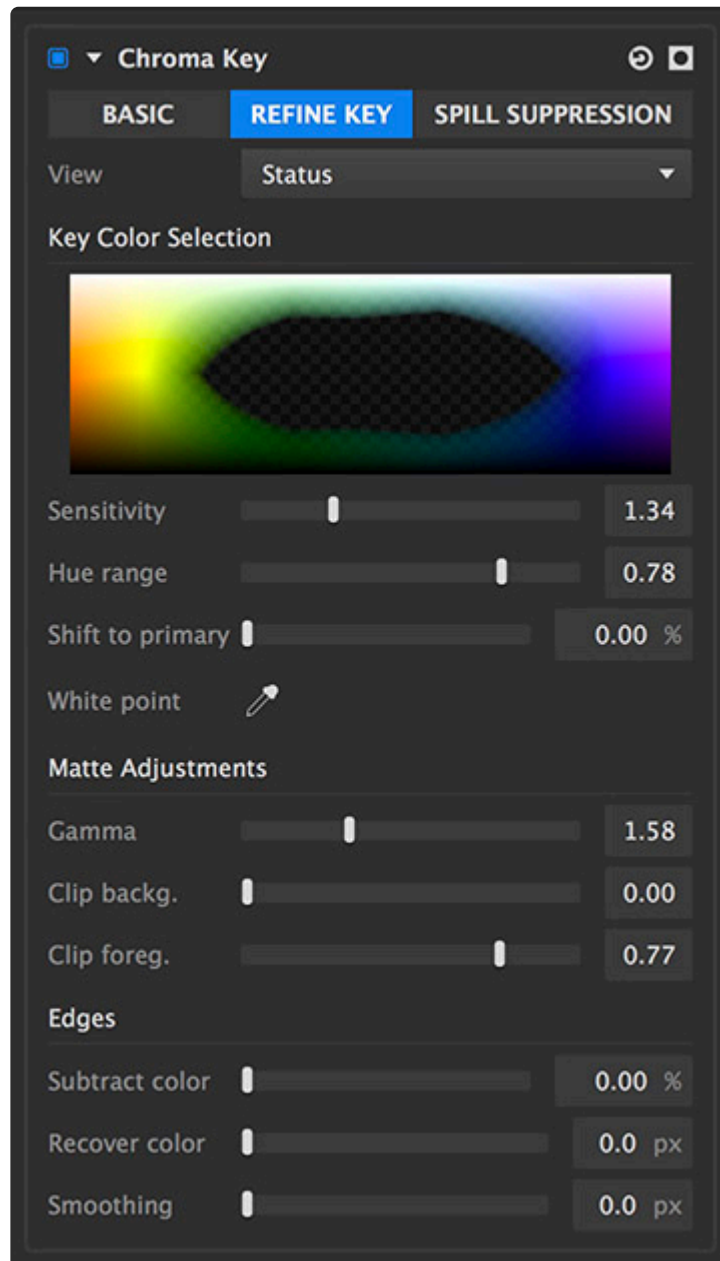
- **View:** While refining the key, it can be useful to switch between different views to ensure accurate results.
    - **Status:** Status view shows all transparent pixels as black, all opaque pixels as white, and all semitransparent pixels as a single shade of gray. This makes it very easy to see exactly what areas in your image are completely removed, or are only semi-transparent.
    - **Matte:** Matte view maps the full range of transparency to a full range of greyscale values. White represents complete opacity, and black represents complete transparency. The more transparent an area is, the darker it appears in the matte view.
    - **Result:** Displays the actual image resulting from the key, in full color.

Key color selection

- **Color selection spectrum:** This spectrum provides a direct visual reference to what color range is currently being removed. The process of keying is, at its core, nothing more than selecting a specific range of colors to be removed from your image. You want to remove the smallest range of colors possible that still allows you to remove the entire background. As you adjust the key settings, the spectrum will dynamically update to reflect the current selection.
- **Sensitivity:** Set the distance from the basic key color that will be removed. If areas of your green screen are not being removed, try increasing the sensitivity.
- **Hue range:** Expands the key selection to hues adjacent to the basic color selection. In the case of a green screen, this means some yellow and cyan tones can also be removed along with the green.
- **Shift to primary:** Slides the selection horizontally through the spectrum, to alter the colors that are removed.
- **White point:** If your source image has a color cast, setting the white point allows Imerge Pro to compensate for the color shift. Click the pipette and drag onto your image to select a pixel which should be white or neutral grey.

Matte adjustments

- **Gamma:** Adjusts the transition between hues that are unaffected and tones that are completely removed. Negative values increase the range of color that is completely removed. Positive values reduce the range of colors that are removed, allowing for a more precise key.
- **Clip background:** Quickly removes areas from your background that remain after keying, to clean up the key. Increasing this setting pushes areas that are slightly semi-transparent into complete transparency.
- **Clip foreground:** Quickly restores areas in your subject that are partially removed by the key. Decreasing this setting pushes areas that are slightly transparent into complete opacity.
- **Softness:** Adjusts the softness of the edges of the matte. This control does not alter the color selection, but rather, takes the shape of the matte created by the color selection, and then feathers the edge by the number of pixels you select.

Edges

- **Subtract color:** Desaturates the basic key color at the edges of the image. Useful for restoring edge detail in some cases.
- **Recover color:** Samples color from slightly inside the edge of the subject, and uses that color to replace the edge pixels. If your image has a thin dark edge after keying, this can help to remove the outline. Recover color should always be used at the lowest setting that serves the purpose, as higher values will visually impact the image.
- **Smoothing:** Eliminates roughness along the edge, to create a smoother, flowing line. This is often useful for product photography, but can remove details that you want to keep on human subjects.

Spill suppression controls
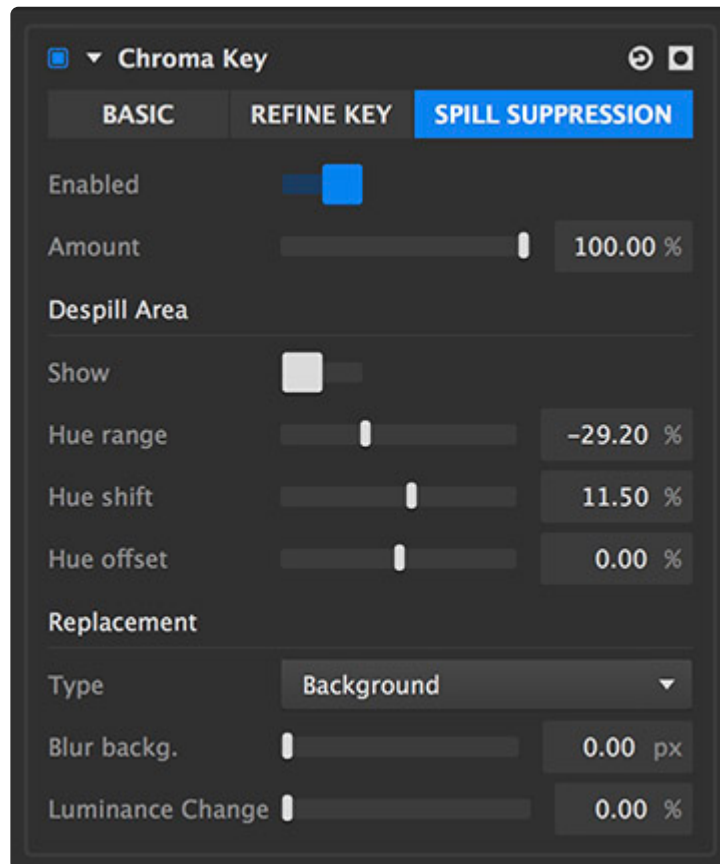
- **Enabled:** Color spill occurs when light is reflected off of the backdrop and onto your subject, resulting in an unwanted color cast. Enabling this option removes the unwanted color spill from your image.
- **Amount:** Sets the intensity of the spill suppression.

Despill area

- **Show:** Enable this option to view a greyscale map of the areas that will be affected by spill suppression. Black areas are unaffected, and other areas are more powerfully affected the lighter they are. Adjust the settings below until only the areas that contain spill are white.
- **Hue range:** Defines the range of colors affected by the spill suppression. This should be set to the lowest setting that still handles the spill.
- **Hue shift:** Adjusts the hue affected by the spill suppression, through the color spectrum. The default 0 value is the basic key color selected for removal.
- **Hue offset:** Offsets the color of the source image prior to applying the spill suppression. This can be useful for images that contain a color cast.. for example, if your green screen image has an overall green cast, the offset can help limit the spill to only affecting the green screen areas, rather than the entire image.

Replacement

- **Type:** The spill color found within the spill area is removed by replacing it with another color. Select the type of replacement you wish to use from this menu.

- ◦ **Background:** Uses colors from the background layer to replace the spill color. This powerful option allows for different spill replacement colors in different areas of the image, based on what colors are in the background. If you have the despill area set too large, so it affects substantial areas of your subject, then it might appear that the background is showing through those areas. To correct this, adjust the despill map settings to limit the despill to only the areas where it should be applied.
  - ◦ **Color:** Replaces the spill color with a specific color of your choice. A common option is to neutralize the spill by replacing it with neutral gray. For problematic hair detail, it is sometimes effective to sample a color from the air to use for replacement.
- **Color:** When the type is set to color, this option appears. Click the swatch to open a color picker and chose any color.
- **Blur background:** When the type is set to background, this option softens the background detail before the color is applied to the spill areas.
- **Luminance change:** Adjusts the brightness of the replacement color, which can sometimes help with realism.

Last modified: Dec 24, 2021

6.10. Lights & Flares

Chromatic Aberration

Creates an offset between the color channels of the image.
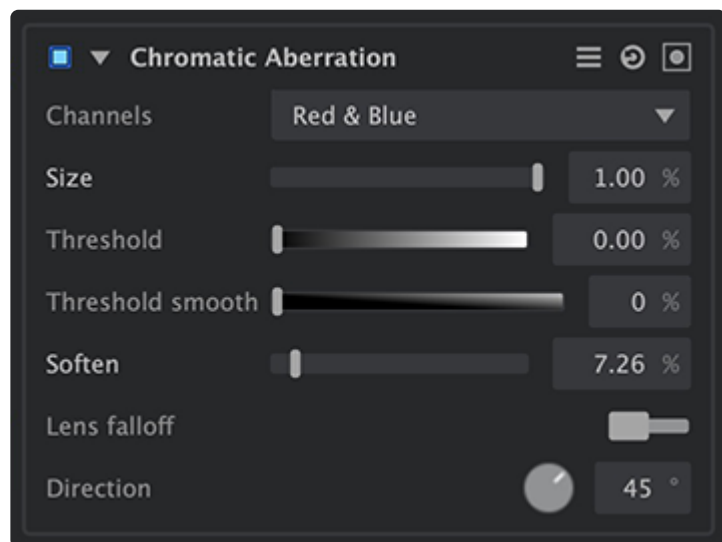
- **Channels:** Choose the channels of the image which are shifted. the two channels are shifted in opposite directions, along the axis of the angle chosen in the direction property.
    - **Red & Blue:** Shifts the red and blue channels in opposite directions.
    - **Red and Green:** Shifts the red and green channels in opposite directions.
    - **Blue and Green:** Shifts the blue and green channels in opposite directions.
- **Size:** Sets the distance of the shift applied to the selected channels. Negative values will shift each of the two channels in the opposite direction.
- **Threshold:** Raising the threshold will limit the effect to the brighter areas of the image, so only tonal values above the selected threshold will be affected.
- **Threshold smooth:** Softens the transition between affected and unaffected tones, around the threshold set above.
- **Soften:** Feathers, or blurs, the offset colors.
- **Lens falloff:** Enable or disable lens falloff in the effect.
- **Direction:** Set the angle of the offset. When the Size property is adjusted, the colors will be offset along the axis of the angle you choose here.

Glow
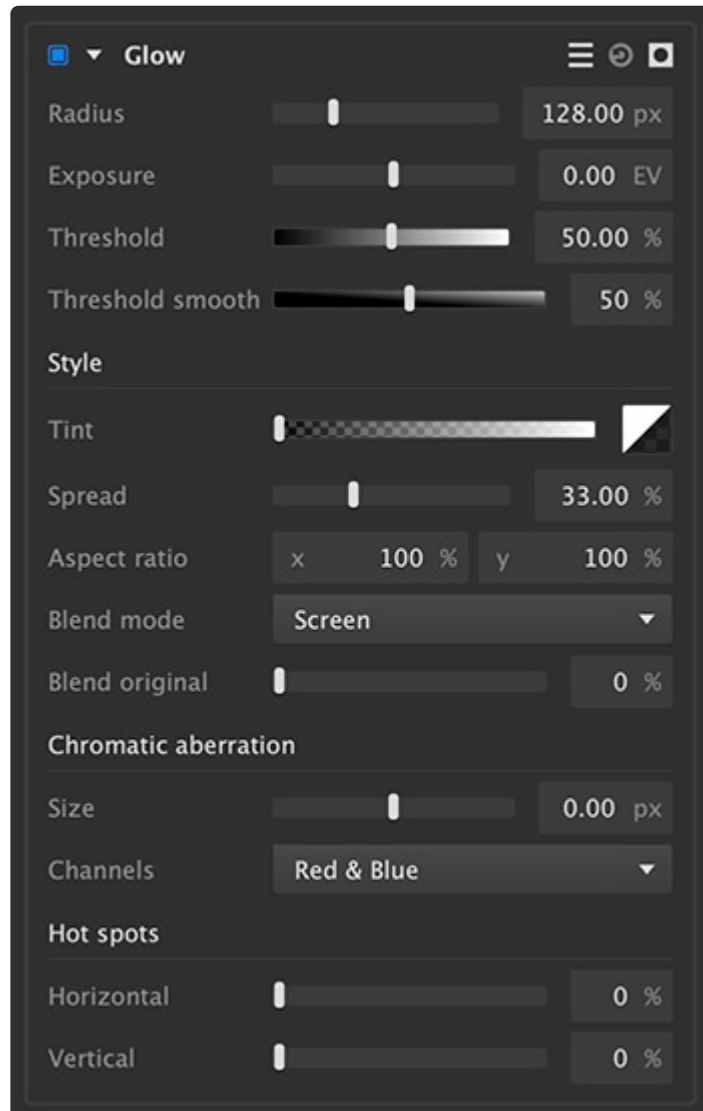
- **Radius:** Set the radius, in pixels of the glow that is generated.
- **Exposure:** Increase or decrease the brightness of the resulting effect.
- **Threshold:** Raising the threshold will limit the effect to the brighter areas of the image, so only tonal values above the selected threshold will be affected.
- **Threshold smooth:** Softens the transition between affected and unaffected tones, around the threshold set above.

Style

- **Tint:** Select the color with which the glow will be tinted.
- **Spread:** Shifts the mid-point of the gradient along the edge of the glow outward, to make the glow stronger.
- **Aspect ratio:** Give the glow a linear effect by changing the aspect ratio.
  - **X:** Reduce the X aspect to create a vertically stretched glow.
  - **Y:** Reduce the Y aspect to create a horizontally stretched glow.

- **Blend mode:** Choose the blend mode used to blend the glow onto the layer.
- **Lighten:** The glow will only be displayed on pixels where the glow value is lighter than the underlying image color.
    - **Screen:** Combines the glow value with the underlying color value to brighten the image.
- **Blend original:** Adjusts the opacity of the rendered glow effect, to reveal the underlying image.

Chromatic aberration

- **Size:** Sets the distance of the shift applied to the selected channels. Negative values will shift each of the two channels in the opposite direction.
- **Channels:** Choose the channels of the image which are shifted. the two channels are shifted in opposite directions, along the axis of the angle chosen in the direction property.
    - **Red & Blue:** Shifts the red and blue channels in opposite directions.
    - **Red and Green:** Shifts the red and green channels in opposite directions.
    - **Blue and Green:** Shifts the blue and green channels in opposite directions.

Hot spots

- **Horizontal:** Stretch the glow on the brightest areas of the image horizontally.
- **Vertical:** Stretch the glow on the brightest areas of the image vertically.

Light Rays

Generates rays emanating in all directions from a point of your choosing. Where the rays appear is based on the brightness of the source image, and the threshold you select.
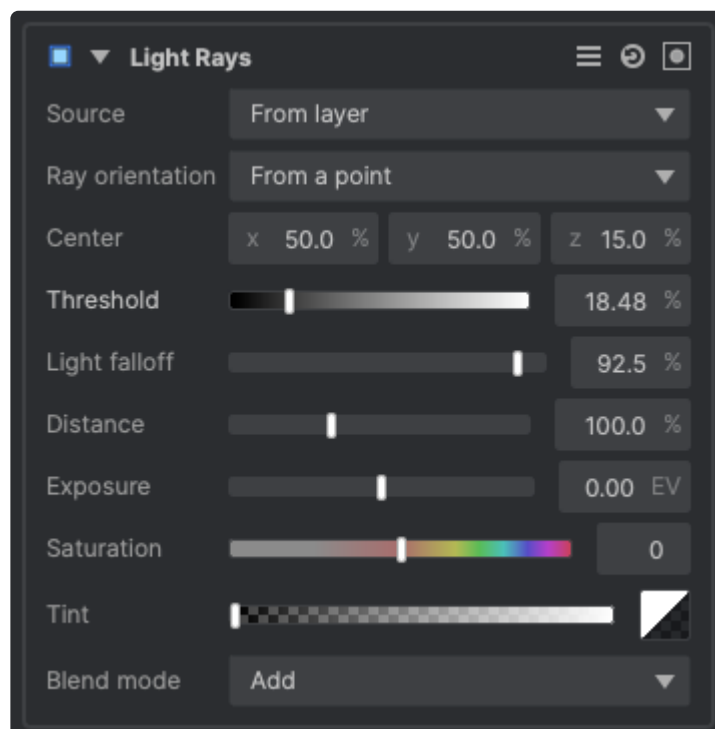
- **Source:** Select the image to be used as the source for generating the rays.
  - **From Layer:** The layer containing the effect will be used as the source.
  - **From File:** Allows you to select an external image file to use as the source.
- **Ray orientation:** Select the directional property used by the rays.
  - **From a point:** Rays are emitted radially from a specific user-defined point. The position of the center point can be defined using the center property, which is displayed when this option is selected.
  - **Parallel:** Rays are generated in parallel, along a user-defined angle. The angle can be defined using the Direction property, which is displayed when this option is selected.
- **Center:** When ray orientation is selected, the center property is used to define the origin point from which the rays will radiate. Use the control handle on the viewer to visually place the center, or edit the values here to position it numerically.
- **Direction:** When ray orientation is set to parallel, the direction property is used to define the angle of the rays. Drag the wheel to change the angle, or manually enter a specific value, in degrees.
  - **X:** Controls the position from left to right.
  - **Y:** Controls the position from top to bottom
  - **Z:** Controls the apparent distance of the origin point from the virtual camera, affecting the angle at which the rays approach the viewer.
- **Threshold:** Raising the threshold will limit the rays to the brighter areas of the image, so only tonal values above the selected threshold will be affected.
- **Light Falloff:** Adjusts the length of the rays within the total Distance range. A value of 100% makes the rays the full Distance length, while lower values shorten the rays.
- **Distance:** Defines the maximum length of the rays created by the effect. Higher values create longer rays.
- **Exposure:** Positive values increase the brightness of the rays, negative values decrease their brightness.
- **Saturation:** Increases (positive values) or reduces (negative values) the saturation of the ray tint.
- **Tint:** Select the color with which the rays will be tinted. Click the swatch to open a color picker, or use the slider to adjust the transparency of the color selection.
- **Blend Mode:** The blend mode you want to use to mix the color with the original pixels color. See blend modes for more information.

Last modified: Dec 29, 2021

6.11. Styles effects

Color Overlay

Adds a color to all the pixels in an image. It will not affect the alpha channel so the shape of your image will be retained and only the color will change. This can be useful for making silhouettes by filling black or more creative graphical uses with images that are imported and have an alpha channel.
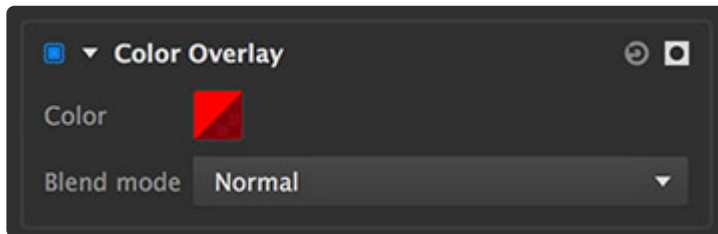
- **Color:** The color you want to add to all the pixels in the image and the opacity controls how much.
- **Blend mode:** The blend mode you want to use to mix the color with the original pixels color. See blend modes for more information.

Inner Glow

Applies a glow effect to the inside of the layer's edges. The glow is applied as a gradient, which fades out as it reaches farther into the image.

- **Color:** Click the swatch to set the color of the glow.
- **Size:** Adjusts the width of the glow, in pixels.
- **Spread:** Increasing spread weights the glow transition in favor of the solid end of the gradient. The result is more of a solid line at the layer edge, and a smaller feather inside of the layer.
- **Offset:** Shifts the position of the glow in relation to the image, either horizontally on the X axis, or vertically on the Y axis.

The following image shows an example of black text with an orange inner glow:
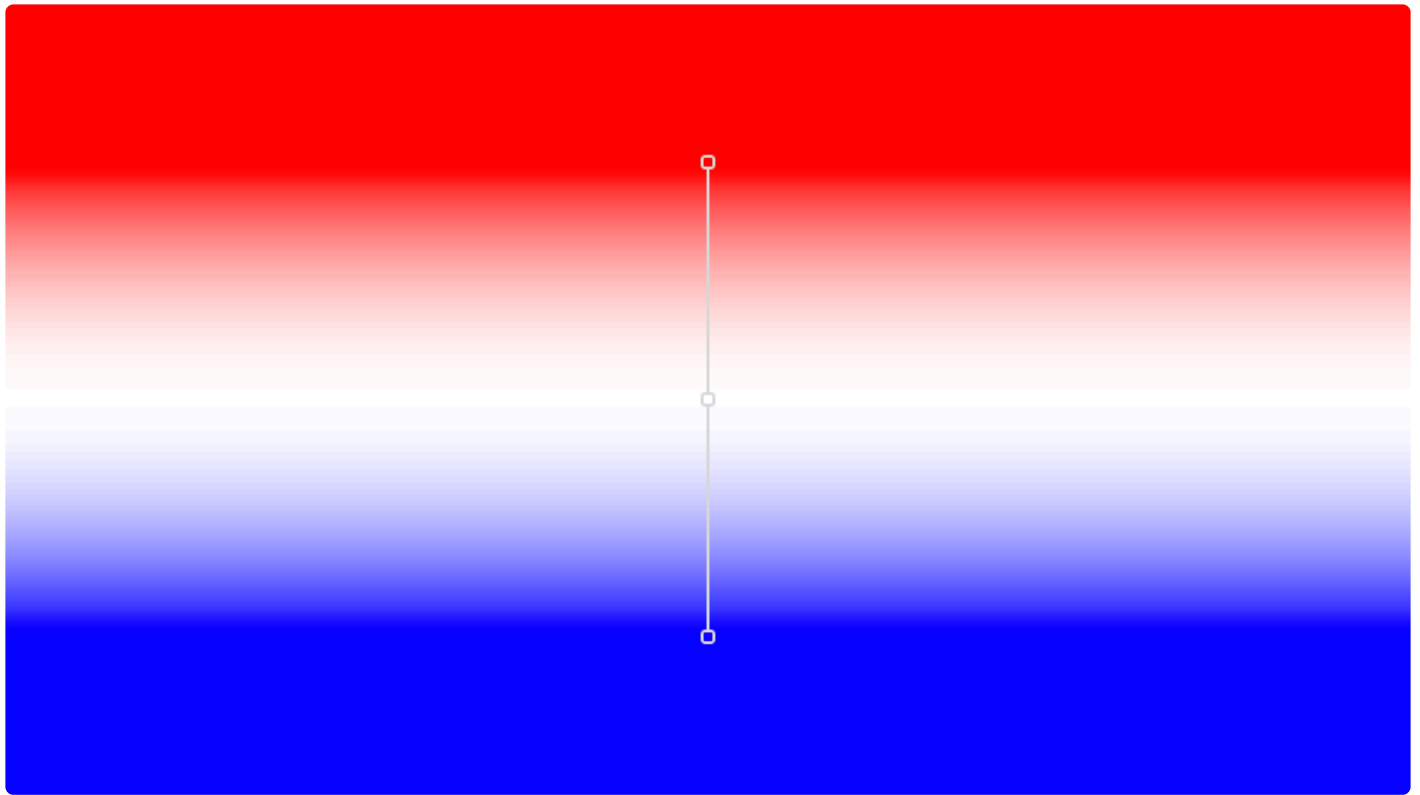
Linear Gradient

Creates a linear between colors of your choice.
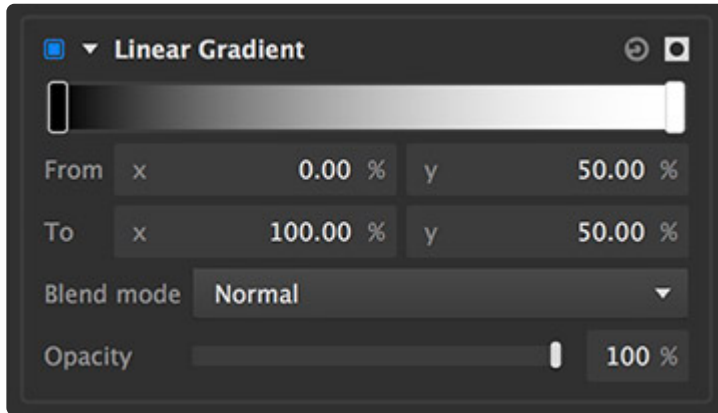
- **Gradient controls:** The gradient shows a visual representation of the current color selections.
  - ◦ **Editing the colors:** Double-click the rectangular box at either end of the gradient to open a color picker and select the color you want to use at that end. You can also double click at any point to add an additional gradient stop. Up to 16 gradient stops can be specified.
- **From:** Defines the X (horizontal) and Y (vertical) positions of the left end of the gradient. X values run from 0 on the left to 100 on the right. Y values run from 0 at the top to 100 at the bottom.
- **To:** Defines the X (horizontal) and Y (vertical) positions of the right end of the gradient. X values run from 0 on the left to 100 on the right. Y values run from 0 at the top to 100 at the bottom.
- **Blend mode:** Choose the blend mode used to combine the gradient with the contents of the layer. Full details of all blend mode options can be found on the Blending modes page of this manual.
- **Opacity:** Adjusts the opacity of the gradient that is applied to the layer's contents. Lower values make the gradient more transparent.

Below shows and example of a three color stop linear gradient:

Multi-Point Gradient

Creates a complex non-linear gradient of as many colors as you want. You can click anywhere on the canvas to add a new point, and assign each point any color you like, and Imerge will create transitional gradients between all points.
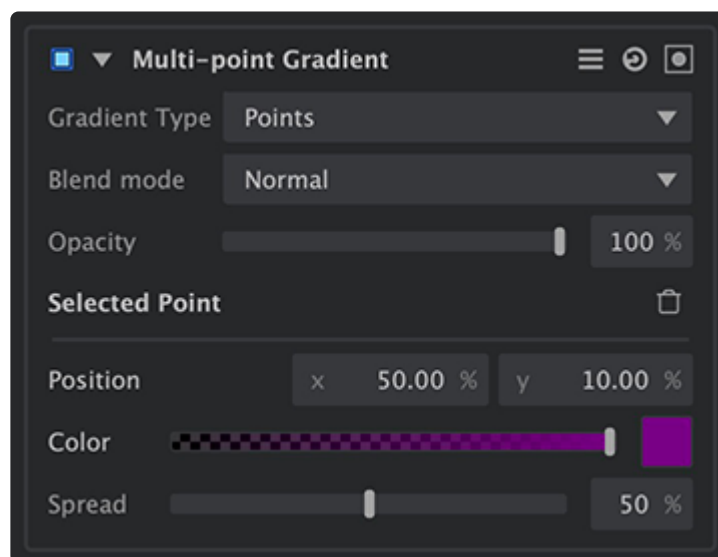
- **Gradient Type:** Select how the gradient layout is displayed. The position of the points can be edited in either type.
    - **Points:** Displays the final gradient, with circles to indicate the individual control points.
    - **Voronoi:** Displays the color blocks on which the gradient is constructed, without the gradient

transitions being displayed.

- **Blend mode:** Choose the blend mode used to combine the gradient with the contents of the layer. Full details of all blend mode options can be found on the [Blending modes](#) page of this manual.
- **Opacity:** Adjusts the opacity of the gradient that is applied to the layer's contents. Lower values make the gradient more transparent.

Selected Point

Select any control point in the gradient and you can edit its values further here.

- **Position:** Defines the X (horizontal) and Y (vertical) position of the currently selected control point. X values run from 0 on the left to 100 on the right. Y values run from 0 at the top to 100 at the bottom. Dragging the control point in the canvas is often the preferred way to adjust its position, but you can also manually edit the values here for more precise placement.
- **Color:** Double-click the rectangular color swatch to open a color picker and select the color you want to use for the currently selected control point. Drag the slider to adjust the opacity of the currently selected control point.
- **Spread:** Increasing the spread will enlarge the color block associated with the currently selected control point. Decreasing the spread will reduce the size of the color block associated with the currently selected control point.

Outer Glow

Applies a glow effect to the outside of the layer's edges. The glow is applied as a gradient, which fades out as it reaches farther from the edges of the image.
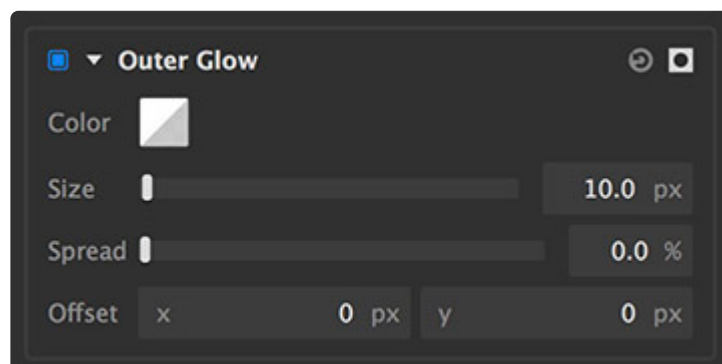
- **Color:** Click the swatch to set the color of the glow.
- **Size:** Adjusts the width of the glow, in pixels.
- **Spread:** Increasing spread weights the glow transition in favor of the solid end of the gradient. The result is more of a solid line at the layer edge, and a smaller feather on the outside edge.
- **Offset:** Shifts the position of the glow in relation to the image, either horizontally on the X axis, or vertically on the Y axis.

The following image shows some text with a black outer glow:

Outline

Creates a solid line along the edges of the layer.
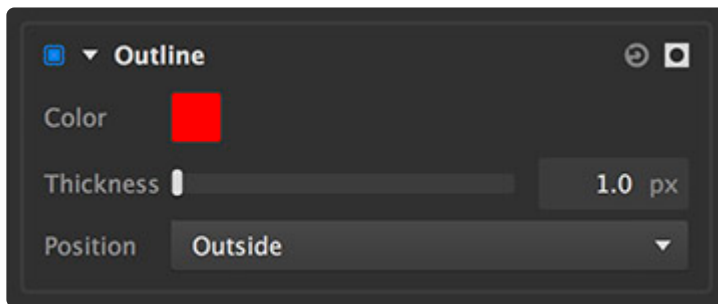
- **Color:** Click the swatch to open a color picker and select the color of the outline.
- **Thickness:** Sets the width of the line, in pixels.
- **Position:** Choose where the outline sits, in relation to the layer edge.
  - **Outside:** The outline is positioned entirely outside the layer, so the inside edge of the line corresponds to the outside edge of the layer.
  - **Inside:** The outline is positioned entirely inside the layer, so the outside edge of the line corresponds to the outside edge of the layer.
  - **Center:** The outline is centered on the layer edge, so half the line is inside the layer and half is outside the layer.

Below is an example of a black outline on white text:

Pattern Overlay

Pattern overlay enables you to apply another image as an overlay onto the layer contents. The selected image is applied as a tile pattern, so it always fills the entire contents of the layer.
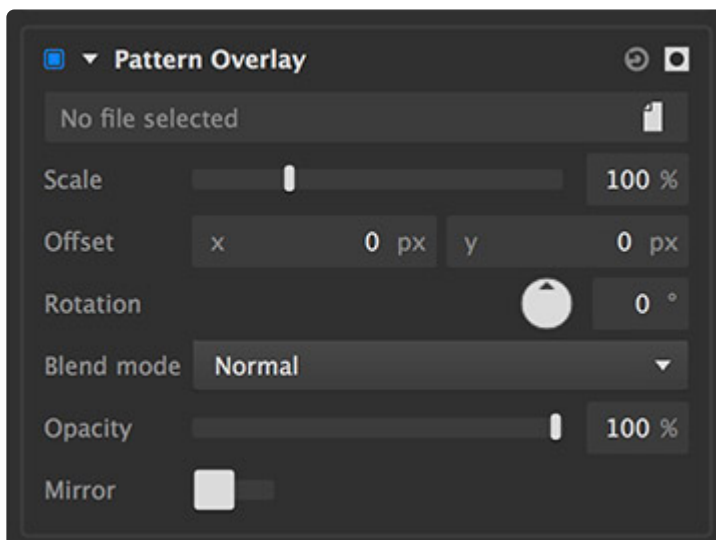
- **File selector:** Click the file icon at the right to open a file browser and select an image file. PNG, JPG and 8-bit TIFF files are supported.
- **Scale:** Adjusts the size of each instance of the selected image within the tiled pattern.
- **Offset:** Shifts the position of the pattern image in relation to the layer contents, either horizontally on the X axis, or vertically on the Y axis.

- **Rotation:** Turns the pattern image around its center point.
- **Blend mode:** Choose the blend mode used to combine the gradient with the contents of the layer. Full details of all blend mode options can be found on the [Blending modes](#) page of this manual.
- **Opacity:** Adjusts the opacity of the pattern. Lower values make the pattern more transparent.
- **Mirror:** By default, all tiles in the pattern use the same orientation. Enabling this option mirrors every alternate tile, for a more seamless pattern.

Below is a Imerge project with two layers. The bottom layer is a solid black layer with a pattern overlay, vignette and opacity reduced to make it blend with the black and darken. Then text is put on top with the same pattern overlay. You can see how pattern overlay can be used to make more graphical effects on both text and solid layers. It can also be used on image layers but if most useful when a layer has an alpha channel.
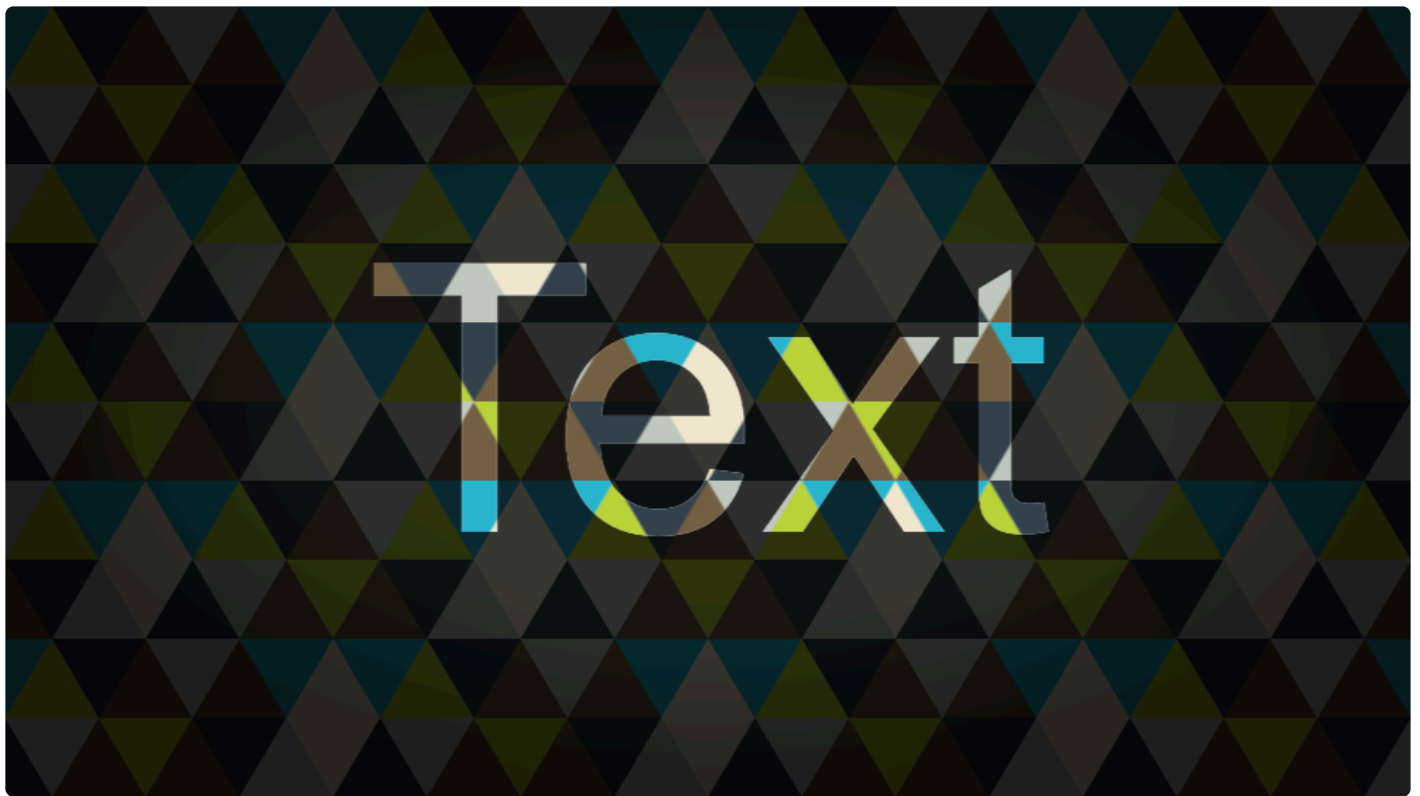
Pencil Sketch

Creates a hand-drawn look, with sketched lines on a solid background. The weight, color, direction and length of the lines are configurable, to adjust the style of the sketch.
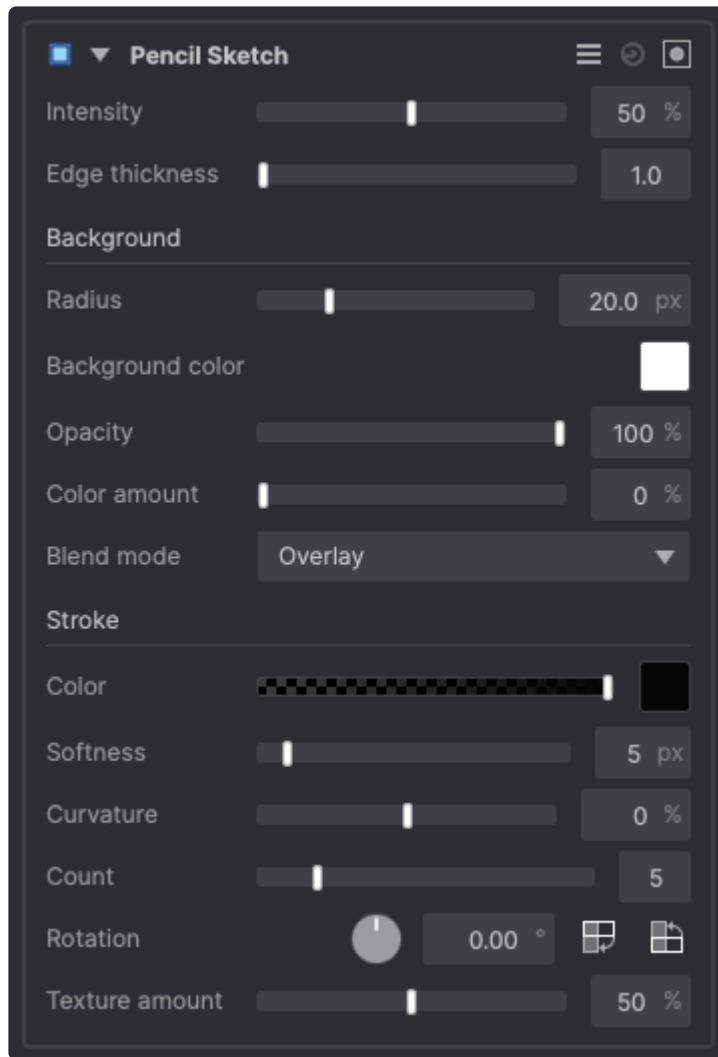
- **Intensity:** Adjusts the intensity of the sketch effect. Lower values give a more refined appearance, while higher values create a rougher, sketchier look.
- **Edge thickness:** The pencil sketch effect works by finding the edges in your images, and sketching along those edges. This control adjusts the thickness of the edge lines before the pencil sketch is applied.
- **Background:** The background controls adjust the appearance of the virtual paper on which the sketch is drawn, or the areas of the frame where the sketch lines do not appear.
  - **Radius:** Sets the radius of the blur applied to the background, which affects the amount of shading present in the sketch.
  - **Background color:** Select a color for the paper on which the sketch is drawn. You can use the eyedropper to choose a color from the viewer, or click the swatch to open a color picker and choose any color you prefer. You can also manually enter the color values for the red, green, and blue channels.
  - **Opacity:** Adjusts how transparent the background is, with 0% being fully transparent and 100% being fully opaque.
  - **Color amount:** Adjusts the blend of your selected background color with the original color of the layer or clip.
  - **Blend mode:** Select the blend mode used to combine the sketch effect with the underlying

layer.

- **Stroke:** These controls adjust the appearance of the pencil lines that make up the sketch.
    - **Color:** Select a color for the pencil lines in the sketch. You can use the eyedropper to choose a color from the viewer, or click the swatch to open a color picker and choose any color you prefer. You can also manually enter the color values for the red, green, and blue channels.
    - **Softness:** Determines how far the sketch lines feather out past the edges identified by the sketch effect.
    - **Curvature:** Adjusts the curve of the individual sketch lines. 0.0% creates straight lines. Negative values create a concave curve, and positive values give the lines a convex curve.
    - **Count:** Specify the number of stroke angles used to build up the sketch.
    - **Rotation:** Offsets the angle of the sketch lines from their original position, by the number of degrees you specify.
    - **Texture:** Introduces a graphite texture to the sketch lines. Higher values break up the lines more with a fine texture.

Radial Gradient

Creates a radial gradient, from one center color to another color at the outside of the radius.
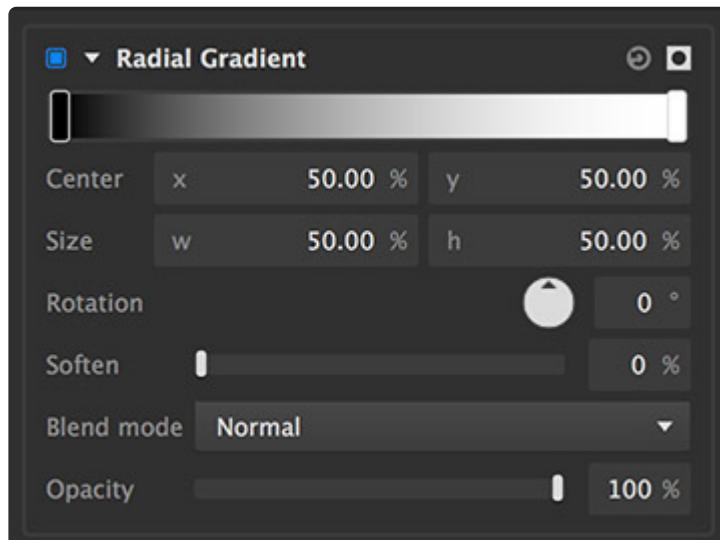
- **Gradient controls:** The gradient shows a visual representation of the current color selections.
    - **Editing the colors:** Double-click the rectangular box at either end of the gradient to open a color picker and select the color you want to use at that end. You can also add additional color stops between by double clicking anywhere on the gradient. Up to 16 color stops can be specified.
- **Center:** Defines the X (horizontal) and Y (vertical) positions of the gradient's center. X values run from 0 on the left to 100 on the right. Y values run from 0 at the top to 100 at the bottom.
- **Size:** Defines the vertical and horizontal radii of the gradient, as a percentage of the layer's width and height.
- **Rotation:** Spins the gradient round the center position. This option is more useful when the width and height sizes differ.

- **Soften:** Shifts the center of the gradient transition.
- **Blend mode:** Choose the blend mode used to combine the gradient with the contents of the layer. Full details of all blend mode options can be found on the Blending modes page of this manual.
- **Opacity:** Adjusts the opacity of the gradient that is applied to the layer's contents. Lower values make the gradient more transparent.

Below is an example of a three stop radial gradient going from yellow in the center to dark blue at the circumference with a lighter blur half way between.
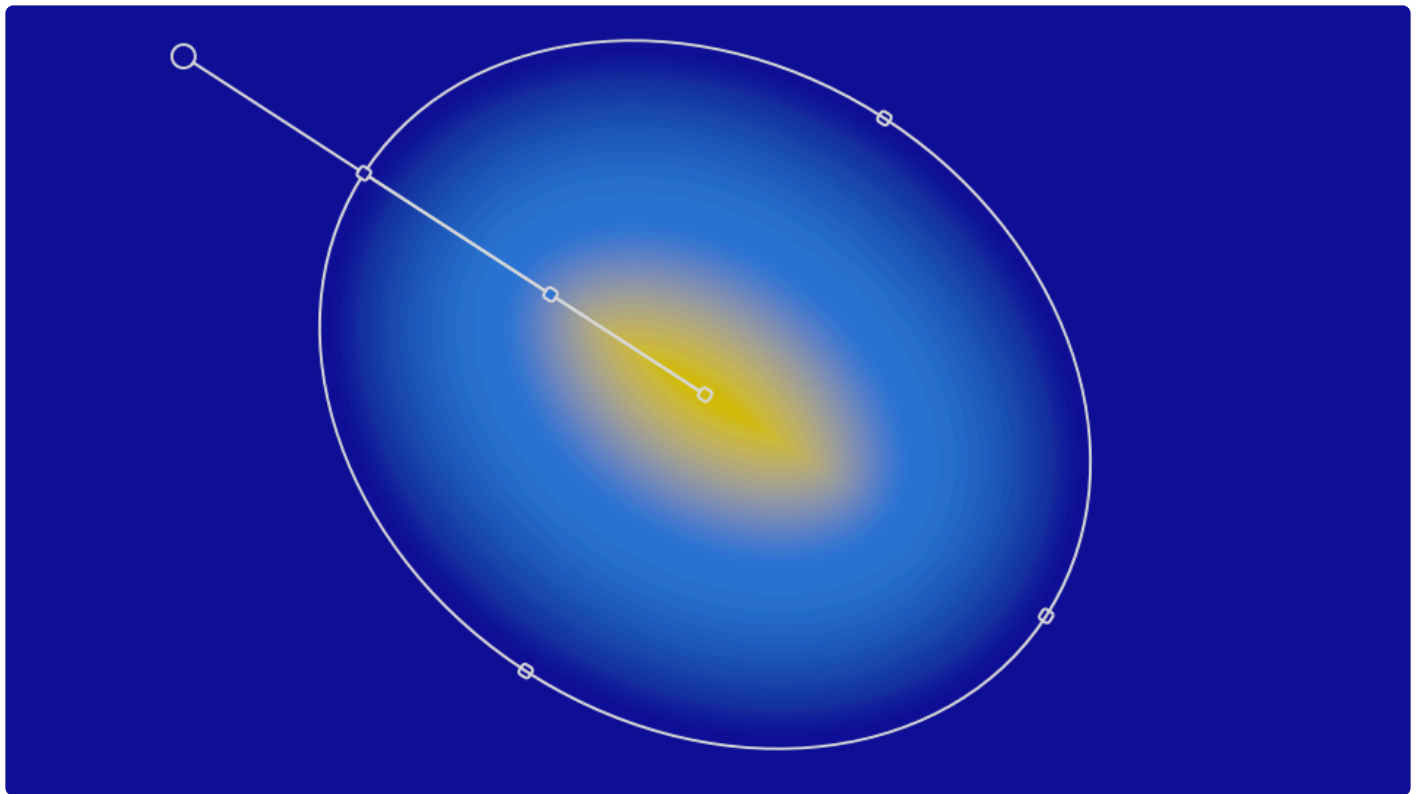

Roughen Edges

The Rough Edges effect adds fractal roughness to the edges of a layer's alpha channel. This is effective for distressing or weathering text or graphics, or for generating organic edges such as torn paper. The controls are divided into two tabs, Edge and Noise.

Edge
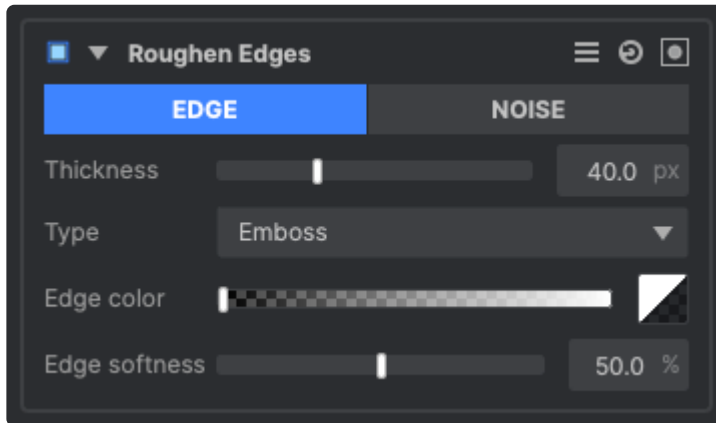
- **Thickness:** Adjusts the width of the area affected by the roughness, along the edge of the alpha.
- **Type:** Select the type of fractal used to generate the roughness pattern.
  - **Clouds:** Creates a pattern of gradual transitions with dithered edges, reminiscent of clouds.
  - **Emboss:** Uses a pattern similar to clouds, but then applies a height map, creating a stone-like texture.
  - **Energy:** A pattern of thin, energetic strings.
  - **Fluid:** Replicates a pattern similar to the caustics created by looking through a volume of water.
  - **Smoke:** Soft, billowing shapes like the texture of smoke.
  - **Photocopy:** Creates a rough edge surrounding the layer, and hides the center of the layer.
- **Edge Color:** Select the color used to fill in the edge color areas. Use the slider to adjust the color's opacity, or click the color swatch to open a color picker and select any color you desire.
- **Edge softness:** Adjusts the feathering along the warped edge, and how far the rough edge extends outward.

Noise
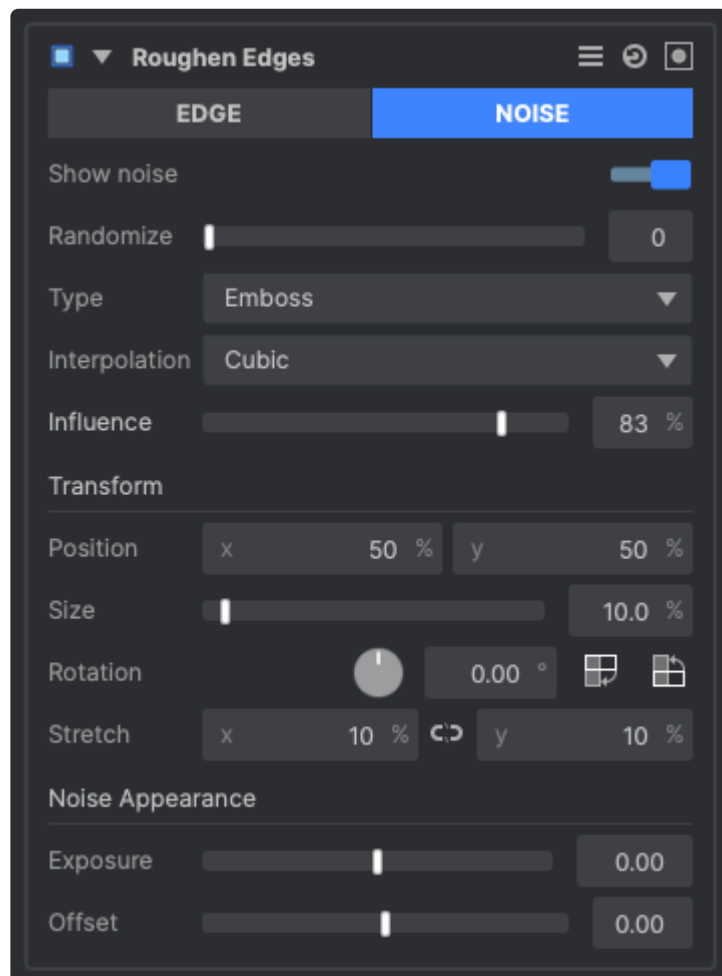
- **Randomize:** Randomizes the fractal pattern used to generate the rough edges, within the style created by the other settings. Each seed value creates a unique pattern.
- **Type:** Select the type of fractal used to generate the roughness pattern.
    - **Clouds:** Creates a pattern of gradual transitions with dithered edges, reminiscent of clouds.
    - **Emboss:** Uses a pattern similar to clouds, but then applies a height map, creating a stone-like texture.
    - **Energy:** A pattern of thin, energetic strings.
    - **Fluid:** Replicates a pattern similar to the caustics created by looking through a volume of water.
    - **Smoke:** Soft, billowing shapes like the texture of smoke.
    - **Photocopy:** Creates a rough edge surrounding the layer, and hides the center of the layer.
- **Interpolation:** Choose the method used to build the pattern from the fractal geometry.
    - **Block:** Creates a square, pixelated appearance.
    - **Linear:** Applies more gradual transitions from one block to the next.
    - **Cubic:** More dramatic gradients completely obscure the block pattern to create organic shapes.
- **Influence:** Adjusts the degree to which the subsettings alter the base layer of fractal noise. Higher values create more fine detail in the noise.

Transform

- **Position:** Shift the noise on the X (horizontal) or Y (vertical) axis.
- **Size:** Changes the granularity of the fractal noise, thereby affecting the size of the detail in the roughened edge.
- **Rotation:** rotates the fractal noise pattern on which the rough edges are based.
  - **Rotate 90° clockwise:** Rotate the noise in a clockwise fashion, in precise 90° increments.
  - **Rotate 90° counter-clockwise:** Rotate the noise in a counter-clockwise fashion, in precise 90° increments.
- **Stretch:** Allows you to scale the fractal noise pattern on each axis individually.
  - **X:** Scales the width of the pattern without affecting the height.
  - **Y:** Scales the height of the pattern, without affecting the width.
  - **Unlink/** **Link:** Use this toggle to control whether the stretch values are edited in tandem or individually.

Noise Appearance

- **Exposure:** Adjusts the exposure of the fractal noise on which the rough edge is based. Bright areas within the fractal noise are affected more strongly than dark areas. Positive values expand the rough edge, and negative values contract it.
- **Offset:** Shifts the entire range of tonal values in the fractal noise up or down. Values shifted beyond pure black or pure white will be clipped.

Here is an example where roughen edges has been applied to a layer containing a wide rectangular line, where an alpha channel is making the rest of the layer is transparent:
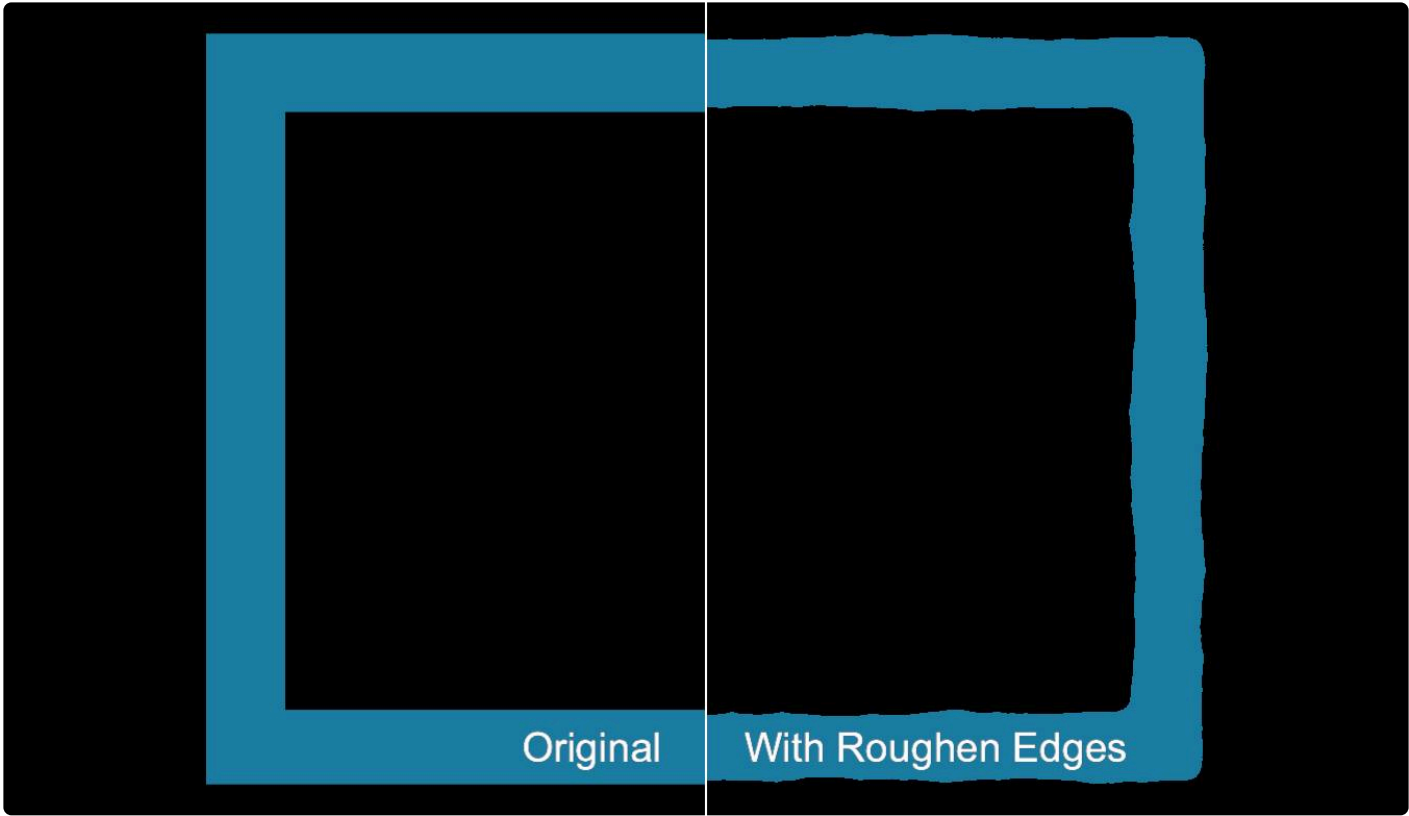
6.12. Stylize effects

Bevel & Emboss

Simulates 3D depth by adding angled edges to the layer and illuminating them to simulate depth.
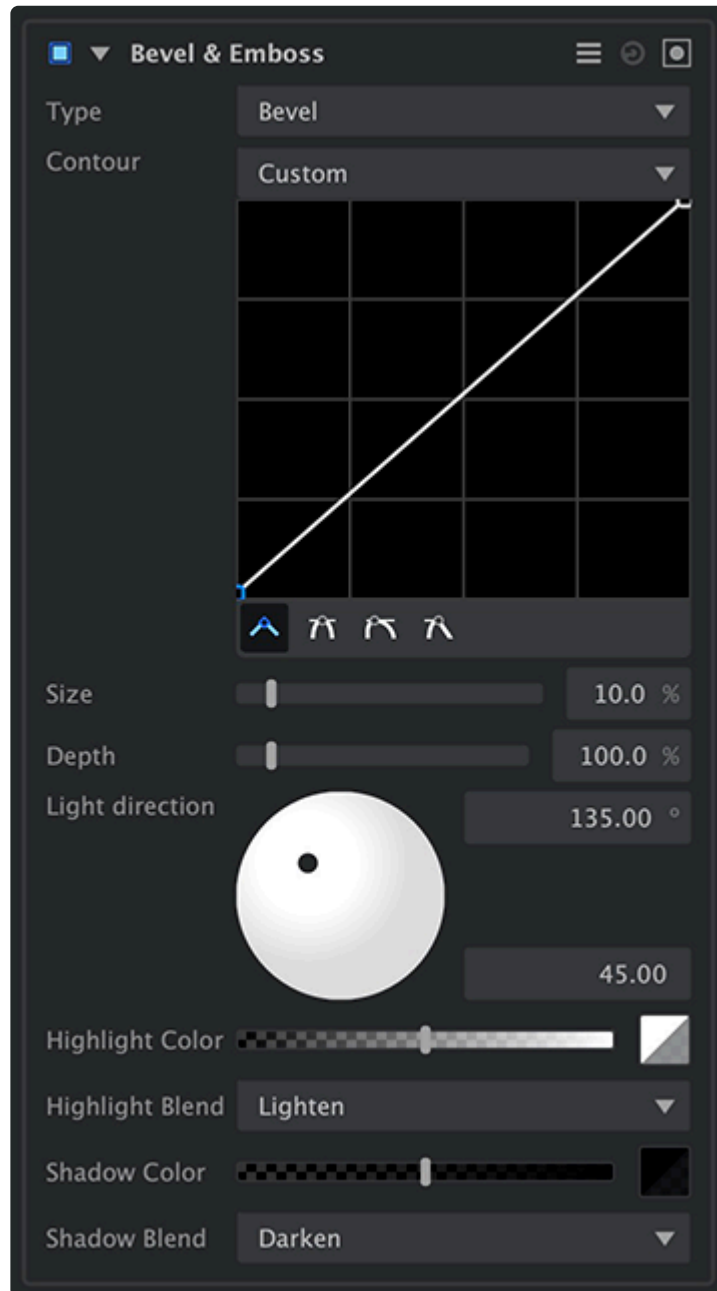
- **Type:** Choose the type of depth which is created.
  - ◦ **Bevel:** The angled edges are created within the visible area of the layer.
  - ◦ **Emboss:** The angled edges are create immediately outside the visible area of the layer, leaving the layer's contents unaffected.
- **Contour:** Select or create the contour used for the angled edges. A variety of common options are

listed in the menu, or you can use the interactive curve to create your own contour. See **Creating Contours**, below, for complete details.

- **Size:** Sets the width of the contoured edge.
- **Depth:** Controls the height of the contoured edge, as depicted by how it interacts with the light position.
- **Light direction:** Choose the direction of the light which illuminates the contoured edges. Drag the black handle in the direction wheel to reposition the light source. Dragging the handle around the edge of the wheel moves the light to the chosen angle. Dragging the handle toward the center of the wheel raises its angle overhead, in relation to the edges. The angle of rotation can also be manually edited from 0º to 359º using the upper numeric field. The angle overhead can be edited from 1º to 90º using the lower numeric field.
- **Highlight color:** Select the color applied to the illuminate areas of the contoured edge. Click the swatch to open a color picker and select any color you desire. Move the slider to adjust the opacity of the color.
- **Highlight blend:** Select the blend mode used to blend the highlight color onto the contoured edges.
- **Shadow color:** Select the color applied to the shadowed areas of the contoured edge. Click the swatch to open a color picker and select any color you desire. Move the slider to adjust the opacity of the color.
- **Shadow blend:** Select the blend mode used to blend the shadow color onto the contoured edges.

Creating contours

The contour of the edges created by the Bevel & Emboss effect is fully customizable. The most common options are created as presets, and can be selected from the Contour menu. The graphic curve will update to show the shape of whichever preset is selected. The curve can also be edited at any time, using any of the presets as a starting point.

- **Adding a point:** Click anywhere within the contour grid to add a point at that location.
- **Moving a point:** Any point can be moved by dragging it with the mouse.
- **Deleting a point:** Right-click any existing point to remove it.
- **Editing a point:** The shape of a line as it passes through a point can be changed using the shape buttons below the grid.
    - **Linear:** This is the default option, where the line segment on each side of the point takes a straight line to the next point.
    - **Mirrored Curve:** The angle at which the line enters the point, and the angle at which it leaves the point are diametrically opposed. The line therefore passes straight through the point at the angle set by the control handle. The length of the handle then adjusts the curve used to connect the point to the next point, and adjustments made to one handle will be mirrored by the other handle.
    - **Asymmetrical Curve:** The angle at which the line enters the point, and the angle at which it leaves the point are diametrically opposed. The length of the handle on each side can be adjusted independently, though, for greater control over the curve.
    - **Unlinked Curves:** The angle and length of each handle can be adjusted independently, so

you can form curves on either side, but still create a corner at the point.

The built-in presets are as follows:

- **Bevel:** A simple 45º angle.
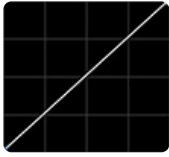
- **Bevelled Ogee:** A concave curve atop a beveled base.
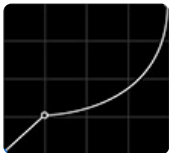
- **Ogee:** An s-curve with vertical ends.
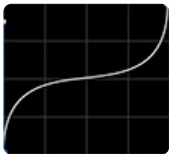
- **Rounded Step:** A convex curved base, with a square edge above.
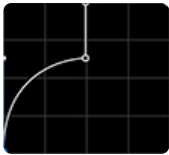
- **Rounded Inwards:** A concave curve.
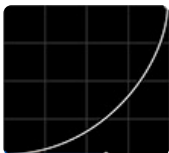
- **Rounded Outwards:** A convex curve.
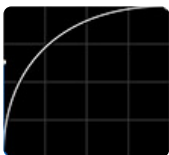
- **Smooth Curved:** An s-curve with horizontal ends.
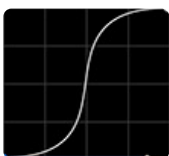
- **Staircase:** A stack of four right angled edges.
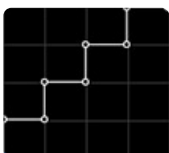
- **Save Preset:** Use this option to save a custom contour for future use. After creating a custom contour, select this option and a dialog will open where you can enter a name for the new contour. It

will then be listed in the Contour menu, and can be selected at any time.

Bleach Bypass

Bleach bypass is a technique originating in film processing, where the bleaching step was completely or partially skipped during development. Bleaching typically serves the purpose of removing silver emulsion from the film. The result is a dramatic image with high contrast and low saturation.
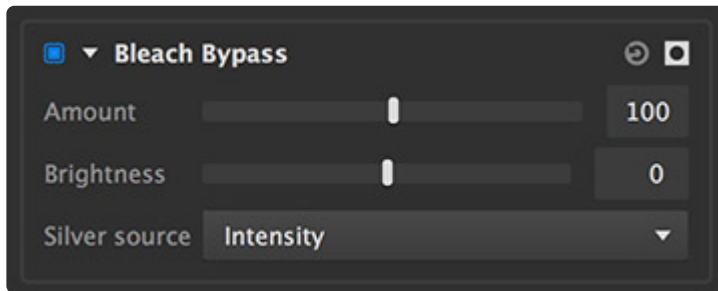
- **Amount:** Defines how much of the original image you see in relation to the bleach bypassed image. Higher values show more of the processed image, and less of the original.
- **Brightness:** Bleach bypass can sometimes make the image darker than desired. This control lets you adjust the brightness to compensate.
- **Silver source:** Choose which channel of the original image is used to generate the bleach bypass effect. Each option will give subtle differences, depending on the colors present in the image.
  - **Luminosity:** Colors are mapped to grayscale values based on their perceived brightness to the human eye.
  - **Lightness:** Colors are mapped to grayscale values based on their brightness relative to a similarly illuminated white.
  - **Intensity:** Colors are mapped to grayscale values based on the average of the RGB components.

Cartoon

Creates a cartoon appearance by dramatically lowering the number of colors in the image, and adding lines to edges.
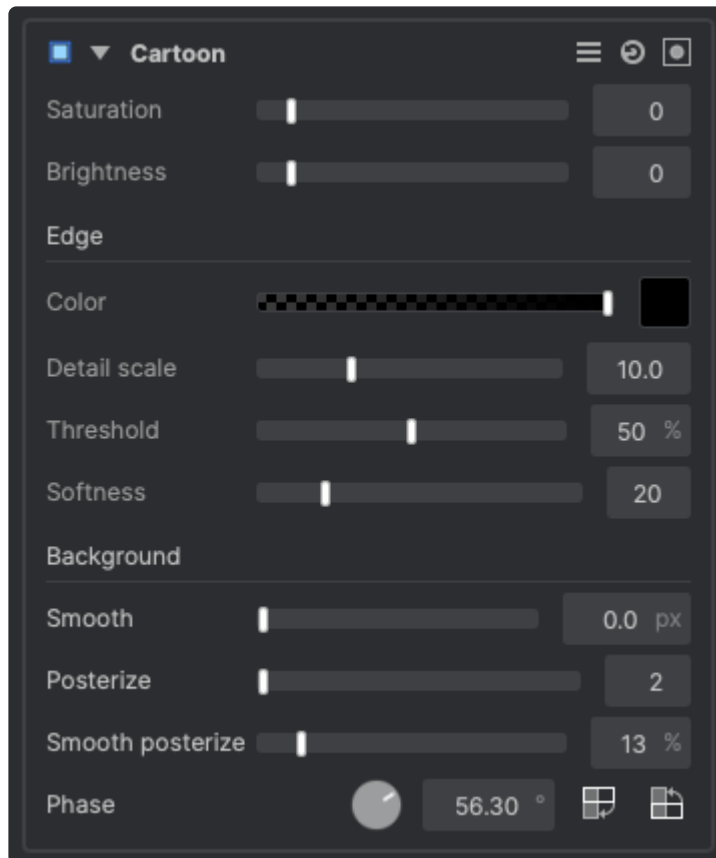
- **Saturation:** Increases (positive values) or reduces (negative values) the saturation of colors in the image.
- **Brightness:** Brightens (positive values) or darkens (negative values) the colors in the image.

Edge

Adding lines to the edges within your image is an effective way of simulating the look of hand-drawn cartoons, which rely heavily on strong lines for their style. You can control the presence and appearance of lines using these controls.

- **Color:** Select the color of the lines added to edge areas. Click the swatch to open a color picker and select any color you desire. Move the slider to adjust the opacity of the color.
- **Detail scale:** Adjusts the minimum size of details which will receive edge lines. Lower values include more edges and create finer lines. Higher values create fewer, heavier edge lines.
- **Threshold:** Sets the minimum contrast threshold at which edge lines will be drawn. Higher values exclude more edges and limit lines to areas of greater contrast.
- **Softness:** Feathers the selected edge areas before lines are drawn.

Background

Averaging areas of similar color down to a single color value, a process called posterization, creates the blocky color style we associate with cartoons. The number of colors and how they are blended can be adjusted using these controls.

- **Smooth:** Applies a blur to the posterized image. Higher values create more blur.
- **Posterize:** Specify the number of distinct color values that will appear in each color channel. This is not the total number of colors in the final image, due to the multiple combinations possible with three color channels.
- **Smooth posterize:** Softens the transitional areas between posterized values, creating more subtle transitions between colors.
- **Phase:** Shifts the phase of the posterization within each color channel.

Emboss

The emboss effect generates the appearance of an image embossed into a paper surface, then illuminated using a directional light source.
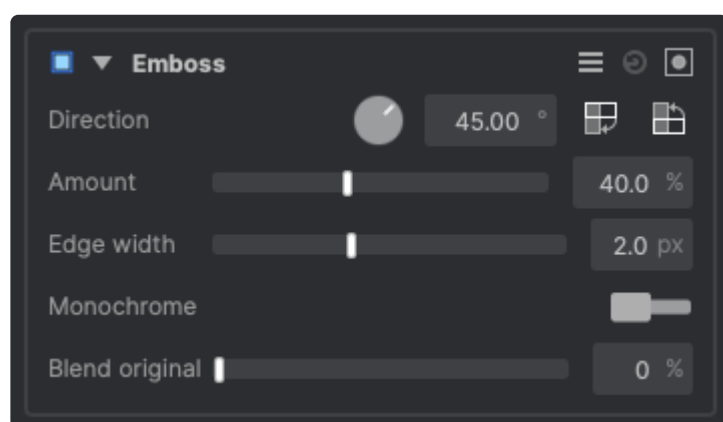
- **Direction:** Sets the angle of illumination for the effect, determining which edges are shadowed and which edges are illuminated.
    - **Rotate 90° clockwise:** Use this button to quickly rotate the illumination in a clockwise fashion, in precise 90° increments.
    - **Rotate 90° counter-clockwise:** Use this button to quickly rotate the illumination in a counter-clockwise fashion, in precise 90° increments.
- **Amount:** Adjusts the depth of the embossing.
- **Edge Width:** Defines the width of the edges. Higher values give the effect more weight.
- **Monochrome:** Disable this option to allow the original colors of the layer to be illuminated within the edges. Enable it to use only greyscale values, and not include any of the original coloring.
- **Blend Original:** Adjusts how much of the original layer is visible through the effect. Higher values reveal more of the original layer.

Halftone

Halftone replicates the appearance of vintage newsprint, where differences in tone are created by the relative size of the dots making up the print.
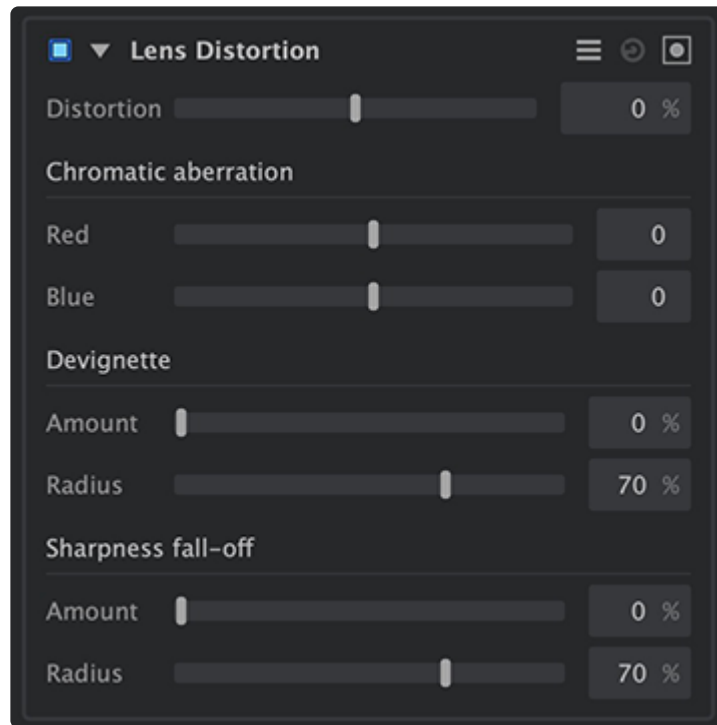
- **Resolution:** Defines the number of dots which will be used to represent the image, horizontally.
- **Background Color:** Choose a color for the spaces between the dots. You can use the eyedropper to choose a color from the layer, or click the swatch to open a color picker and choose any color you prefer. You can also manually enter the color values for the red, green, and blue channels.
- **Layers:** Specify the lumber of halftone layers used. Standard CMYK printing uses four layers.

Per Layer controls

- **Mode:** Selects the channel of the source image which is used as the source of the halftone map.
  - **Luminance:** Creates a halftone representation of the luminance of the image. This option is best used with a single channel, for a monochrome halftone.
  - **Red, Green, Blue Channel:** When creating an RGB halftone image, you can use three layers, assigned to these three channels, to create your final color image.
  - **Cyan, Magenta, Yellow, Black Channel:** When creating a CMYK halftone image, you can use four layers, assigned to these four channels, to create your final color image.
- **Invert:** Fills the dots with the background color, and the background with the dot color, to invert the layer.
- **Dot Color:** Choose a color for the dots. Click the swatch to open a color picker and choose any color you prefer. Use the slider to adjust the opacity of the color selection.
- **Shift:** Shifts the grid of dots along the horizontal (X) axis or the vertical (Y) axis.
- **Threshold:** Determines the maximum pixel brightness which will be included in the halftone. Pixels brighter than the threshold will be excluded, and filled with the background color.
- **Strength:** Sets the overall intensity of the layer. Decreasing the strength decreases the size of every dot in the layer.
- **Angle:** Sets the angle of each vertical line of dots.

Leave Color

Desaturates the entire image, except for a specific color range of your choice.
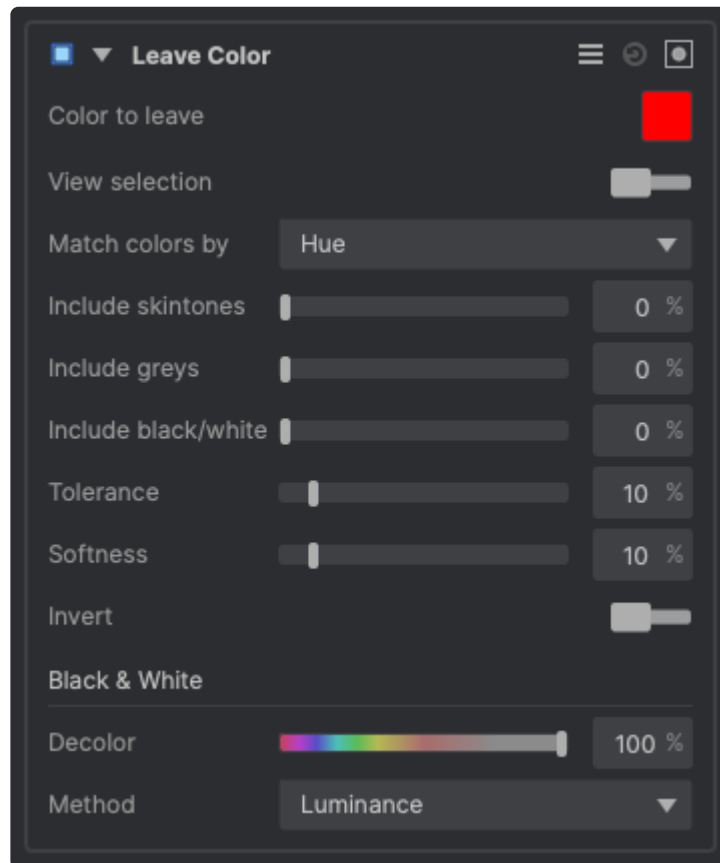
- **Color to leave:** The color which will not be desaturated is indicated by the swatch. Click the swatch to edit the color.
- **View selection:** Enable this option to see a black and white overlay, where white indicates areas where the selected coior is present.
- **Match colors by:** Select the method used to evaluate the colors in the image for a match to the selected color.
  - **Hue:** Uses a standard RGB hue comparison.
  - **Lab:** Uses LAB colorspace to evaluate the colors and determine the selection area.
- **Include skintones:** Allows you to add skintones to the selection, even if they are outside the selected color range.
- **Include greys:** Expands the color selection to include more midrange tones with low saturation values.
- **Include black/white:** Expands the color selection to include highlight and shadow areas with low saturation values.
- **Tolerance:** Extends the color selection, to include a wider range of colors bordering on the selected color.
- **Softness:** Feathers the selected color range to soften the edges of the color areas.
- **Invert:** Enabling Invert removes the selected color, and leaves all other colors unaffected.

Black & White

- **Decolor:** Specify how much the color data is reduced in the image.
- *Method:*Select the method used to generate the greyscale image used outside the selected color range.
  - **Luminance:** The luminance value of each pixel is used to map its grayscale value.
  - **Intensity:** The intensity of each pixel is used to map its grayscale value.
  - **Lightness:** The lightness of each pixel is used to map its grayscale value.
  - **Black:** All areas outside the color selection are filled with black.
  - **Red channel:** The red channel of the image is used as the grayscale map for areas outside the color selection.
  - **Green channel:** The green channel of the image is used as the grayscale map for areas outside the color selection.
  - **Blue channel:** The blue channel of the image is used as the grayscale map for areas outside the color selection.

Mosaic

Creates a tiled mosaic appearance by dividing the image into tiles, averaging a color for each tile, then adding lighting give the tiles depth.
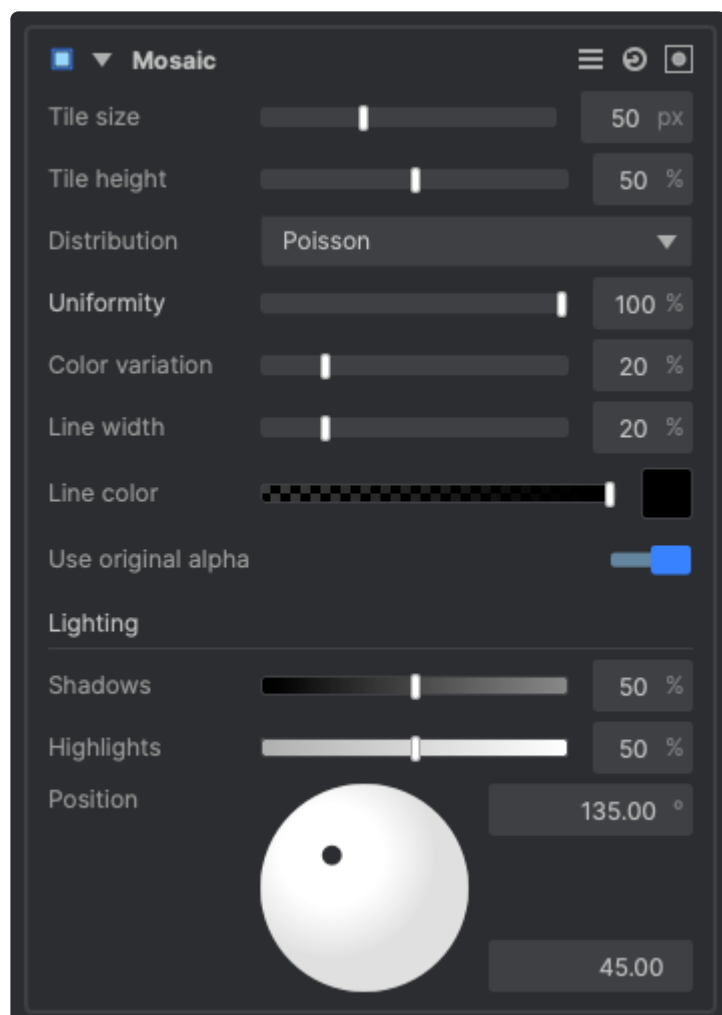
- **Tile size:** Defines the base tile size, in pixels.
- **Tile height:** Sets the height of each tile. Larger height values create a wider beveled edge around each tile.
- **Distribution:** Select the distribution method used to place the tiles. It is easiest to view the starting point of each distribution method if you set the Uniformity slider below to 100%
  - **Poisson:** Distributes tiles in an organic, non-linear pattern, with some variation in the exact size and shape of each tile. Most tiles will have five or six sides.
  - **Square:** Distributes square tiles in a grid.
  - **Hexagonal:** Distributes six-sided tiles in a honeycomb pattern, with straight vertical lines.
- **Uniformity:** Adjusts the variation in shape and size from one tile to the next. The higher the value, the more uniform all tiles will be.
- **Color variation:** Adjusts how much the color of each tile will vary from the source image. At 0%, each tile will be filled with the average color of all pixels located within the tile's area.
- **Line width:** Sets the width of the lines in between tiles, which simulate the grout which would hold an actual mosaic together.
- **Line color:** Choose the color for the grout lines. Use the slider to adjust the line opacity, and click the color swatch to open a color picker and select any color you desire.
- **Use original alpha:** Disable this toggle to allow the natural shape of tiles to extend beyond the alpha of the source layer. When enabled, all tiles along the edge will be trimmed to exactly follow the alpha

edge.

Lighting

- **Shadows:** Sets the opacity of the shadowed tile edges.
- **Highlights:** Adjusts the opacity of the specular highlights on each tile. Reducing this value makes the tiles less shiny.
- **Position:** Define the positioning of the virtual light used to illuminate the tiles. The center of the circle represents a light position directly above the tiles. Drag the control handle toward the edge to create a more directional light, from any angle of your choosing.

Pixelate

Takes the image and applies an effect which looks like it was lower resolution and has been dramatically increased in size. Common use cases for it include hiding the identities of faces or number plates on cars.
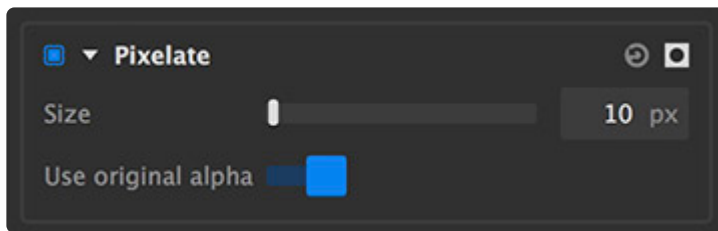
- **Size:** Determines how big you want each pixel to be. It will then take the average color of the original pixels that was below them.
- **Use original alpha:** Allows you to not pixelate the alpha channel, but instead use the original alpha. This is useful if you want to pixelate the edges of say text.

Here is an example of the effect in action on a photo:
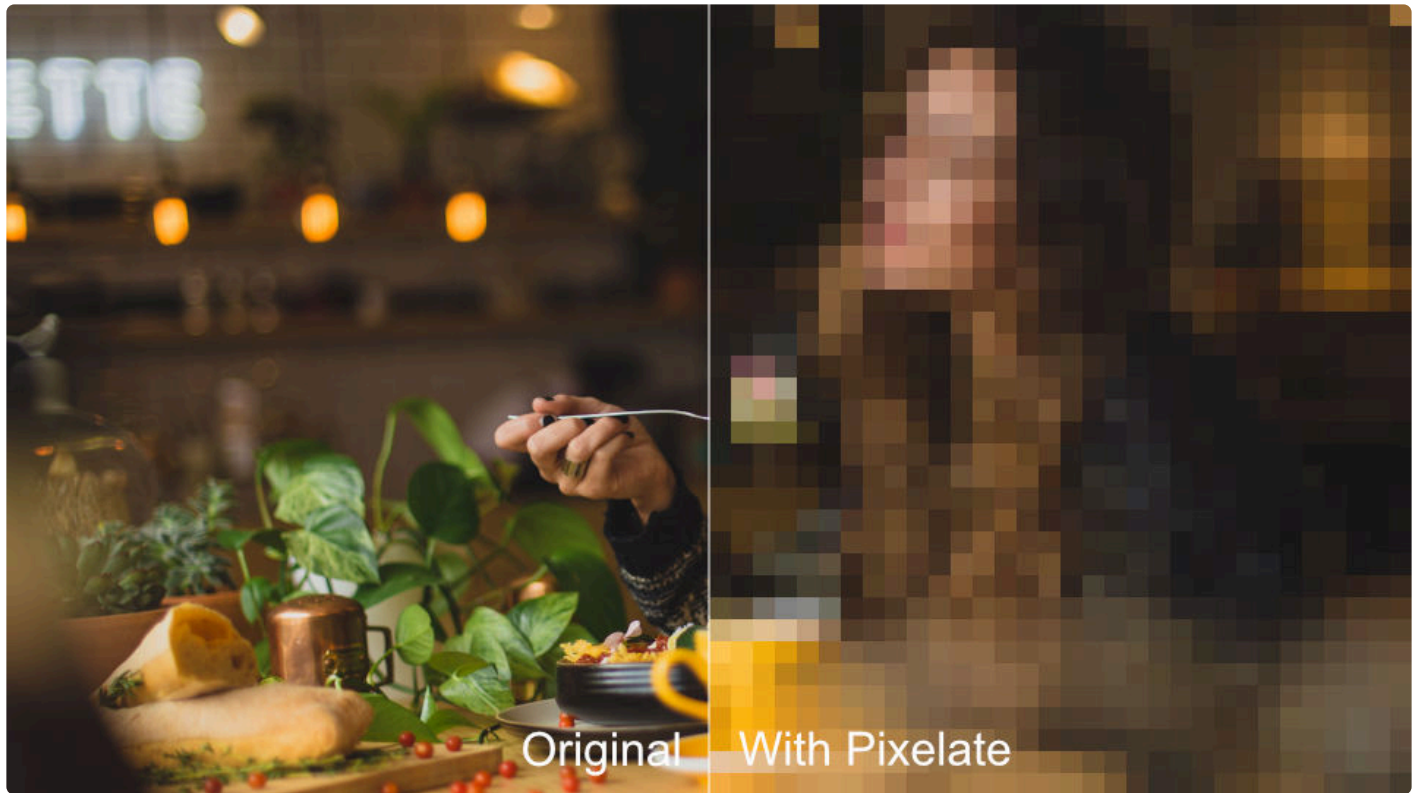
In the example below you will see pixelate applied to two pieces of text. On the left the **Use original alpha** is on. This means it will not pixelate the alpha channel and since the text has a solid color you do not see any difference over the original text. On the right you will see it with the **Use original alpha** off meaning it will pixelate the alpha channel and the edges of the text get pixelated as a result:

Posterize

Posterization is the process of reducing gradients into a small number of distinct color steps.
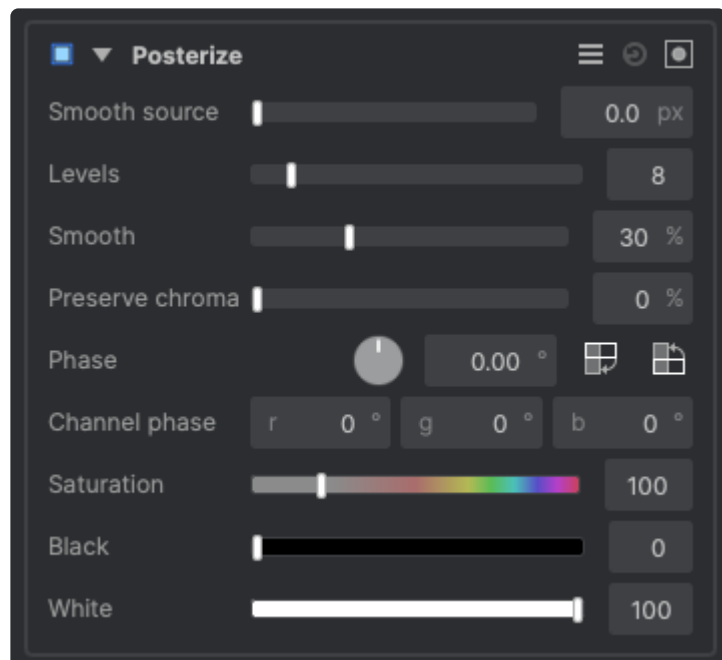
- **Smooth source:** Applies a blur to the source image, before the colors are posterized. Higher values create more blur.
- **Levels:** Specify the number of distinct color values that will appear in each color channel. This is not the total number of colors in the final image, due to the multiple combinations possible with three color channels.
- **Smooth:** Softens the transitional areas between posterized values, creating more subtle transitions between colors.
- **Preserve Chroma:** Determines to what degree the original chroma values are retained.
- **Phase:** Shifts the phase of the posterization effect.
- **Channel Phase:** Shifts the phase of the posterization within each individual color channel.
- **Saturation:** Adjusts the saturation of colors in the image.
- **Black:** Sets the threshold below which all values will be converted to black.
- **White:** Sets the threshold above which all values will be converted to white.

Solarize

Solarization is a behavior sometimes observed in overexposed traditional photography, wherein the brightest tones in an image are inverted. It was first observed in photographs of the sun, which is what led to the name.
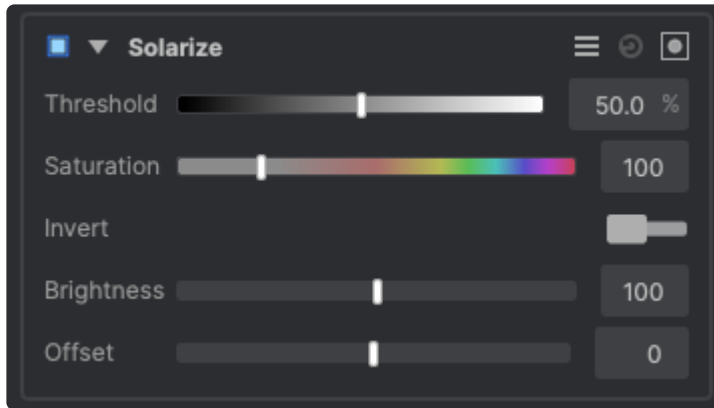
- **Threshold:** Sets the threshold above which tonal values will be inverted.
- **Saturation:** Adjusts the saturation of colors in the image.
- **Invert:** Inverts the result of the effect.
- **Brightness:** Brightens or darkens the colors in the image.
- **Offset:** Shifts the entire range of tonal values up or down. Values shifted beyond pure black or pure white will be clipped.

Threshold

Converts the image to a two-tone color scheme, by colorizing the darkest areas to one color, and the brightest areas to another color.
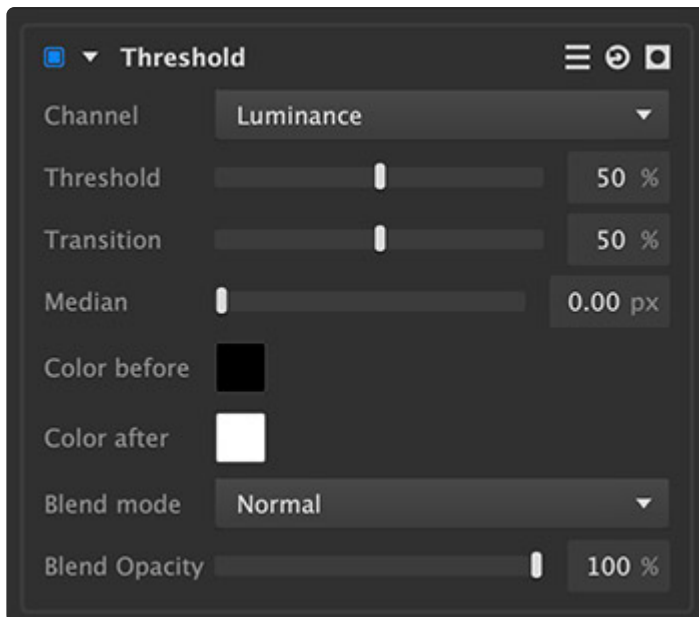
- Channel: Choose the image channel that will be used to calculate the threshold.
- Threshold: Select the tonal value at which the split between the two colors will occur. Areas darker than the threshold will be filled with the shadow color. Areas brighter than the threshold will receive the highlight color.
- Transition: Softens the transition from one color to the other, centered at the threshold value.

- Median: Averages the values of the layer contents, to reduce noise in the transition area created by fine detail or contrast.
- Shadow Color: Choose the color that will be assigned to areas below the selected threshold. Click the swatch to open a color picker.
- Highlight Color: Choose the color that will be assigned to areas above the selected threshold. Click the swatch to open a color picker.
- Blend mode: Choose the blend mode that is used to blend the results of the threshold onto the layer.
- Blend opacity: Adjust the opacity of the rendered threshold effect. Reducing the value will allow more of the underlying layer to be visible.

Last modified: Dec 29, 2021

6.13. Tone effects

Clarity

This effect allows you to manipulate the local contrast in an image.
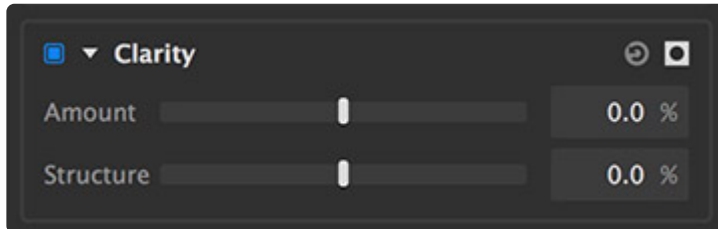
- **Amount:** Manipulates the contrast between larger areas or surfaces in the image. Increasing the value boosts contrast in these areas, decreasing reduces the contrast in these areas.
- **Structure:** Manipulate the contrast of the fine details in the image. Increasing the value increases the contrast in these areas, decreasing removes the contrast effectively smoothing things. It acts like a mostly artifact and halo free sharpen for very fine details. It works particularly well on textures like fabrics and facial hair.

Here is an example image showing the effects of the clarity amount slider:
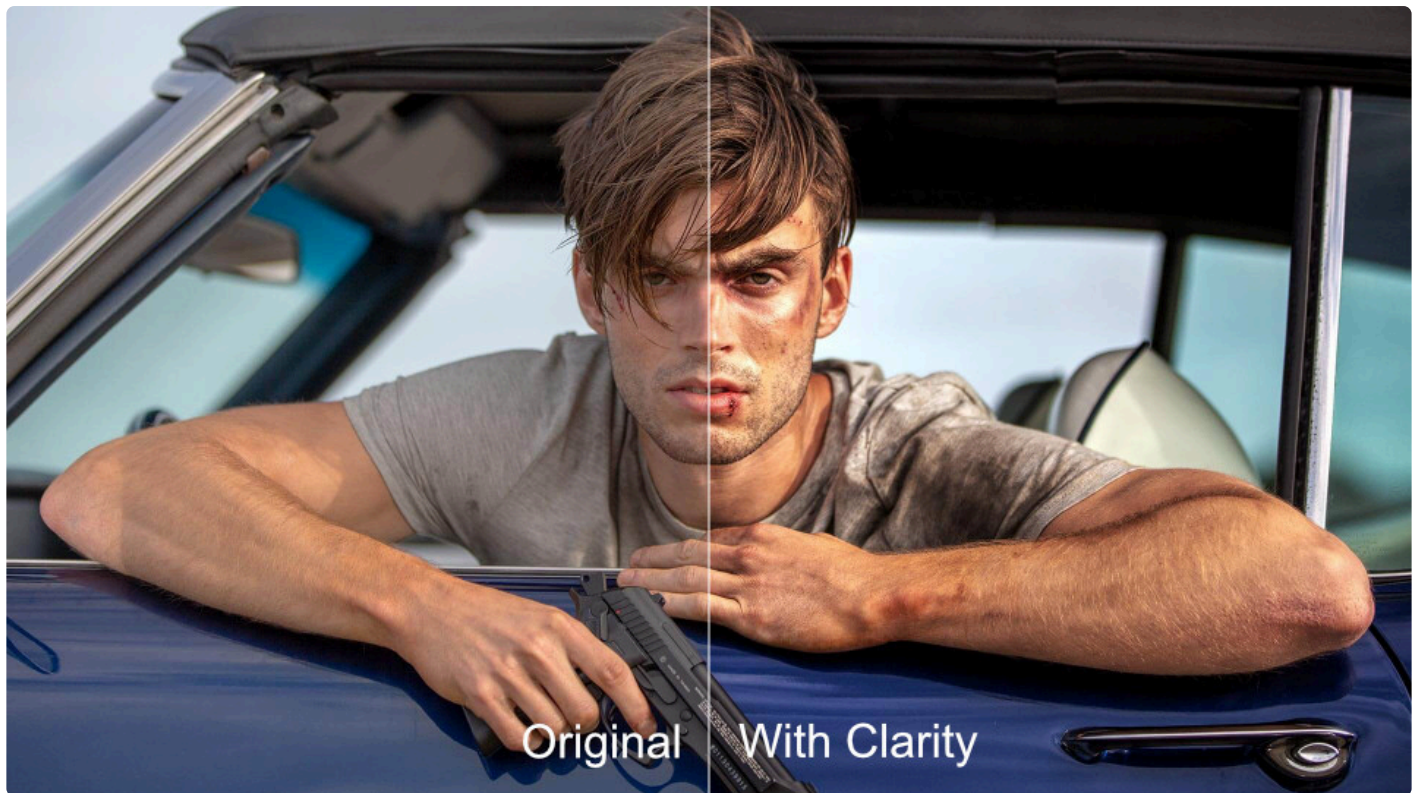
Here is an example of an image which uses the structure slider to manipulate the fine details like skin pores

and facial hair. First we can emphasize these details by using a positive amount:

Original   With Structure at +100

We can also decrease the structure to smooth details:

Original   With Structure at -50

Curves

Curves are a powerful tool for adjusting colors and tones within your image. The graph displays a histogram of all the values present in the currently selected channel. The diagonal line is the curve you will edit, and it represents the relationship between the input values and output values of your image.

- **Color Space:** Select the color range in which the curve adjustments are calculated.
    - **RGB:** The default option, shown here, displays the image using Red, Green, Blue, and Alpha channels.
    - **HSV:** Provides curves for the Hue, Saturation, Value, and Alpha channels.
    - **YUV:** Provides curves for Luminance (Y), Blue projection (U), Red projection (V), and Alpha channels.
    - **LAB:** Provides curves for Luminance (L), Green-to-Red (A), Blue-to-Yellow (B), and Alpha channels.
    - **CMYK:** Provides curves for the Cyan, Magenta, Yellow, Black, and Alpha channels.
- **Channel selector:** Choose the channel(s) that you wish to edit. The available options will vary based on what color space you are working in.
    - **RGB:** Averages the RGB values together, and creates a curve based on those averages.
    - **R:** Select the red channel alone.
    - **G:** Select the green channel alone.
    - **B:** Select the blue channel alone.
    - **A:** Select the alpha channel of the image.
- 🖊 **Pick tone:** You can click anywhere on the curve to add a point for adjustment. You can use the pipette to select a specific tone from your image. Click the pipette icon to enable the tool, then click the color in the image which you want to adjust. When you click, you can drag upward or downward while the mouse button is held down, to dynamically adjust the curve for that tonal value.

- **Sample size:** Use the triangle next to the pipette to access the sample size menu. The selected hue will be an average of the pixel area you choose. Smaller samples allow for more precise selections, while larger samples allow you to select a broader hue range for adjustment.
- **Curve graph:** The graph displays a histogram of all the values present in the currently selected channel. The diagonal line is the curve you will edit
    - **Black point:** The point which originates at the bottom left corner of the graph represents black. Drag the point right to darken the blacks in your image, and drag it upward to lighten the blacks.
    - **White point:** The point which originates at the top right corner of the graph represents white. Drag the point left to brighten the whites in your image, and drag it downward to darken the whites.
    - **Additional points:** In most cases you will want additional points to edit the midtones in your image. The most common curves adjustment is an s-curve to improve contrast, where one point is added about 1/4 of the way up the diagonal line, and shifted slightly downward, and a second point is added about 3/4 of the way up the diagonal line, and shifted slightly upward.
- **Pick black:** Click-drag the pipette to an area in your image that should be true black, to set the black point.
- **Pick white:** Click-drag the pipette to an area in your image that should be true white, to set the white point.

Dehaze

This allows you to remove haze from your exterior images of distant objects. Sometimes particles in the atmosphere between the camera and distant objects will reflect the light, causing those objects to become washed out. Dehaze is particularly effective on hazy skies or fog. It works by estimating the distance each item in your image is from the camera at the time of shot and adds or removes white based on this distance along with the amount you specify.
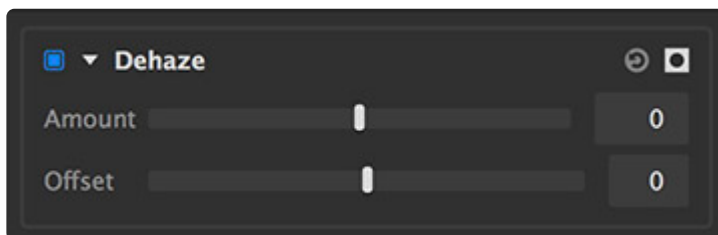
- **Amount:** How much haze to remove (positive value) or add (negative value).
- **Offset:** Sometimes dehazing can result in color artifacting in blown out skies (usually yellow and magenta), this lets you tweak those to make them white again.

Here is an example of this effect in action. On the left side is the original image with quite a lot of haze. On the right side is the image after being put through the dehaze effect:

Original | With Dehaze
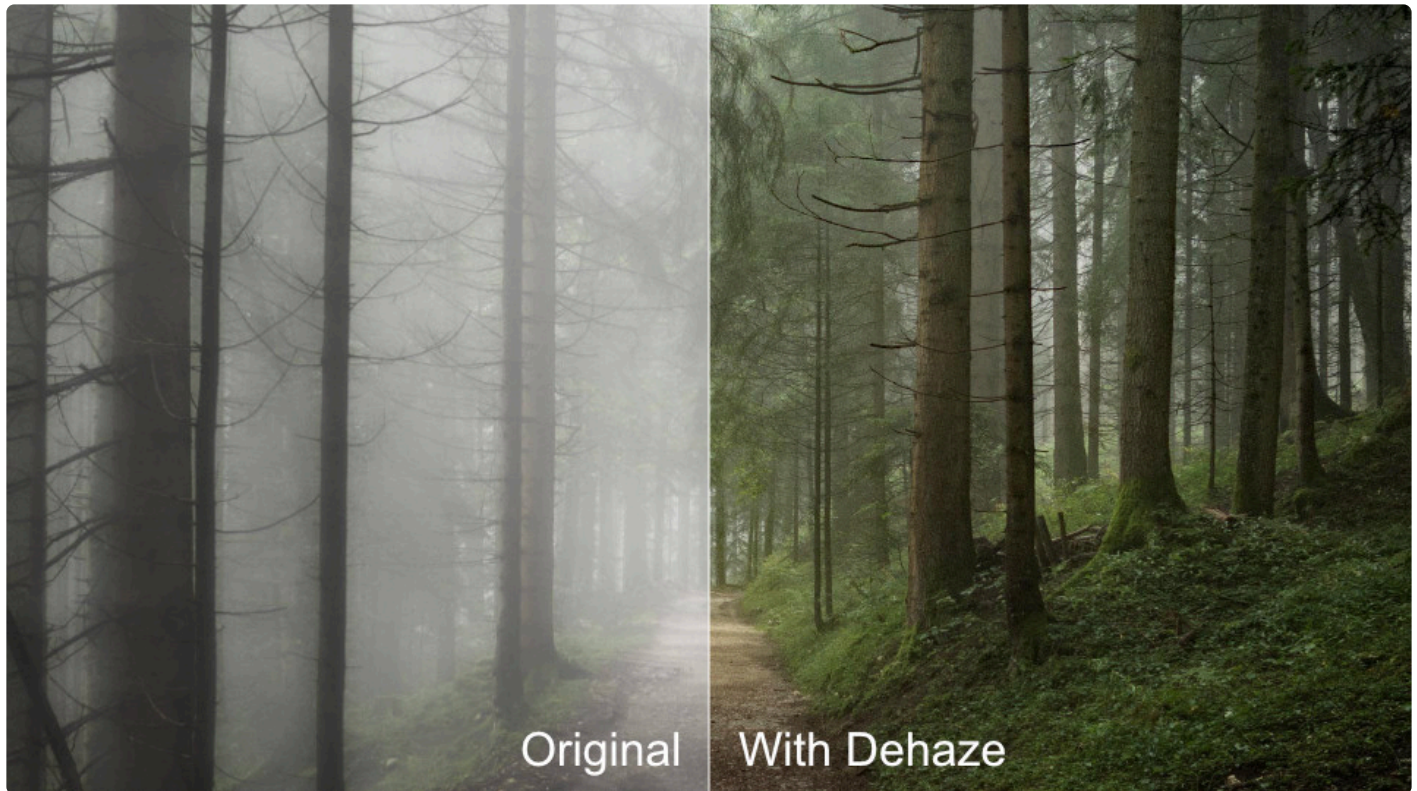
Dynamic Contrast

Dynamic Contrast is a powerful tool for bringing out the details in your image and improving depth by adding separation to different elements. Localized contrast can be adjusted independently for fine detail, medium detail, and large detail. Dynamic Contrast is particularly useful for landscapes, but can be used effectively to enhance other types of images as well.

- **Small:** Adjusts localized contrast for the fine details in your image. Positive values increase contrast to make the details sharper, while negative values reduce contrast.
- **Medium:** Adjusts localized contrast for the medium details in your image. Positive values increase contrast to make the details sharper, while negative values reduce contrast.
- **Large:** Adjusts localized contrast for the larger details in your image. Positive values increase contrast to make the details sharper, while negative values reduce contrast.

Exposure

Allows you to change brighten and darken various tonal areas of your image and affect the saturation.
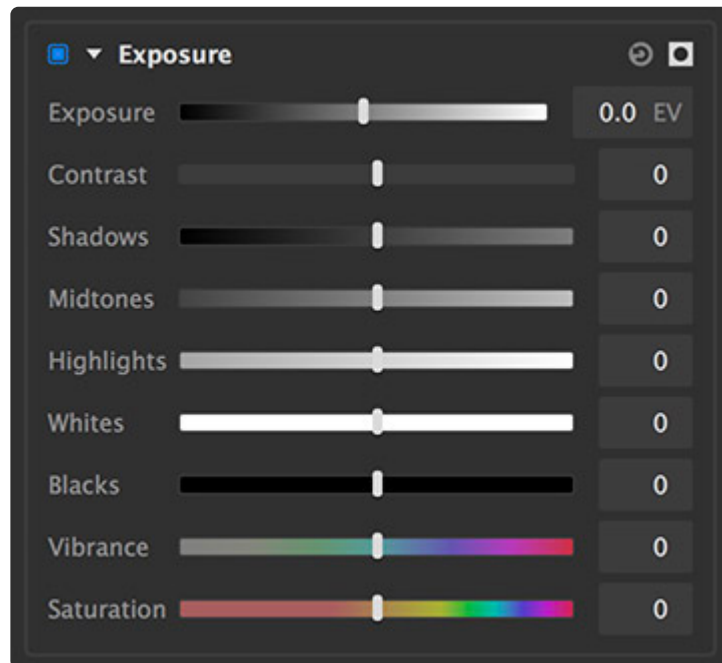
- **Exposure:** This either brightens or darkens the entire image. It does so in such a way where every stop (EV) is a doubling (when increasing) or halving (when decreasing) of the brightness. This better matches the behaviour of exposure in cameras.
- **Contrast:** This increases the difference between the brightest and darkest pixels in your image by stretching its histogram.
- **Shadows:** Brightens or darkens the darkest areas of your image. On a histogram this corresponds to the area on the left.
- **Midtones:** Brightens or darkens the areas not considered shadow or highlights. On a histogram this corresponds to the middle area.
- **Highlights:** Brightens or darkens the brightest areas of your image. On a histogram this corresponds to the area on the right.
- **Whites:** Changes the white point of an image.
- **Blacks:** Changes the black point of an image image.
- **Vibrance:** This increases the intensity of color but protects skintones and is aware of how saturated things are already putting less increase on already saturated colors.
- **Saturation:** This increases the intensity of color across your entire image.

Levels

Levels gives you detailed information about the channel composition of the layer through the use of a Histogram Display. This allows you to make adjustments to the tonality of the layer based on this information. A Histogram is a graph which allows you to quickly see at a glance the exact range of tonal values in the image. The histogram gives you a more accurate way to assess colors and tones than by eye,

as humans can perceive them slightly differently.

The tones in the histogram represent pure black on the left and pure white on the right. For colors this translates to how saturated each channel is. The height of the graph at any point indicates the relative frequency of that specific tone in the image.
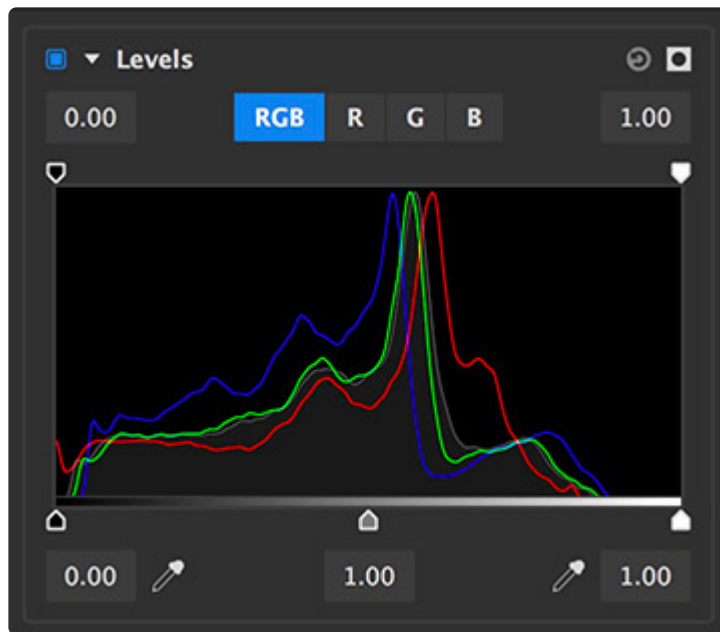
- **Channel selector:** Allows you to view and manipulate specific channels in isolation or all together.
    - **RGB:** Views all the R, G and B channels and manipulates all of them evenly. In addition it will show luminance channel as a grey line (which represents brightness).
    - **R:** Views and manipulates just the red channel.
    - **G:** Views and manipulates just the green channel.
    - **B:** Views and manipulates just the blue channel.
- **Set output white:** Offsets the white point of the image from 1.0 to the selected value. This is useful for lightening the shadows in the image.
- **Set output black:** Offsets the black point of the image from 1.0 to the selected value. This is useful for reducing the brightness of the highlights in your image.
- **Set input black:** Some images may not have any tones at the black end of the chart. This can usually indicate something is overexposed or lacks contrast. You can set the input black and it will be mapped onto the output black. If you only change the input black this will map a grey tone to black which essentially stretches the histogram.
- **Set output gamma:** Redistributes the midtones between the defined input black and input white. Moving gamma to the left will brighten, and to the right will darken.
- **Set input white:** Some images may not have any tones at the white end of the chart. This can usually indicate something is underexposed or lacks contrast. You can set the input white and it will be mapped onto the output white. If you only change the input white this will map a grey tone to white which essentially stretches the histogram.

Tone Map

The Tone Map effect is designed for processing the expanded tonal range of merged HDR images. But it can be used on ordinary images as well.
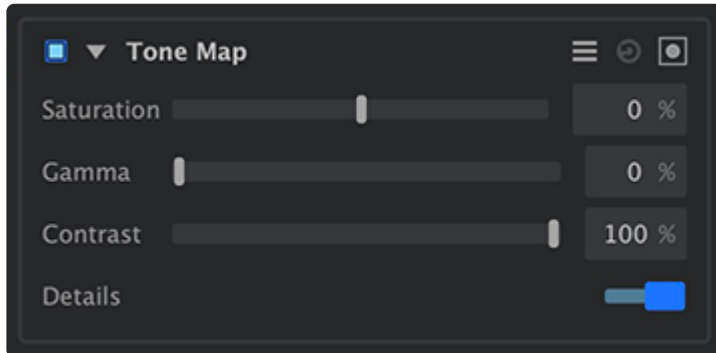
- **Saturation:** Adjusts the range of saturation available in the image.
- **Gamma:** Changing the gamma modifies the brightness and contrast of the image.
- **Contrast:** Alters the range of available contrast in the image. Decreasing the contrast tends to lower the brightness of the highlights.
- **Details:** Adds micro-contrast to enhance the edges of details within the image. Disabling the option displays the unaltered detail.

Last modified: Dec 24, 2021

7. Exporting

When your project is completed, you will want to export it to create a new image that can be viewed outside of Imerge. If you think of your project file like a recipe, storing a list of all the ingredients and instructions to construct your composite, exporting is like actually baking the cake, and renders all the layers in your project, with all adjustments applied, to create a new image.

How to export

There are several ways to export images from Imerge.

- **Export canvas:** Immediately exports a single image of what you are currently seeing on the canvas.
- **Batch export:** Allows you to export large batches of images all at once, or to queue multiple images or multiple projects for later export.
- **Hot folder export:** When working with hot folder import in a live event settings, you can also set up hot folder export, for a fully automated workflow.

Export Canvas

The most common method of exporting is to render a single image of the what you currently see on the canvas. This is accomplished using the export canvas function. There are multiple ways to access this function, so you can use whichever is most convenient for your current situation.

- **Export canvas button:** In the top toolbar, click the export canvas button to export the current canvas.
- **Keyboard shortcut:** Press **CTRL+E** on your keyboard (**CMD+E** on Mac) to export the current canvas.
- **Project menu:** Open the **Project menu** and select **Export** to export the current canvas.
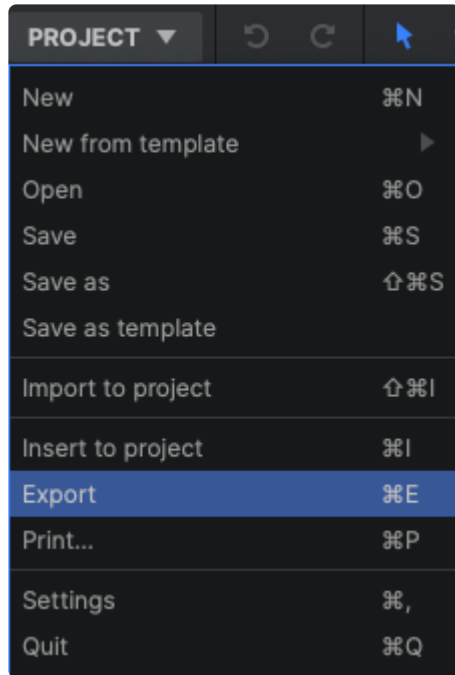
Selecting any of these options will open the Export canvas dialog.

The Export canvas dialog

The details used for your exported image are selected here.
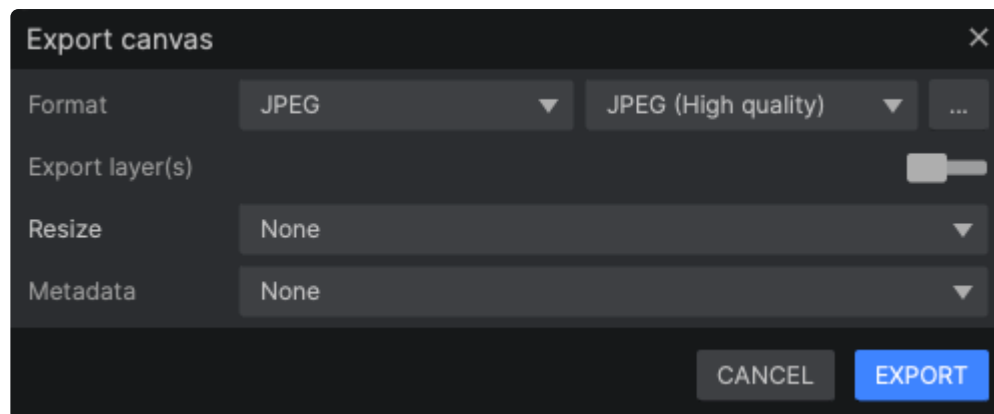
- **Format:** Choose a format for your exported image.
    ◦ **JPEG:** A universally compatible 8-bit format which combines small file sizes with acceptable image quality.
    ◦ **PNG:** A widely compatible format which supports alpha channels and transparency. PNG supports 8-bit or 16-bit color.
    ◦ **TIFF:** A high quality format which is popular for image editing. TIFF supports alpha channel transparency, and 8-bit or 16-bit color.
    ◦ **EXR:** A high quality intermediate format, which supports 16-bit or 32-bit color.
    ◦ **HDR:** A high quality 32-bit format designed specifically for storing images with high dynamic range.

- **HitFilm Comp:** Exports the project for use within HitFilm. Rather than creating an image, this image converts the project to a HitFilm comp, allowing you to retain all layers and adjustments for further editing in HitFilm Express or HitFilm Pro.
    - **Export mode:** Determines how the layers in the project are handled.
        - **All (individually):** All layers in the project are included as HitFilm layers in the exported HitFilm composite shot.
        - **Selected layer(s):** Only the selected layers are included in the exported HitFilm composite shot.
    - **Use canvas size:** Enable this option to export all layers at the canvas size. Layers smaller than the canvas will be filled with transparency around the image, so they match the canvas size. Layers larger than the canvas will be trimmed, and any area outside the canvas will be removed. When this option is disabled, each layer will use its original size.
   - **Full composite:** Enable this option to include a rendering of the complete Imerge project, in addition to the individual layers.
    - **Flatten groups:** Enable this option to flatten all groups in the Imerge project into single layers in the exported HitFilm composite shot.
  - **PSD/PSB:** The Photoshop Document format is based on the TIFF format. It supports alpha channels, and 8-bit or 16-bit color. For images over 2GB in size, or greater than 30,000 pixels in either dimension, the PSB (Photoshop Big) format is used.
  - **Preset:** The preset menu to the right of the format lists presets for specific quality and compression settings within that format.
  - **… (Settings):** The settings menu provides full access to the settings for the chosen format, and allows you to create your own presets for future use.
- **Export layers(s):** Toggle this control to specify whether the layers of your project are exported individually.
  - **Disabled:** The project is flattened into a single layer for export, so you get a single image containing the entirety of your canvas as it is shown in Imerge Pro.
  - **Enabled:** Each layer of your project is exported as a separate image.
- **Resize:** Define the size of your exported image.
  - **None:** The canvas size is used, without modification.
  - **Width & Height:** Specify an exact width and height for the exported image. This works best for batches where all images use a single orientation (portrait or landscape).
  - **Megapixels:** Specify a total image resolution in megapixels. The aspect ratio of the canvas will be used.
  - **Percentage:** Define the export size as a percentage of the canvas size.
  - **Long edge:** Define the length, in pixels, of the longer edge of the image. This is useful for batch exports which include images in both portrait and landscape orientation.
  - **Short edge:** Define the length, in pixels, of the shorter edge of the image. This is useful for batch exports which include images in both portrait and landscape orientation.
- **Metadata:** For formats which support metadata, use this option to select what metadata is included in the export.
  - **None:** All metadata from the original images is excluded.
  - **Use overrides from settings:** The metadata specified in your Imerge settings is added to the exported image.

◦ **Image:** The original metadata from the imported image is used.

Batch Export

Batch export is useful for any situation where you want to export more than one image. Applying a specific set of adjustments to a large number of images, exporting a single composite to multiple image formats, Or compositing multiple greenscreen images onto preselected backgrounds, are a few instances of situations where batch processing is useful.

All batch export controls are accessed in the batch tab. The batch tab is accessed by clicking the Batch button at the top right of the Edit screen: When you click the batch button, the layer sidebar will be replaced by the batch tab, which displays all the controls used to define the format, compression, and naming used when images are exported.
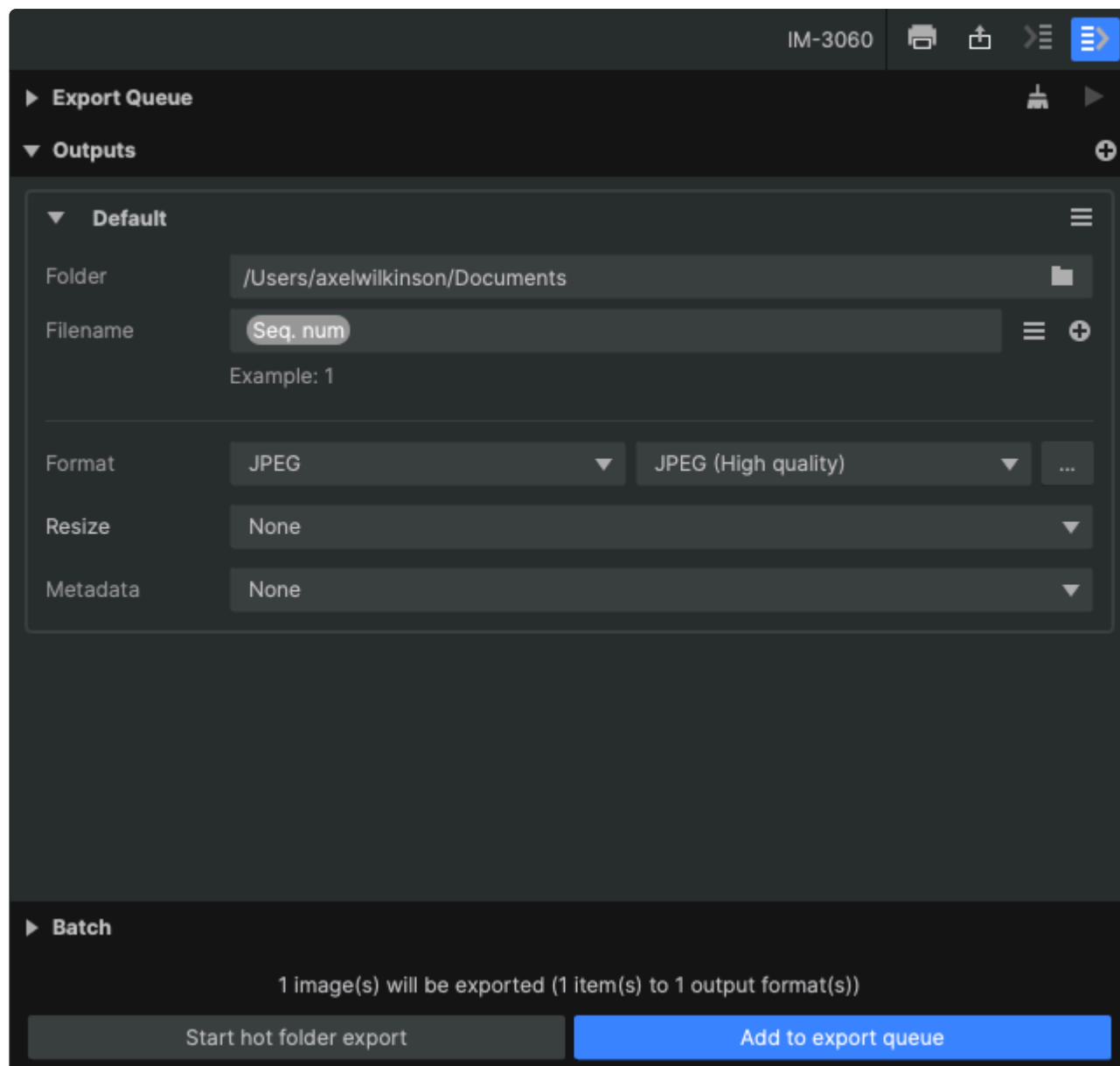
The batch tab is divided into three sections, each of which can be opened by clicking on its title bar:

- **Export Queue:** The export queue lists all export jobs, both pending and completed, and the images included in each. The queue can be set to start exporting as soon as they are queued, or you can add multiple jobs and products to the queue and export them all at a later time of your choosing.
- **Outputs:** The Outputs section lists the specific formatting options which will be used for export. Multiple outputs can be configured, to create multiple versions of each image in the job.
- **Batch:** Here is where you manage which images or layer combinations from your project are included in the export batch.

Last modified: Dec 24, 2021

7.1. The Export Queue

The export queue

The queue displays all export jobs waiting to be processed, as the progress of any ongoing exports. It also shows completed jobs, until you remove them.

The buttons in the export queue header bar are used to manage the items in the queue.

- **Remove finished jobs:** Deletes all jobs currently in the queue which have been completed.
- **Start/Resume:** When the queue is inactive, you will see this start button. Click it to begin processing all jobs in the queue marked Ready. Jobs are processed from the top of the list downward.
- **Pause:** When the queue is active, you will see a pause button instead of the start button. Click it to start processing all jobs in the queue.

The queue

Details of each export job are shown in the queue.

- **Name:** The name of the job is the project where it originates.
- **Type:** The icon shown here indicates what type of export the job involves.
  - **Single export:** Indicates a canvas export, a single image containing the image which was

visible on the canvas when the job was created. Single exports are added to the queue from the Edit tab, and process immediately.

- ◦ **Batch export:** Indicates an export job containing one or more images, added to the queue from the Batch tab.
- **Progress:** Shows the current status of the job or item.
  - ◦ **Ready:** Indicates an export job which has been queued, and everything is ready for export to begin.
  - ◦ **Waiting:** Indicates an image waiting for its turn to be exported.
  - ◦ **1/1:** Shown on jobs which are currently being exported.The digits will vary, but indicate the progress of the export. The first number is how many images in the job are completed, and the second number is the total number of images in the job.
  - ◦ * Rendering:* Indicates an image which is currently being processed. A blue progress bar behind the text dynamically updates to show the progress of the export.
  - ◦ **Finished:** An image which is completely exported.
- **Output location:** The directory where the job will be saved, and the specific file name which will be used for each image.
- **Format:** A summary of the format details which will be used for each job or image.
- **Elapsed:** Once an export job is started, the exact time spent in processing the job or image is displayed here.

The contextual menu

You can right-click any item in the queue to access a contextual menu with additional options and controls.
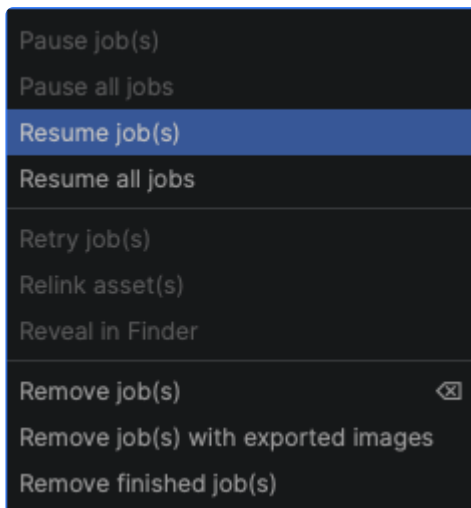
- **Pause job(s):** Pauses the selected job or jobs.
- **Pause all jobs:** Pauses all jobs in the queue, regardless of what is selected.
- **Resume job(s):** Begins exporting on the selected job or jobs.
- **Resume all jobs:** Begins exporting all jobs in the queue.
- **Retry job(s):** Use this option to retry exporting any jobs which have failed due to an error.
- **Relink asset(s):** This option is used if assets required for an export have been moved between the time the job was added to the queue and the time when export is attempted. If Imerge cannot find

images the necessary to process the job, use this option to relink them.

- **Show in Windows Explorer:** Opens the Windows directory where the exported file is located.
  - ◦ **Reveal in Finder:** If you are on a Mac, this option displays instead, and opens a Finder window to the directory where the exported file is located.
- **Remove job(s):** Deletes the selected job or jobs from the queue.
- **Remove job(s) with exported images:** Deletes all completed or partially completed jobs from the queue.
- **Remove finished job(s):** Deletes all completed jobs from the queue.

Last modified: Dec 24, 2021

7.2. Outputs

The outputs section of the export tab is used to define specific configurations of settings for use when exporting. This can include the destination, file name, and formatting details.
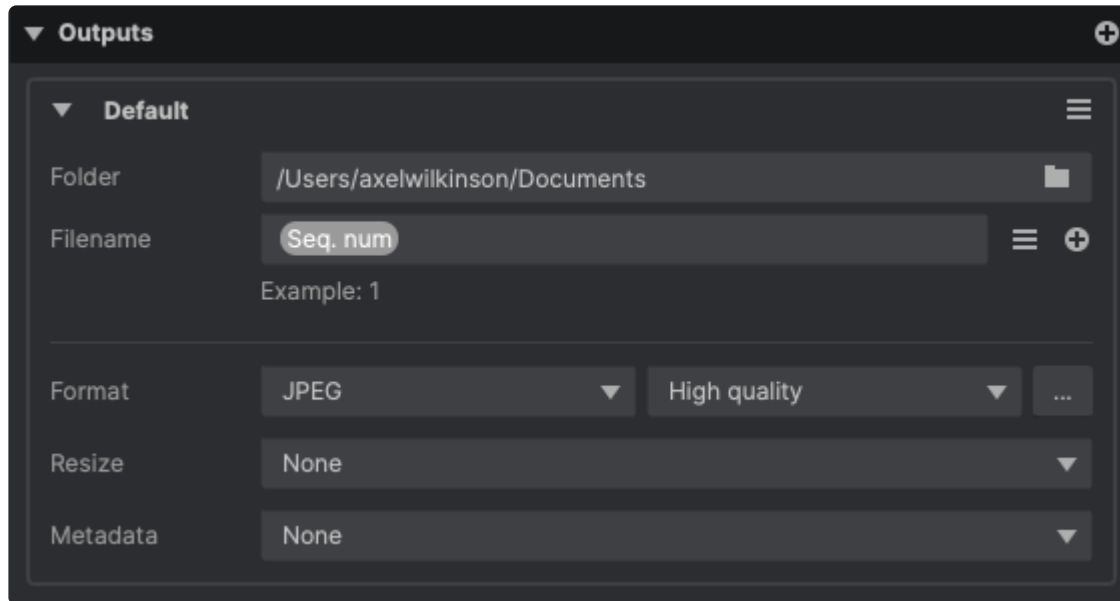
- ⊕ **Add output item:** Use this menu in the outputs header to add a new out put item. Clicking the plus icon will open a list of all available output presets for you to choose from.

- ≡ **Output presets:** This menu provides access to preset output configurations, for quickly changing the settings in the output item.

- 📁**Folder:** Select the destination where your image(s) will be saved. You can type in a specific file path, or click the folder icon 📁 to open a file browser and browse to your desired folder.

- **Filename:** Enter the filename used to save your image(s) here. In addition to simply typing in a name, you can add predefined tags to configure a custom name for each image. Custom text and tags can be combined in any sequence.

    ◦ ≡ **Filename presets:** This menu provides access to preset naming patterns.

    ◦ ⊕ **Add tag:** Use this menu to access all available tags and select tags to add to the file name configuration.

    ◦ **Example:** An example name, using your chosen filename configuration, is displayed.

- **Format:** Choose a format for your exported image(s). Details of each format are covered farther down, in the Format section of this page.

    ◦ **Preset:** The preset menu to the right of the format lists presets for specific quality and compression settings within that format.

    ◦ **… (Settings):** The settings menu provides full access to the settings for the chosen format, and allows you to create your own presets for future use. Details of each format are covered farther down, in the Format section of this page.

- **Resize:** Control the size of the exported image.

Filename

Define the filename structure to be used for your exported images. Enter specific text, or create a naming pattern using predefined tags, or any combination of both. When you enter text, the exact text you enter is used for every image, without modification. Tags, on the other hand, take info directly from each image being processed, so when working with batches of images, they can generate unique identifiers for each image. When using multiple tags in a filename, separating them with text elements such as hyphens or spaces, can help differentiate the tag components in the file name and make the name easier to read.
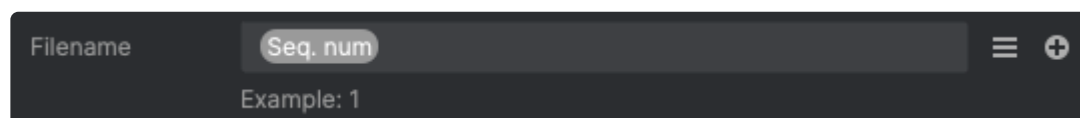
This example combined two tags (Project and Sequence Number), and text (Final). Text is also used to separate the tags in this example, which can make the final name more readable.

- **☰ Filename presets:** This menu, to the right of the filename field, provides access to preconfigured naming patterns. You can also create your own presets, by setting up a specific naming pattern, then selecting the **Save preset** option in this menu.

- **⊕ Add tag:** Use this menu to access all available tags and select tags to add to the file name configuration. Select any tag in the list to add it to the filename patter at the current cursor location.

SEQUENCE		CURRENT DATE		CONTENT CREATED DATE	
Sequence number	001	Full date	2021-10-23	Full date	2021-10-23
Total	250	Year	2021	Year	2021
Sequence position	001 of 250	Month	10	Month	10
DIMENSIONS		Month (short)	Oct	Month (short)	Oct
Width & Height	100×200	Month (long)	October	Month (long)	October
Width	21.3mm	Day	23	Day	23
Height	8in			Time (24h)	14-44-36
DPI	300	**CURRENT DATE**		Time (12h)	2-44-36 pm
NAMES		Full date	2021-10-23	**METADATA**	
Content name	Person A	Year	2021	Creator	John Smith
Content name (layer: Label Text)	Person A	Month	10	Camera make	Canon
Content name (layer: Treehouse)	Person A	Month (short)	Oct	Camera model	Canon EOS-1D Mark III
Layer name	Foreground	Month (long)	October	Camera lens	Canon EF 17-40mm
Layer + content name	Foreground-Person A	Day	23	Camera focal length	40mm
Layer + content number	Foreground-01	Time (24h)	14-44-36		
Project name	Team shoot	Time (12h)	2-44-36 pm		

Formats

Specify the format and compression details which will be used to encode the exported image.

| Format | JPEG ▼ | High quality ▼ | ... |

- **Format:** Choose a format for your exported image(s).
  - ◦ **Preset:** The preset menu to the right of the format lists presets for specific quality and compression settings within that format.
  - ◦ **... (Settings):** The settings menu provides full access to the settings for the chosen format, and allows you to create your own presets for future use. The settings vary based on the selected format, as follows:

- **JPEG:** JPEG is a universally compatible 8-bit format which combines small file sizes with acceptable image quality.
- **Quality:** The quality slider determines how much compression will be applied to the image. Higher settings provide better reproduction of fine detail, but create larger file sizes. Lower settings reduce file size, but also reduce the image quality. Find a balance which suits your needs.
  - ◦ **Color profile:** The color profile determines how colors are reproduced in the exported image.
    - ▪ **None:** No color profile is assigned.
    - ▪ **sRGB:** sRGB is the most common color profile, and is typically used for general viewing of digital images.
    - ▪ **Adobe RGB (1998):** Adobe RGB is an alternate color profile which maps colors slightly differently than sRGB.
    - ▪ **ROMM RGB:** A popular wide gamut profile designed specifically for photography, which supports a larger range of colors.
  - ◦ **Progressive:** Toggles between Baseline or Progressive JPEG. Progressive is generally better for internet use. When progressive is disabled, the image loads from the top down, one line at a time. This is the standard, or baseline, JPEG option. Enabling Progressive loads the entire image at once, first at low resolution then at full resolution as soon as possible.
  - ◦ **Matte color:** Specify the color that will be used to fill in areas of alpha transparency. Since the JPEG format does not support transparency, any transparent areas of the canvas must be filled in when exported. Click the color swatch to open a color picker and select any color of your choice.
- **PNG:** PNG is a widely compatible format which supports alpha channels and transparency. PNG supports 8-bit or 16-bit color.
  - ◦ **Bit depth:** Select between 8-bit or 16-bit color for the exported image. 16-bit creates larger file sizes, but stores more colors for higher quality.
  - ◦ **Color profile:** The color profile determines how colors are reproduced in the exported image.
    - ▪ **None:** No color profile is assigned.
    - ▪ **sRGB:** sRGB is the most common color profile, and is typically used for general viewing of digital images.
    - ▪ **Adobe RGB (1998):** Adobe RGB is an alternate color profile which maps colors slightly differently than sRGB.
    - ▪ **ROMM RGB:** A popular wide gamut profile designed specifically for photography, which supports a larger range of colors.
  - ◦ **Include transparency:** Toggle this option **on** to embed transparency data in the exported

image. Toggle it **off** to fill transparent areas with a matte color and reduce the file size.

- ◦ **Compression:** Choose the level of compression used by the exported file. Each provides a different balance of file size and speed.
    - ▪ **None / Fastest:** Largest file size, fastest loading and saving.
    - ▪ **Large / Fast:** Slightly smaller files, which load and save a bit slower than Uncompressed.
    - ▪ **Small / Slow:** A good balance of file size and performance speed.
    - ▪ **Smallest / Slowest:** Smallest file size, slowest loading and saving.
- ◦ **Matte color:** Specify the color that will be used to fill in areas of alpha transparency. Since the JPEG format does not support transparency, any transparent areas of the canvas must be filled in when exported. Click the color swatch to open a color picker and select any color of your choice.

- **TIFF:** TIFF is a high quality format which is popular for image editing. TIFF supports alpha channel transparency, and 8-bit, 16-bit, or 32-bit color.
    - ◦ **Bit depth:** Select between 8-bit, 16-bit, or 32-bit (float) color for the exported image. 8-bit is the most common depth used for images, and provides acceptable quality. 16-bit stores more colors for higher quality. This will most often be visible in subtle gradients. 32-bit is able to store a much wider range of colors, and is therefore useful for storing high dynamic range images where multiple exposures have been combined.
    - ◦ **Color profile:** Select the profile to be assigned to the exported images.
        - ▪ **None:** No color profile is assigned.
        - ▪ **sRGB:** sRGB is the most common color profile, and is typically used for general viewing of digital images.
        - ▪ **Adobe RGB (1998):** Adobe RGB is an alternate color profile which maps colors slightly differently than sRGB.
        - ▪ **ROMM RGB:** A popular wide gamut profile designed specifically for photography, which supports a larger range of colors.
- **EXR:** EXR saves to the OpenEXR format, the primary image format used by ILM and many major visual effects studios. It is a high quality format that is able to store HDR (high dynamic range) color information. EXR format will flatten the entire canvas to a single layer on export.
    - ◦ **Bit depth:** Select between 16-bit (float) or 32-bit (float) color for the exported image. 16-bit (float) allows for high quality images with a large range of colors. 32-bit (float) is able to store a much wider range of colors, and is therefore useful for storing high dynamic range images where multiple exposures have been combined.
- **HDR:** HDR Exports to the RGBE format, an HDR (high dynamic range) format which uses Red, Green and Blue channels, plus a fourth Exponent channel.
    - ◦ **Matte color:** Specify the color that will be used to fill in areas of alpha transparency. Since the JPEG format does not support transparency, any transparent areas of the canvas must be filled in when exported. Click the color swatch to open a color picker and select any color of your choice.

Resize

The resize controls define the size of the exported image, and how the contents of the canvas fit into the exported image.
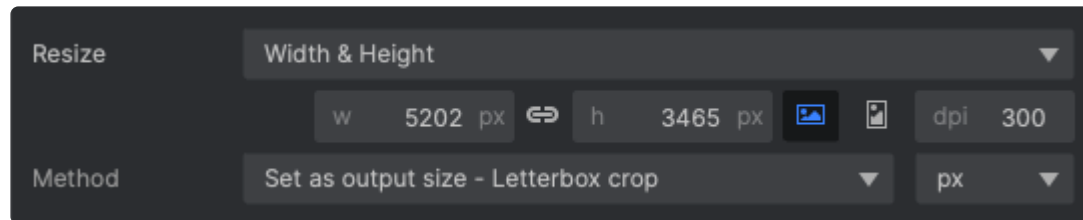
- **Resize:** Select the method used to resize the canvas to create the exported image.
  - **None:** The canvas size is used, without modification.
  - **Width & Height:** Specify an exact width and height for the exported image. This works best for batches where all images use a single orientation (portrait or landscape).
    - **Width:** The width of the exported image, in pixels.
    - **Height:** The height of the exported image, in pixels.
    - **Link aspect ratio:** Enable this option to retain the ratio between the width and height. When linked, editing one value automatically updates the other to retain the current aspect ratio.
    - **Landscape:** Indicates the width is greater than the height. When disabled, clicking this button will swap the height and width values.
    - **Portrait:** Indicates the height is greater than the width. When disabled, clicking this button will swap the height and width values.
    - **DPI:** The number of pixels per inch in the exported image.
  - **Megapixels:** Specify a total image resolution in megapixels. The aspect ratio of the canvas will be used.
  - **Percentage:** Define the export size as a percentage of the canvas size.
  - **Long edge:** Define the length, in pixels, of the longer edge of the image. This is useful for batch exports which include images in both portrait and landscape orientation.
  - **Short edge:** Define the length, in pixels, of the shorter edge of the image. This is useful for batch exports which include images in both portrait and landscape orientation.

Last modified: Dec 24, 2021

7.3. Export presets

The process of selecting the format and settings to be used for export is greatly expedited with the use of export presets. Rather than manually choosing a format and specifying the values to be used for each setting available for that format, using a preset allows all the necessary settings to be selected at once. This also makes it easy to ensure consistency in your exports, since you can repeatedly export with the same settings by simply selecting a preset.

Presets can be created and selected in the format menu of the export settings dialog, or of the Batch Export tab.

Creating presets

1. Open the Batch tab by clicking the Batch tab toggle button ≡❯ in the top toolbar.
2. In the Output panel, select the format and settings to be used for the preset.
3. ≡ Click the preset menu to the right of the output item's name, and select **Save preset**.
4. In the dialog that opens, enter a **Name** for the new preset.
5. Click the **Save** button to create the preset.
6. The new preset will now be listed in the Format menu, ready for future use.

Using presets

- **New Output presets:** Click the new output button and select a preset to create a new output item which includes preset export settings.

- ≡**Output presets:** Click the preset menu for any existing output item to view and select your available presets. Choose any preset to immediately apply its settings to the current output item.
  - **Save preset:** Use the **Save Preset** command at the bottom of the list to create a new export preset, containing all of the settings in the current output.

Last modified: Dec 24, 2021

7.4. Batch export

When working with batches of images the Batch section is where you manage which images from the batch are exported. It contains three tabs, for handling different scenarios.

- **Content Variations:** When working with layers containing multiple content variations, you can specify which combinations of content are exported.
- **Custom Export List:** For projects with multiple layers where you don't want all layers included in every export, you can configure specific combinations of layers and layer content, and export only those configurations.
- **Current Setup:** Exports the current canvas contents, excluding any layers or content variations which are not currently displayed.

Each tab is focused on a particular workflow. The details below outline the options available for each, and the workflow involved.

Content Variation

The Content Variation option is useful for projects where you have layers containing multiple content variations. For example, If you are processing a quantity of green screen photos, and wish to export each one with multiple backgrounds, to view different options. Or perhaps you are building a composite, and there are several different elements that you are considering, and it would be helpful to see the final result with each one, to decide which option works best. The content variation tab makes it easy to export every possible combination, or select specific combinations and only export those.
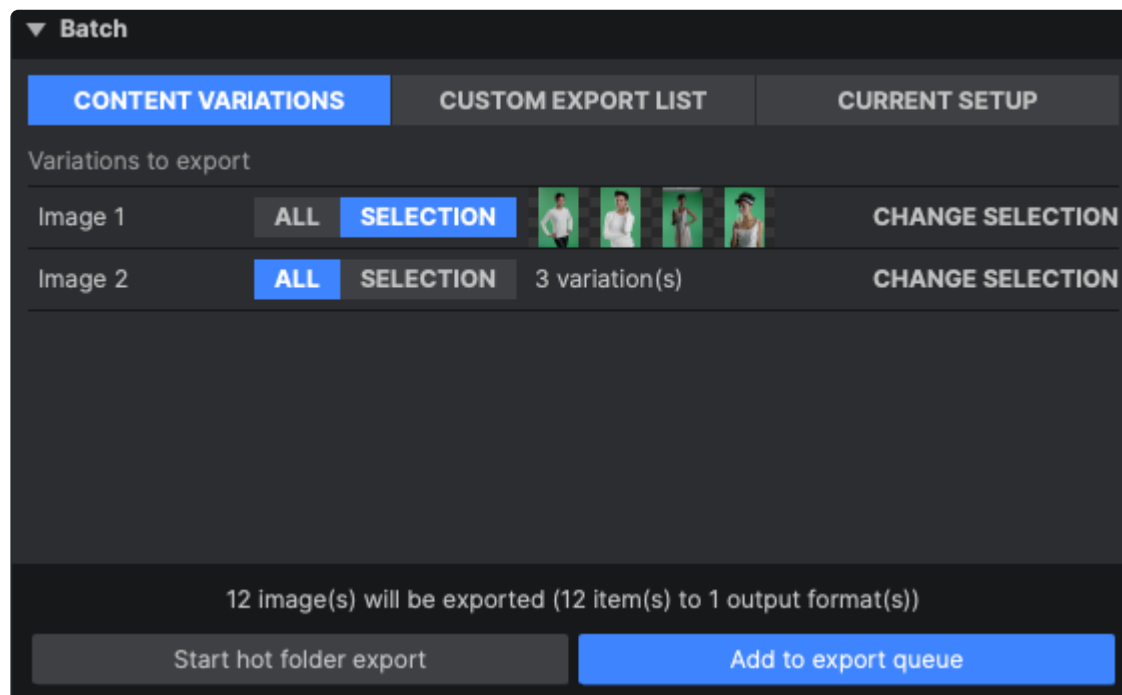
In the example shown here, we have a project with two layers. The "Greenscreen" layer contains multiple

green screen images, and the "Backgrounds" layer contains multiple background images. Layers without multiple content items will not be listed, here, but will be included in all exports.

- **All:** When **All** is selected, a unique image will be exported for every content variation contained in the layer.
- **Selection:** If you do not wish to use every content variation, click **Selection**. By default this changes so that only the currently selected content variation is used, but you can alter the selection to include multiple images.
  - **Thumbnails:** When **Selection** is enabled, a thumbnail for each image included in the selection will be displayed, as seen for the Greenscreen layer in the example above.
  - **Change Selection:** If you wish to change which images are included in the selection, click the **Change Selection** button. This will open a dialog where you can select which images are included:
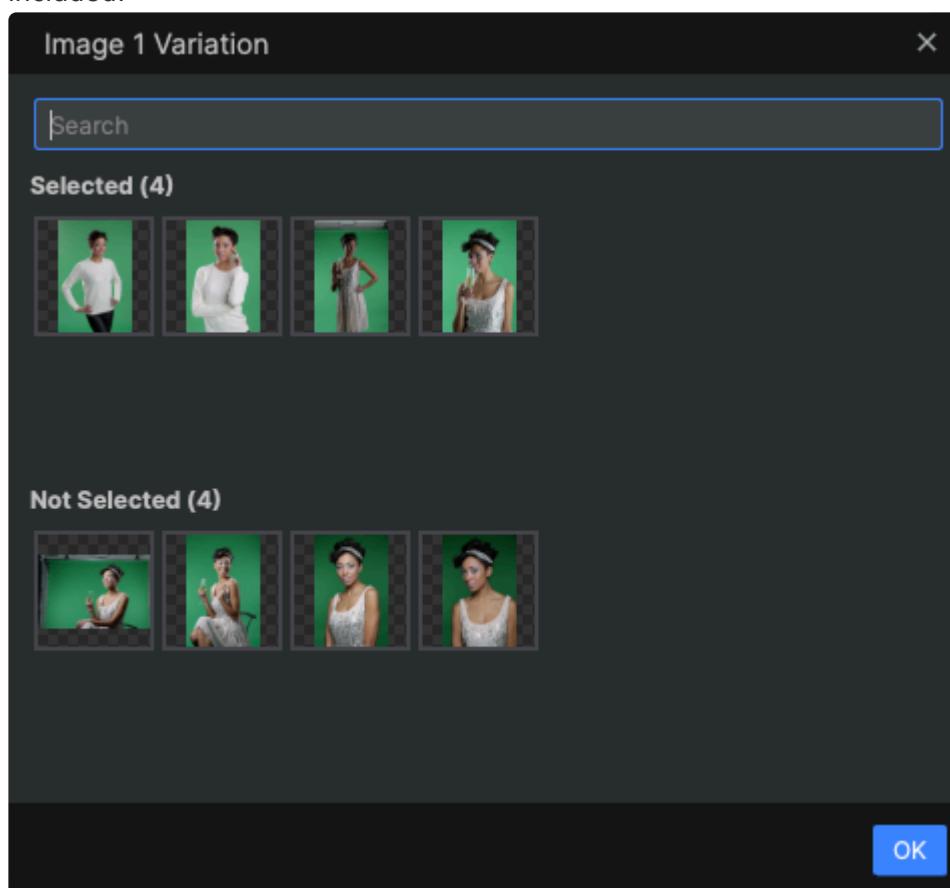
Thumbnails are shown for every variation, and listed in one of two categories, **Selected** or **Not Selected**. Click on any thumbnail to move that image from its current category into the other category.When you are satisfied with the selection, click **OK** to close the dialog.
- **Export list summary:** At the bottom of the tab, a summary of the total number of image variations is given, factoring in the total number of selected content variations for each layer, and the current number of Output configurations you have set up.
- **Add to export queue:** Click the **Add to Export Queue** button at the lower right to add all content variations to the queue.

Custom Export List

Custom Exports are beneficial for projects where you want to create multiple exports, but you don't want every layer in the project to be included in each export. Custom export is particularly useful for projects where each layer only contains a single content variation, but you want to limit which layers are included in each export.

Before anything is listed in the Custom Export list, you will need to create some custom export configurations, in the Edit tab, by following these steps:

1. Set up the project as you want it to appear in the export, by adjusting which layers are visible, what effects and mask are applied, etc.

2. At the top right of the interface, click the ⟩☰ **Add to export list** button.

3. In the dialog which opens, type a name for the batch item, then click **OK**.

You can do this multiple times for different configurations of your project. Each time you do, a new item will be added to your Custom Export List. In this example, three items have been added:
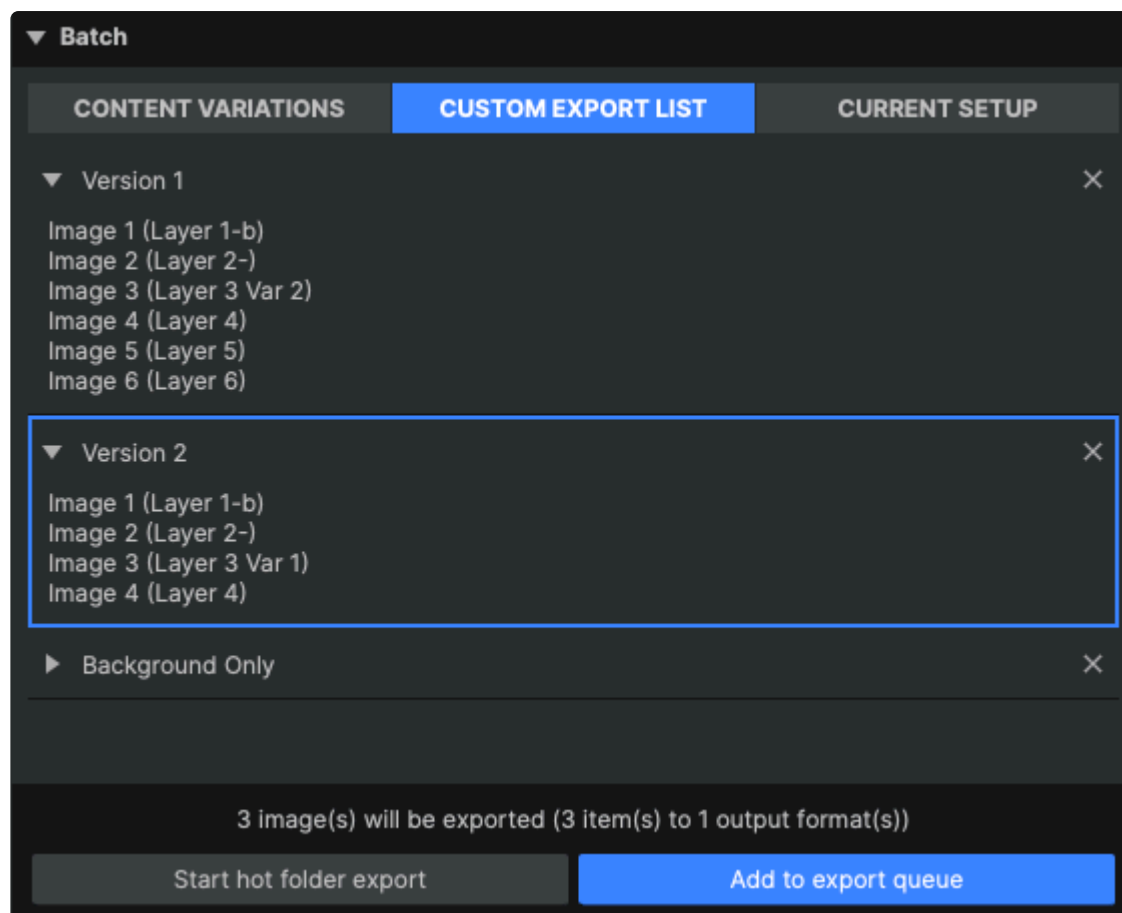
Each item can be opened to view a detailed list of exactly which layers are included in it, and which content variation is included for each layer, if applicable. Version 1 and Version 2 in the image above each include a different set of layers and content variations

- **Adding new items:** New items can only be added to the list from the Edit tab. If you wish to add another item, click the ![icon]**Toggle batch/edit tabs button** to move back to the edit tab.

- **Removing items:** Click the ✕ displayed to the right of any item name to remove that item from the list.

- **Export list summary:** At the bottom of the list, a summary of the total number of images included in the list is given, factoring in the total number of items in the list, and the current number of Output configurations you have set up.

- **Add to export queue:** Click the **Add to Export Queue** button at the lower right to add all items in your custom export list to the queue.

Current Setup

This option allows you to export the current canvas contents, to each of the output configurations listed in the Outputs section. Visible layers are rendered with their current content variations, and disabled layers are excluded.
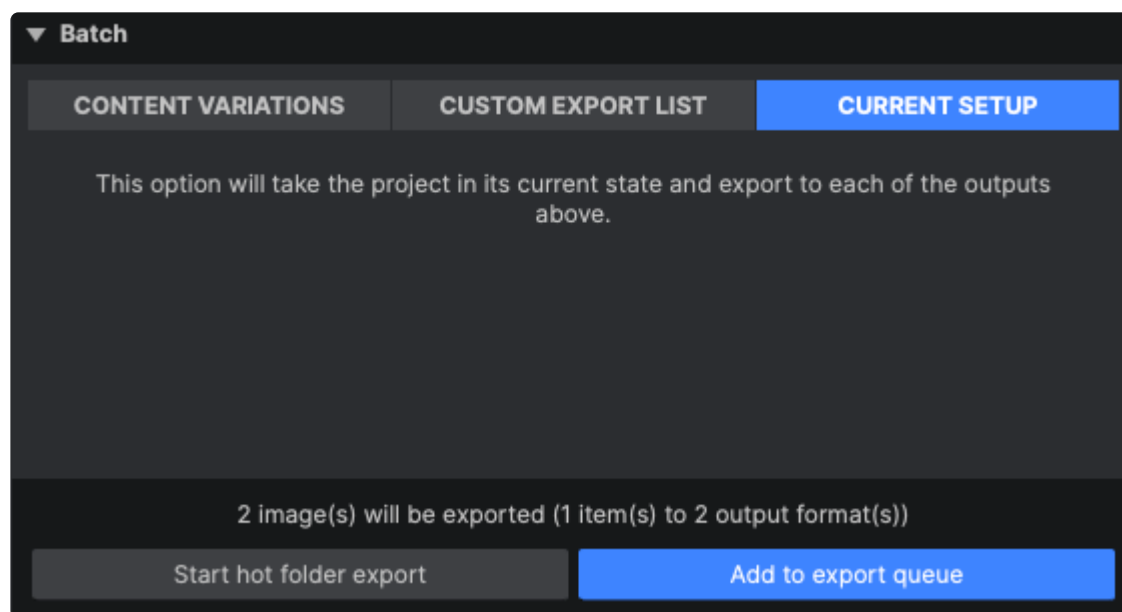
- **Export list summary:** At the bottom of the tab, a summary of the total number of images included in the batch is given. In the case of current setup, this will include the current canvas, multiplied by the current number of Output configurations you have set up.

- **Add to export queue:** Click the **Add to Export Queue** button at the lower right to add your current setup to the queue.

7.5. Hot folder export

Hot folder export facilitates automated workflows, for event photography or to save time. Before this option can be enabled, it is necessary to have at least one image layer in your project set to use Hot Folder import. For instructions on setting up hot folder import, see [Importing Images](#)

Automated workflow

Hot folders allow fully automated processing, using the following workflow.

1. Tether your camera to your computer, so every time you press the shutter the image is written to your computer's storage drive.
   - You can use any tethering software you prefer. If you shoot Canon, the Canon EOS Utility provided with your camera allows you to set up a tether and control your camera. Adobe Lightroom is another common option for tethering.
2. In Imerge, set up an image layer to use Hot Folder import, and set the hot folder to the same folder where the tethered camera is writing its images. When this is done, every image you capture with the camera will be immediately imported into Imerge.
3. Adjust your camera settings and setup, and shoot a test image.
4. Once you have a satisfactory test image imported, set up your project by adding any effects or masks to the hot folder layer, and by adding any additional layers required.
   - If you are shooting green screen photos, for example, you would want to apply a keying affect to the hot folder layer, to remove the background, and add a background layer to replace the green screen.
5. Once the project is completely set up, click the batch export button to open the batch export tab.
6. In the Output section, select the output settings you wish to use for your exported images.
7. When the output options are satisfactory, click the **Start hot folder export** button at the bottom of the batch export tab.
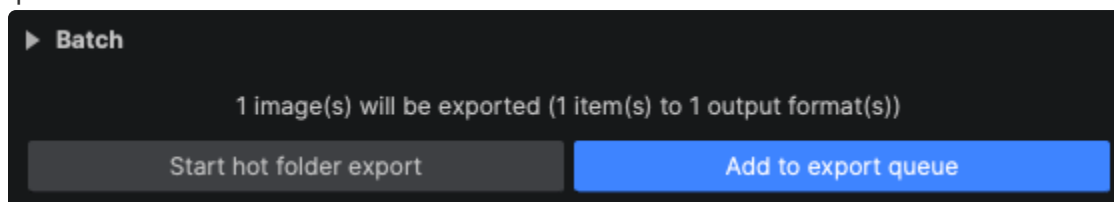
Full automation is now enabled. Each time you click the shutter on your tethered camera, the image will automatically be imported into Imerge, processed using the settings you have specified in your project, and exported using your chosen output settings.

Stopping hot folder export

You can stop hot folder export at any time, if you complete your shoot, or if you need to make adjustments to the project settings.

- To stop automated export, click the **Stop hot folder export** button.

8. Printing

Coming Soon

This page is still under construction, and will be ready as soon as possible. In the mean time, please contact our support team if you have any questions. http://fxhome.com/questions/submit

The print command in Imerge Pro will print the current viewer contents at any time. Printing is directly linked to the viewer, and is not part of the batch controls. there are several ways to invoke the print command, so you can use whichever is most convenient for you.

- Click the print canvas icon in the top toolbar of the software interface.
- Open the project menu, and select the **Print…** command.
- Press the keyboard shortcut **CTRL+P** (**CMND+P** on Mac).

Printing an image

Printing an image requires only a few basic steps.

1. Click the print canvas icon in the top toolbar of the software interface. Alternately, you can use any other print command, if you prefer.
2. The print canvas window opens. Adjust the settings as required.
3. Click the print button at the bottom of the window to begin printing.

Print canvas

The print canvas screen gives you access to basic printing controls. In most cases, all the controls you will need to access are available on this screen. Advanced print settings can be accessed using the advanced settings button.
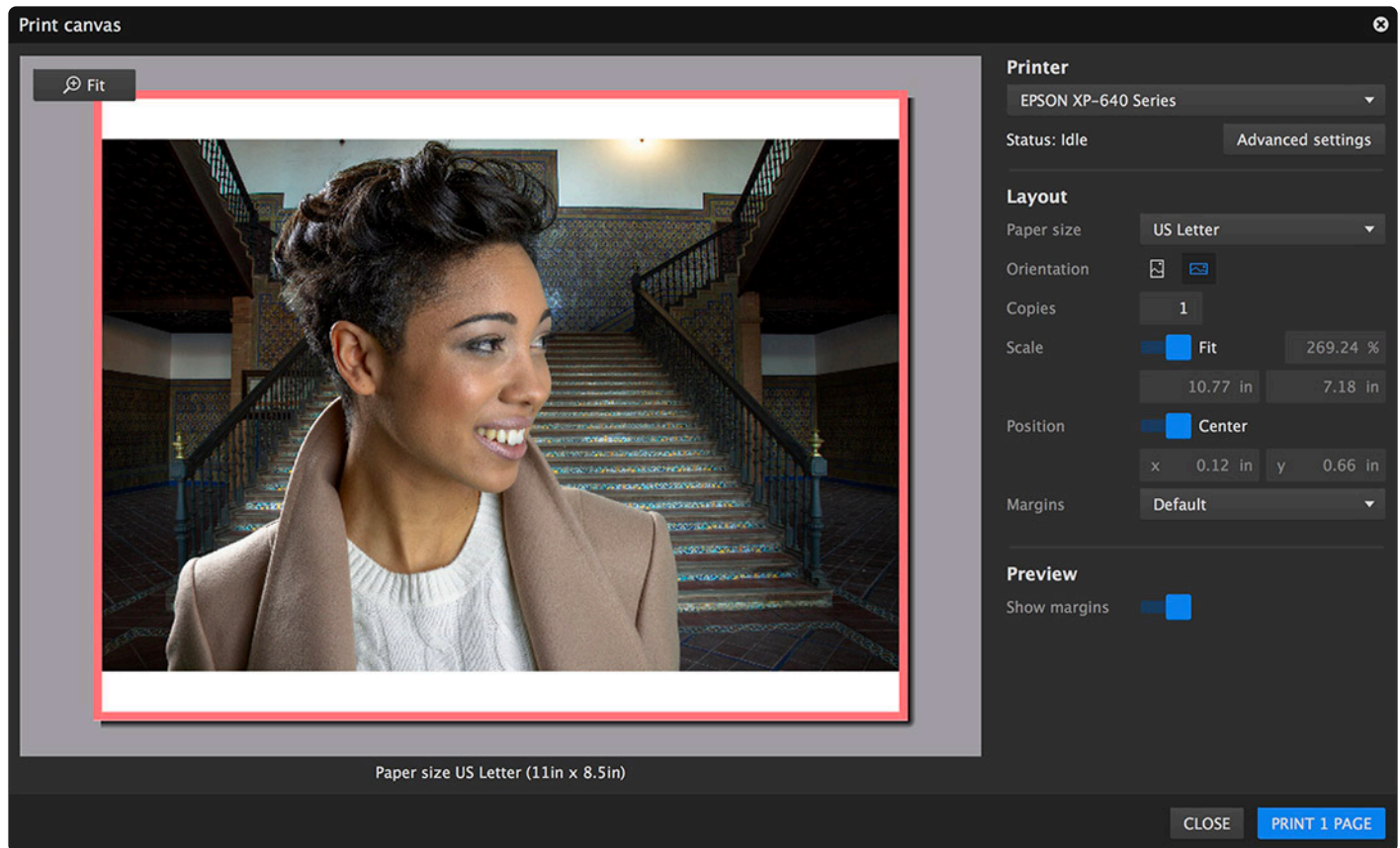
- **Preview:** The majority of the print screen is used to display a preview of exactly what will be printed. Check the preview for accuracy before clicking the Print button.

Printer

- **Printer menu:** Select the printer you wish to use. All printers connected to your computer or network will be listed in this menu.
- **Status:** This shows the status of the printer. Idle means the printer is ready to print, and once printing begins, it will change to indicate an active state.
- **Advanced Settings:** Click this button to open the advanced settings dialog. Further details of the advanced settings are available lower on this page.

Layout

- **Paper size:** Select the size that corresponds to the paper that is loaded into your printer.
- **Orientation:** Choose the orientation for your print.
    - **Vertical:** The top edge of your image will be aligned to one of the short edges of the paper.
    - **Horizontal:** The top edge of your image will be aligned to one of the long edges of the paper.
- **Copies:** Enter the number of copies you wish to print.
- **Scale:** Adjust the scale of the printed image here.
    - **Fit:** This toggle, when enabled, will auto-adjust the image size to print the largest possible image within the available space inside of the margins. Disable it to manually adjust the image size.
    - **Percentage:** When the Fit toggle is disabled, you can drag this value to alter the print size, as a

percentage of the original size.

- ◦ **Print size:** "Indicates the size of the printed image in physical measurements. Drag either value to adjust the print size.
- **Position:** These settings control the position of the printed image on the page.
    - ◦ **Center:** This toggle centers the image on the page, and is enabled by default. Disable it to manually adjust the image position.
    - ◦ **Coordinates:** When the Center toggle is disabled, drag either of these values to change the image position on the paper.
- **Margins:** Defines the size of the border at the edges of the paper which cannot be printed on.
    - ◦ **Default:** The default setting uses the smallest standard margins allowed by your selected printer.
    - ◦ **None:** Removes all margins, for full bleed printing. Note that this option may not be supported by all printers.
    - ◦ **Custom:** Accesses four custom controls, for the margin on each edge of the paper. Enter the value you wish to use for each margin.
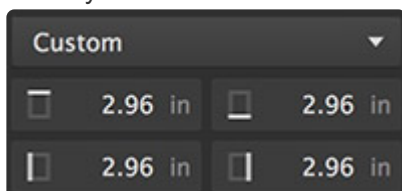
Preview

- **Show margins:** When this toggle is enabled, the margins will be displayed on the print preview, as a pink border. Disable the toggle to prevent the margins from being shown on the preview.

Advanced settings

The advanced settings button provides access to additional settings, which may vary based on the printer you have selected, and the operating system you are running. We can't discuss every printer on the market, but we will look at the differences between the Windows and Mac advanced settings.

Windows advanced settings

The Advanced button opens the default Windows print dialog. Many aspects are similar to the built-in print screen in Imerge Pro, but some additional controls can be accessed.
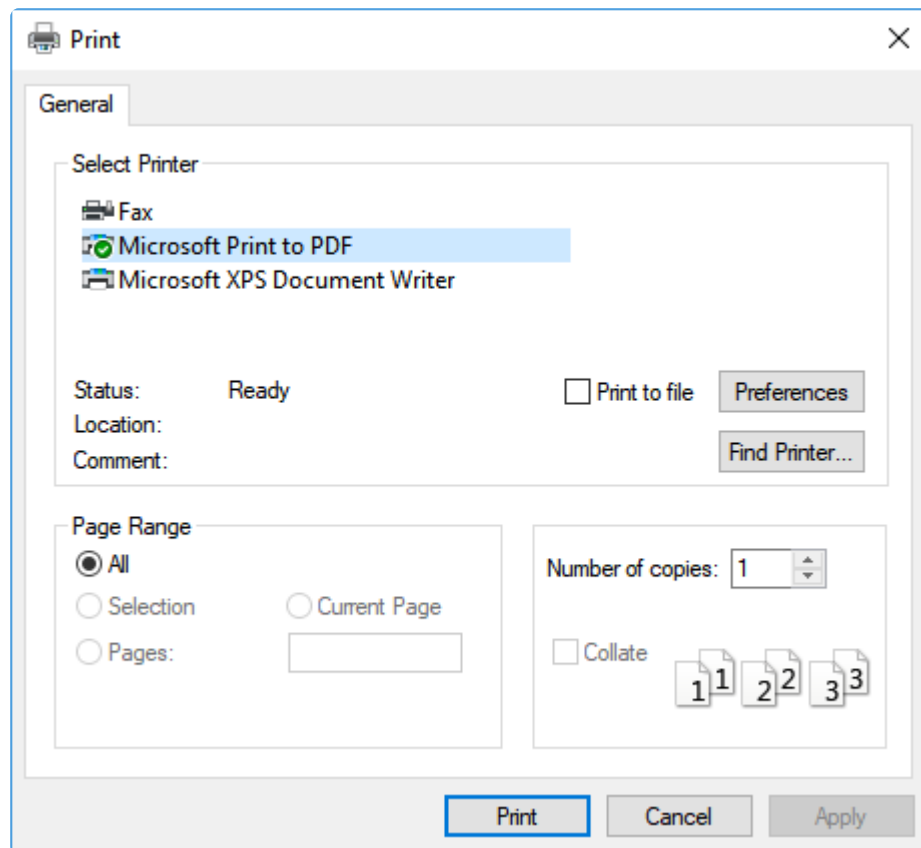
- **Select Printer**: Choose the printer you wish to use.
  - Status:* Indicates the current status of the printer.
- **Print to File:** Use this toggle if you wish to print to a document on your hard drive, rather than printing a physical copy.
- **Preferences:** Opens the preferences for your selected printer. The contents of the dialog that opens will vary based on the printer model.
- **Find Printer:** If the printer you wish to use does not appear in the list, make sure it is physically connected to your computer, then click this button to find it.
- **Page Range:** Select the specific pages that will be printed.
  - **All:** Prints all pages.
  - **Selection:** Prints only the part of the page that was selected before the print dialog was opened.
  - **Current Page:** Prints the current page only.
  - **Pages:** Allows you to specify specific pages to be included in the print.
- **Number of Copies:** Enter the number of copies that you want to print.
- **Collate:** Enabling the collate option means that all copies of each page will be printed grouped together. So if three copies of a two page document are printed, the pages will print in the following sequence:
  - **Collate Disabled**: 1, 2, 1, 2, 1, 2
  - **Collate Enabled:** 1, 1, 1, 2, 2, 2

- **Print:** Once all settings are acceptable, click this button to begin printing.
- **Cancel:** If you wish to close the advanced settings dialog and abandon any changes you have made,

click cancel.

- **Apply:** If you wish to store the changes you have made and close the advanced settings dialog without actually printing the document, click apply.

Mac advanced settings

The Advanced button opens the default Mac print dialog. Many aspects are similar to the built-in print screen in Imerge Pro, but some additional controls can be accessed.
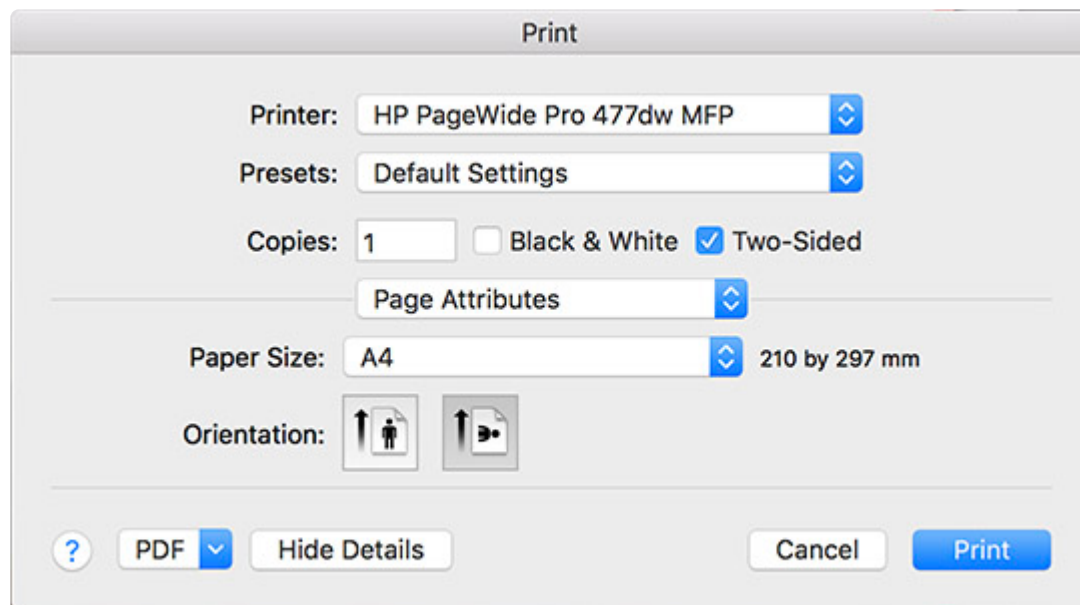

- **Printer menu:** Select the printer you wish to use. All printers available on your computer or network will be listed in this menu.
- **Presets:** All presets available for your selected printer can be accessed here. You can also create and save new presets.
- **Copies:** Enter the number of copies that you want to print.
- **Pages:** Select the pages to be included in the print.

Clicking the **Show Details** button at the bottom of the dialog will open additional settings ad options. Once clicked, the button changes to **Hide Details**, as shown in the image above.

- **Black & White:** Enable this toggle to print a black monochrome version of the image.
- **Two-Sided:** For printers that support two-sided printing, this toggle enables or disables that option.
- **Details menu:** Additional advanced settings can be accessed through the options in this menu. The properties displayed in the lower half of this dialog will vary based on the option to select in this menu.
    - **Page Attributes:** Adjust the size and orientation of the page.
    - **Layout:** Set the arrangement of the pages on the sheet.
    - **Color Matching:** Access the options for color management, to set whether it is handled by the printer, or through manual color management controls on your computer.
    - **Paper Handling:** Set the paper size and the order in which the pages are printed.
    - **Cover Page:** Settings to manage the printing of a cover page with the print job.

- ◦ **Print Settings:** Set the type of paper being used, and the print quality.
- ◦ **Color Options:** Additional color options.
- ◦ **Two-sided Printing Settings:** Enable or disable two sided printing, for printer models that offer that feature.
- ◦ **Supply Levels:** Provides an estimate of the ink remaining in the printer.

- **PDF:** Settings for printing to a PDF file, rather than to a physical copy.
- **Show details/Hide Details:** Toggles the additional details in the lower half of the dialog on and off.
- **Cancel:** If you wish to close the advanced settings dialog and abandon any changes you have made, click cancel.
- **Print:** Once all settings are acceptable, click this button to begin printing.

Last modified: Dec 24, 2021

9. Migrating from PhotoKey

If you are a user of our previous photo software, PhotoKey, you will find many of the improvements implemented in Imerge to be beneficial. There are a few simple things to keep in mind that will make your transition to Imerge easy. There are also a few tools found in PhotoKey that are not yet implemented in the first release of Imerge, so you will still find PhotoKey beneficial if you use those features.

Transition video

We have prepared this video specifically for PhotoKey users to help you quickly get familiar with the differences and benefits of Imerge Pro.

https://www.youtube.com/embed/BQC6XJTLIWQ?rel=0

Benefits of Imerge

- **Speed:** Perhaps the most noticeable benefit of Imerge, if you are familiar with PhotoKey, is the speed. Imerge fully implements your GPU for processing, which dramatically improves speed.
- **Quality:** Imerge is the only image editor in the world that processes everything in 16-bit color. Especially if you are using raw source images, which use more than 8-bit color, this results in better

color processing and greater quality retention. Even if you are working with 8-bit JPEG images, though, Imerge still processes the color in 16-bit color space, which means that you can push your adjustments farther without losing quality.

- **Versatility:** Imerge allows you to combine as many layers as you want. Where PhotoKey makes it simple to combine a green screen foreground and a background, if you wanted to combine 5 green screen shots into a single image, it was a bit more difficult. Imerge allows you to combine as many layers as you wish, and key any of them, making it a full-fledged compositing application.
- **Batch to multiple formats:** Need to export a full sized 25MP TIFF, a small copy for Instagram, and a JPEG preview to send a client? Not a problem. Set up multiple export formats, shapes, or sizes in Imerge Pro, and export them all at once.
- **Flexible layouts:** For some projects you may need to create portrait and landscape versions of the same image. Imerge allows you to set relative layout positions, so you can easily export multiple shapes without having to manually change the layout for each one.

Changes

There are some fundamental changes between PhotoKey and Imerge Pro that you should be aware of. Most of these will also be considered improvements by many of our users.

- **Layer contents:** Image and text layers in Imerge Pro serve as containers. So rather than each image being its own layer, you can set up a Foreground layer, for example, and import an entire batch of foreground images into it. A second layer could be created to store multiple background images. This is similar to how the foreground and background layers in PhotoKey work, but in Imerge you can create as many layers as you like in this way.
- **Effects and filters:** Imerge allows you to apply effects to each layer that require them. While effects and filters were separate things in PhotoKey, they are all listed as effects in Imerge, and can be added to individual layers, or applied to adjustment layers which will affect multiple layers.
- **Combine multiple green screen images:** Any image layer in Imerge Pro can be keyed to remove green screen. Import as many green screen layers as you wish, and combine them all to create a single composite.
- **Adjustable export size:** Imerge Pro does not tie the project size and export size together like PhotoKey did. Export size in Imerge Pro is completely independent of the canvas size, and you can export to multiple sizes without needing to adjust the project layout.
- **New layer types:** Adjustment layers allow you to apply effects to more than one other layer in your project. Solid layers quickly create solid color shapes, which can be further modified with masks to create any shape you need.
- **Masks:** Masks can now be created per layer, for any layer. New mask types make it faster to create the exact mask you need. Gradient masks, luminance masks, color masks, and alpha masks automate the process of isolating specific regions of the image, while traditional vector masks remain to allow you to draw in any shape necessary.
- **Effect Masks:** Masks can also be added to individual effects, to limit the area that the effect is applied to.

Limitations

There are a few features of PhotoKey that have not been implemented in Imerge Pro. So if you regularly use these features, you may want to keep PhotoKey on hand. Future updates to Imerge Pro may implement some of these features.

- **Hot folder:** Auto-import from a Hot folder is not available.
- **Uniquing:** You cannot set individual images to use unique settings.
- **Greeting cards:** There is no option to automatically generate greeting cards.
- **Filters/Effects:** Some effects or filters from PhotoKey are not yet implemented, including:
    - Shadow cast
    - Red eye
    - Auto color
    - Auto levels
    - Auto contrast
    - Auto skin tones
    - Vibrance
    - Defocus
    - Diffuse
    - Half tone (incl. color)
    - Three strip color
    - Focus blur
    - Soft focus
- **Send Email:** Direct email export is not available. You will need to export to your hard drive, then email the images.
- **Upload to FTP:** Direct FTP upload is not available. You will need to export to your hard drive, then upload the images.

Last modified: Dec 24, 2021

9.1. Basic greenscreen workflow

If you are coming from PhotoKey, the workflow in Imerge Pro will be slightly different, but it remains quite simple and easy to learn. Here will take a look at the process of setting up a simple green screen composite in Imerge Pro, step-by-step.

1. **Launch** Imerge Pro, and the Project screen is displayed.
2. **Create a new project** by opening the Project menu and selecting New, or by opening the New menu at the top left and choosing "Empty document." If you already know the exact size you wish to use, you can select the appropriate template instead.
3. **Import your image.** Press CTRL+I (CMND+I on Mac) to Import an image. Alternately, you can open the Project menu and select "Import to project."
   a. In the file browser window that opens, locate the green screen image you wish to import, and click OK.
   b. A notification will likely appear at the top of the interface, notifying you of a Canvas Size Mismatch, and asking if you want to resize the canvas to match the image size. Click Yes.
   c. In the layer list, you will now see "Layer 1", with a thumbnail showing the image you imported. Double-click the name, "Layer 1", and rename the layer to Green screen.
4. **Add the chroma key effect.** In the layer sidebar, find the Effects listing and click the + icon next to it, to open the effects menu. Scroll down through the list to find the Chroma Key effect, and select it.
5. In most cases, the green screen will automatically be removed. If you need to adjust the key further, you can do so now.
   a. **Refine key:** Click this tab to access the controls for fine-tuning the area that is removed by the key. The spectrum at the top shows the exact range of colors that are removed by the current settings, and will update as you make adjustments. Set the **View** menu to Status or Matte while adjusting the key, and use Result to view the final image.
   b. **Spill suppression:** Click this tab if you still have green spill on your image that needs removed. Use the **Show** property to toggle between the despill map and your finished image.
6. **Add a background image.** Press CTRL+I again, to import a new image. Select the background image you want to import, and click OK.
7. **Set the layer order**. In the layer list, you will now have two layers. Drag the new layer (Layer 2) down, to place it below the Green screen layer. then, double-click its name and rename it to Background.
8. **Export your image** by pressing CTRL+E (CMND+E on Mac). Enter the name you want to use for the exported image, select the location you want to save it to, and click Save to complete the process.

You have now completed your first basic green screen composite. Imerge offers much more power than this though, and a number off features that expand the possibilities of what you can accomplish in the software. Some of these possibilities are discussed below.

Batch process multiple green screen images

- In the layer list, select the Green screen layer.
- In the layer sidebar, locate the Content section, at the bottom. Click the + icon to import additional

images into the green screen layer. The key settings you have set up will automatically be applied to every image imported into that layer.

The same basic process can be used to import multiple background images.

Adjust the color of any layer

- In the layer list, select the layer you want to adjust.
- In the layer sidebar, locate the Effects section, and click the + icon to add a new effect.
- Select any effect you want to apply, and adjust the settings as desired.

Note that in the Chroma Key effect, there is a control for matching the color of the green screen image to its background layer. Simply enable the Color Match Background option, then increase the Strength to control the results.

Add additional layers

You can add more layers to your composite using the Import command. Adjust the order of layers by dragging them in the stack.

Export

There are several methods for exporting the current image:

- Press CTRL+E (CMND+E on Mac)
- Open the Project menu and select Export
- Click the Batch tab at the top of the interface, then click the Export button at the bottom.

If you are working with multiple images and want to export a batch, then the Batch tab is where it is handled. See the page on **batch processing** for full details.

Last modified: Dec 24, 2021

10. Help & Support

If you need help with Imerge you can find it in the following places.

Forum

For general discussion of the software, or to obtain assistance from other Imerge Pro users, use the forums.

https://fxhome.com/forum/categories/imerge-support

Tickets

For technical issues with the software not working as expected or intended, please contact our support staff. Our support system allows you to create a ticket which a member of FXHOME staff will take a look at. Feature requests should be sent to support who will pass it on to product planning teams.

Submit a support ticket here: http://fxhome.com/questions/submit

YouTube channel

Free training videos to help you get familiar with the workflow and features of the software are posted on our YouTube channel.

https://www.youtube.com/playlist?list=PLFqEKMQyy86wY2ZuOTnqtRkHxlPawnJh-

Creative/Image troubleshooting

For discussion or troubleshooting of techniques or compositing methods, please visit the forums. You can discuss creative ideas, concepts, or techniques with other helpful users of the FXhome community.

https://fxhome.com/forum/categories/imerge-support

Last modified: Dec 24, 2021