

IMERGE PRO

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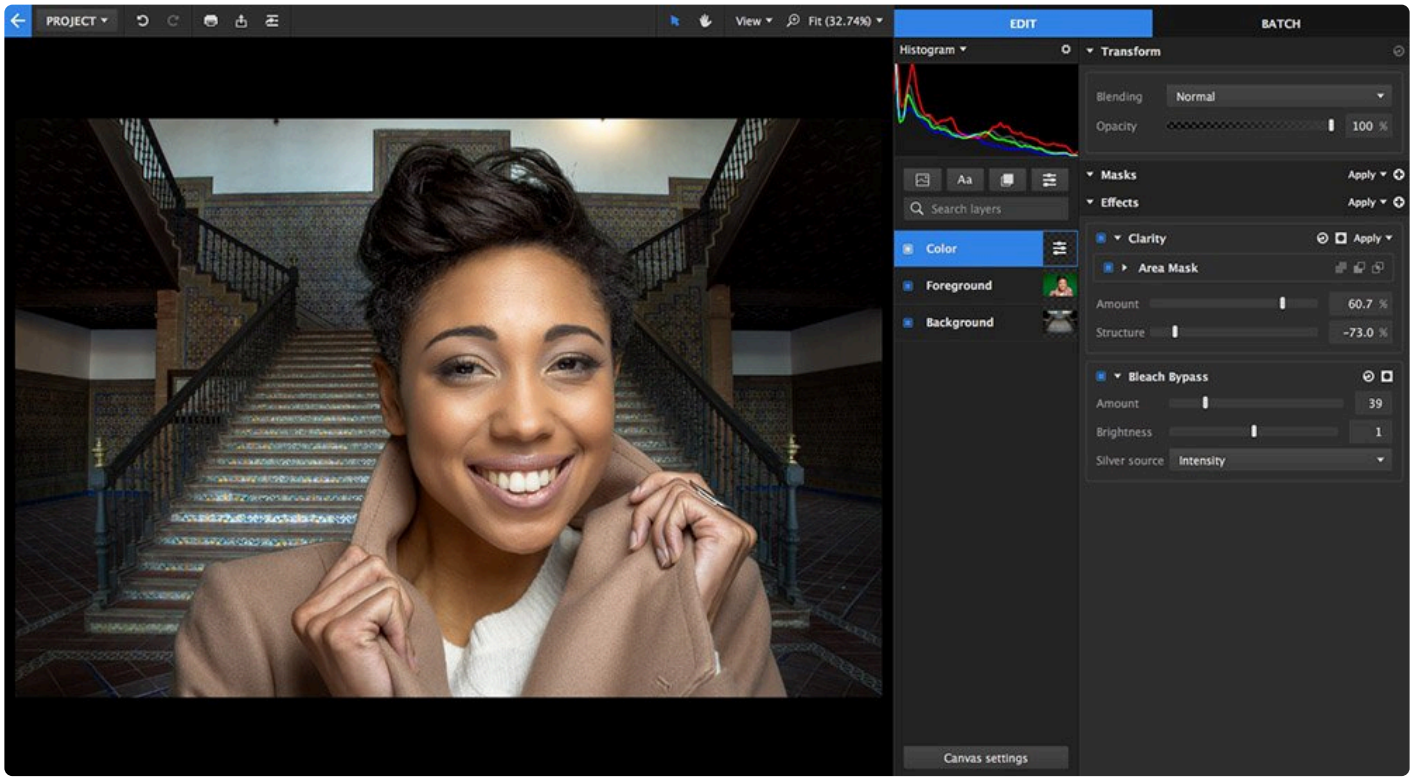
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1. What is Imerge Pro?



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.
- **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.

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 drawing masks by hand, 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.

2. What’s new?

This being the first release of Imerge Pro, everything is new! As updates are released, and new features are added to the software, they will be 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.

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.

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.



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.

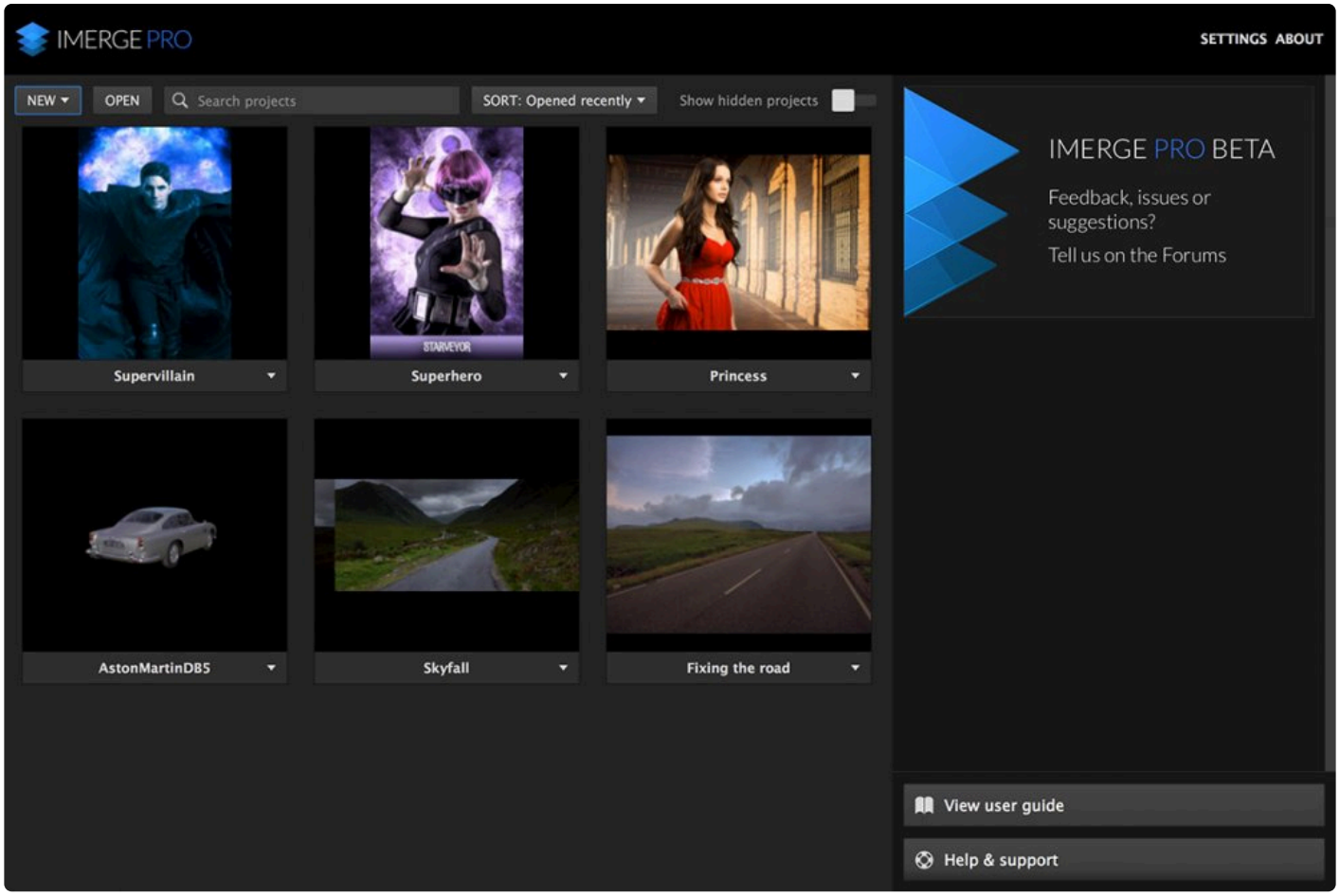
4.1. Finding your way round

Imerge is composed of three primary screens. The **Projects Screen** 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

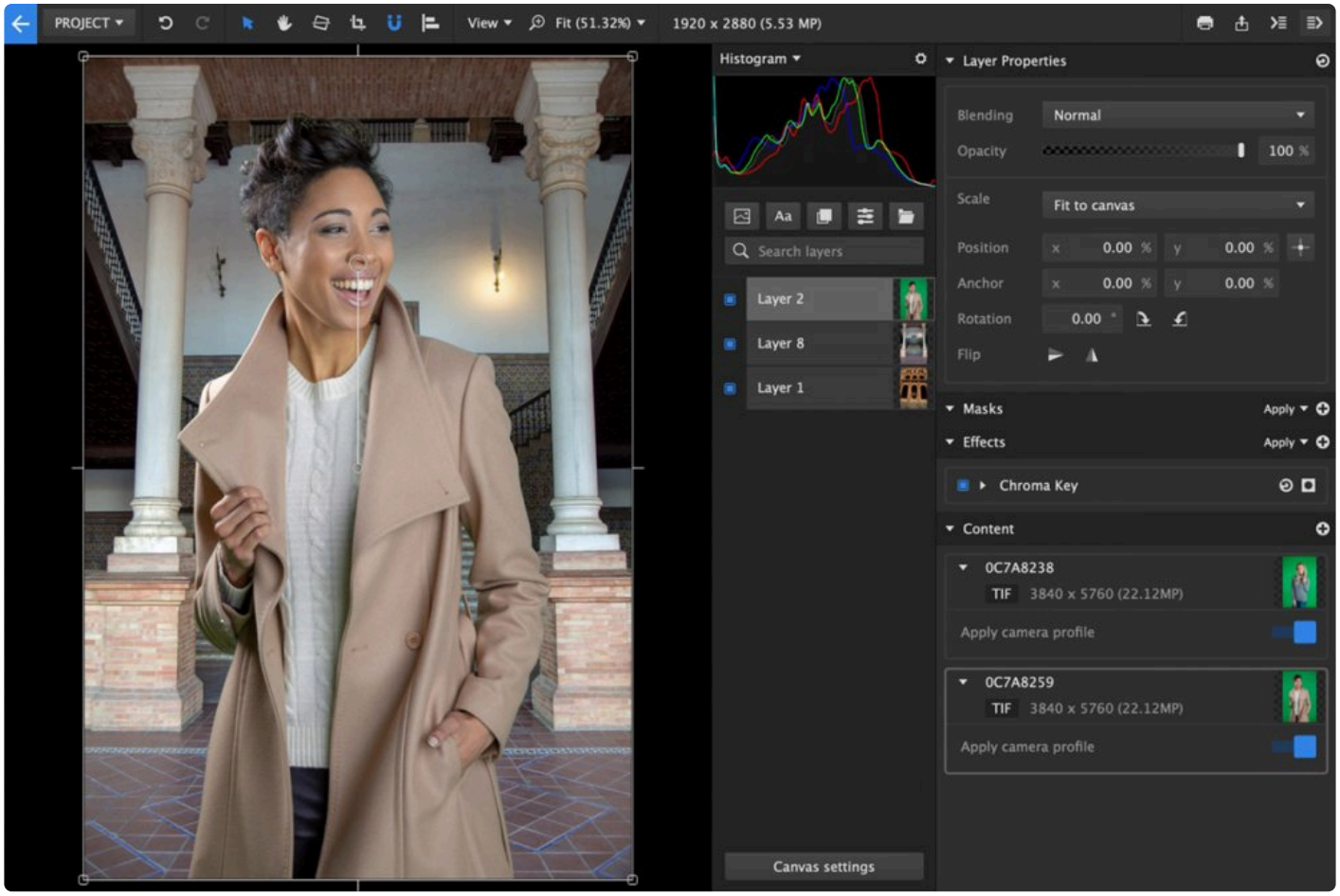
All projects, regardless of where they are stored on your computer, can be accessed through the Projects screen. The controls at the top of the screen can be used to search for specific projects, organize the projects, or create new projects. You can also double-click the thumbnail for any particular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

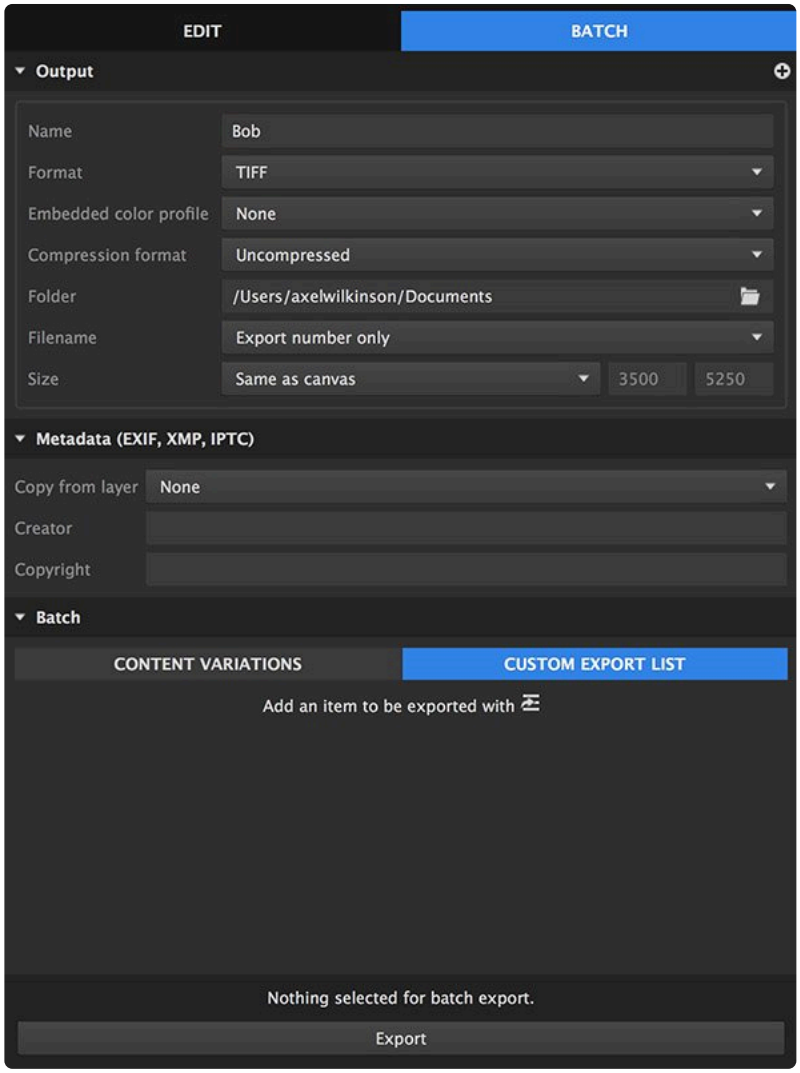
Layers are the basic element from which your projects are built. The layer list shows the stacking order of all layers in your project, as well as the effects and masks applied to them. The controls for the layers, effects and masks are displayed in the Layer Inspector.

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.

Batch screen

Imerge features powerful tools for batch processing multiple images. Use the Batch screen to manage which images are included in the batch, and what settings will be used to export those images. Details of the format, naming, and the location they will be saved to can all be edited here. The **Batch Task Panel** gives you direct control over the variations of each image which will be exported.


EDIT
BATCH
Output
Name
Bob
Format
TIFF
Embedded color profile
None
Compression format
Uncompressed
Folder
/Users/axelwilkinson/Documents
Filename
Export number only
Size
Same as canvas
3500
5250
Metadata (EXIF, XMP, IPTC)
Copy from layer
None
Creator
Copyright
Batch
CONTENT VARIATIONS
CUSTOM EXPORT LIST
Add an item to be exported with
Nothing selected for batch export.
Export

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.

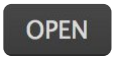


Project list

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 

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.

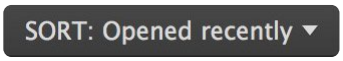
Opening projects 

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 

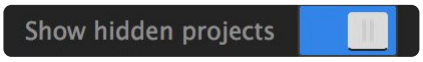
Type the name of a project into the Search box to locate it. The contents of the project list update

dynamically as you type, so only projects containing the exact characters you have typed will be displayed.

Sorting the project list 

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.

4.3. 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 Tools Bar



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 our 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 the entire composite is not visible, you can use the Pan tool to shift the visible portion and view any area of your composite.

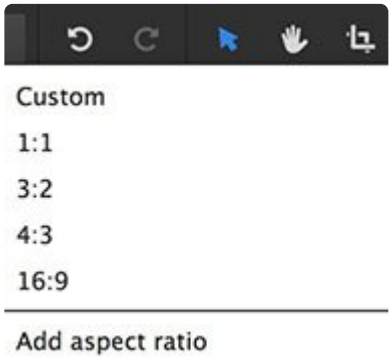
- **H:** Press the H key on your keyboard to enable the Pan tool.

Straighten Tool

If you have an image that is out of 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.

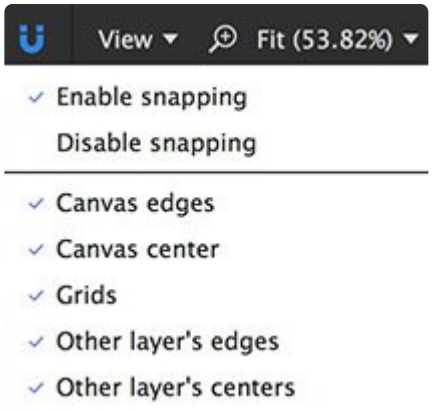


Common aspect ratios are available in the menu, along with a Custom option. If you need the image constrained to a specific aspect ratio, choose it from the menu. If you want free reign to crop to any size and shape you might need, choose the Custom option. Use the **Add aspect ratio** option to add 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, do 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 layer's edges:* When enabled, the selected object will snap into alignment with the edges of other layers in your project.
- **Other layer's 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 left.
- **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.

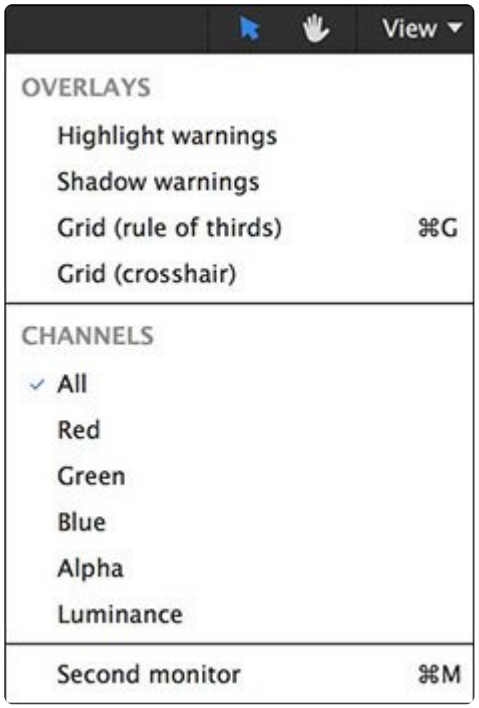
- **Distribute Left:** Spaces the selected layers evenly, based on the left-most pixel in each layer. The layers farthest to the left and farthest to the right remain in place, and all other layers will shift horizontally to create even spacing.
- **Distribute Horizontally:** Spaces the selected layers 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 composite.
- **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.

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.

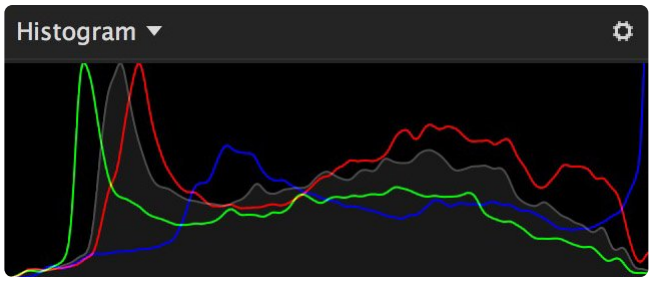
4.4. Layer sidebar

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.

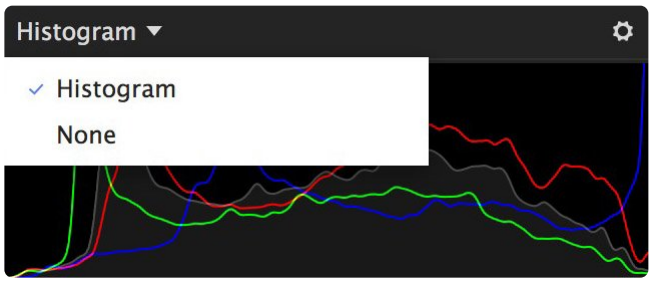
Histogram

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.

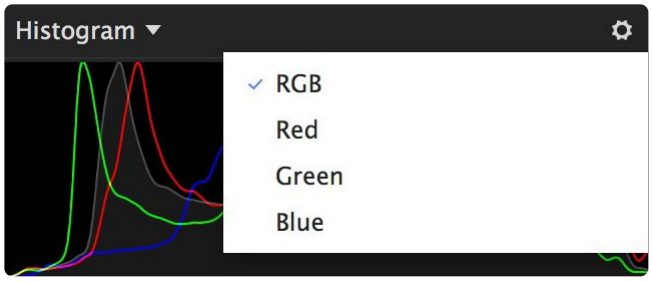
Show/Hide histogram



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

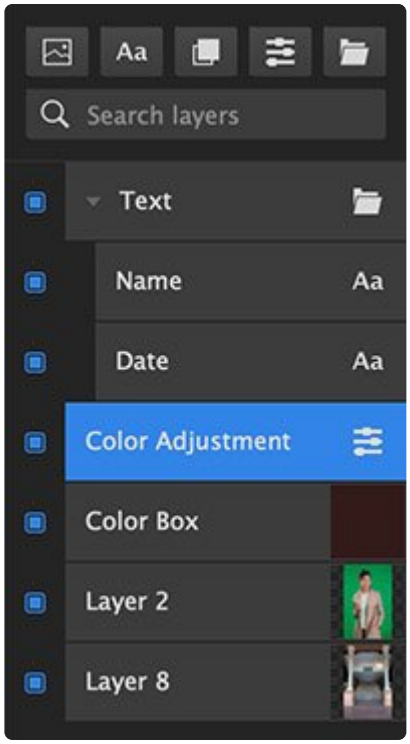
Select the channel or channels that are displayed in the graph.



- **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 four buttons to create different sorts of new layers.

-  **Add image layer:** Creates a new image layer in your document. Image layers serve as containers, and you can drop any image (or multiple images) into it. The actual image(s) contained in the layer can be changed at any time.
-  **Add text layer:** Creates a new text layer in your project. Text layers can be used any time you need to add text to your project, with full control over the font, size, color, and positioning.
-  **Add solid layer:** Solid layers are filled with a solid color. they can be further modified with masks and effects to alter their shape, pattern or texture.
-  **Add adjustment layer:** Use adjustment layers to modify multiple layers within your layer stack. An adjustment layer will affect all layers, of all layer kinds, that exist below it.
-  **Add layer group:** Create a new group, which can be used to organize other layers. Any layers can be added to the group, and masks or effects applied to the group will affect all layers it contains.

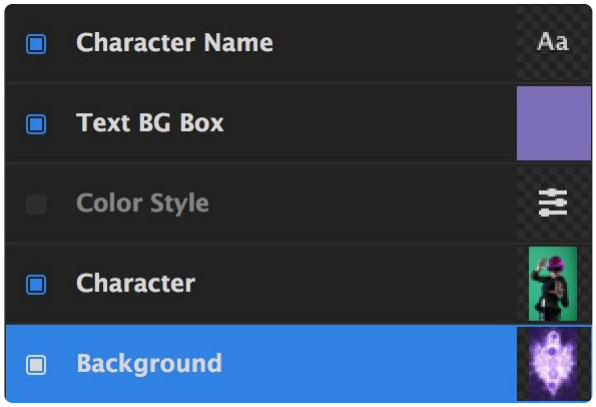
Search layers



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

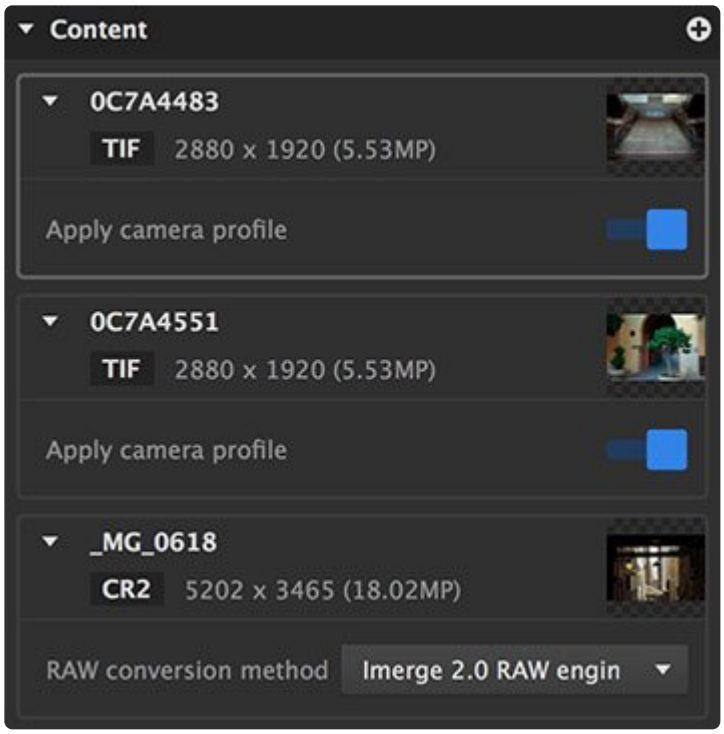
The Font section is only available for Text layers. It provides access to edit all formatting details of the text contained in the layer, including the font, size, style and alignment.

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 contents

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 Contents 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 contents

The contents 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.

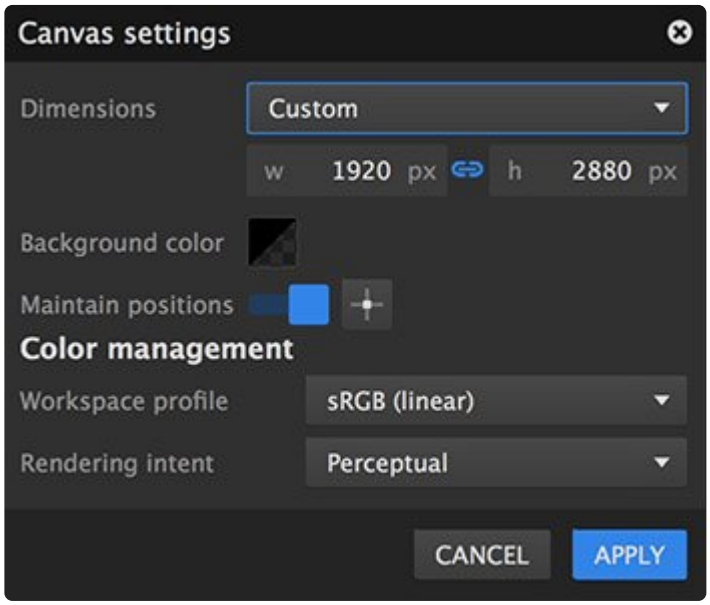
A text layer can contain multiple text items, all of which will be listed in the contents area. Click the plus icon to add a new text item.

4.5. Canvas settings

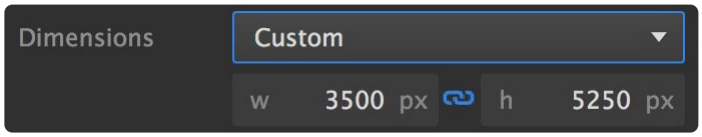
Canvas settings can be accessed using the button at the bottom of the layer list.



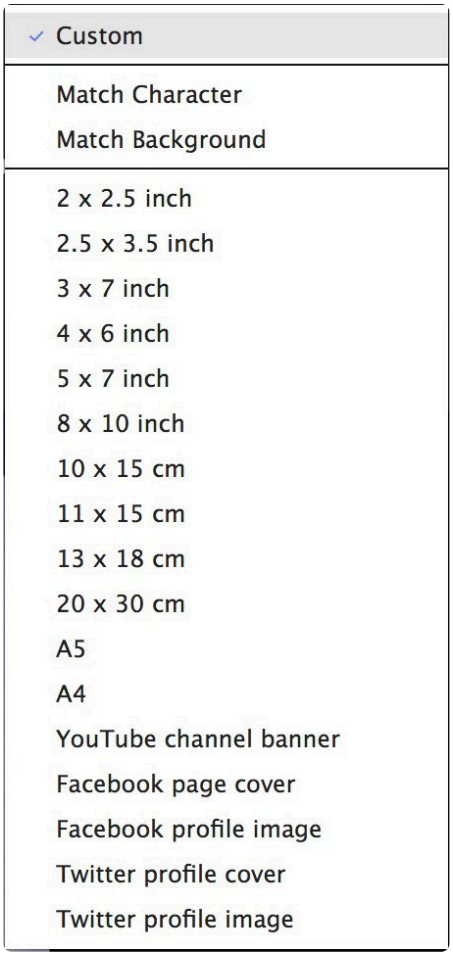
Clicking the button opens the Canvas Settings dialog, where you can edit the fundamental aspects of the settings used by the canvas in your current project.



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.



Background color

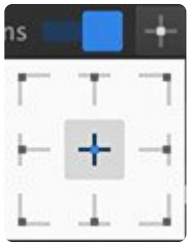


The canvas can be filled with a solid color. Click the swatch to select the color used, and to adjust its opacity.

Maintain positions



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**: sets the color profile to which all imported images will be converted.
  - **sRGB (linear)**
  - **ROMM RGB (linear)**



- **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.

4.6. 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.

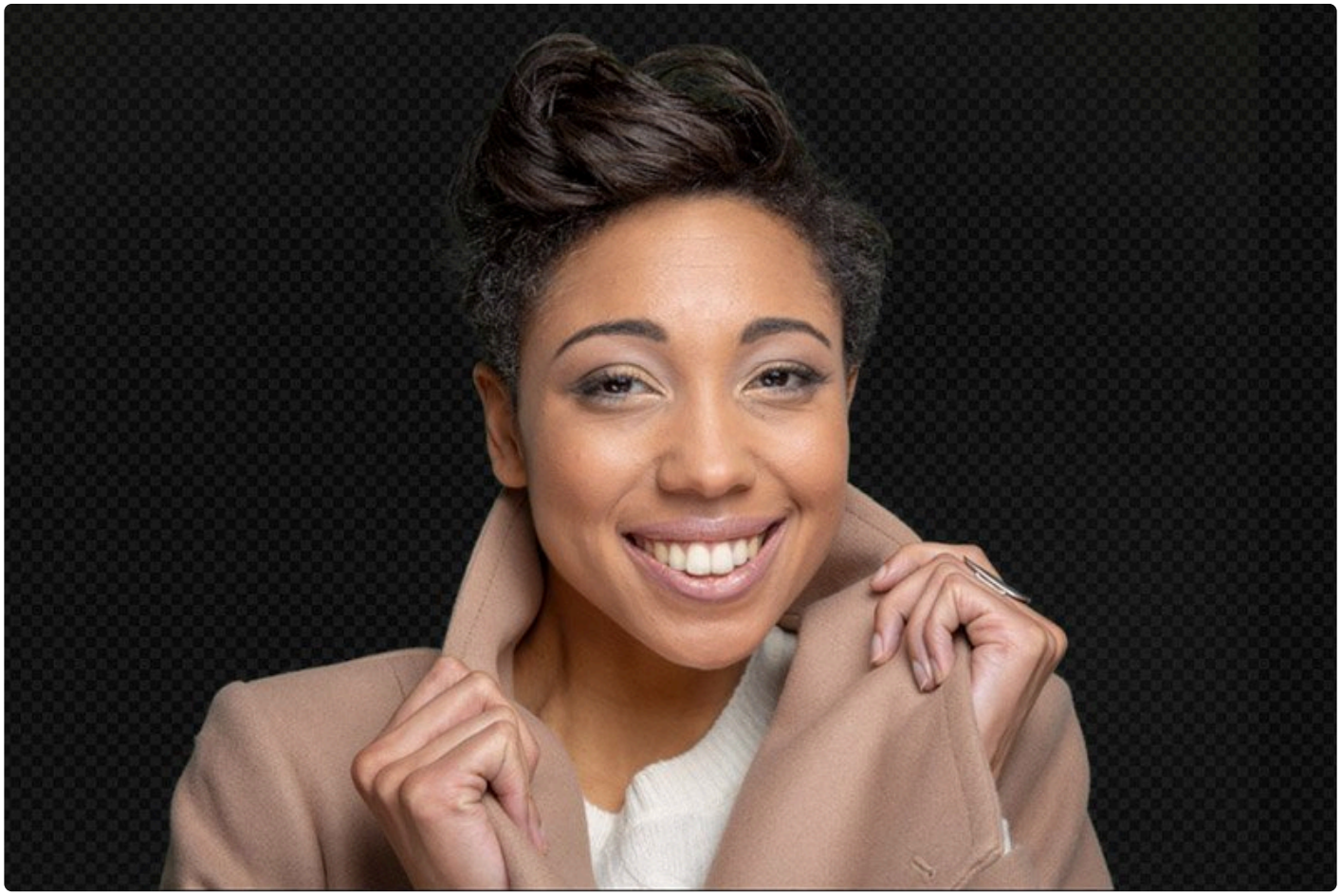
4.7. Green screen photography

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

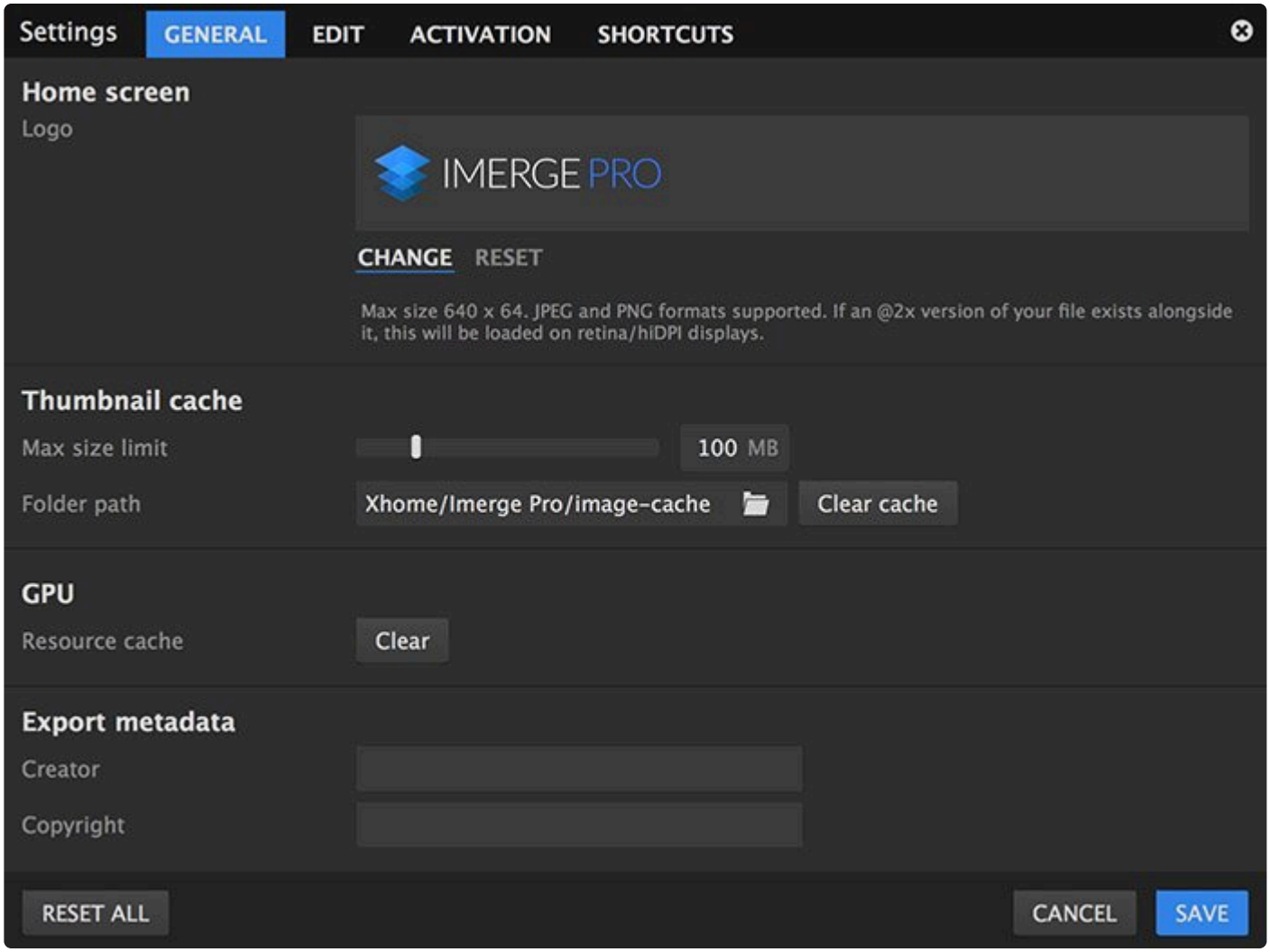
often easier to create it in post, rather than trying to retain a shadow throughout the keying process.

- **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. Application options

Many aspects of Imerge Pro include options in addition to the defaults. You can choose different options or select your personal preferences in the Options window. You can open the options by opening the Project menu and selecting Application Settings. If you are running a Mac, open the Imerge Pro menu and select Preferences.

General



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 × 64 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.

In some special situations, such as when you install a new GPU, or if you are seeing rendering glitches, you may want to clear the cache and force it to reload.

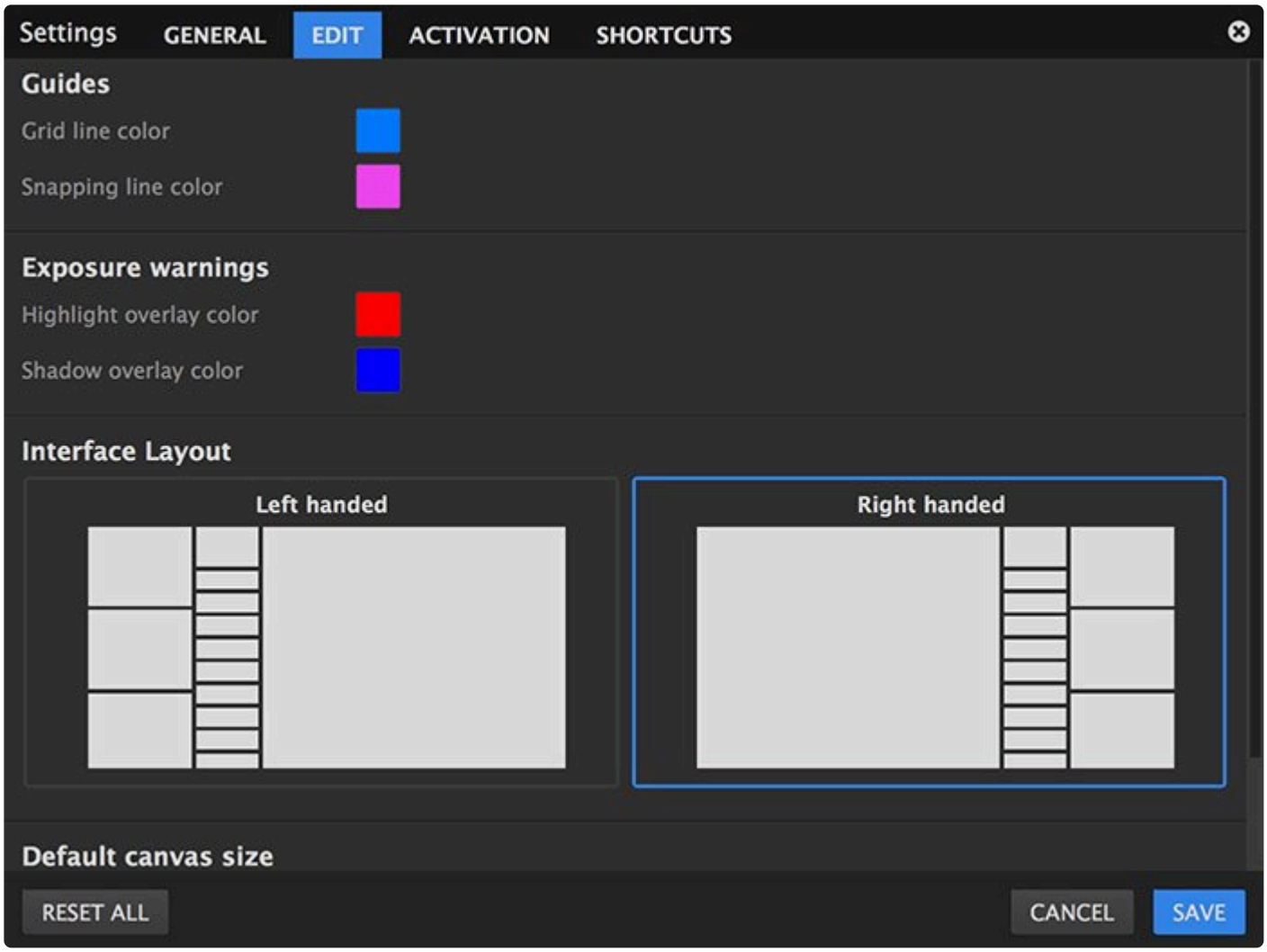
- **Clear:** Click this button to clear the GPU cache and force it to recompile.

Export metadata

You can enter copyright information here 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.

- **Creator:** Enter the name of the image creator or copyright holder here.
- **Copyright:** Enter the copyright date into this field.

Edit



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

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.

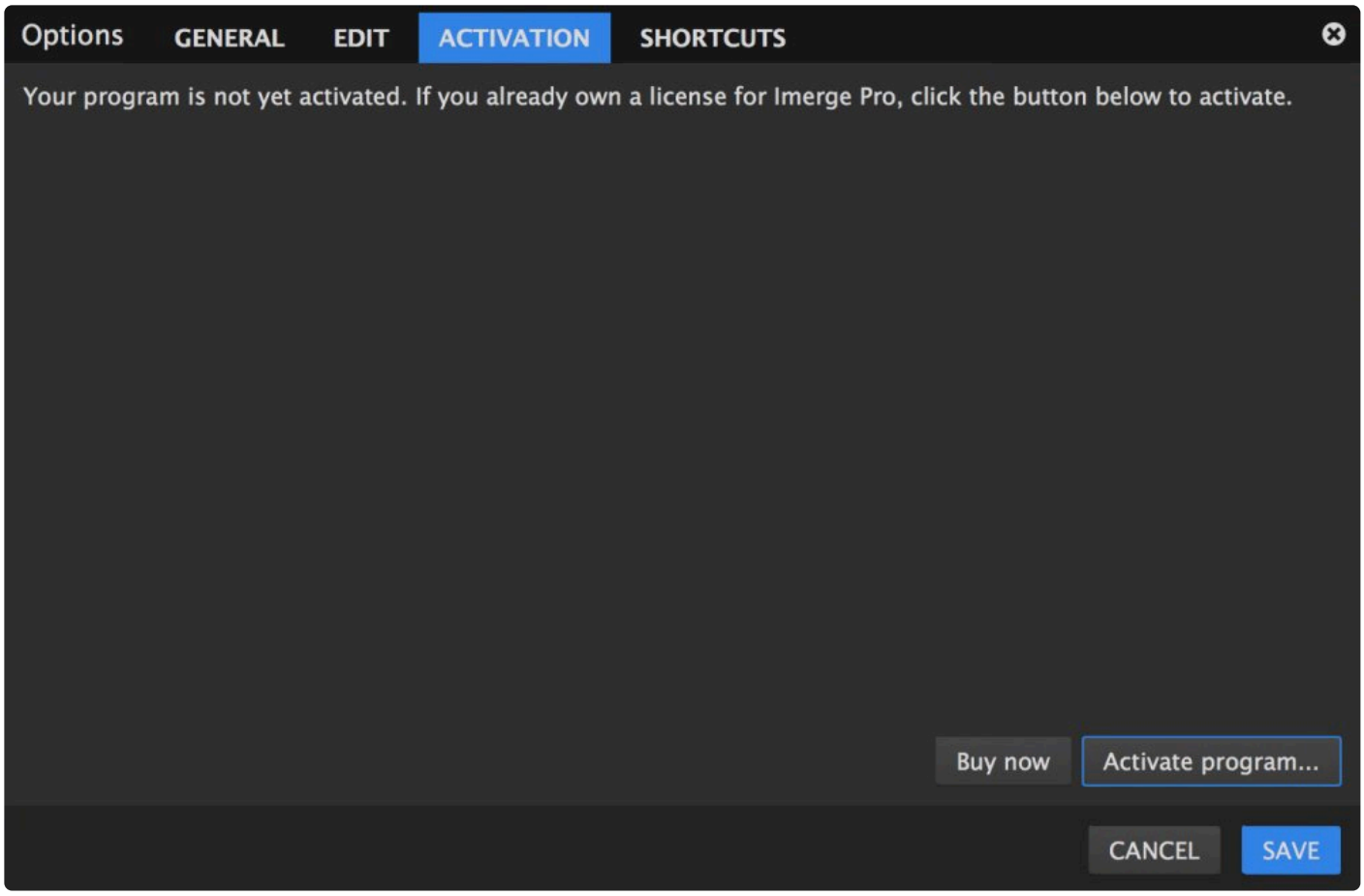
- **Left handed:** Places the layer controls on the left hand side of the screen.
- **Right handed:** Places the layer controls on the right hand side of the screen.

Default canvas size

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, enter the dimensions here.

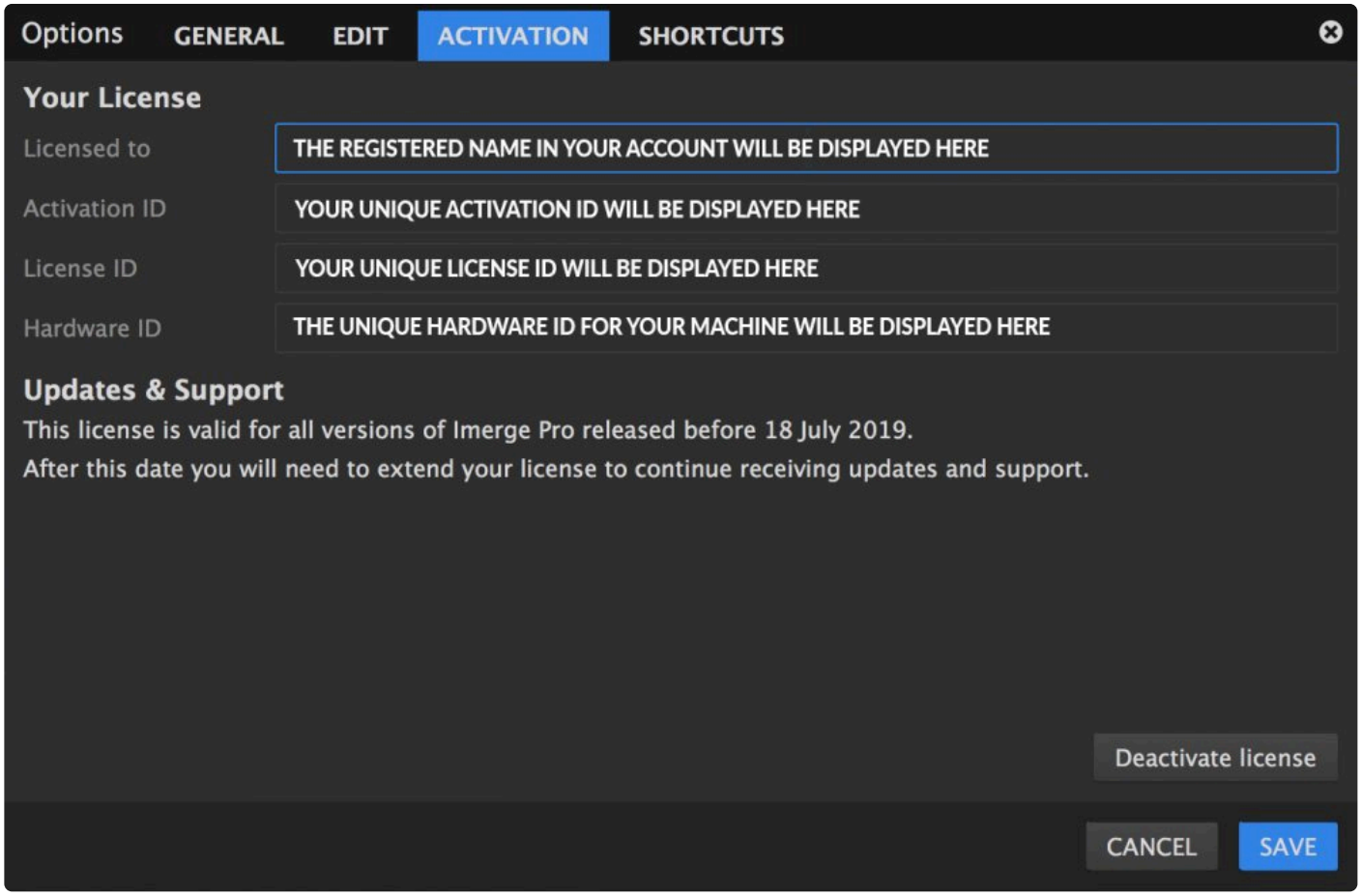
Activation



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.



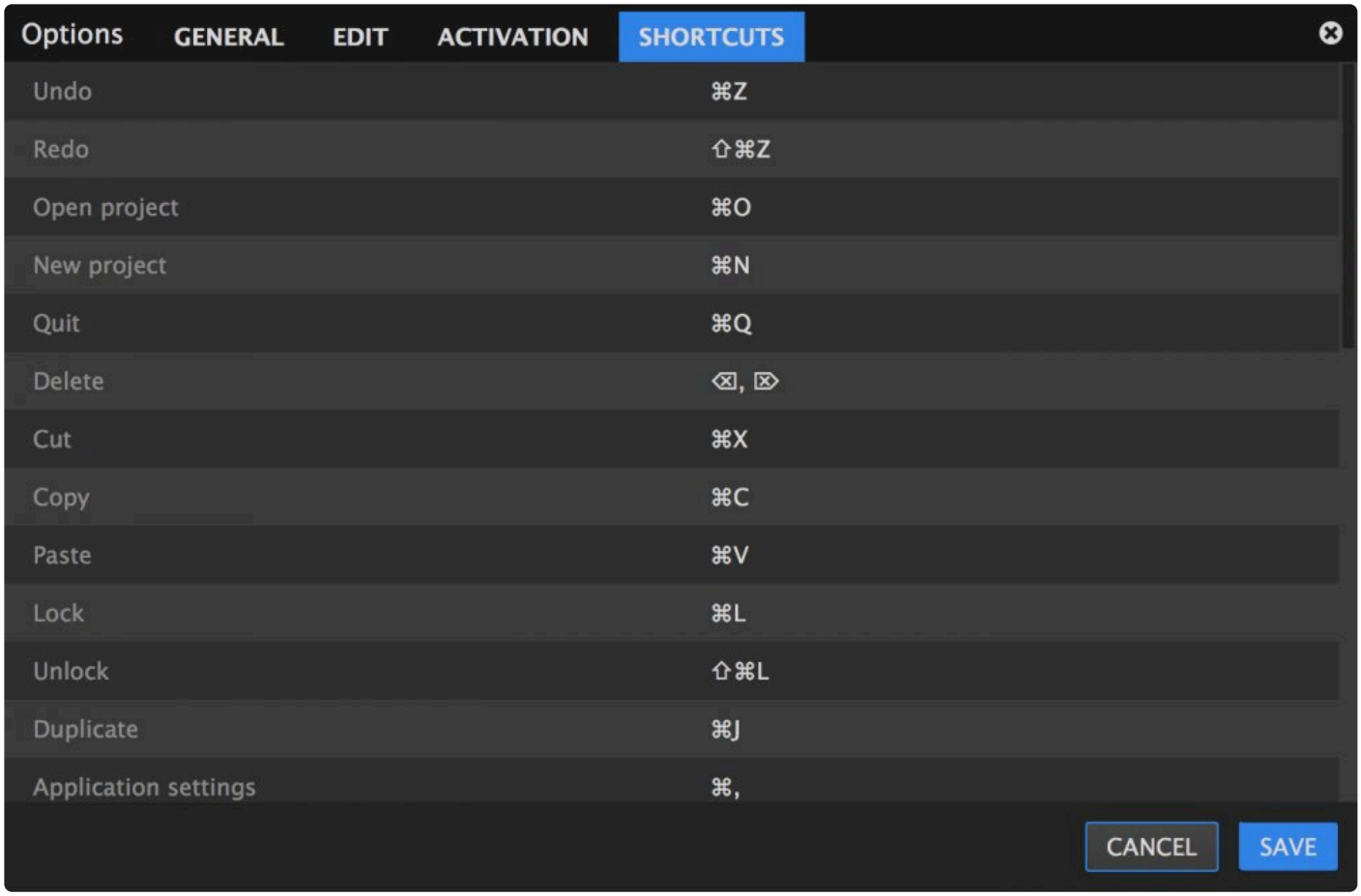
Your license

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.

Shortcuts



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.

4.9. Import file formats

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

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 **+ 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
- PNG

High quality formats

These formats support higher color bit depths, and can take full advantage of Imerge's 16-bit processing. Note that it is best to use TIFF or Raw files in Imerge Pro when possible.

- TIFF
- Raw formats (file extensions vary per camera manufacturer)

Imerge Pro 2.0 introduced a new, custom Raw engine for decoding Raw images from any camera using a Bayer filter color array in the sensor. It is GPU accelerated, which makes it dramatically faster that the third party decoder in Imerge 1, and allows for a wider range of adjustment on some features, 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 the Raw engine from Imerge Pro 1.

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.

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
Rename	F2 or ENTER	RETURN
Application settings	CTRL+,	⌘,
Save project	CTRL+S	⌘S
Save as	CTRL+ALT+S	SHIFT⌘S
Import	CTRL+I	⌘I
Export	CTRL+E	⌘E
Export settings	SHIFT+CTRL+E	SHIFT⌘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 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
Add effect	CTRL+/	⌘/
Add mask	CTRL+\	⌘\

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.

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. Some types

Layer types

Each of the four 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.
- **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.

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.



- **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.



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.

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 layers**
- **Text layers**

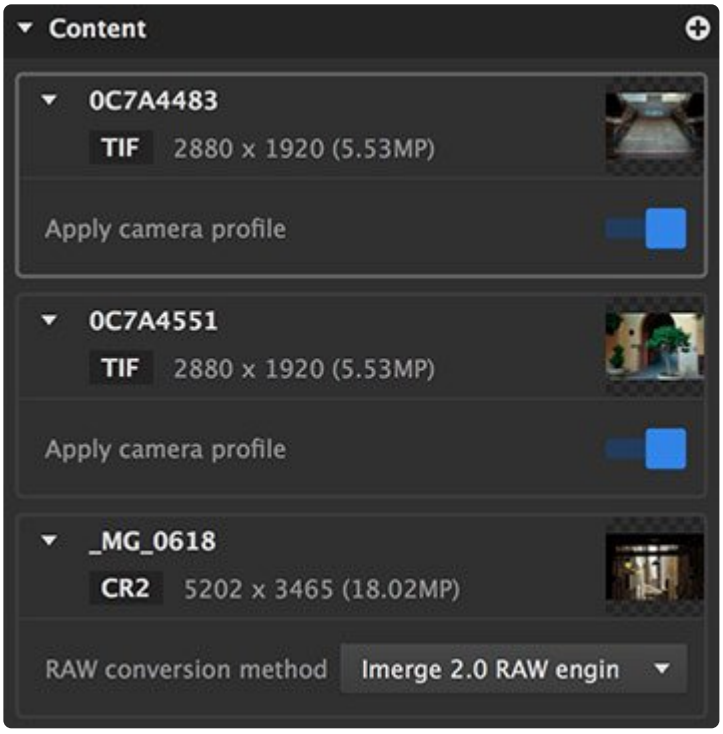
Each item in the contents list is called a **variation**. Each layer will display only one variation at a time.

Working with layer contents

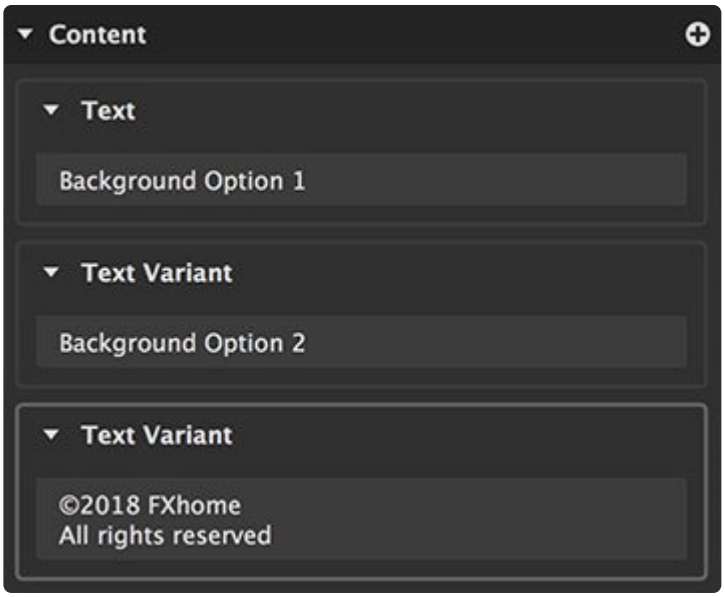
Adding contents

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.



Removing contents

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

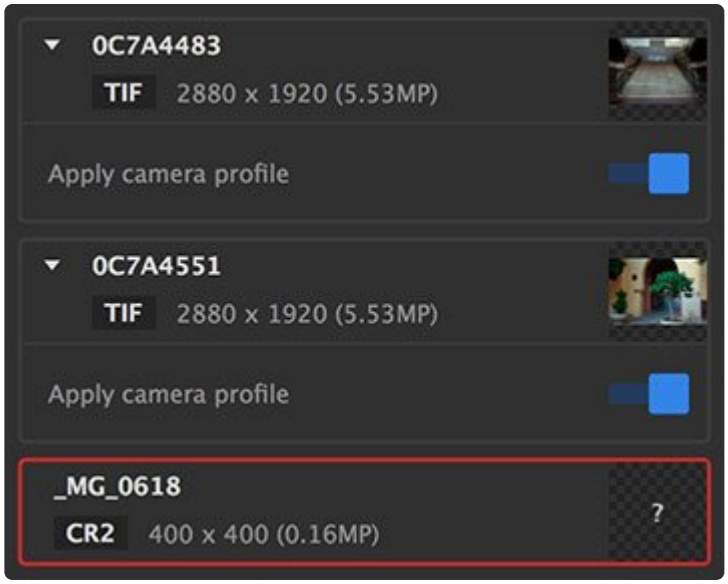
Setting a variation as active

Each layer will display only one variation at a time. The active variation is the one that is currently displayed. The active variation is highlighted in the list.

- **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.

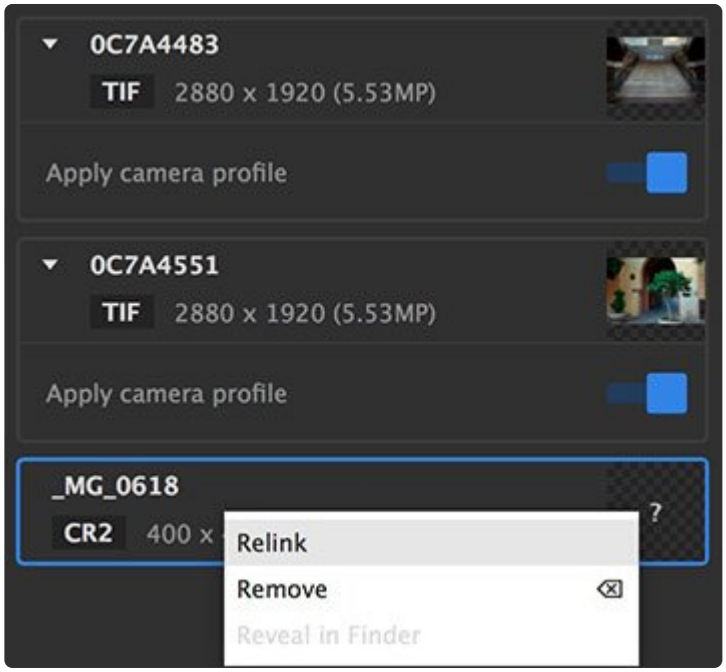


In the above image, the bottom two images are offline. Images can go offline for a variety of reasons:

- 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.

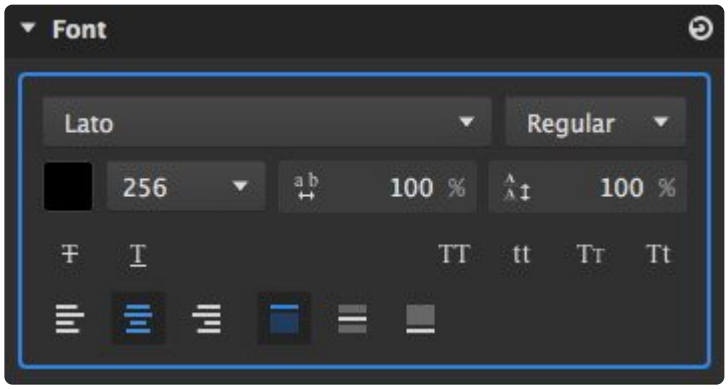
Regardless of the cause of the image going offline, the process for relinking the image is the same.

- **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.


0C7A4483
TIF 2880 x 1920 (5.53MP)
Apply camera profile
0C7A4551
TIF 2880 x 1920 (5.53MP)
Apply camera profile
_MG_0618
CR2 400 x
?
Relink
Remove
Reveal in Finder

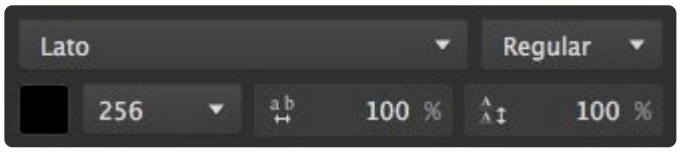
5.2. Font

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.

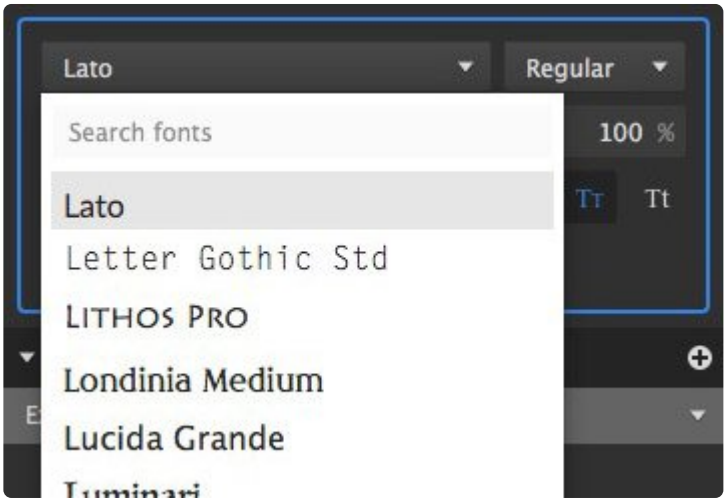


Font settings

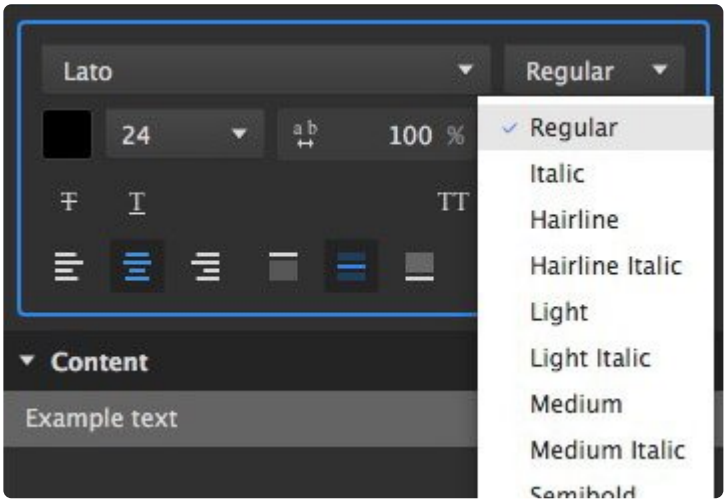
These settings define the shape and size of the text, as well as the spacing between the letters and lines of text.



- **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.



- **Color:** Click the color swatch to open a color picker and choose the color for your text. The image here shows black as the selected color, but the color of the swatch will vary based on your currently selected color.
- 256 **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.
- 100 % **Kerning:** Adjusts the vertical space between lines of letters. Each font has a default kerning value, which is defined as 100%. Setting percentages above 100% increases the space between lines, while percentages lower than 100% brings the lines of text closer together.
- 100 % **Leading:** Adjusts the horizontal space between the individual letters. Each font has a default leading 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.

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 the case of the text, and which characters are upper case and which are lower case. 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.

- Example text
- **Strikethrough:** adds a horizontal line through the center of the text.
  Example text
- **Underline:** Adds a horizontal line below the baseline of the text.
  Example text
- **All capitals:** Displays all characters in the text as capital letters, regardless of the case in which they were entered.
  EXAMPLE TEXT
- **All lowercase:** Displays all characters in the text as lowercase letters, regardless of the case in which they were entered.
  example text
- **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

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

Alignment

Use these toggles to adjust the horizontal and vertical alignment of the text within its bounding box.



The first three options control the horizontal alignment of the text, from left to right. The last three options control the vertical alignment, from top to bottom. There will always be two options enabled; one for the horizontal alignment, and one for the vertical alignment.

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

5.3. 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:

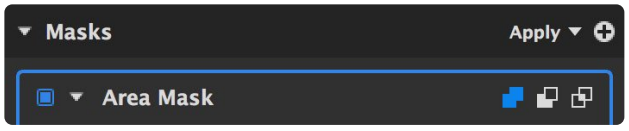
- **Gradient Mask**: Creates a mask with a large feather, based on a linear gradient. The direction and intensity of the gradient can be adjusted.
  Learn more about gradient masks
- **Area Mask**: A quick option for creating rectangular or elliptical masks.
  Learn more about area masks
- **Vector Mask**: 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 kid 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.

- **Combine:** 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.

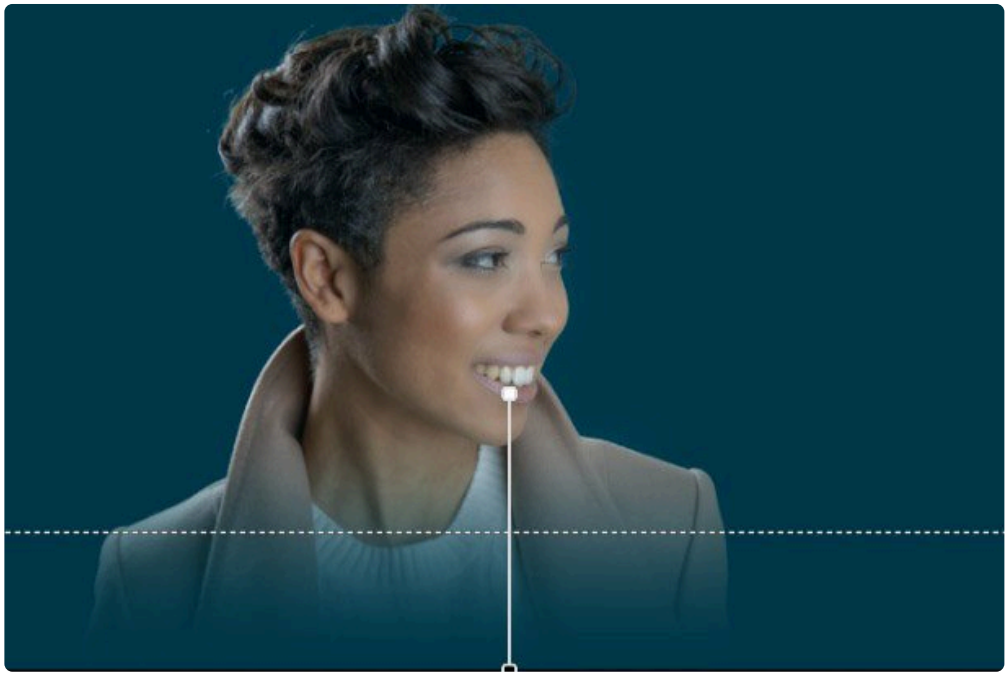


5.3.1. Gradient masks

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

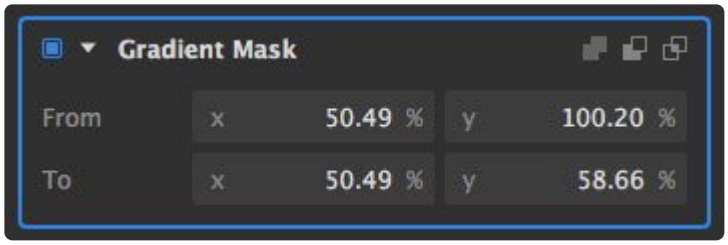




The viewer controls overlaid onto the second image above show the current layout of the mask, and allows you to edit it further.

- **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

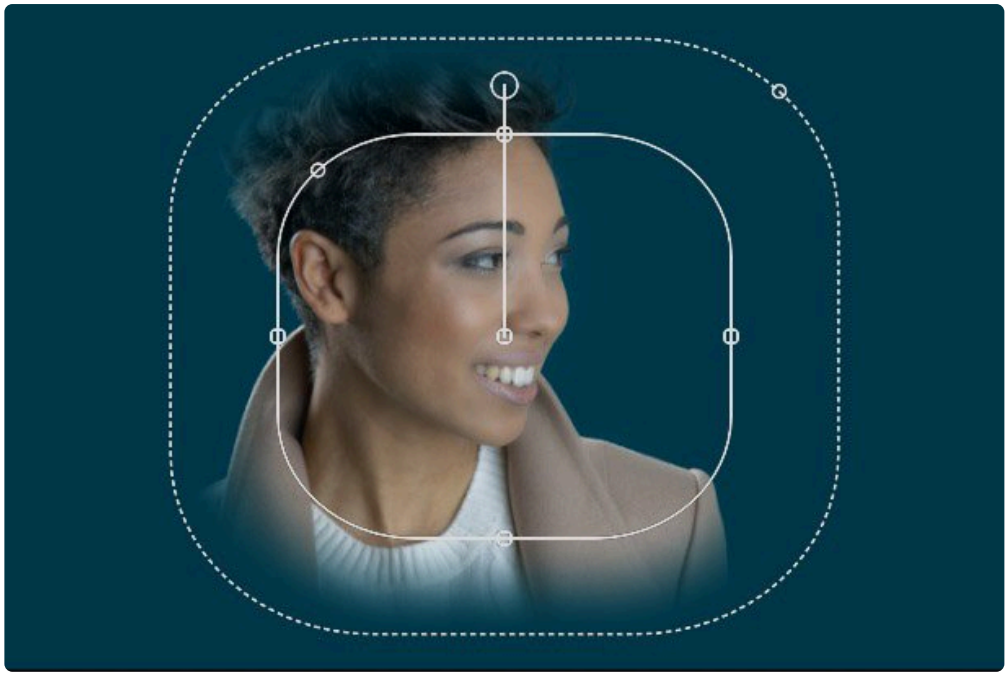
run from 0 on the left to 100 on the right. Y values run from 0 at the top to 100 at the bottom.

5.3.2. Area masks

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

Viewer controls

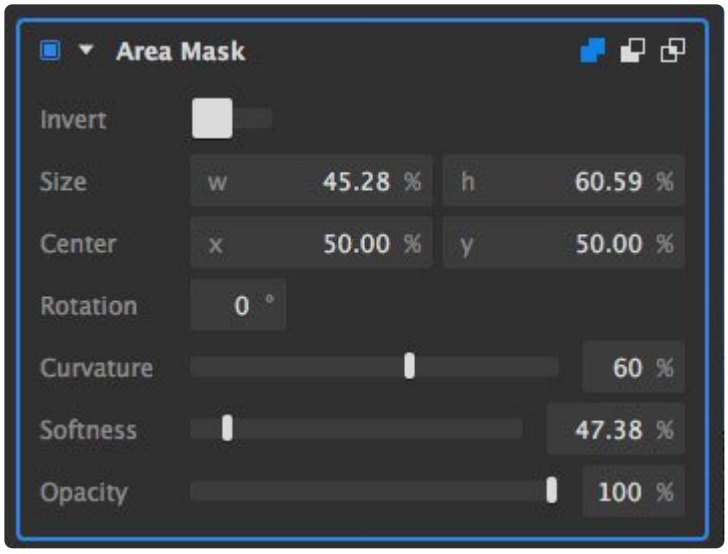




The viewer controls overlaid onto the second image above show the current mask shape, and allows you to edit the shape further in several ways. The solid inner line indicates the outer limits of the solid mask area. The outer dashed line indicates the outer limit of the mask feather. The handles can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

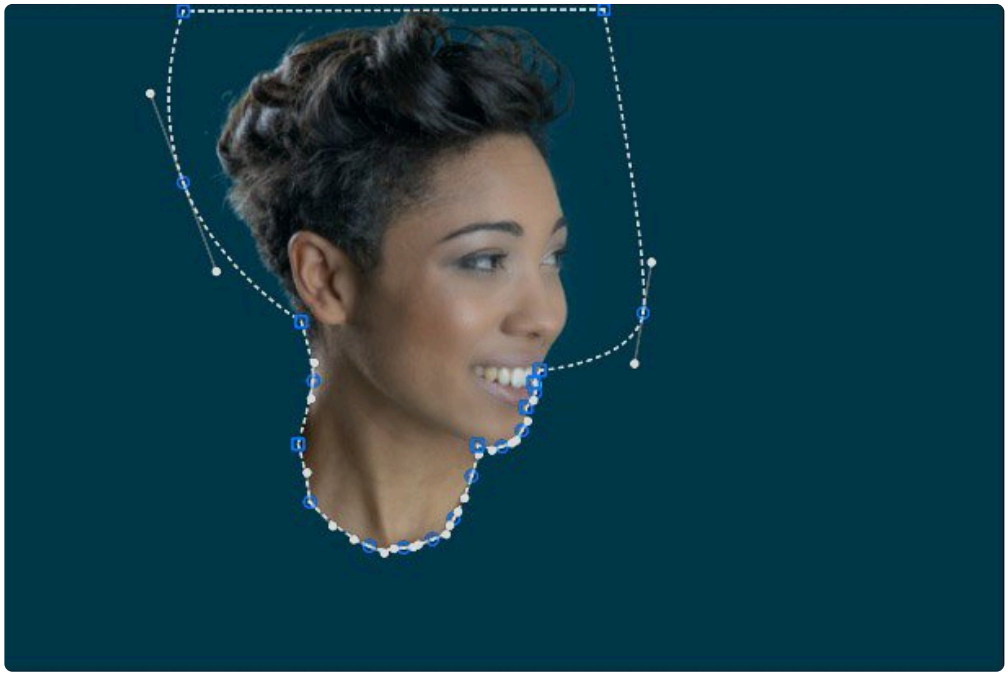
to a value of 100, which creates a smooth elliptical shape.

- **Softness:** Adjusts the width of the feathered area around the edge of the mask.
- **Opacity:** Alters the overall opacity of the mask.

5.3.3. 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.



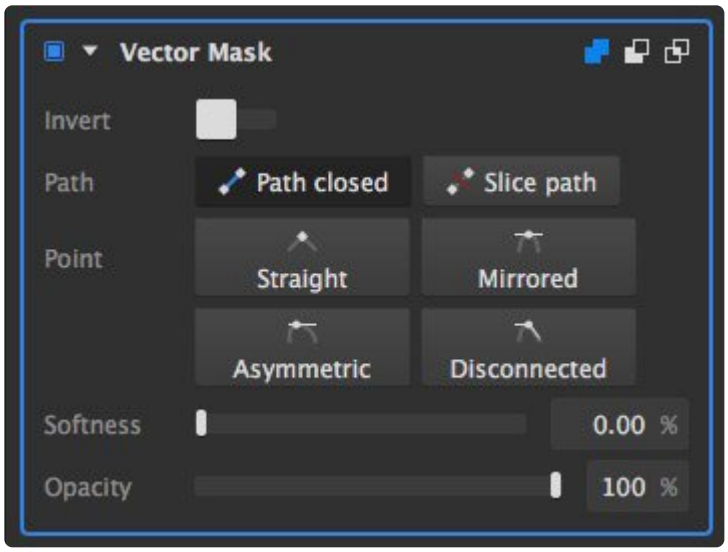
- **Asymmetric curves:** The angle of the two Bezier handles is linked, so adjusting one handle automatically adjusts the other to a mirror angle. However, the length of the handles can be adjusted independently. The result is still a smooth curve through the point, but you can create more complex compound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



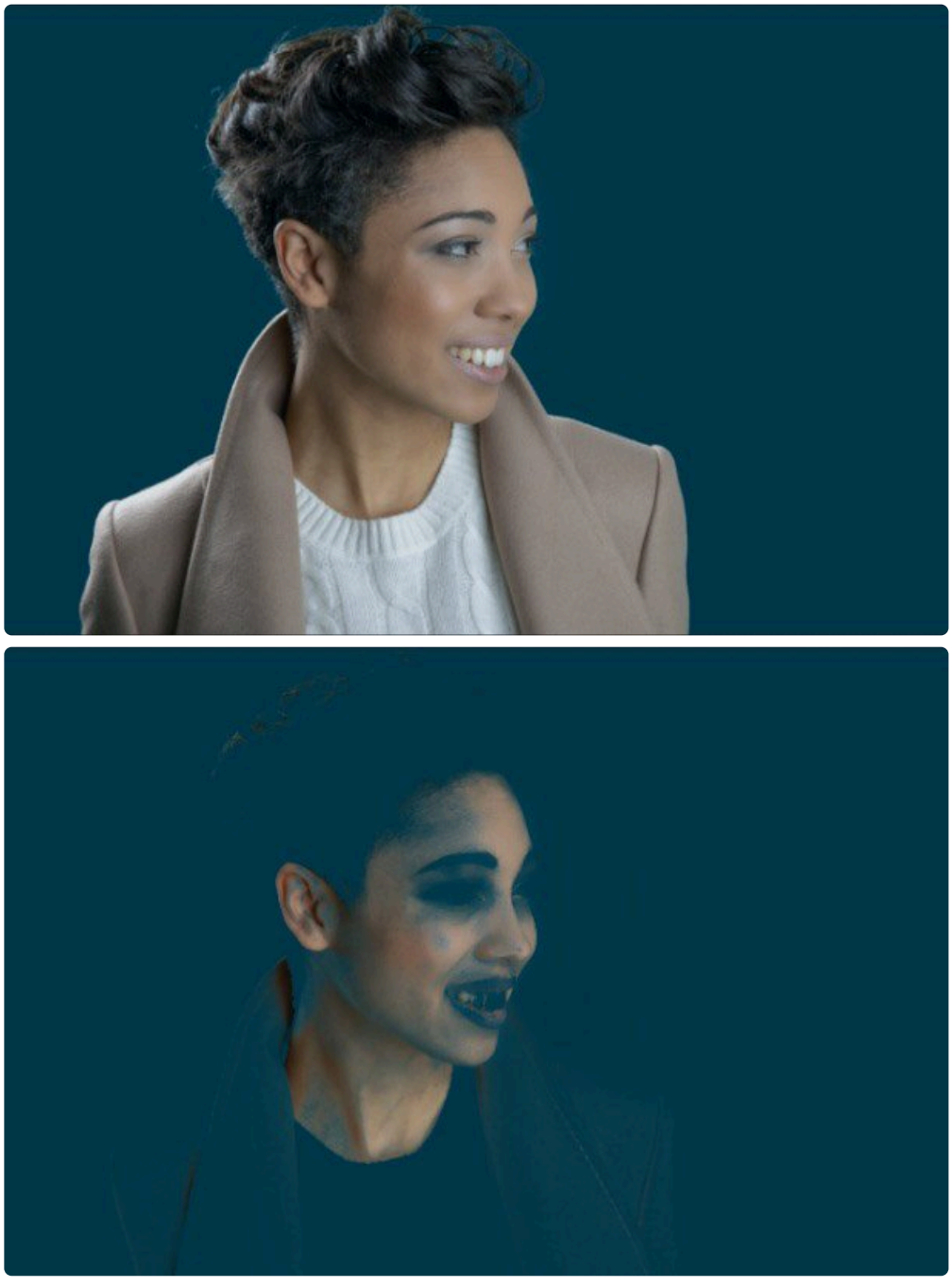
- **Disconnected curves:** The two Bezier handles are separate, and both the angle and the length of each handle can be adjusted independently.



- **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.

5.3.4. 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.

5.3.5. 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

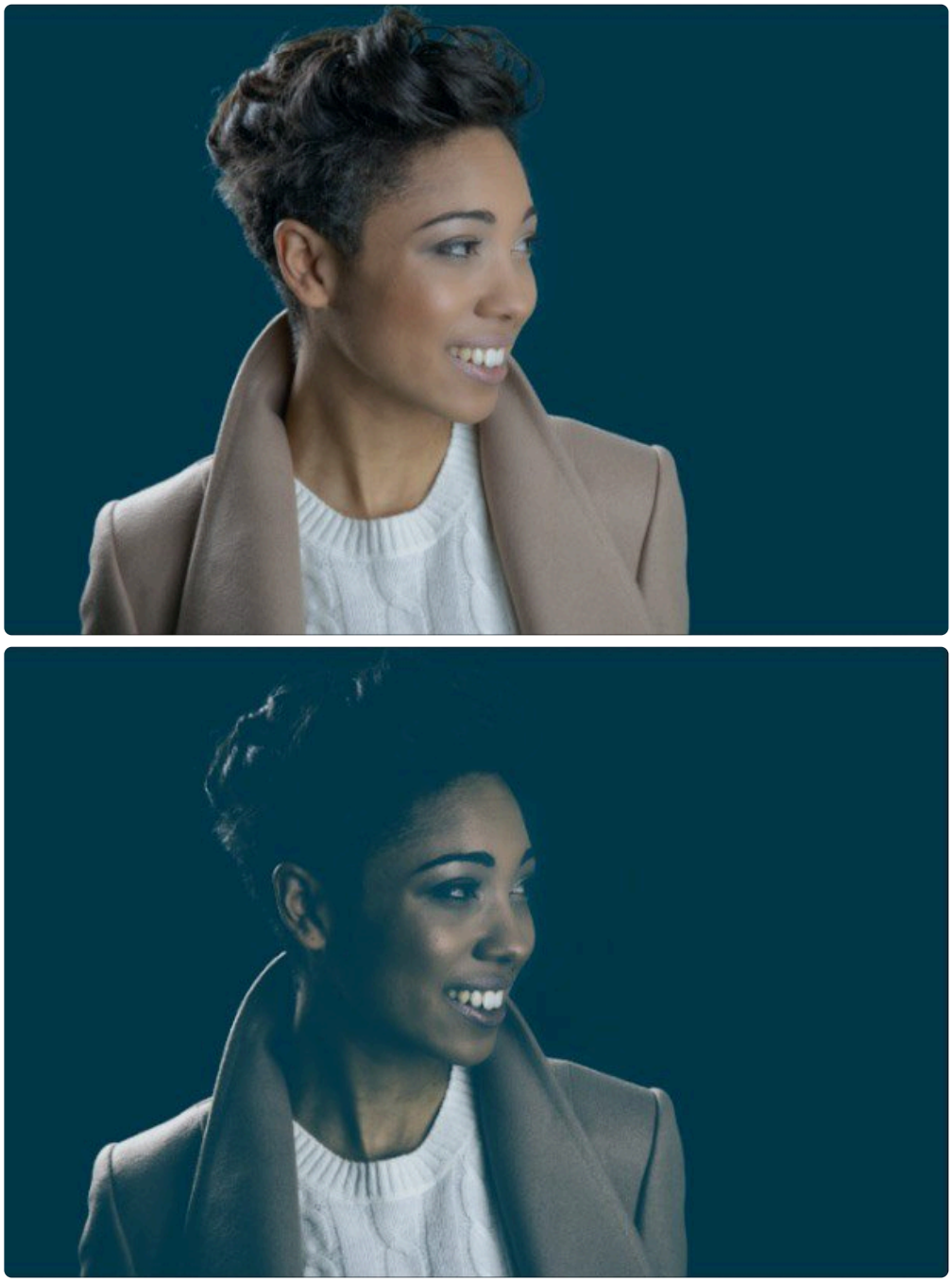


- **Invert:** Toggles between retaining (the default) or removing the selected color range.

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

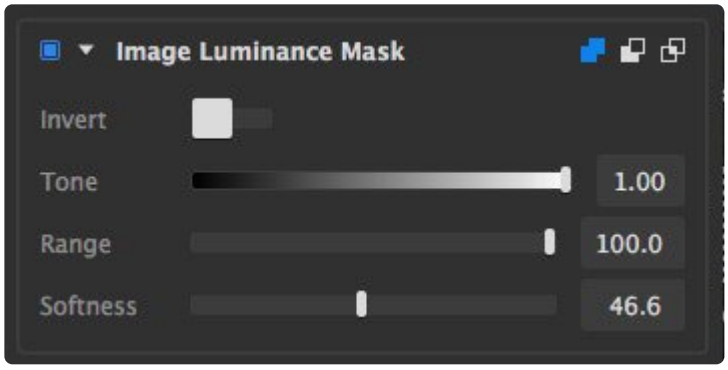
5.3.6. Image luminance masks

An image luminance mask isolates an area of the image based on a luminance selection. Luminance masks can be very useful for applying natural color adjustments to the shadows, mid-tones, or highlights of the image, without affecting other areas.



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.
- **Tone:** Selects the primary tonal value on which the selection will be based
- **Range:** Defines the size of the tonal range surrounding the primary tone that will be included in the selection.
- **Softness:** Softens the selection at the edges of the selected tonal range. Increasing softness often creates more natural results when color adjustments are applied based on a luminance mask.

5.3.7. 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.
  - **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

5.4. Effects

There are 7 categories of effects available in Imerge for you to modify layer contents.

- **Tone:** changes 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.
- **Color:** modifies the color of the image.
- **Keying:** remove areas of a photo based on color or luminance levels.
- **Detail:** edits the details in the image dealing with things like noise, blurring and sharpening.
- **Generate:** primarily focuses on adding computer generated content to your image. Things like clouds, vignettes and scanlines.
- **Stylize:** apply an artistic effect to your image and typically combines color modifications with tonal modifications.
- **Styles:** adds graphical effects to elements like color fills, gradients, outlines and glows.
- **Distort:** moves the pixels in your image around.

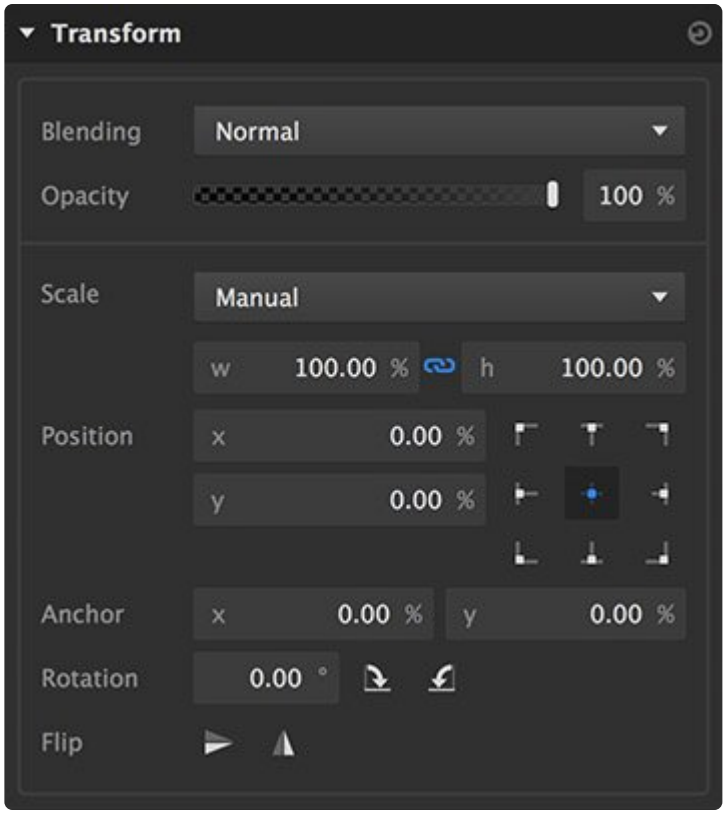
Specific effects are explained in detail in the Effects chapter of this manual.

5.5. 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.

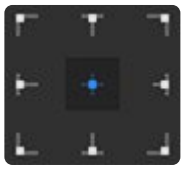
Transforming image layers

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.

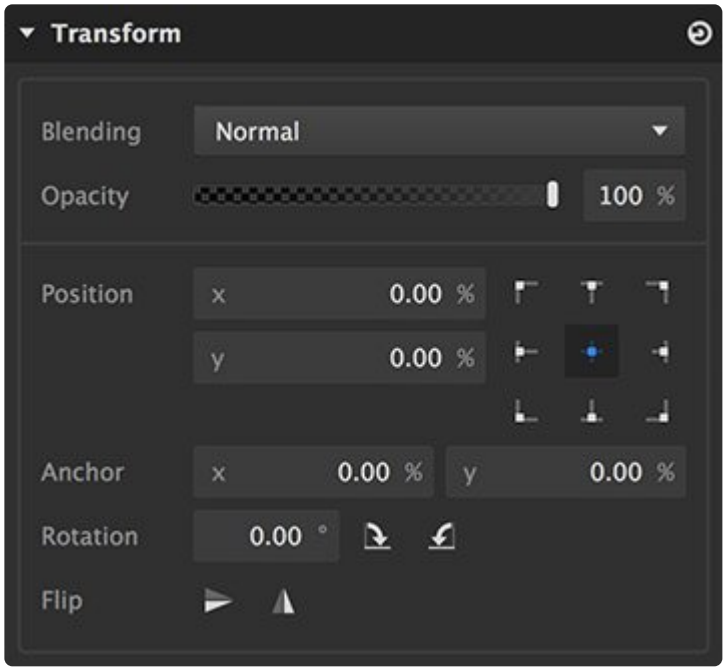
        - **Manual:** This is the default mode, and gives you full manual control over the size of the layer.
        - **Fill canvas:** Auto adjusts the layer size so that it completely fills the canvas. If the layer and the canvas are different shapes, then some of the layer will be cropped.
        - **Fit 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.



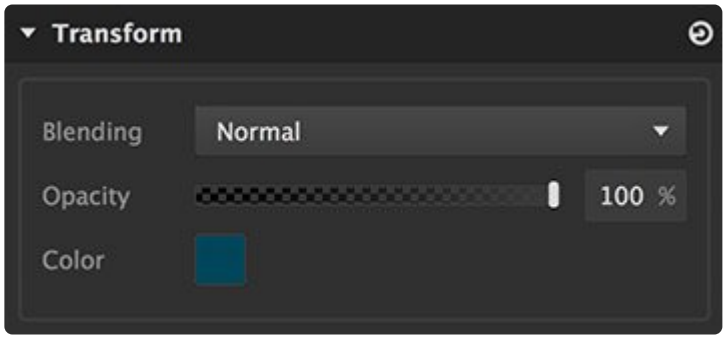
- **Anchor point:** Offsets the layer from the selected anchor point. The origin point will stay in place,

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.
- **Color:** Click the color swatch to open a color picker and choose the color for your text. The image here shows a dark teal as the selected color, but the color of the swatch will represent your currently selected color.

Transforming adjustment layers

Adjustment layers have no positioning controls, because the y have no actual rendered contents. They alter

other layers in your project, so the transform controls only contain the controls that affect how the 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.

5.5.1. 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 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

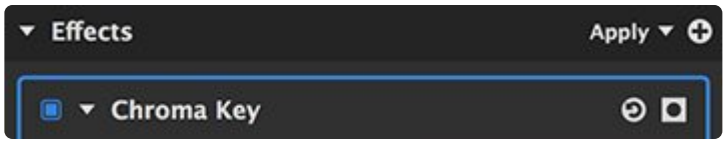
- **Average**: Adds the Base value and Blend value, then divides by the number of layers (2) to get an average value for each pixel.
- **Hue**: Converts both layers to HSL color, then combines the Luminance and Saturation values of the Base Layer with the Hue of the Blend Layer. Used carefully, this 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.

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.
  - **Expand:** Expand the controls any time you need to access them to adjust their settings.
  - **Collapse:** 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.
- **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 cann select the specific type of mask you wish to apply to the effect.

Effects categories

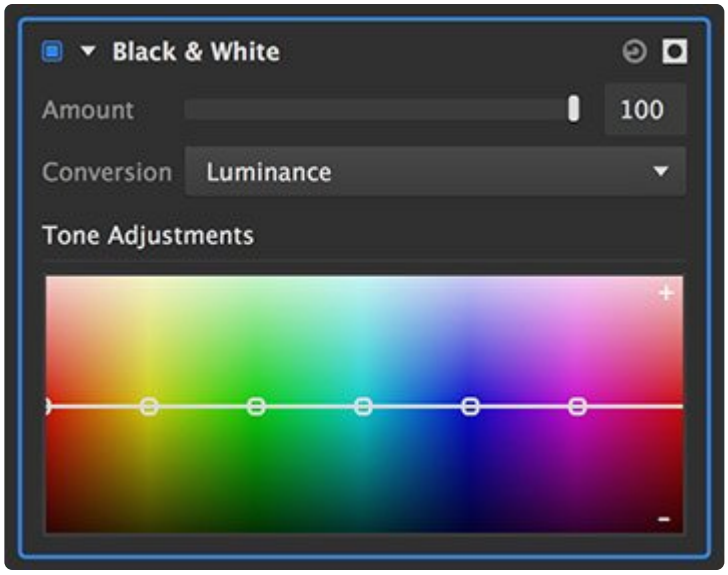
Effects are grouped into several categories, based on how they alter the image. Each group has its own page in the section that follows, with specific details of all the effects in that category.

Color	Details	Distort	Generate	Keying	Styles	Stylize	Tone
Black & White	Denoise	Quad Warp	Clouds	Chroma Key	Color Overlay	Bleach Bypass	Clarity
Channel Viewer	Directional Blur		Scan Lines	Color Difference Key	Inner Glow	Pixelate	Curves
Color Adjustment	Gaussian Blur		Vignette	Light Wrap	Linear Gradient		Dehaze
Invert	Grain			Luminance Key	Outer Glow		Exposure
LUT	Noise			Remove Color Matting	Outline		Levels
Saturation Editor	Sharpen			Spill Removal	Pattern Overlay		
Tone Coloring	Zoom Blur				Radial Gradient		
White Balance							

6.1. Color effects

Black & White

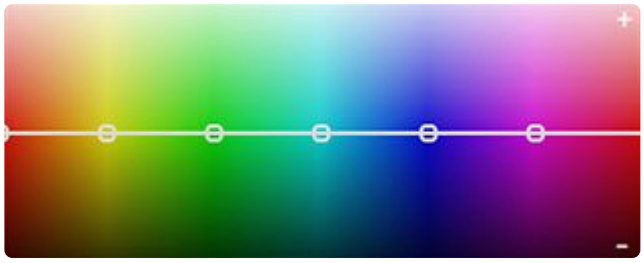
Use this effect to convert your image to black and white, or to reduce the saturation of your image. Imerge Pro's black and white tool gives you full control over the luminosity of specific colors in your image, so you can dial in the exact results you desire.



- **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

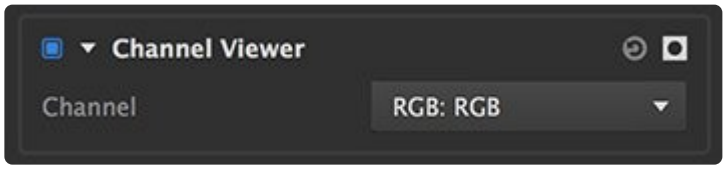
The spectrum map under tonal adjustments allows you to customize the results. There are a number of control points on the spectrum curve, and you can create additional control points as well.



- **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.

Channel Viewer

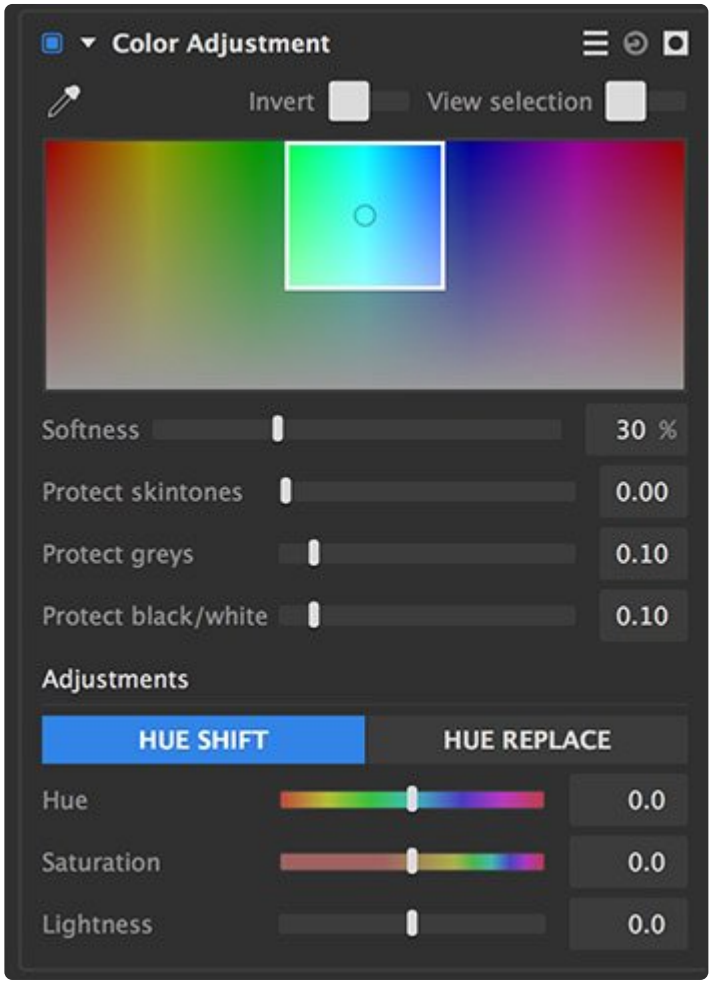
The channel viewer lets you quickly exchange individual channels in your image into other result. They are typically used as a diagnostic tool inspecting a particular color space channel from an image.



- **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.

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 huw 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.

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 addd, 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.

Invert

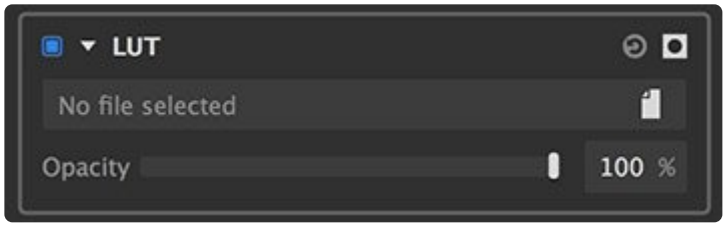
Allows you to invert individual channels of the image. By default all color channels are inverted, which inverts the entire image. You can also invert specific channels individually.



- **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.

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

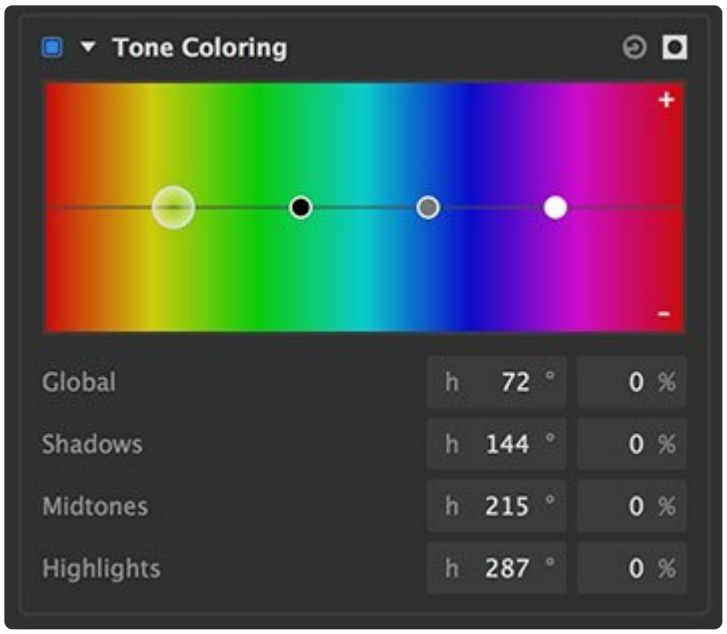
The saturation editor is optimized for fine tuning the intensity of each color in the layer. It uses a curve to control the saturation of different colors…



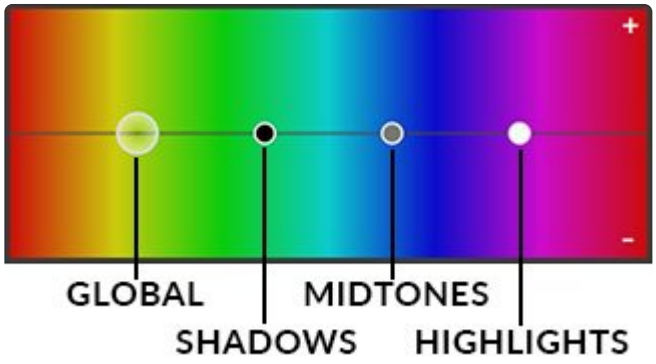
- **Editing the curve:** The horizontal line running through the center of the spectrum is a curve. You can add points to the curve above any hue, and reposition them to adjust the saturation of that hue.
    - **Adding points:** Click anywhere on the curve to add a new point. When the first point is 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.

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.



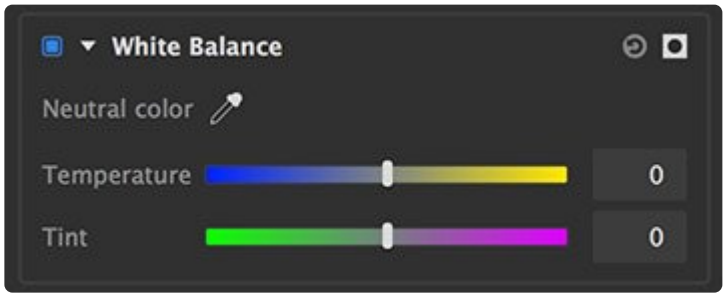
- **Editing the curve:** The tone coloring curve has four control points. Each controls a different tonal range. The points correspond to the controls listed below the spectrum. Drag a point sideways to determine the color that is edited within its tonal range. Drag the point upward to add more of the 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.

6.2. Details 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.

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.

Highpass

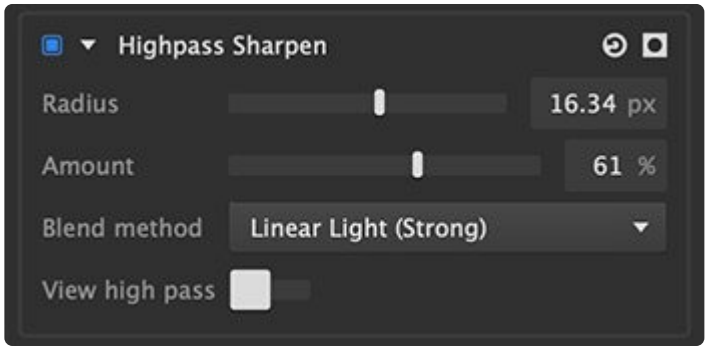
Examines each pixel of your image and creates a map which accentuates the areas of contrast. Detail is removed from areas of low contrast, and enhanced at contrasting edges.



- **Radius:** Sets the radius, in pixels, which will be evaluated to identify contrast.
- **Monochrome:** Removes all color tones from the high pass image.

Highpass Sharpen

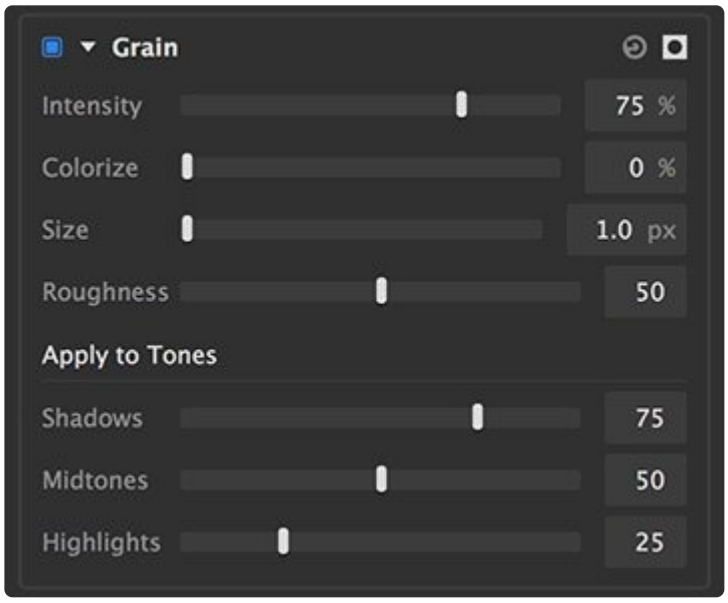
Sharpening is a common application for highpass filtering. To create the sharpening, a duplicate of the layer is created, a highpass filter is applied to the duplicate, and the result is then blended back onto the original. All of this is handled internally by the Highpass Sharpening effect, greatly 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 High Pass:** 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.

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.

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.

Sharpen

Sharpening is used to increase micro contrast around fine edges on the image, which causes the edges stand out more and appear to be in sharper focus. 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.

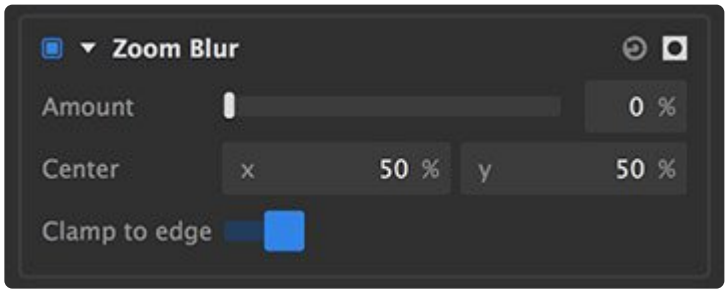


- **Amount:** Defines the intensity of the sharpening effect.
- **Radius:** Sets the distance from the edges, in pixels, that the sharpening will affect. The radius should be kept fairly low in most cases, and the lower your image resolution, the lower the radius should be.
- **Threshold:** Controls the edge detection, to determine which edges in the image will be affected. The 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 ares can also contain transitions of color. A very low threshold mans that only the areas of highest contrast are sharpened, while increasing the threshold will add sharpening to more detected edges.

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.

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.



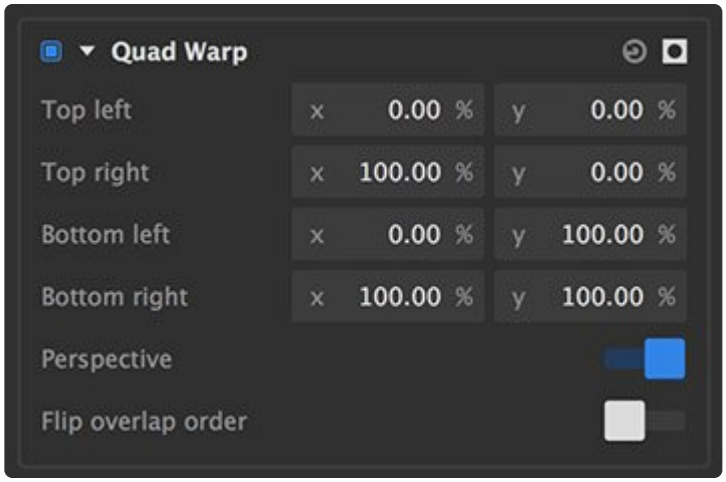
- **Amount:** Sets the length of the blur, as a percentage of the source image size.
- **Center:** Sets the center point from which the blur will emanate. The center is also identified on the viewer as a white circle, which can be dragged to set the center position.
- **Clamp to edge:** When enabled, this option ensures that the edges of the image do not become semi-

transparent when the blur is rendered.

6.3. Distort effects

Quad Warp

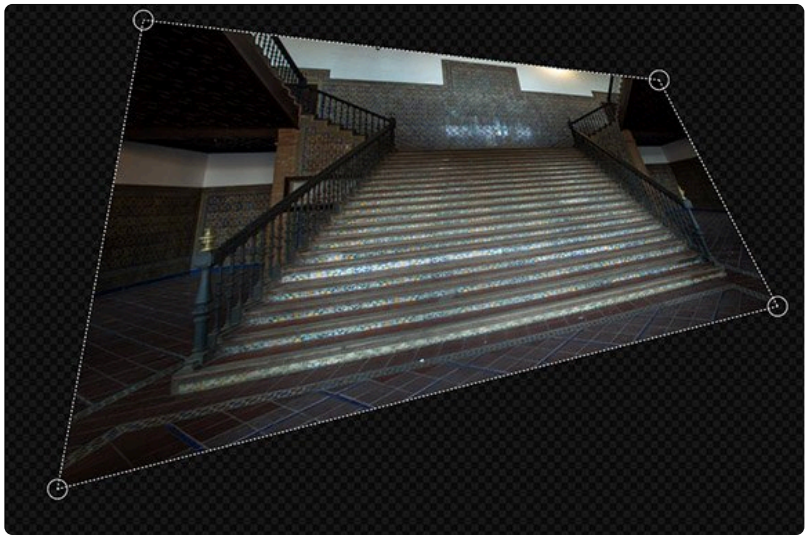
Use quad warp when you need to reposition the corners of a layer individually, to alter its perspective or to alter the scale of its contents non-uniformly. The effect provides controls for each individual corner of the layer.



- **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.

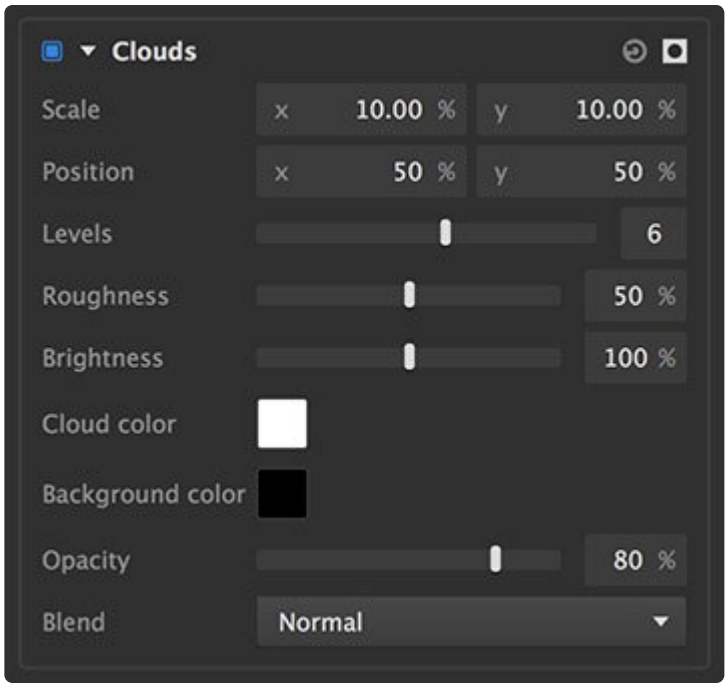


- **Corner handles:** On the viewer, when the quad warp effect is selected, circular control points will appear at each corner of the layer, connected by dotted lines. Dragging the corner handles to reposition them directly controls the warp effect.

6.4. 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.



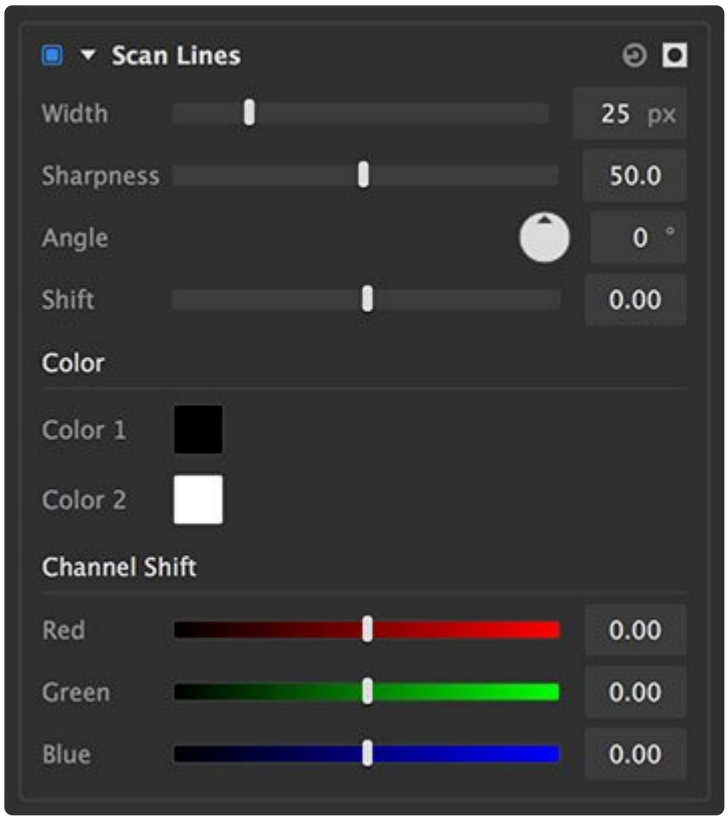
- **Scale:** Sets the granularity of the cloud effect, on the X and Y axes. X values run from 0 on the left to 100 on the right. Y values run from 0 at the top to 100 at the bottom.
- **Position:** Shifts the effect on the X and Y axes. X values run from 0 on the left to 100 on the right. Y values run 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 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.

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

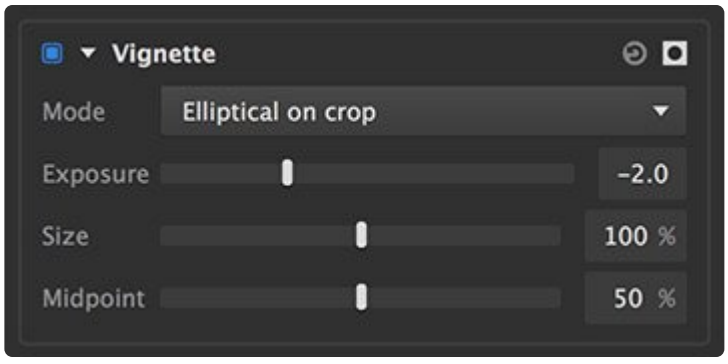
- **Color 1:** Defines the color used for the odd-numbered lines. Click the swatch to open a color picker and select any color you desire.
- **Color 2:** Defines the color used for the even-numbered lines. Click the swatch to open a color picker and select any color you desire.

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.

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.

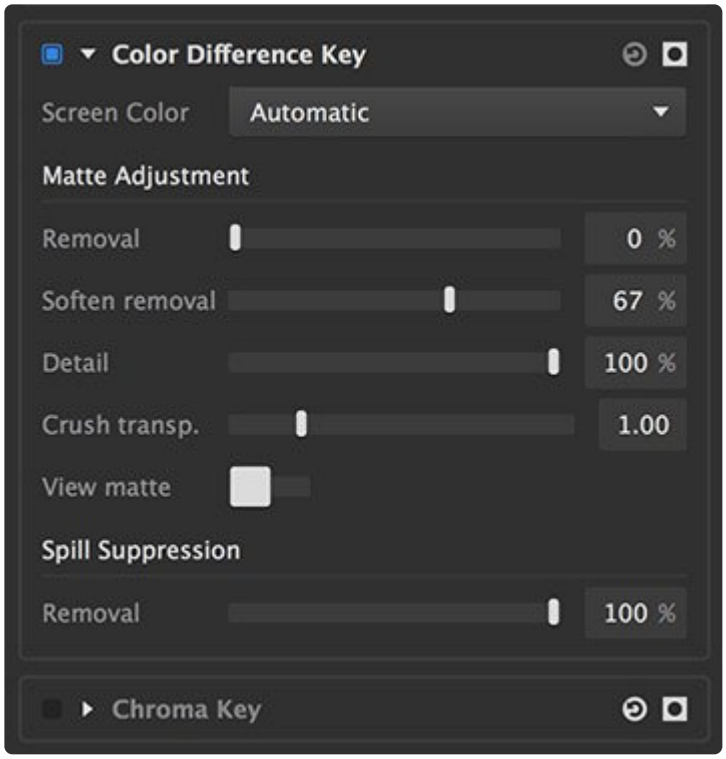
    - **Circular on fill:** Creates a perfect circle which fits entirely with a diameter equal to the longer dimension of the layer, as the basis for the vignette shape.
- **Exposure:** Your vignette can brighten or darken the underlying image. Set exposure to a negative number to darken the edges, or to 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.

6.5. 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

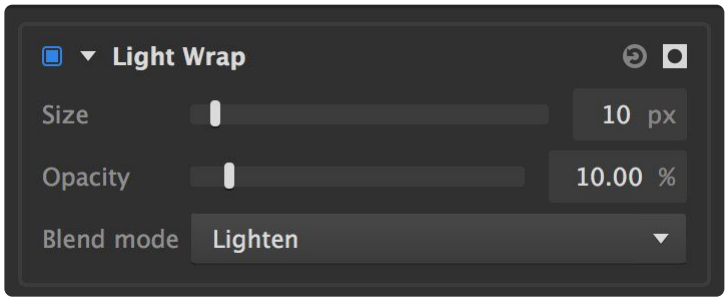
- **Removal:** Increasing this setting will remove a larger range of color from the image. If parts of your backdrop are still visible, raise the removal value.
- **Soften removal:** Targets areas of the image that are nearly transparent, and pushes them toward greater transparency.
- **Detail:** Targets 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

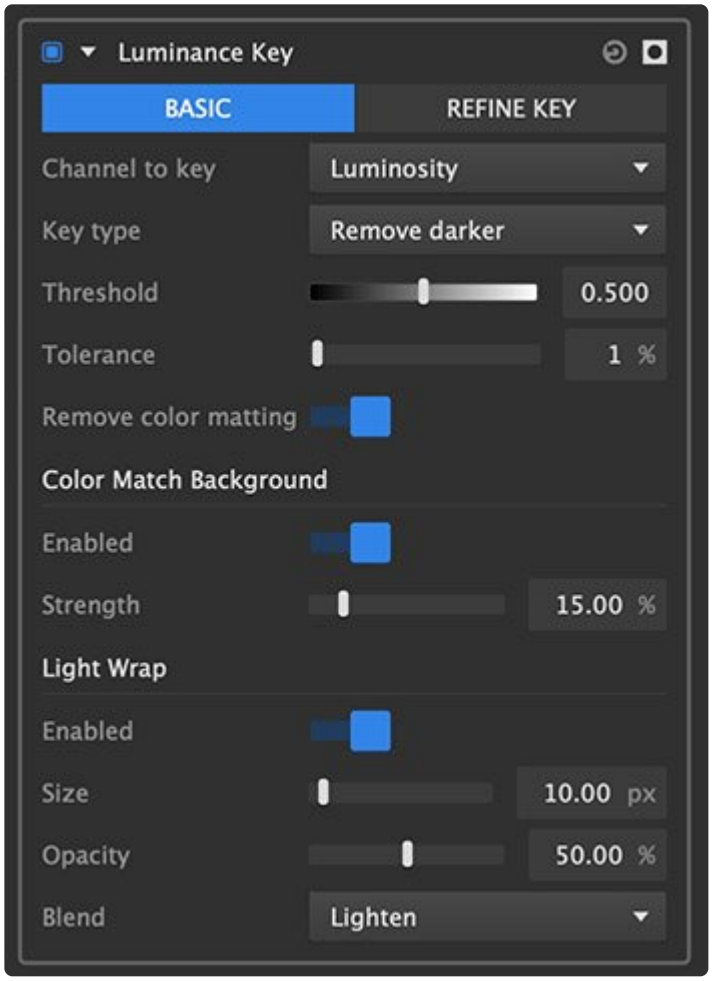
Luminance key is useful for removing white or black backgrounds, where there is not sufficient color data to use color-based keying tools.

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.

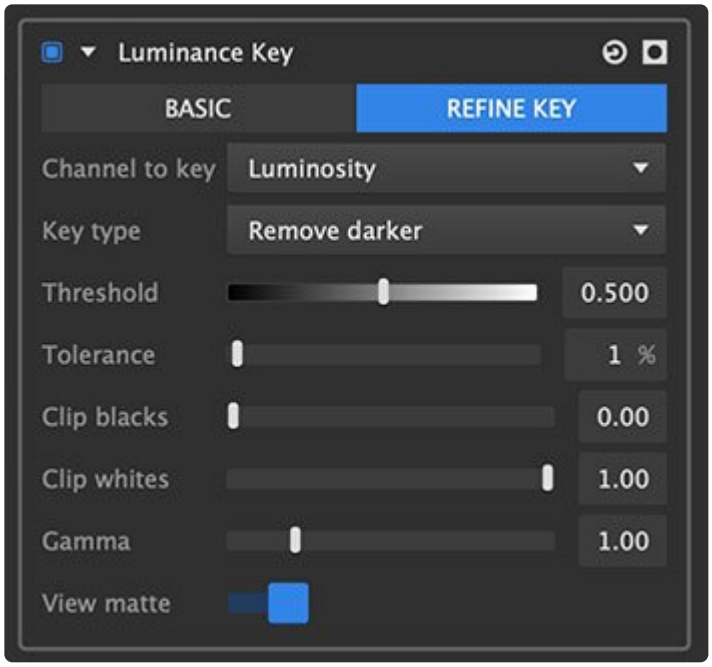
Color Match Background

- **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.

Remove Color Matting

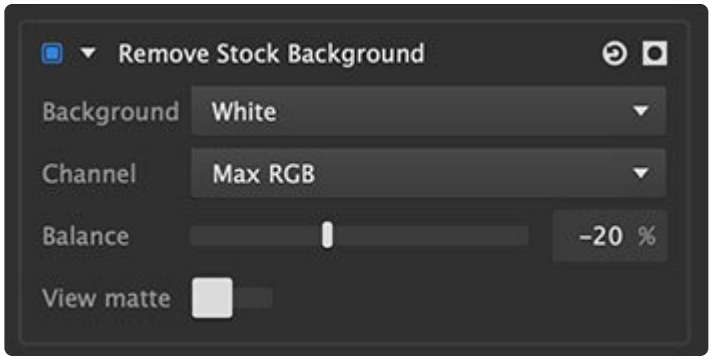
Eliminates halos from the edges of composited elements where the background has been removed. When a composited element has unwanted color around the edges, you can use this tool to remove that color, while still retaining transparency in those edge areas.



- **Color:** Click the swatch to open a color picker and select the color you want to remove from the image.

Remove Stock Background

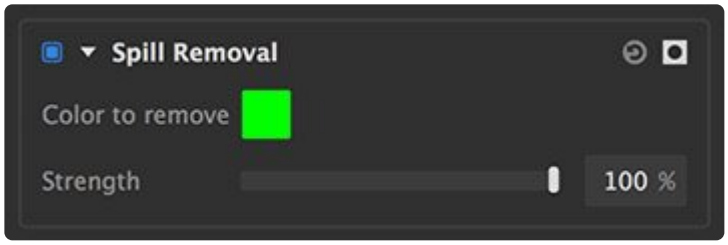
For stock images shot on a black or white background, this tool makes it easy to remove those backgrounds.



- **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.

6.5.1. Chroma key

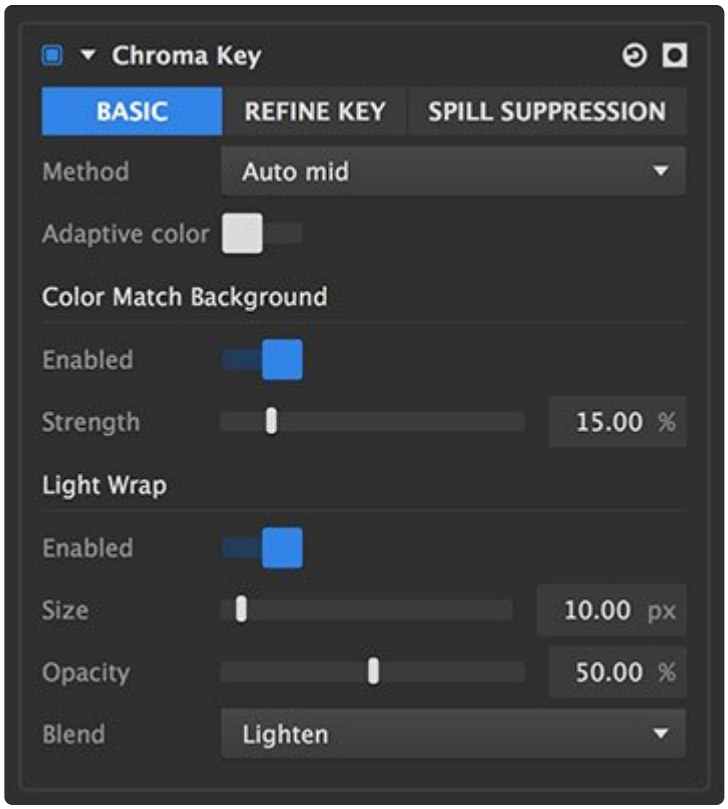
The chroma key tool in Imerge Pro is among the best in the world for processing green screen photography. It makes stunning results almost effortless for most images, while at the same time providing intuitive yet powerful adjustments to bring even the most problematic images into line.

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.

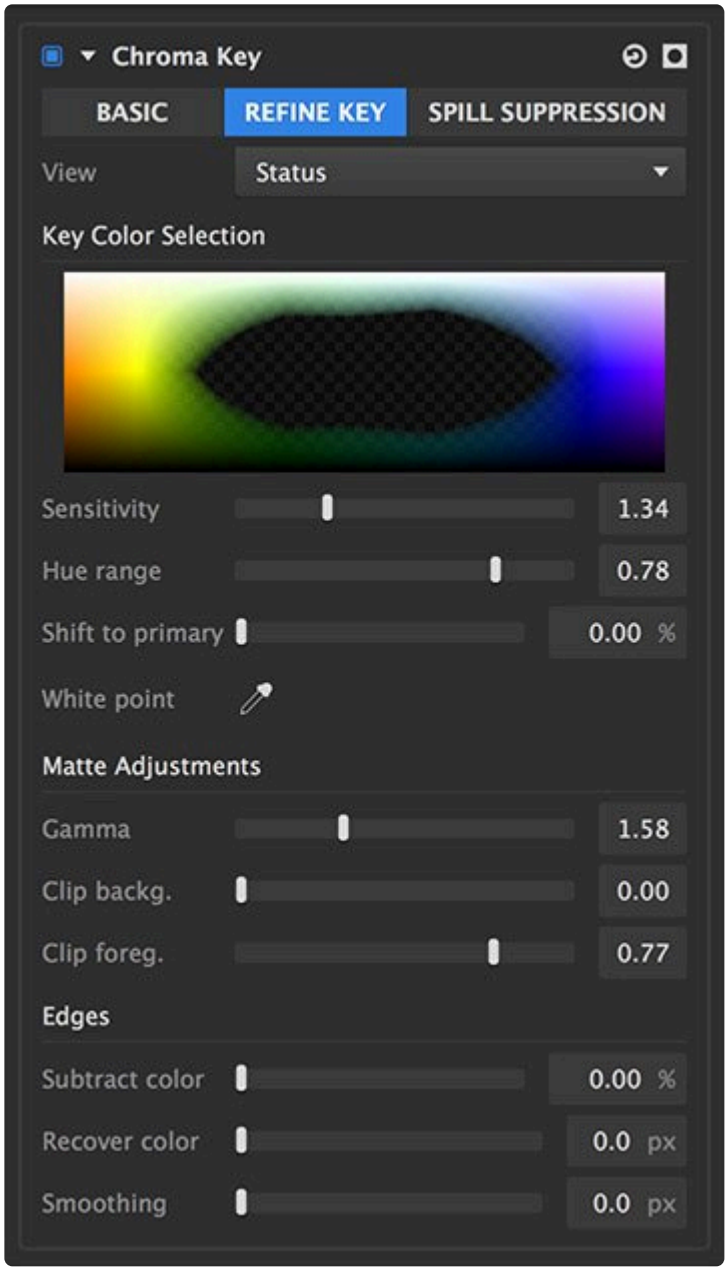
Color match background

- **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.

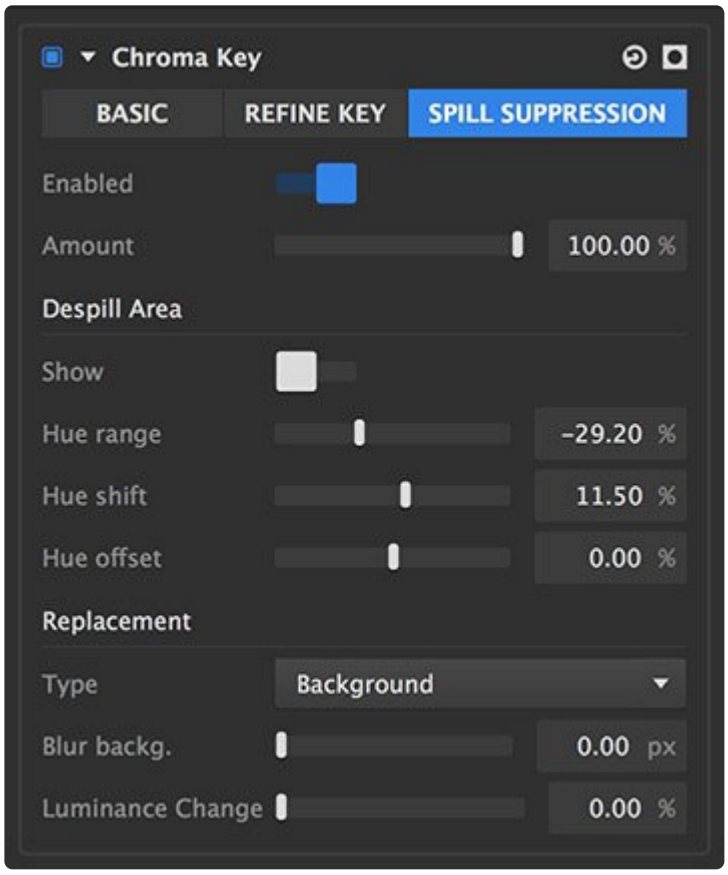
Edges

- **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 ares 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.

6.6. Styles effects

Color Overlay

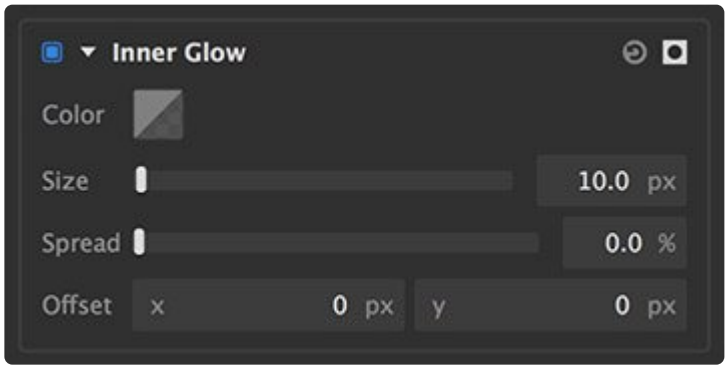
Adds a color to all the pixels in an image. It will not affect the alpha channel so the shape of your image will be retained and only the color will change. This can be useful for making silhouettes by filling black or more creative graphical uses with images that are imported and have an alpha channel.



- **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.

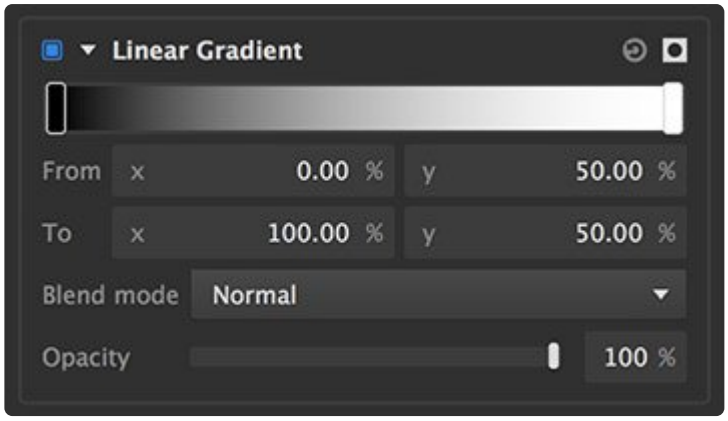
- **Offset:** Shifts the position of the glow in relation to the image, either horizontally on the X axis, or vertically on the Y axis.

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



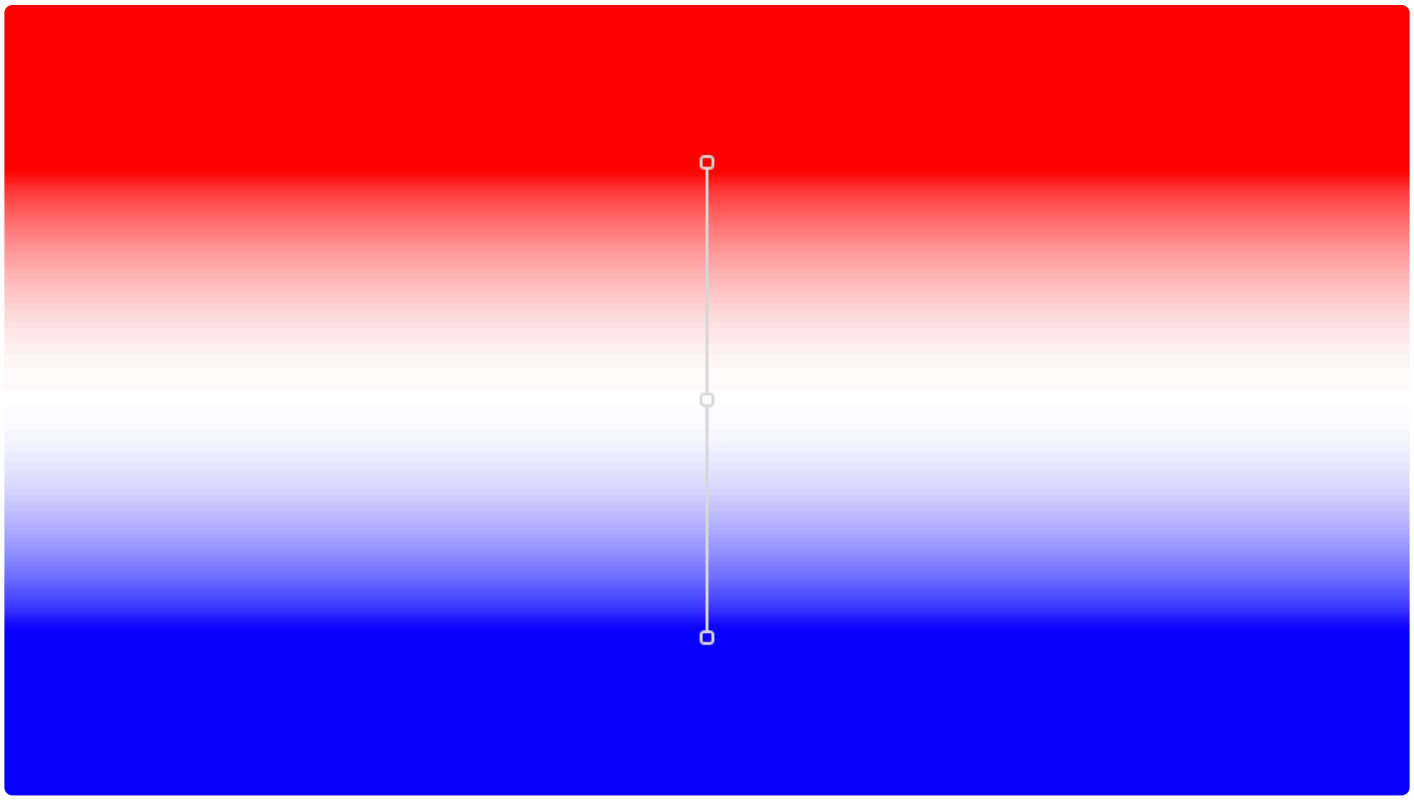
Linear Gradient

Creates a linear between colors of your choice.



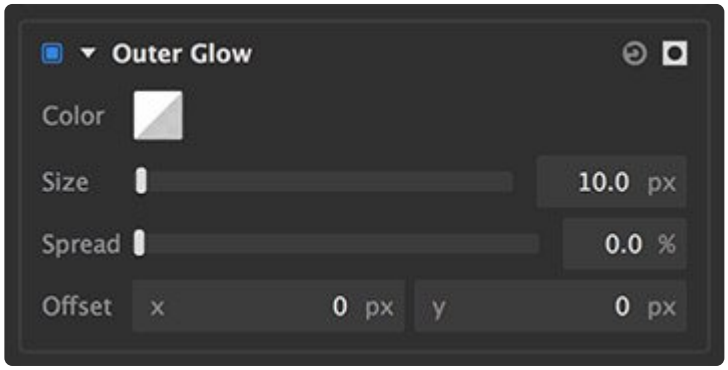
- **Gradient controls:** The gradient shows a visual representation of the current color selections.
    - **Editing the colors:** Double-click the rectangular box at either end of the gradient to open a color picker and select the color you want to use at that end. You can also double click at any point 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:



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.



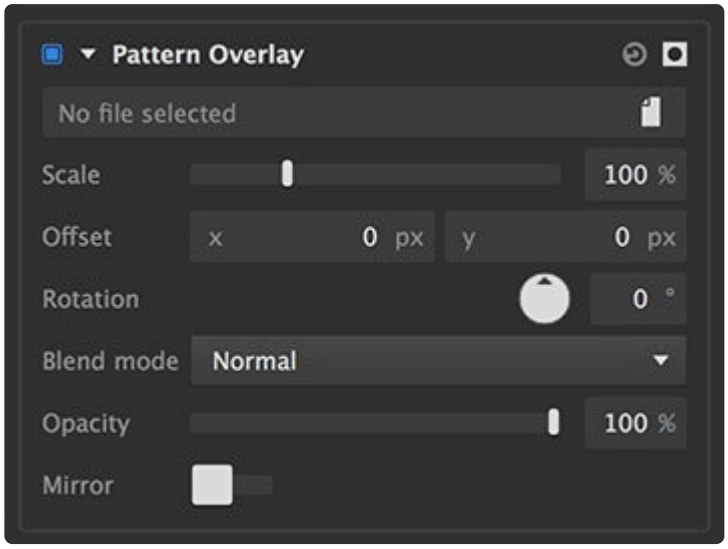
- **Color:** Click the swatch to open a color picker and select the color of the outline.
- **Thickness:** Sets the width of the line, in pixels.
- **Position:** Choose where the outline sits, in relation to the layer edge.
  - **Outside:** The outline is positioned entirely outside the layer, so the 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.

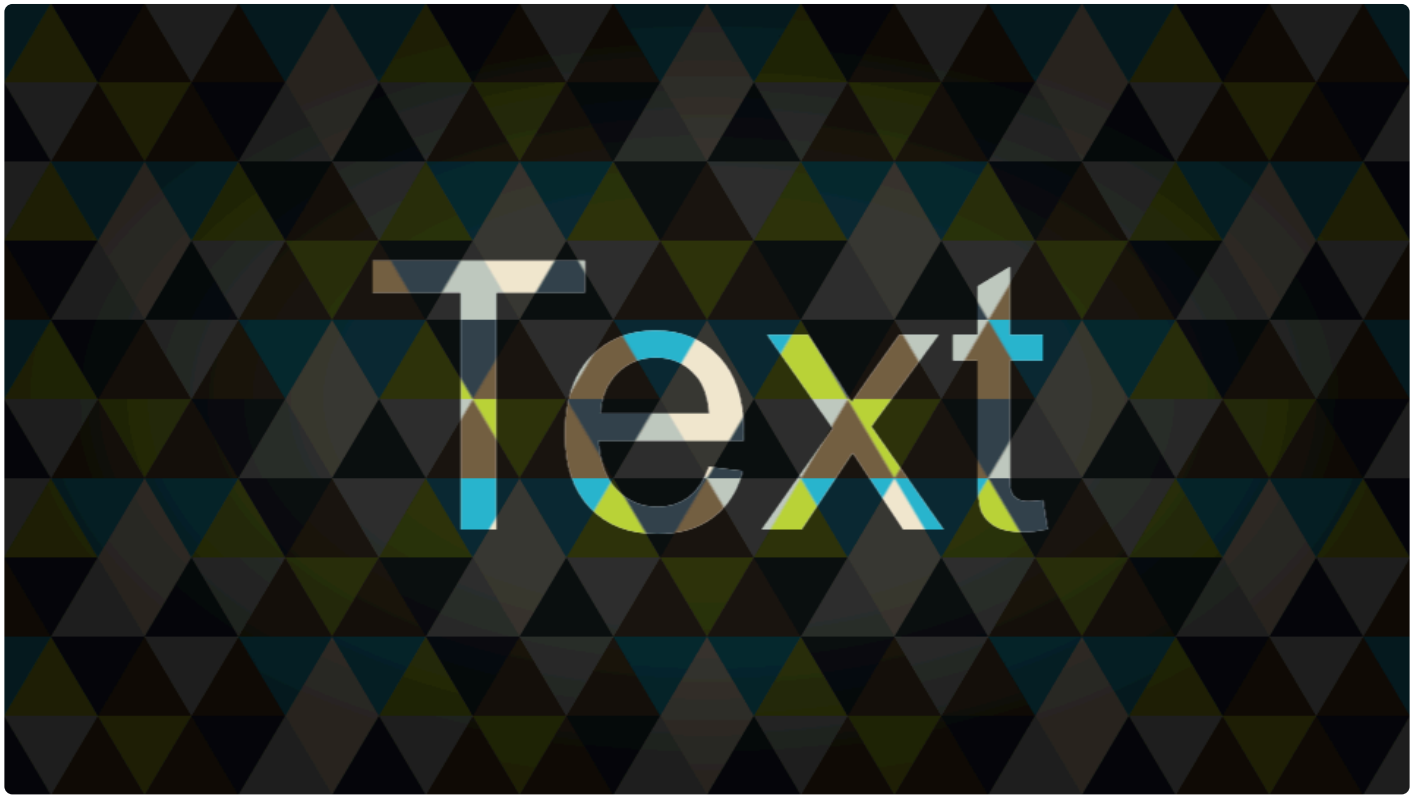


- **File selector:** Click the file icon at the right to open a file browser and select an image file. PNG, JPG

and 8-bit TIFF files are supported.

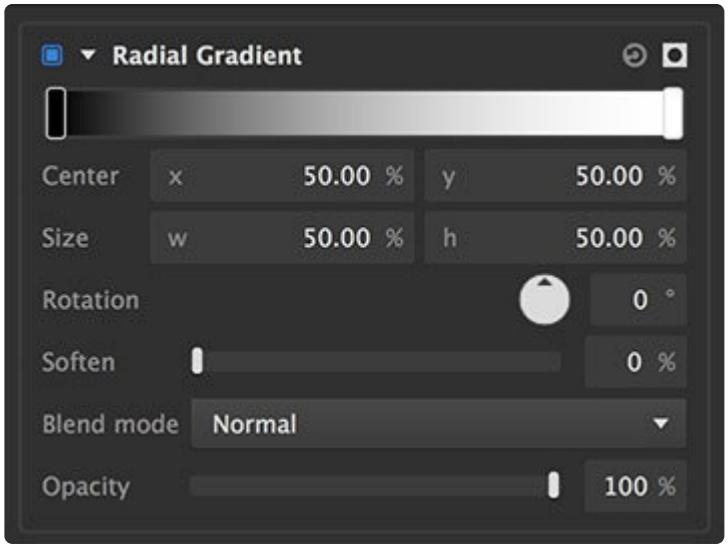
- **Scale:** Adjusts the size of each instance of the selected image within the tiled pattern.
- **Offset:** Shifts the position of the pattern image in relation to the layer contents, either horizontally on the X axis, or vertically on the Y axis.
- **Rotation:** Turns the pattern image around its center 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.



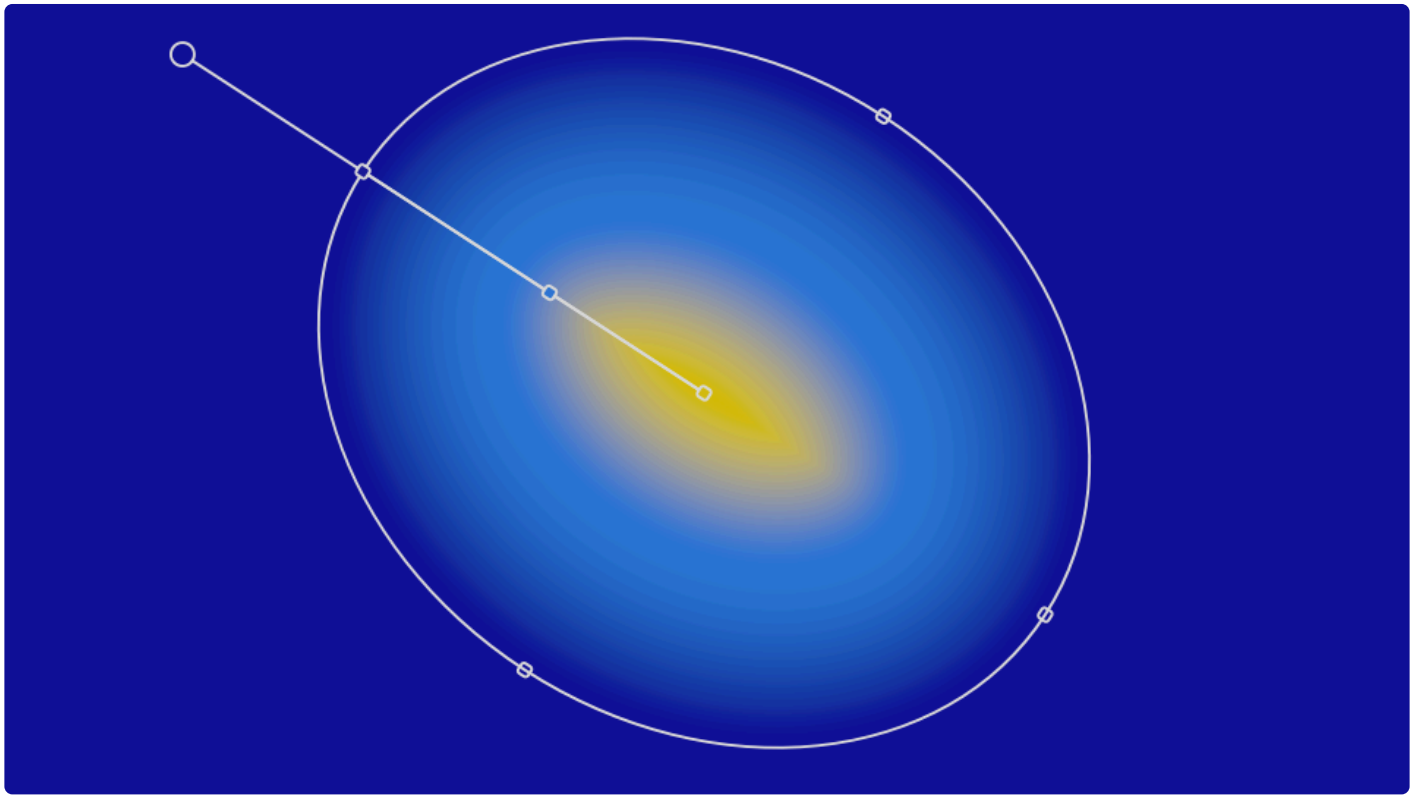
Radial Gradient

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.



6.7. Stylize effects

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.

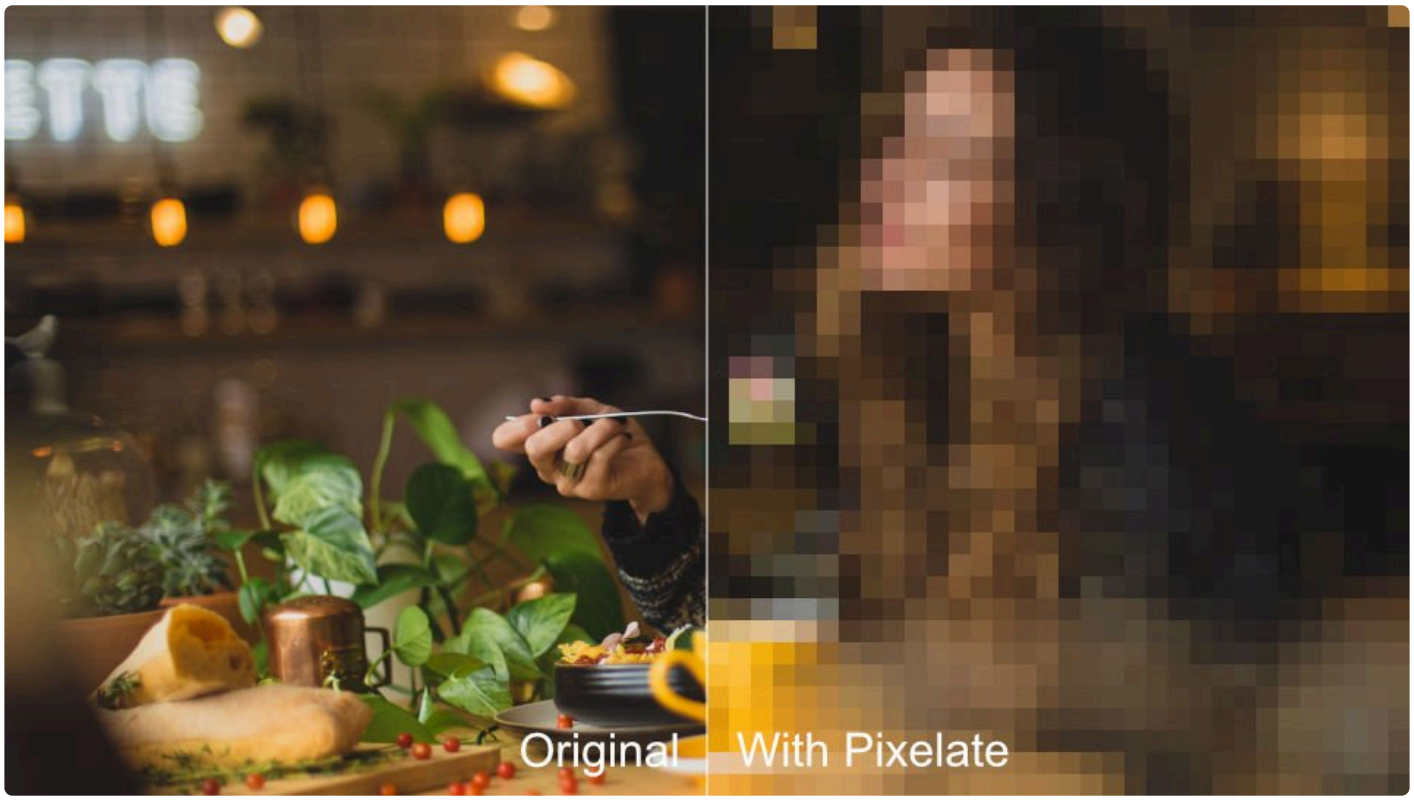
Pixelate

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:



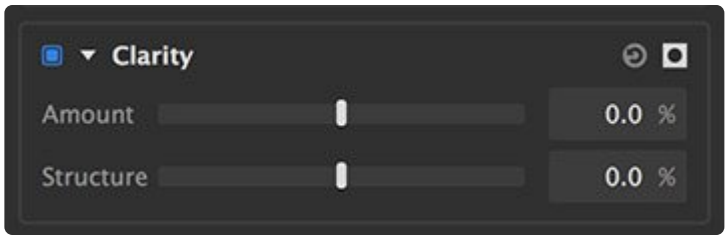
In the example below you will see pixelate applied to two pieces of text. On the left the **Use original alpha** is on. This means it will not pixelate the alpha channel and since the text has a solid color you do not see any difference over the original text. On the right you will se it with the **Use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


Text Title

6.8. Tone effects

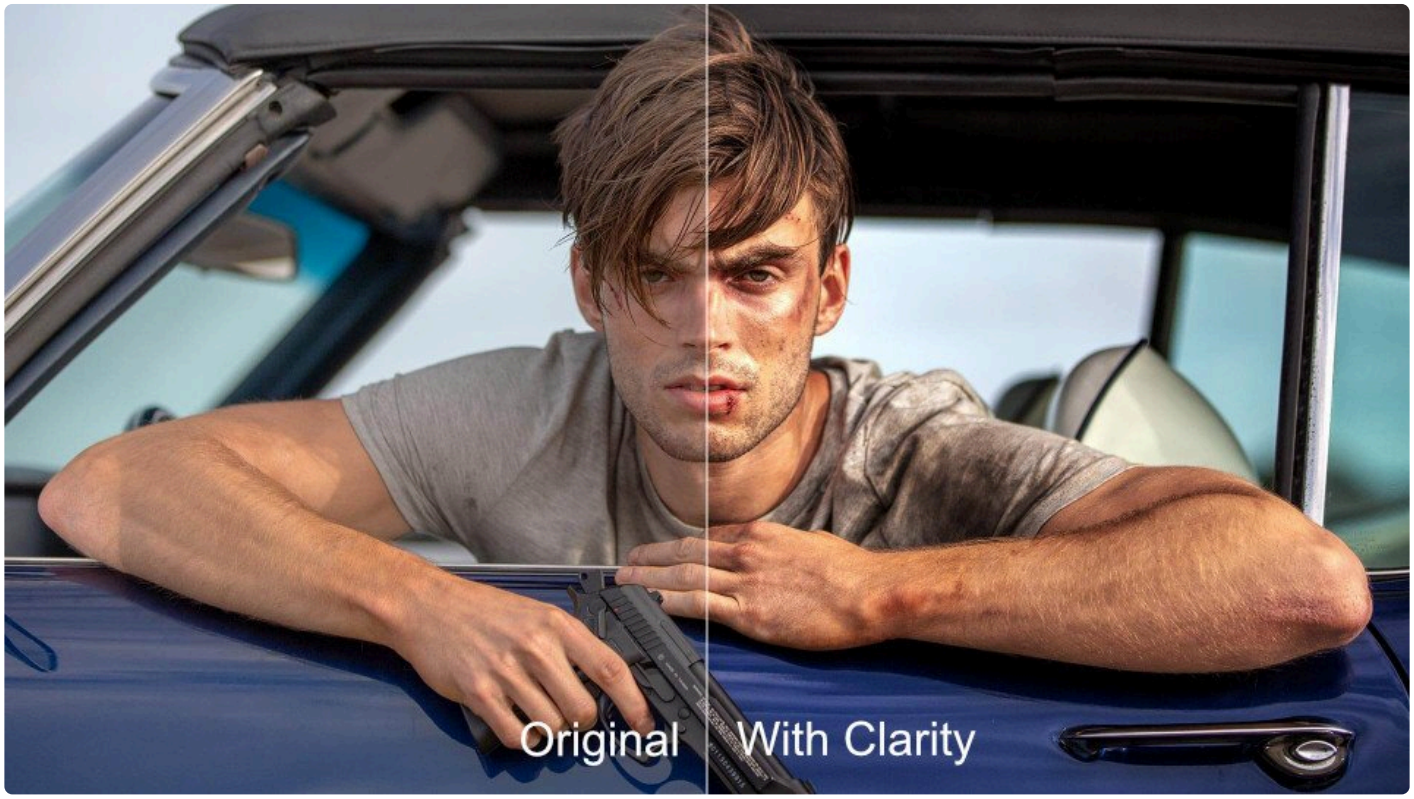
Clarity

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 likee fabrics and facial hair.

Here is an example image show 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 emphasise these details by using a positive amount:

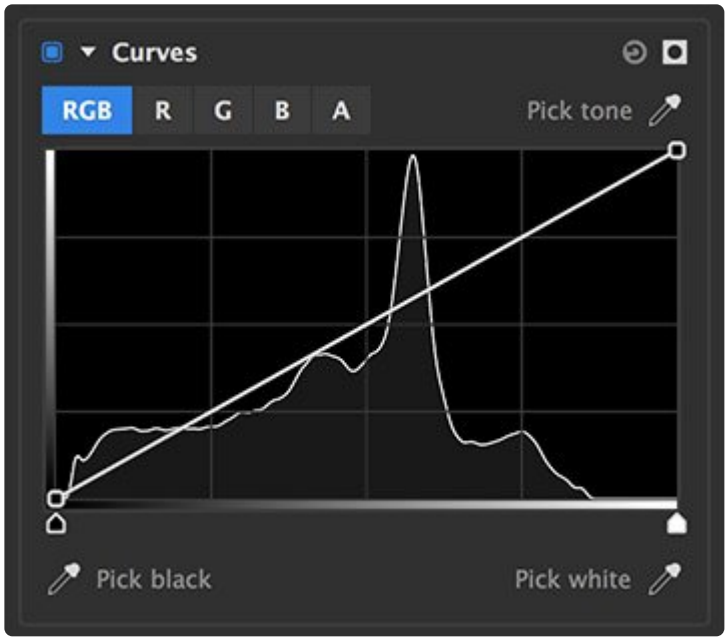


We can also decrease the structure to smooth details:



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.



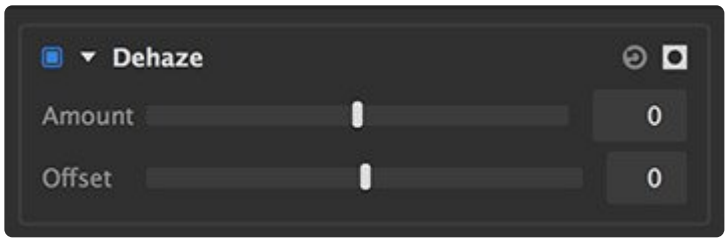
- **Channel selector:** Choose the channel that you wish to edit
  - **RGB:** Averages the RGB values together, and creates a curve based on those averages.
  - **R:** Select the red channel alone.
  - **G:** Select the green channel alone.
  - **B:** Select the blue channel alone.
  - **A:** Select the alpha channel of the image.
- **Pick tone:** You can click anywhere on the curve to add a point for adjustment. If you want to select a specific tone from your image, you can click-drag the pipette to the color of your choice.
- **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.

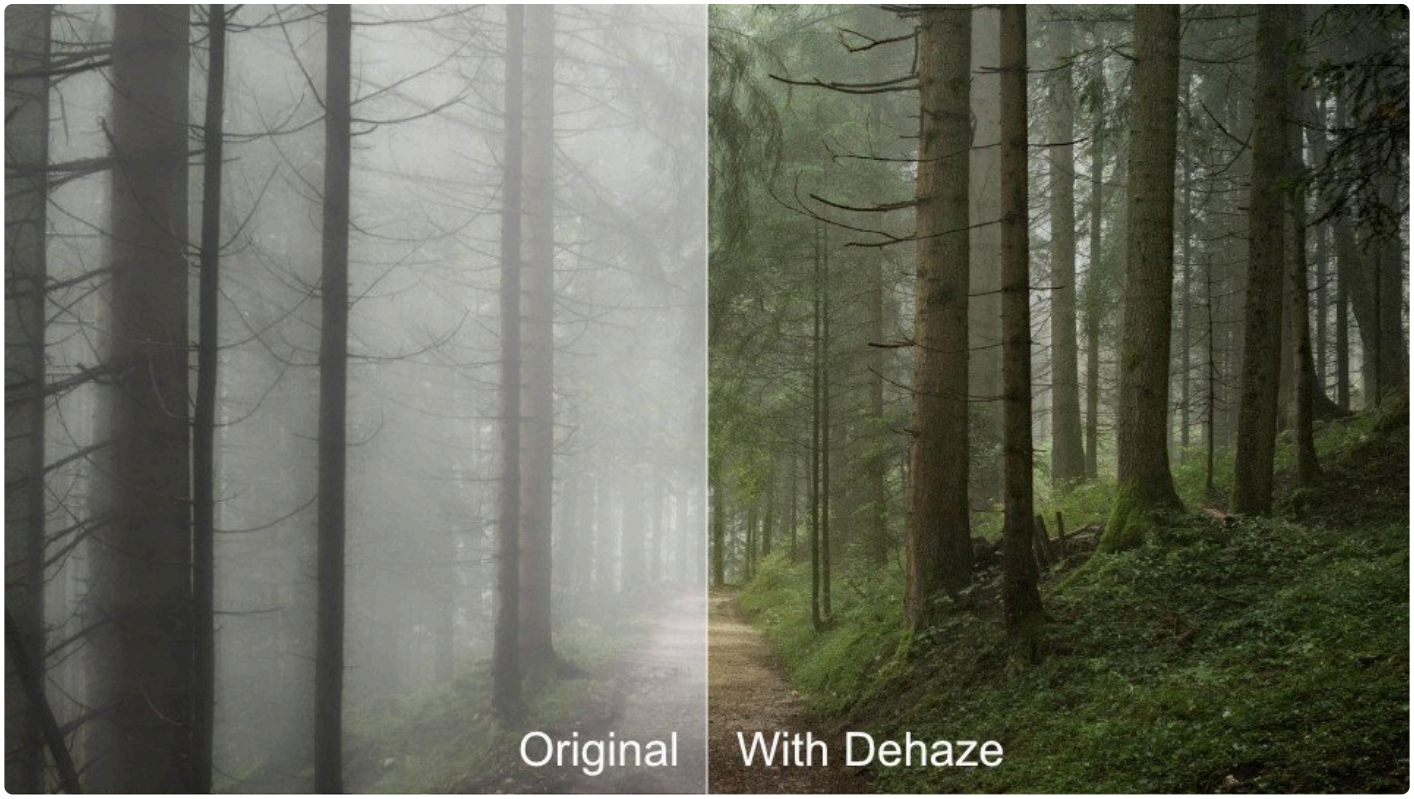
Dehaze

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.



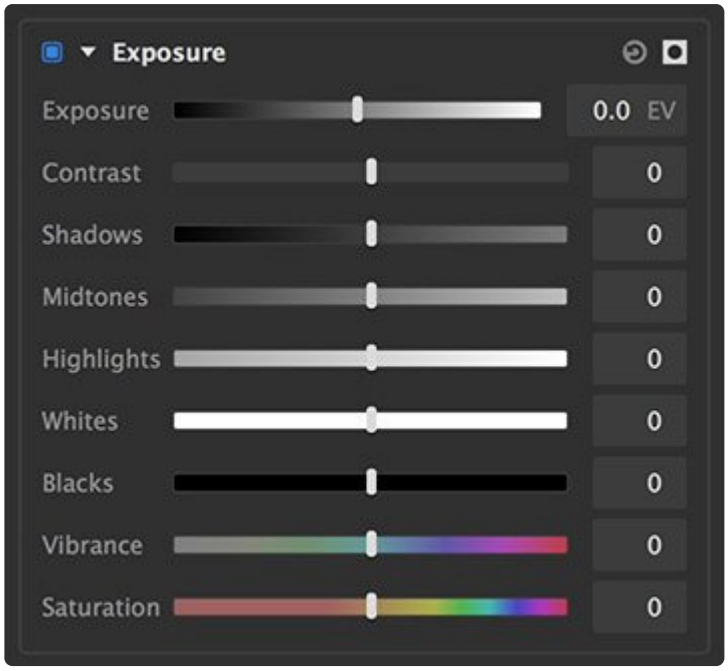
- **Amount:** How much haze to remove (positive value) or add (negative value).
- **Offset:** Sometimes dehazing can result in color artifacting in blown out skies (usually yellow and magenta), this lets you tweak those to make them white again.

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:



Exposure

Allows you to change brighten and darken various tonal areas of your image and affect the saturation.

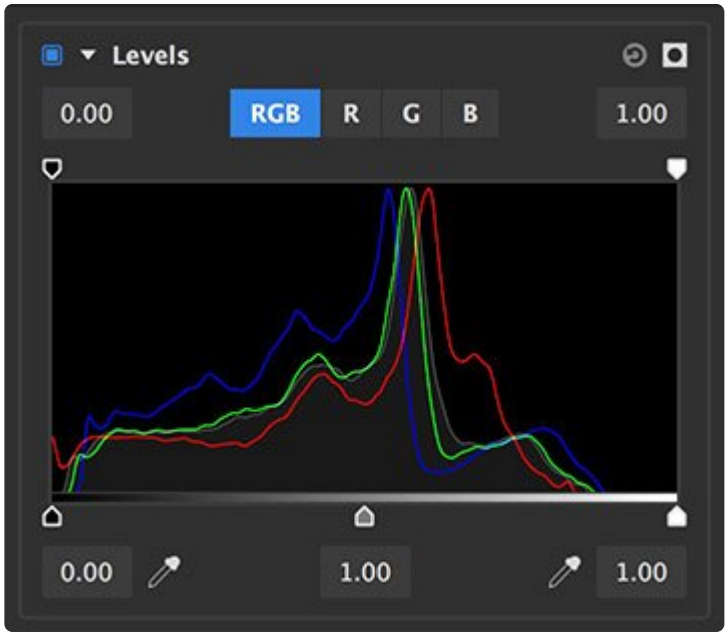


- **Exposure:** This either brightens or darkens the entire image. It does so in such a way where every stop (EV) is a doubling (when increasing) or halving (when decreasing) of the brightness. This better matches the behaviour of exposure in cameras.
- **Contrast:** This increases the difference between 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.

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. Where your project file is 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.

Quick export options

Quickly exporting the current image can be accomplished two ways:

- **File menu:** Open the Project menu and select Export to export the current canvas image.
- **Top toolbar:** Click the Export Canvas button in the top toolbar of the interface, to export the current canvas image.

Batch export

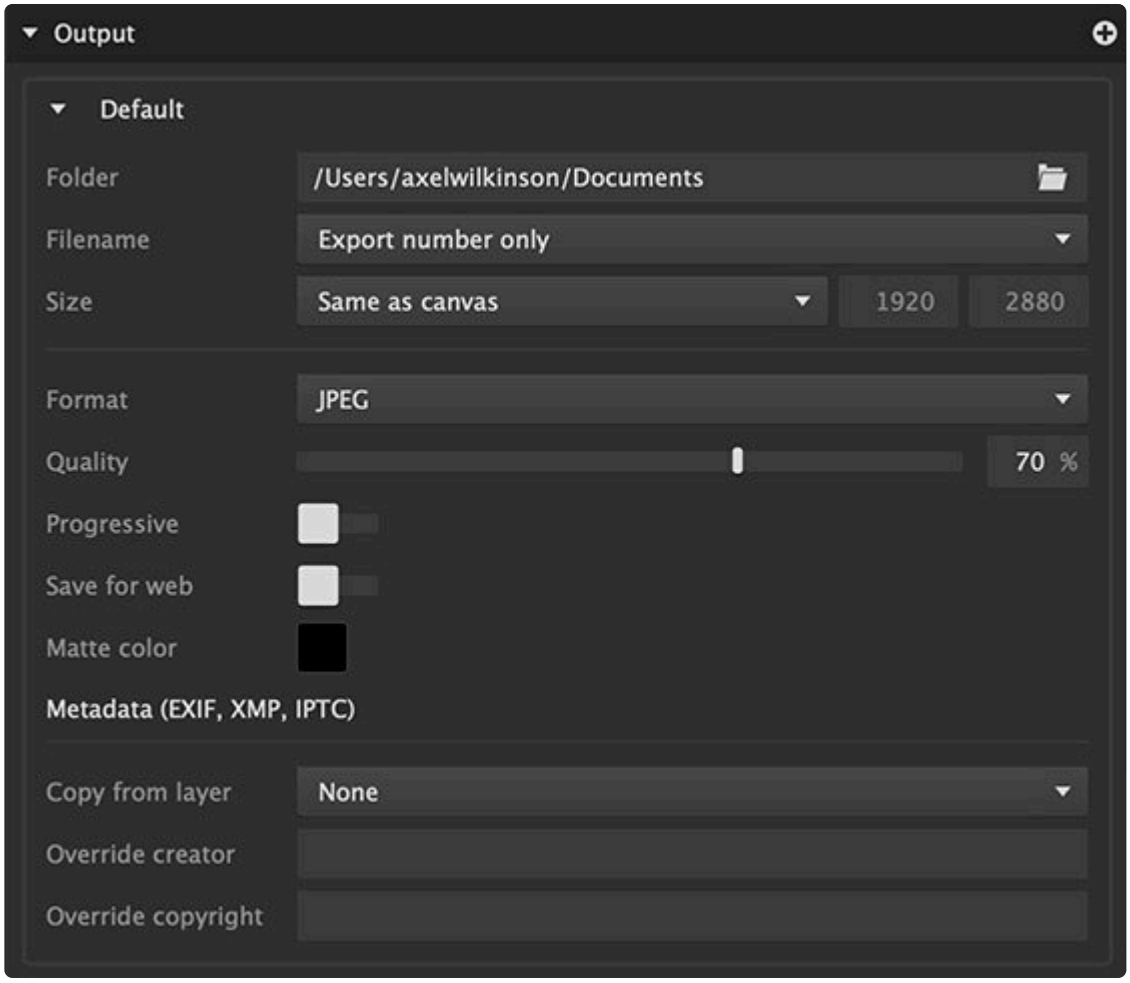
For more complex exports involving multiple images, the Batch screen should be used.

- **Batch Screen:** The Batch screen gives you full control over all images in your project, so you can set up and export large batches of images all at once. For full details, see the Batch processing page of this manual.

The format and other details used for export are defined in the Batch screen of Imerge, and can be edited there.

The batch screen

The batch screen is accessed by clicking the Batch button at the top right of the Edit screen. It displays all the controls used to define the format, compression, and naming used when images are exported.



Output

- **Folder:** Select the destination folder where the exported images will be saved.
- **Filename:** If you are working with layers that contain multiple image variations, choose the naming convention that will be used. If you do not have multiple variations contained in any of your layers, then the export number only option will be used. Naming your layers and their contents logically will make this more useful.
    - **Layer name with Content name/number:** For each layer that contains multiple variations, each exported filename will contain the Layer name, and the content name used in that export, along with the export number.
        - *001-ForegroundJohn-BackgroundMountains.jpg* This example indicates that this is the first image exported (001), that the layer (Foreground) contains multiple images, and in this case the image (John) was used for that layer. A second layer (Background) also contains multiple images, and the image (Mountains) was used for that layer.
    - **Layer name with Content number, Export number:** For each layer that contains multiple variations, each exported filename will contain the Layer name, and the number of the content

used in that export, along with the export number.
    - *001-Foreground001-Background001.jpg* This example indicates that this is the first image exported (001), that the layer (Foreground) contains multiple images, and in this case the first image (001) was used for that layer. A second layer (Background) also contains multiple images, and the first image (001) was used for that layer.
  - **Content name/number, Export number:** For each layer that contains multiple variations, each exported filename will contain the name and number of the content used in that export, along with the export number. If there are multiple contents with the same name, Imerge will fall back to the content number, to keep the export names unique.
    - *001-John-Mountains.jpg* This example indicates that this is the first image exported (001), that one layer contains multiple images, and the image (John) was used for that layer. A second layer also contains multiple images, and the image (Mountains) was used for that layer.
  - **Export number only:** Numbers the exported images sequentially. (0001.jpg, 0002.jpg etc.) This is the default option, and is used in all cases where each layer contains only one variation in its contents.
- **Size:** Defines the size in pixels of the exported image.
  - **Same as canvas:** Uses the exact pixel size specified in the canvas settings.
  - **Fit into letterbox:** Allows you to specify a size, and the canvas will be resized so the longest side fits into the specified size.
  - **Filled crop:** Allows you to specify a size, and the canvas is resized to completely fill the frame, and anything that falls outside the frame is cropped.
  - **Custom size with relayout:** Specify an exact size, and the contents of the canvas are fit into it. If necessary, the layer positions will be adjusted to ensure they fit.
- **Format:** Select the format for your exported images. The next few output settings will vary based on the format selected. The details of each format, along with all of its relevant properties, are discussed on the export formats page.

Metadata

Modern image formats use metadata to store information about the image's origin, formatting, copyright, and more. Metadata for your exported images can be copied through from one of the imported images, or generated in Imerge Pro.

- **Copy from layer:** If you wish to use the metadata from one of the images you have imported, select the layer containing that image from this menu.
- * Override Creator:* If you wish to replace the creator name in the source image's metadata, enter the new creator name of you wish to use here.
- **Override Copyright:** If you wish to replace the copyright information in the source image's metadata,

enter the new copyright data for the exported image here.

Default settings for the creator and copyright fields can also be set up in the Options screen. See the page on application options for full details.

Batch

Batch exporting from a project supports all the same filetypes as quick export, and is discussed more in the Batch processing section.

Content variations

This tab allows for automatic export of all image variations contained in the project. Full details are available on the Batch processing page of this manual.

Custom export list

This tab is used to specify specific images to be included in the batch export, if you do not wish to export all images. Full details are available on the Batch processing page of this manual.

7.1. Export formats

You can choose the format used when you export your images. Each format has advantages and disadvantages, and settings you can adjust to control the compression used in the exported image. These settings are accessed in the Output section of the Batch screen, and are explained in detail here.

JPEG

JPEG is a popular 8-bit format that offers good image quality and small file sizes. It does not support alpha channels or transparency. While the image quality is visually acceptable, the JPEG format does discard a lot of data when compressing the image, and it therefore offers more limited capabilities for editing.

- **Quality:** Adjusts the amount of compression applied to the image. Higher percentages give better image quality, lower percentages give smaller file sizes.
- **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.
- **Save for web:** Adds specific metadata to the exported image which is useful for internet use. If you are exporting images for use on the internet, toggle this option on.
- **Matte Color:** Specify the color that will be used to fill in areas of alpha transparency. Click the color swatch to open a color picker and select any color of your choice.

TIFF

TIFF is a lossless editing format which 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:** 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.

PNG

PNG is a high quality format that supports transparency.

- **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:** 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.
- **Transparency:** Toggle this option on to embed transparency data in the exported image. Toggle it off to fill transparent areas with black 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.

EXR

Exports to the OpenEXR format, the primary 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.

HDR

Exports to the RGBE format, an HDR (high dynamic range) format which uses Red, Green and Blue channels, plus a fourth Exponent channel.

8. Batch processing

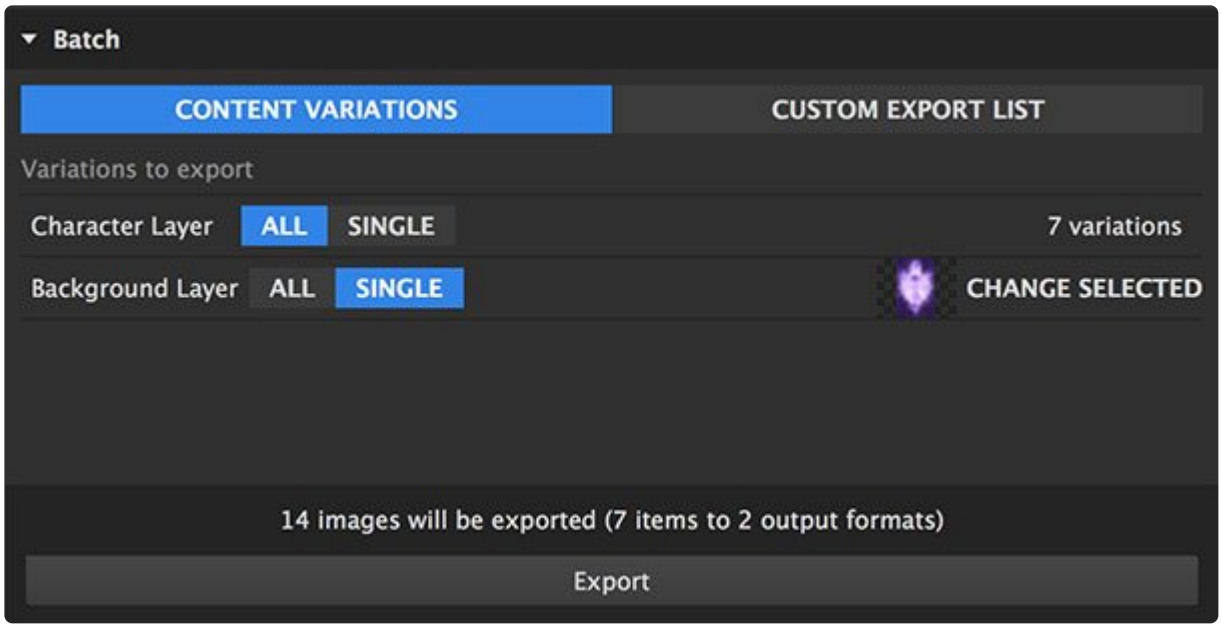
The batch screen gives you full control over all images imported into your project, so you can set up and export large batches of images as a single process. The tools in Imerge allow you to handle this in two ways: automatically through the content variations tab, or manually through the custom exports list.

Automatic batch export of all content variations

The content variations tab of the batch screen contains automated tools for batch exporting everything contained in your project all at once.

The list in the content variations tab will display all layers in the project which contain multiple content variations, and how many variations are included in each one. It also displays the total number of images which will be exported, which is calculated by multiplying the number of variations in each layer, then multiplying the sum by the number of Outputs that have been defined.

Content variations



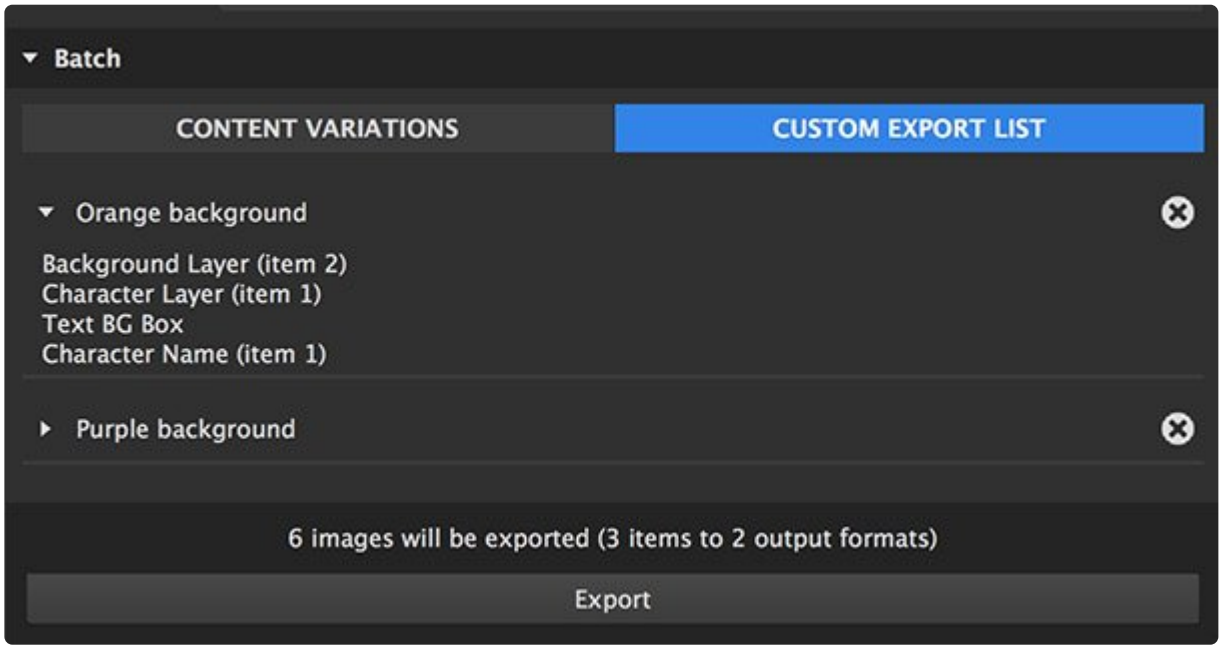
- **Variations to export:** This area contains a list of every layer in the project which contains multiple variations. Any layers that contain a single variation are not listed, because the single variation they contain will be used for every export. The following options and data are listed for each layer.
    - **All:** Export all content variations contained in the layer.

    - **Single:** Export only a single variation for the selected layer. When this option is selected, the first variation is selected by default, and a preview thumbnail of the image is displayed in the list. A **change selected** button is also added, which opens a panel containing thumbnails of all variations contained in the layer, so you can select the one you wish to use.
    - **Variation count:** When **all** is selected, the number of variations contained in the layer is displayed on the right.
- **Image count:** Near the bottom of the Batch panel, a total image count detailing how many images and output formats will be included is displayed.
- **Export button:** Click the **export** button at the bottom of the batch panel to begin exporting the images.

Manual batch export

If you want to select specific individual images to include in the export, you can use the manual options to do so.

Custom export list



Export image list

The custom export list displays all image combinations which have been added to the custom batch list. Details fo each item are contained in its listing.

- **Item name:** Each export item is listed by the name you assigned it when it was added to the export

list. To the left of the name is the expand triangle, which reveals full details of the image components. In the image above, the top item in the list has been expanded, and the lower item has not. To the right of the item name is a circle with an X in it, which removes the item from the list.
    - **Component list:** When an item is expanded, you can view a list of every layer that is included in the export, along with which content variation is being used for each layer. The number of lines in this list will vary based on how many layers are present in your project.
- **Image count:** Near the bottom of the Batch panel, a total image count detailing how many images and output formats will be included is displayed.
- **Export button:** Click the **export** button at the bottom of the batch panel to begin exporting the images.

Adding items to the custom export list

The custom export list contains images you add to the list while editing. You cannot add images to the list from within the Batch screen. Instead, items are added while you edit, so that when you switch to the Batch screen, the list is already compiled and ready for exporting.

 The Add to export list button shown here is located in the top toolbar of the Imerge Pro interface. Click this button to add the image currently displayed in the Viewer to the custom export list.

The item added to the export list will contain the currently visible content variation for each layer in the project. You can therefore select any content variation for each layer, to set up the exact result you want, then click the button to add that result to the custom export list. Then, set up another combination of images and add that to the export list as well.

If you wish to export all possible combinations, then it is not necessary to set them up one at a time. You can instead use the Content Variations tab of the Batch screen to automatically export all possible combinations of content.

9. 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).

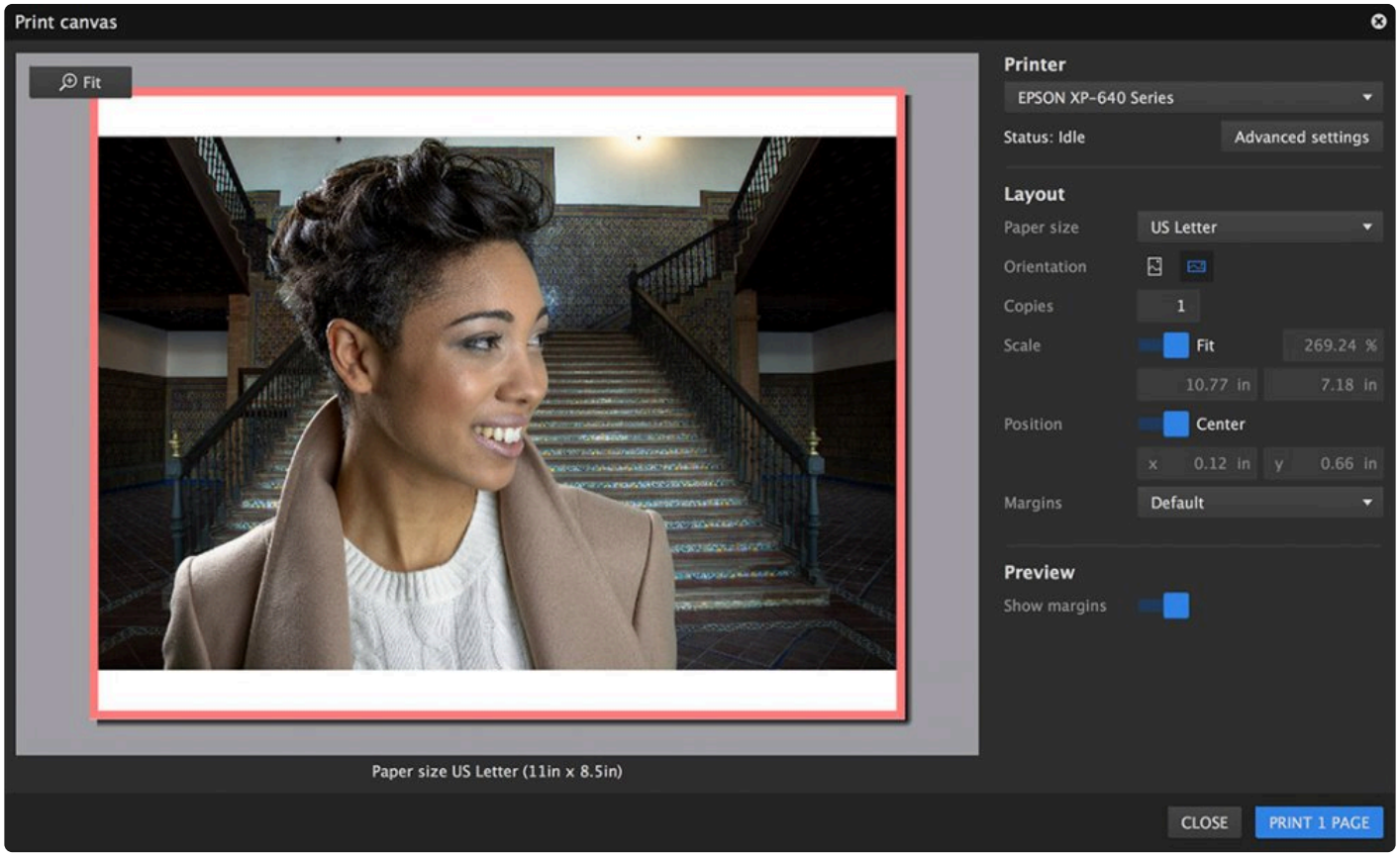
Printing an image

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.

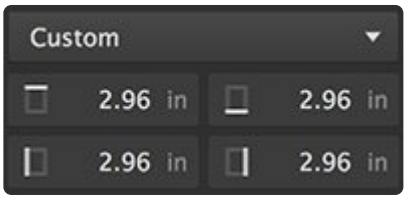
Printer

- **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

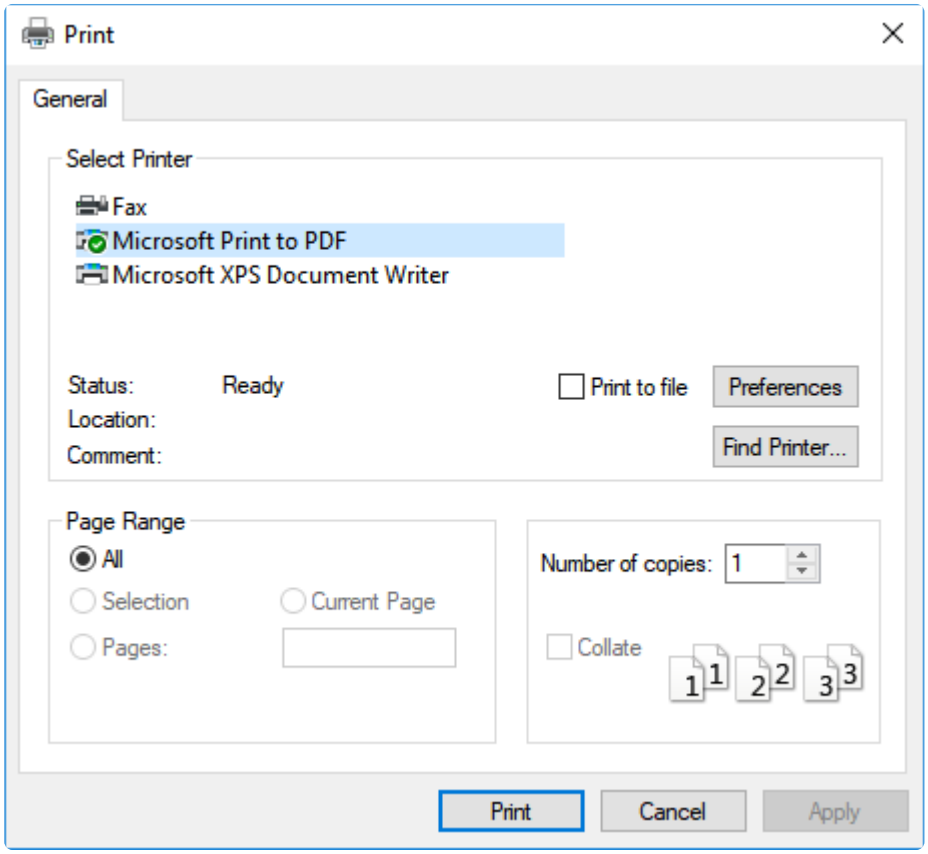
- **Show margins:** When this toggle is enabled, the margins will be displayed on the print preview, as a pink border. Disable the toggle to prevent the margins from being shown on the preview.

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.



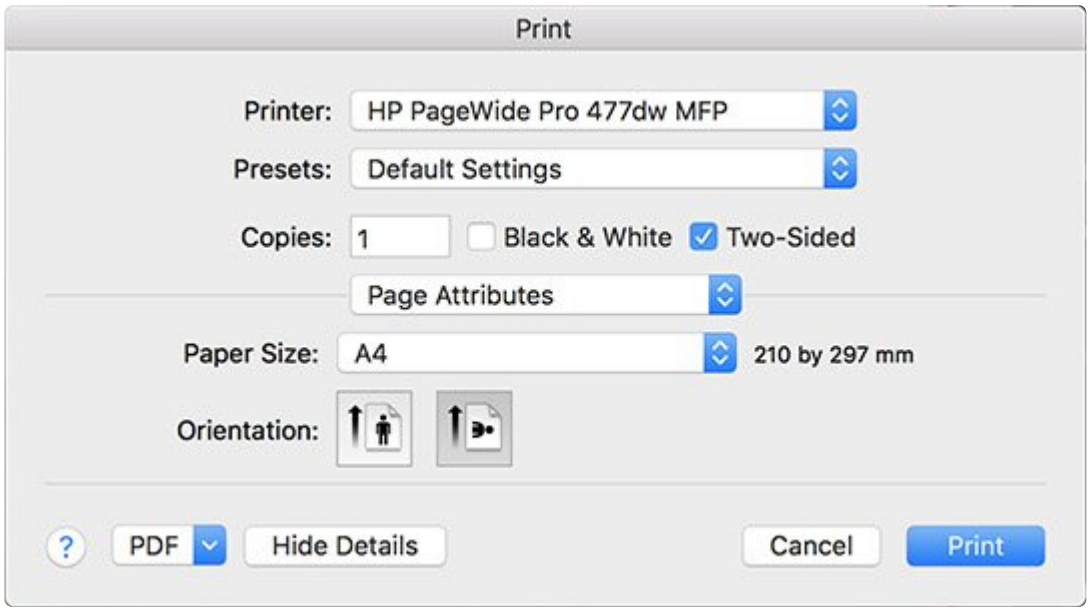
- **Select Printer**: Choose the printer you wish to use.
  - Status:* Indicates the current status of the printer.
- **Print to File:** Use this toggle if you wish to print to a document on your hard drive, rather than printing a physical copy.
- **Preferences:** Opens the preferences for your selected 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.

10. 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.



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.

10.1. 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 int o 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 “ processing for full details.

11. Help & Support

If you need help with Imerge you can find it in the following places.

Forum

For general discussion of the software, of 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