

The Official ON1 NoNoise AI User Guide

Version 2027

Table of Contents

System Requirements 5
Viewing ON1 Account Info 6
Getting Help 6
App Installation 6
Launching ON1 Apps 7
KEYBOARD SHORTCUTS 9
Modifying Hotkeys: 10
CHANGING FONT SIZE 11
Using ON1 Apps With a Scroll Wheel 12
Uninstalling ON1 Apps 12
NoNoise AI & Tack Sharp AI 13
The Tool Well 18
ACCESSING AND USING TOOLS 20
ADJUSTING TOOL SIZING PARAMETERS 21
Standalone Tools 21
CROP TOOL 21
TRANSFORM (MOVE) TOOL 26
Masking Tools 28
MASKING BRUSH 29
GRADIENT MASK TOOLS 32
QUICK MASK AI BRUSH 35
QUICK MASK BRUSH 36
LINE MASK TOOL 39
REFINE BRUSH 41
CHISEL BRUSH 45
BLUR BRUSH 46
Retouching Tools 47
HEALING BRUSH 47

PERFECT ERASER 50
GENERATIVE ERASER 51
RETOUCH BRUSH 52
CLONE STAMP 53
WORKING WITH LAYERS 54
CONFIGURING THE LAYERS PANE LOCATION 55
WORKING WITH THE LAYERS PANE 56
VIEWING EDIT MODULE SETTINGS FOR A LAYER 59
USING THE TRANSFORM TOOL WITH LAYERS 60
ALIGNING LAYERS 61
OUTPUT AND SHARING 62
EXPORT 62
Exporting and Export Presets 64
Naming 65
DESTINATION 70
FILE TYPE 71
SHARPENING 72
METADATA 72
WATERMARK 73
PRINTING 76
Basic Printing 82
SHARING TO SMUGMUG 85
OTHER SHARING OPTIONS (MAC ONLY) 86
SEND TO OTHER APPLICATIONS 87
EDIT MENUS 89
PREFERENCES 97
GENERAL SETTINGS 97
FILES 99
PLUG-INS 101
SYSTEM 103

System Requirements

	MINIMUM	RECOMMENDED
OPERATING SYSTEM	macOS 13 Windows 11 x86 or ARM *current maintenance releases, 64 bit only*	macOS 15 and above Windows 11 x86 or ARM *current maintenance releases, 64 bit only*
PROCESSOR	**Windows:** Four-core (minimum) or eight-core (recommended) Intel or AMD processor, 2GHz or faster, with SSE 4.2 or Neon. **macOS:** Four-Core Intel® processor or Apple Silicon (minimum) or M2 Apple Silicon or greater processor (recommended.	
RAM	8 GB (16GB if shared with the GPU for macOS systems)	16 GB or more
HARD DRIVE	6 GB for installation	6 GB for installation and SSD drive
DISPLAY	**Windows:** DirectX 12, DirectML, Vulkan 1.1, and OpenGL 4.2 compatible video card with 4GB VRAM, 1920x1080 resolution (at 100% scale factor) **macOS**: Metal, Vulkan 1.1, and OpenGL4.2 compatible video card with 4GB VRAM, 1920x1080 resolution (at 100% scale factor)	**Windows:** DirectX 12, DirectML, Vulkan 1.1, and OpenGL 4.2 compatible video card with 8GB VRAM, 1920x1080 resolution (at 100% scale factor) **macOS:** Metal, Vulkan 1.1, and OpenGL4.2 compatible video card with 8GB VRAM, 1920x1080 resolution (at 100% scale factor)
MOBILE APP	Apple iPhone/iPad with iOS 16 or higher; Android phone or tablet with 64-bit Android 11 or higher *current maintenance releases, 64 bit only*	
INTERNET	A high-speed internet connection and active account for ON1 Cloud Sync, activation, auto-update checking, content downloads, and tutorials.	
ADDITIONAL SUPPORTED OPTIONS	Supports pressure-sensitive tablets for controlling brush size and/or opacity, and external control devices (such as those from Loupe Deck and El Gato). Supports ICC/ ICM profiles for camera input, display, soft-proofing, and printing. Hardware display calibration	

	tool is recommended. Photo RAW 2026 also supports many plugins designed for use with Adobe Photoshop.
OPTIONAL APPLICATION INTEGRATION (PHOTO RAW MAX ONLY)	Photoshop CC Photoshop Elements 2020 and above Photoshop Lightroom Classic Apple Photos Affinity Photo Corel Paint Shop Pro Capture One (*current versions for all listed apps*)
LANGUAGES SUPPORTED	English, German, Spanish, French, Japanese, Korean, Simplified Chinese, Russian, Portuguese, Italian, Dutch

Viewing ON1 Account Info

You can log into your ON1 user account area (www.on1.com/login/) at any time to download the software, see the number of computers you have registered, and make basic changes to your account information, including your email address, password, and notifications.

Getting Help

You can find an extensive collection of video tutorials and help documents in the Help section of the ON1 website (on1help.zendesk.com). This is the best and quickest way to dig into the entire ON1 workflow and discover new techniques that will help you with your photo editing and organizing. There, you can search our Knowledge Base for frequently asked questions, common issues, and more.

Inside ON1 Photo RAW, you can use the Home Module for additional help as well.

If you have issues related to installing or activating ON1 apps, please contact **ON1 Technical Support** for software issues and **ON1 Customer Support** for account/product access issues.

You can reach both support forms by clicking the ON1 website's support tab (on1help.zendesk.com).

App Installation

To install ON1 applications, double-click the Installer icon and allow it to guide you through the process. Before installing or updating, close any previous versions of ON1 products that might be open.

FREE TRIAL VERSION

ON1 apps can also operate as a fully featured trial version for up to 30 days from when you first select the "Free Trial" option at sign in. This gives you time to evaluate the product and see if it fits your needs.
Free trials can be found on our trials page (ON1 Trials)

MAC INSTALLATION LOCATION

On a Mac, ON1 applications are installed in an 'ON1 (app name)' folder within the main macOS 'Applications' folder.

Support files are installed into */Library/Application Support/* and *~/Library/Application Support/* folders.

WINDOWS INSTALLATION LOCATION

The application is installed in the 'ON1 (app name)' folder in the *\Program Files\ON1* directory. (Ex: *\Program Files\ON1\ON1 Photo RAW 2025*)

Support files are installed into *\ProgramData\ON1* with the ProgramData folder being "Hidden" by default in Windows.

UPGRADING FROM PREVIOUS VERSIONS

If you have the previous version of the ON1 app already installed on your computer, the installation process will transfer any data from that previous installation to the new installation, as long as you have upgraded sequentially (2024 > 2025 > 2026).

BACKING UP YOUR PHOTO RAW CONFIGURATION

ON1 apps include a back-up and restore function for most of the app's settings, presets, extras, all edits made to any image, and much more (your photos are not backed up, however).
To learn more about this feature, see Backing Up Your Work in Photo RAW

Launching ON1 Apps

macOS:

Navigate to the 'ON1 (app name)' folder, which is located inside the Applications folder in the macOS Finder. Double-click the ON1 application icon to launch the product.

You can add ON1 applications to your dock for quick access by clicking and holding the application icon in the dock and selecting the 'Keep In Dock' option. If you use Launchpad, it can be found there as well.

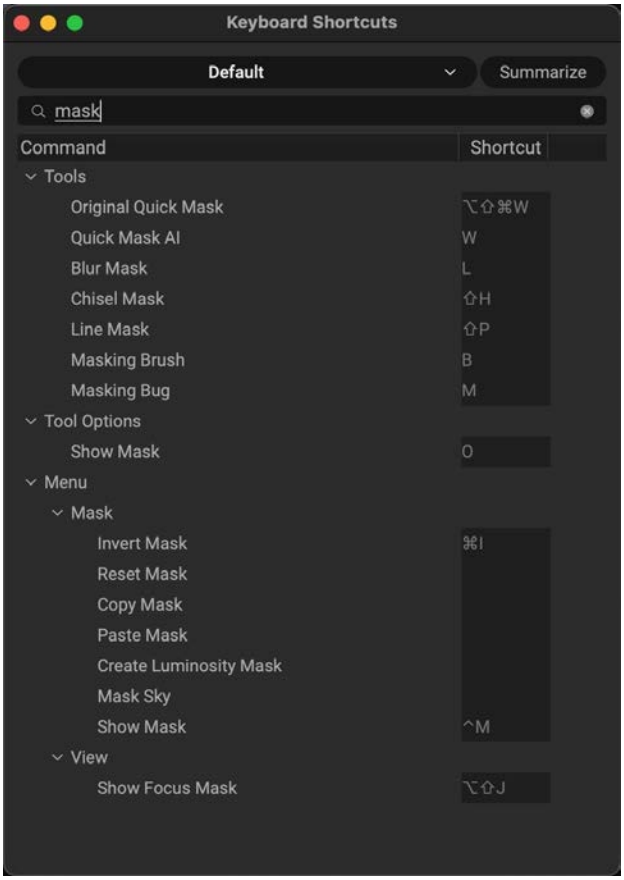
Windows:

Open the Start screen by pressing the Windows key on your keyboard or the Windows icon in the lower left corner of your screen. Select ON1 (app name) from the displayed list of apps, or start typing in the app name to search for it if it's not shown.

If you selected the “Add Icon to Desktop” checkbox option during installation, you can also access your ON1 app from your Desktop as well.

KEYBOARD SHORTCUTS

You can customize the ON1 application hotkeys via the Keyboard Shortcuts window. This window lets you view and change the shortcuts for any tool, tool option, module, or menu item. You can assign shortcuts to menu items that don't yet have a shortcut, build multiple sets of shortcuts as preset styles, and create a summary of your shortcuts that can be viewed in any web browser.



To view or change hotkeys, select Keyboard Shortcuts from the Edit menu. By default, the shortcuts will be displayed, organized hierarchically by the following groups:

- **Modules**: commands for switching between different modules.
- **Develop**: for applying tone and color adjustments directly from the keyboard while you work in the Edit module. (See Tone & Color for details on working with this feature.)
- **Tools**: for the 18 tools available in the Edit module.
- **Tool Options**: for the brush and mask viewing options available in any masking tool's Options Bar. The Keyboard Shortcuts window displays a list of modifiable

commands and operations in five distinct groups. The search field at the top of the window lets you quickly find commands based on keywords.

- **Menu**: this includes all menu items in each module.

You open each group by clicking on the triangle to the left of the group name, or you can use the search field at the top of the Keyboard Shortcuts window to search for a command in any of the groups (right).

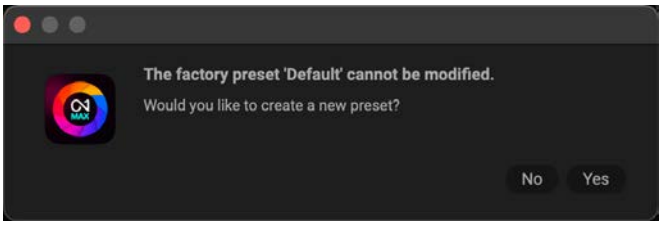
NOTE: Some keyboard shortcuts cannot be changed. These include menu commands used by the operating system (Cut, Copy, and Paste) and the Browse module shortcut (G). Furthermore, you can't use the Escape, Return/Enter, or Delete keys as a shortcut.

Each command with an assigned key will display that key in the Shortcut column. The Shortcut field will be empty for any command that doesn't have an assigned key, and any field with a grayed-out shortcut means that you cannot modify that command's keys.

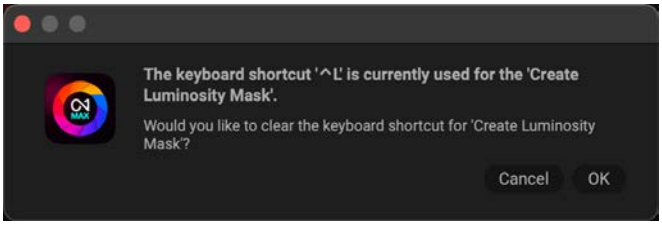
Modifying Hotkeys:

The Default preset style's hotkeys cannot be modified, but you can create your own set of shortcuts by double-clicking on any command you wish to add or change. You'll be asked if you want to create a new preset. Clicking "Yes" will let you name the new preset style, and the app will make a duplicate of the Default set.

At this point, you can change any existing hotkeys or add your own to commands that don't have them by double-clicking in the Shortcut field for that command. The field will be highlighted, and you can press the key or key combination you wish to use. If that key is used by another command, a dialog will inform you of that, giving you the option of either keeping the existing hotkey/command combination or changing it to the new command.



When you add or change a hotkey the first time, the app will prompt you to create a new preset style, which makes a duplicate of the Default preset. You can switch between preset styles—including back to the app's Default set—by using the pop-up menu at the top of the Keyboard Shortcuts window.



If you try to add a shortcut key combination that is already in use, the app will let you know and give you the option of keeping (Cancel) or removing (OK) the other command/shortcut.

When you change a default shortcut to a new key combination—even for commands and options that didn't initially have a shortcut—a Reset arrow will appear to the right of the Shortcut field. Clicking the icon will reset the command to its original state, from the Default preset style.

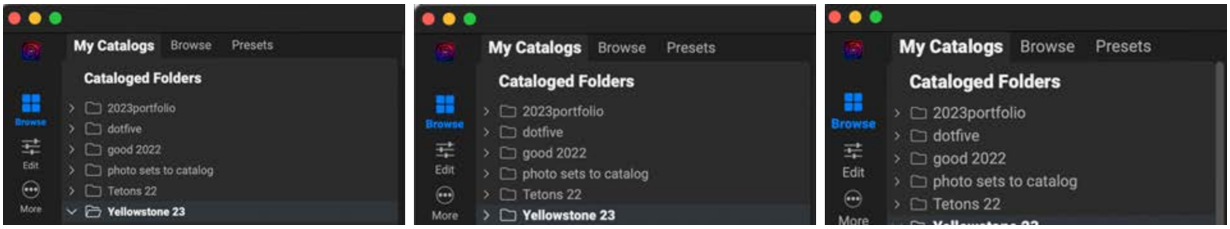
To delete a shortcut, double-click in the Shortcut field and press the Delete key.

The Summarize button at the top of the Keyboard Shortcuts window will create an HTML table of the current set of hotkeys. You'll be asked where to save the file, and double-clicking on it will open that table in your default web browser, where you can view or print the list.

You can return to the original shortcuts by clicking on the pop-up menu at the top of the Keyboard Shortcuts window and choosing Default from the list of preset styles. That menu can also be used to create a new preset or to delete an existing one that you created. The Default preset cannot be removed, however.

CHANGING FONT SIZE

By default, ON1 apps prioritize the main workspace to focus on photos, using a small font size to display panel names, labels, file names, and any other basic text.
You can adjust the default font size to one of three settings, Small, Medium, or Large, by choosing the General tab of the Preferences window. Select an option from the Font Size pop-up, then restart the app for the change to take effect.



ON1 apps have three options for displaying type in the main workspace, Small (left), Medium (middle), and Large (right).

Using ON1 Apps With a Scroll Wheel

When you are using an ON1 app with a mouse that has a scroll wheel, there are a number of different options available throughout the app, on both Mac and Windows.

Throughout the app, the scroll wheel has the following general options:

- Using the scroll wheel will pan up and down in the current window. In Browse's Thumbnail view, it will scroll the window. In most other views, the scroll wheel pans the image up and down when the cursor is over the preview area. Holding the Shift key down and scrolling will pan left or right.

- Hold Option (Mac) or Control (Windows) with the scroll wheel to zoom in or out of an image.

In the Edit module, when working with any tool that has a brush size and feather option, press Command-Option (Mac) or Control-Alt (Windows) and scroll to change the brush size. To change the feather, press Option-Shift (Mac) or Alt-Shift (Windows).

If you want to use the scroll wheel solely for adjusting the brush size, click the "Only Adjust Brush Size with Scroll Wheel" option in Photo RAW's General Preferences window.



Uninstalling ON1 Apps

To uninstall, first deactivate your product: open the app and select Sign Out… from the Help menu. This will allow you to regain a license activation, which can then be used on another computer.

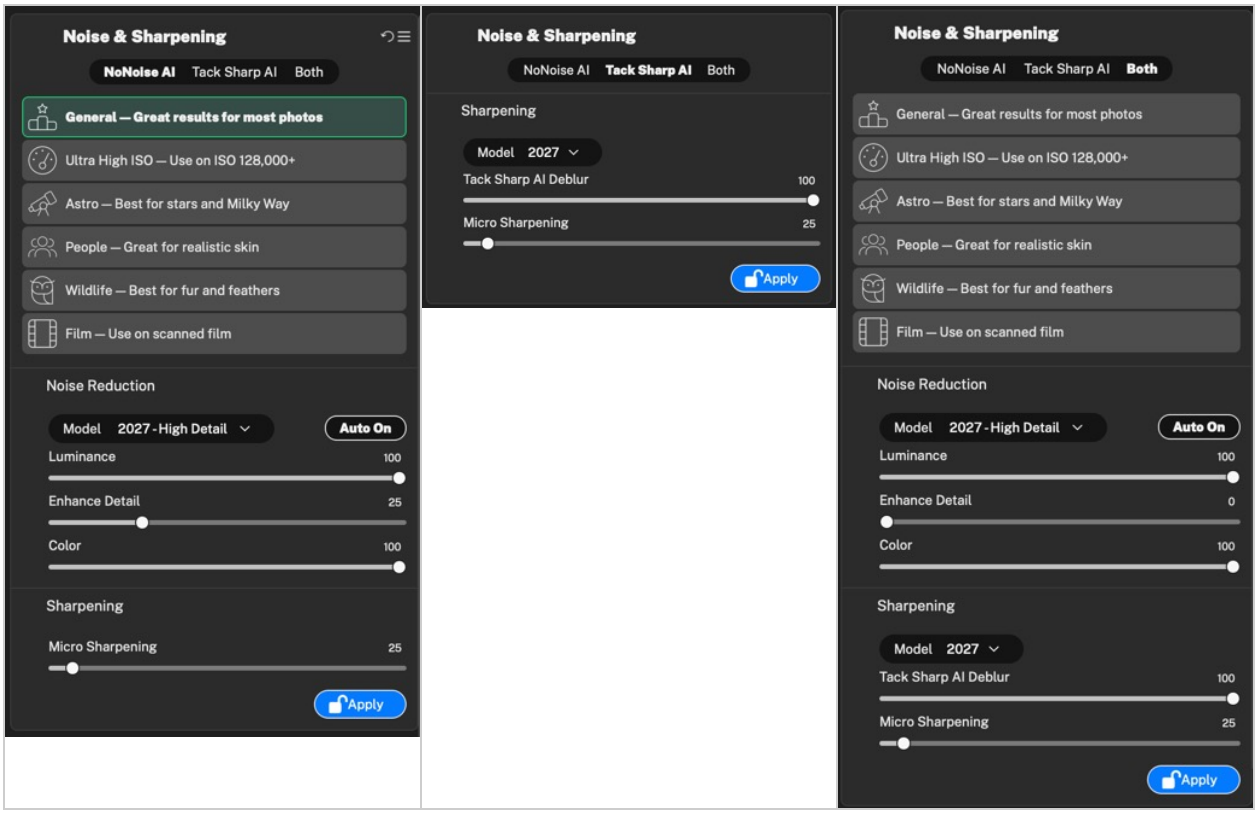
macOS:

Go to the *Applications/ON1 (app name)/Documentation* folder, and double-click on the 'Remove ON1 (app name)' script file.

Windows:

Open Windows Settings, choose Installed Apps from the list shown on the left, and either scroll or search for the ON1 application that you need to uninstall, click on the three dots to the right of the listing, and choose Uninstall.

NoNoise AI & Tack Sharp AI



The Noise & Sharpening pane offers NoNoise AI (left) and the TackSharp AI (middle from right) tabs incorporate ON1's AI-based deblurring technology. The Both tab (right) lets you apply both NoNoise and TackSharp to an image at the same time.

Using NoNoise AI

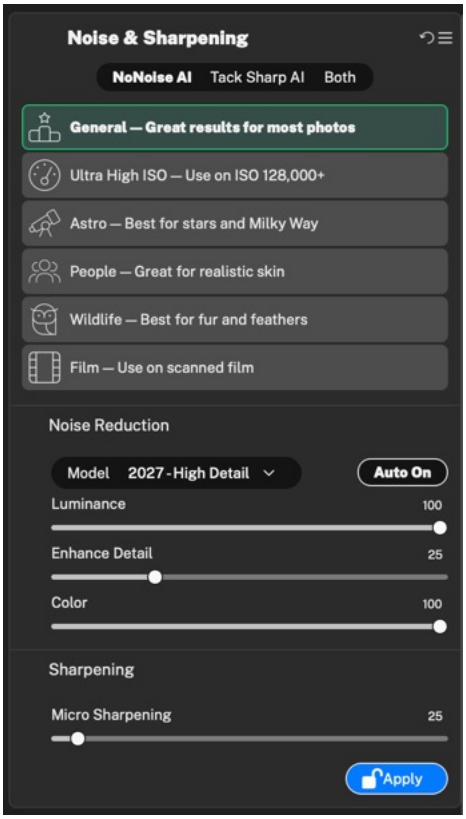
When you launch NoNoise AI, It analyzes your image and applies ON1's AI-driven noise-reduction technology, based on the contents of the image. NoNoise initially presents your image at 100% view, with a split screen displaying your original file on the left side and the denoised version on the right (shown below).



When you open a raw image for processing inside NoNoise AI, the app will apply initial noise reduction based on the contents of the image and your noise-reduction preferences (High, Medium or Low). The image will be displayed at 100%, with a preview slider that can be dragged left or right (shown circled in red); the original image is on the left side of the slider, while the right side displays the denoised image with the current settings in the NoNoise AI tab.

The advanced AI neural networks behind NoNoise AI work at the deep raw level. They are trained to detect and reduce the noise before the raw data is even converted to a photo, preventing noise from propagating further up in the image processing pipeline. As a result, NoNoise can clearly differentiate between what is noise and what are small details, helping to maintain sharper details and reduce false color.

NoNoise AI automatically applies noise reduction based on the contents of your image and your preferred level of reduction, but you can adjust the amount of noise reduction and detail preservation—as well as add sharpening—to your taste by adjusting the sliders in the Noise & Sharpening pane. The controls are organized into two primary sections within the main area of the pane, along with an action area located in the top right corner:

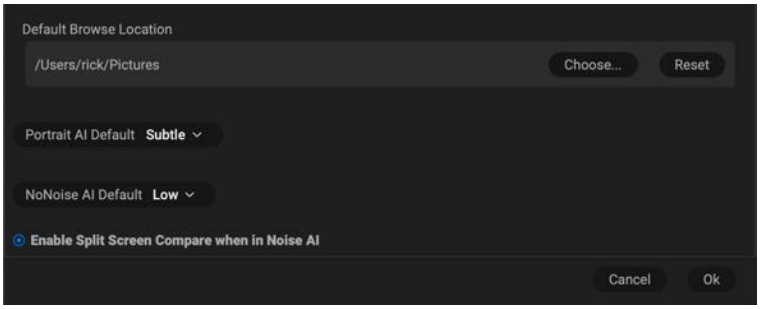


1. **Presets**: The presets section provides guidance on AI model selection and parameters best tuned for common high-noise photography scenarios. Select the one that matches your photo best.
2. **Noise Reduction**: This section adjusts the amount of Luminance (brightness) and Color noise reduction on the current image. Enhance Detail works to preserve details that would have been lost in traditional noise-reduction processes. Color is always set to 100, but the amount of Luminance reduction is set based on the image contents and your Auto settings level (see below). The Method pop-up offers a range of AI models. 2027 High Detail is the latest and the best for most photos. However we include access to previous models as they may be better on certain types of photos such as scanned film or astrophotography.
3. **Sharpening**: This adjusts the amount of sharpening applied to the processed image. The sole slider, Micro Sharpening, enhances small details in your image.
4. **Reset**: The top button resets the tab to its default state. Click this if you would like to reset any changes you've made here.
5. **Apply/Adjust**: This button has two states: Apply (blue) and Adjust (red). Apply is the default state when you open the image: NoNoise has applied noise reduction, and you can fine-tune the settings as you'd like. When you're done, clicking the Apply will 'lock' your settings in, changing the state to Adjust. To re-edit your settings, click Adjust, and the button will revert to Apply, with the current settings available.

6. **Auto On/Off**: When you have applied NoNoise to an image with the default reductions settings, this button will read Auto On. If you adjust the Luminance slider, the button will change to Auto Off, meaning that the slider has been adjusted from the auto value. Clicking the button in this state will return the Luminance setting to its original value.

NoNoise's Default Noise-Reduction Settings

We know that noise reduction is as much about personal taste as it is about technology. Some people prefer a light touch, while others like a much more processed result. In the Preferences, you can configure NoNoise AI to use one of three automatic noise-reduction settings—Low, Medium, or High—when you click on the NoNoise AI tab (or Both). This setting only affects the Luminance slider; the Color slider's default is always set to 100, the Enhance Detail's default setting is 50, and the Sharpening Amount is 20.



The General Preferences pane has an option to configure NoNoise AI's automatic noise-reduction settings—to Low, Medium, or High—based on your taste. The default is High.

Fine Tuning the Image

Work the Noise Reduction section of the NoNoise AI pane first, if you need to. When considering adjusting the noise reduction amounts, detail enhancement, and sharpening, use the Preview window at a zoom level that lets you see the important details, and use the Hand tool to move you around the image. Then, work with the Luminance and Enhance Detail sliders to zero in on the best look.

A good methodology, especially as you are getting to know the app and its settings, is to set the Luminance, Detail Enhancement, and Sharpening all to zero. Then start by adjusting the Luminance slider up, examining an area that has both detail and smooth areas. Adjust the Luminance until you see the desired amount of noise reduction in the smooth areas. Depending on your tastes, this will usually be in the 80 to 100 range.

Next, increase the Enhance Detail slider until you have the desired amount of enhancement. Values between 20 and 50 are common. High amounts on this slider may bring back some noise in the smooth regions, so you may need to balance how much you use by comparing high-detail and low-detail areas.

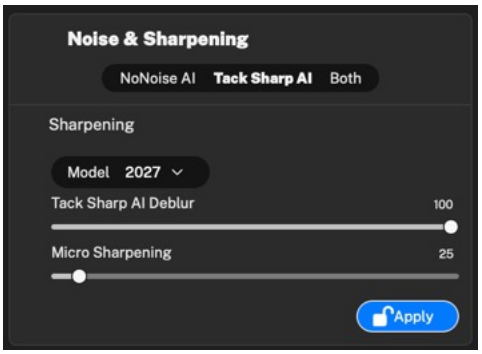
Last, adjust the Sharpening Amount in the same fashion as the Enhance Detail slider. Values between 20 and 50 generally give the best results.

When you're done with NoNoise AI, click the Apply button to lock the settings.

NOTE: Because NoNoise AI works best at the raw image level, we recommend that you process your images in NoNoise before you apply basic editing (exposure, color balance, etc.) or finish editing. Ideally, you want to work with the raw data as much as possible. Use the High Detail option (in the Method pop-up) when processing non-raw files, even high-resolution, 16-bit formats like PSD files or TIFFs.

Using TackSharp AI

The TackSharp AI tab is much simpler than the NoNoise tab, consisting of two sliders and a method option:



1. Model drop-down menu lists a range of AI models. While the 2027 version is the newest and best on most photos, you are allowed access to earlier models which may work better on some photos.
2. The Tack Sharp AI Deblur slider is designed to enhance focus and reduce motion blur. The default setting is 100; in most cases, you shouldn't have to touch the slider, but feel free to do so if you feel that the sharpening is too aggressive.
3. The Micro Sharpening slider is identical to the one found in the NoNoise AI pane. It is designed to enhance the small details in your image. This slider defaults to 100; as you adjust the slider, zoom in to an area with small details, like hair or feathers, and pay attention to the effect. A little bit can go a long way.
4. **Reset**: The top button resets the tab to its default state.
5. **Apply/Adjust**: This button has two states: Apply (blue) and Adjust (red). Apply is the default state when you open the tab. When you're done, clicking the Apply will 'lock' your settings in, changing the state to Adjust. To re-edit your settings, click Adjust, and the button will revert to Apply, with the current settings available.



When you open a raw image for processing inside TackSharp AI, the image will be displayed at 100%, with a preview slider that can be dragged left or right; the original image is on the left side of the slider, while the right side displays the sharpened image with the current settings in the TackSharp AI tab.

Using both NoNoise AI and TackSharp AI together

The Both tab in the Noise & Sharpening pane is designed for those times when the lack of sharpness and increased noise are an issue in a photo. By applying both NoNoise and TackSharp technologies to your image simultaneously, you can work to achieve the right balance between the two.

When working in the Both tab, the only difference you'll find is that the Micro Sharpening slider is listed in the TackSharp section of the tab and is not available in the NoNoise section. Otherwise, it functions identically to the individual tabs.

The Tool Well

The Edit module has 20 tools that are accessible via the Tool Well on the left side of the screen. Some tools–Crop, Transform, Super Select AI, and View–are self-contained within the tool icons. Others–Mask, Retouch, and Liquify–are nested within a tool group and are accessible via the Tool Options bar at the top of the screen when you click on one of those tool icons.

PHOTO RAW EDITING TOOLS



- **Crop Tool**: Trims an image to your desired size or ratio. Also supports generative expansion via ON1's Local Gen AI technology. *Shortcut key: C*
- **Transform (Move) Tool**: Moves and changes the size and rotation of your layer. *Shortcut key: V*
- **Super Select AI Tool**: Lets you select regions in an image by clicking on them and then applies Effects filters or local adjustments automatically to those regions. *Shortcut key: K*
- **Masking Brush (Mask group)**: Mask large similar areas quickly. (Includes Perfect Brush option.) *Shortcut key: B*
- **Gradient Mask (Mask group)**: Applies a selective gradient as a mask in any filter (or to the entire stack). *Shortcut key: M*
- **Quick Mask AI Brush (Mask group)**: Similar in operation to the Super Select AI tool, this tool generates masks by clicking on regions in a photo. *Shortcut key: W*
- **Quick Mask Brush (Mask group)**: Create high-quality masks with only a few strokes as guidance. *Shortcut key: Command-Option-Shift W (Mac); Control-alt-Shift W (Windows)*
- **Line Mask Tool (Mask group)**: Create masks using straight lines, with the capability to add curves and adjust mask points on the fly. *Shortcut key: Shift-P*
- **Refine Brush (Mask group)**: Lets you refine an existing mask's edges, to help mask difficult areas, such as hair. *Shortcut key: N*
- **Chisel Brush (Mask group)**: Removes fringes from the edge of a mask. *Shortcut key: Shift-H*
- **Blur Brush (Mask group)**: Blurs the edges of a masked area to help it blend more naturally. *Shortcut key: L*
- **Healing Brush (Retouch group)**: Non-destructively removes distractions from a photo using content-aware fill technology. *Shortcut key: Q*

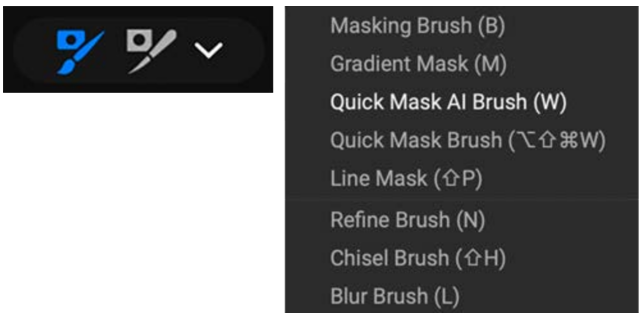
- **Generative Eraser (Retouch group)**: Uses ON1's Local Gen AI technology to remove large distractions from a photo. *Shortcut key: Option-Shift-Q*
- **Perfect Eraser (Retouch group)**: Removes distractions from a photo; includes automatic dust spot and power line removal options. *Shortcut key: Shift-Q*
- **Retouch Brush (Retouch group)**: Removes blemishes like dust spots and acne. (Includes Perfect Brush option.) *Shortcut key: R*
- **Clone Stamp (Retouch group)**: Paints over an area from another area. *Shortcut key: Shift-S*
- **Push Tool (Liquify group)**: Lets you push or warp areas of your photo with a brush in a manner similar to finger-painting. *Shortcut key: Shift-L*
- **Bloat Tool (Liquify group)**: Warps the brushed area and slightly enlarges that region. *Shortcut key: Option-L*
- **Pinch Tool (Liquify group)**: Warps the brushed area and slightly shrinks that region. *Shortcut key: Shift-Option-L*
- **View Tool**: Adjusts the magnification of the image in the Preview area, and lets you move around the Preview window. *Shortcut key: Z*

NOTE: The Text tool found in earlier versions of Photo RAW has been removed from the 2026 version. Text operations are now created via the Layers panel, as a new Text layer type. See Text Boxes for complete information on how to work with text in Photo RAW.

ACCESSING AND USING TOOLS

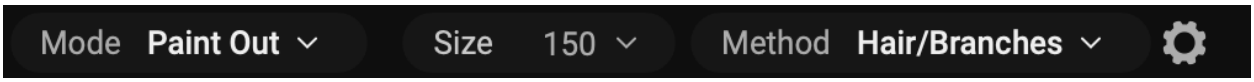
To access a tool, click on the tool or use the shortcut key for that tool. When selected, the cursor will change, and you will see the tool icon and a set of options for the tool in the Tool Options bar above the Preview window. (The tool will be highlighted in your system's accent color.)

If the selected tool is part of a tool group, the tool well will expand to show the other tools in the group. You can also see the other tools in the group in the tool options bar where the first tool in the pair is the primary tool for that group:



The options bar for the tool groups—like the Masking Tool group shown here—will display the primary tool (Masking Brush in this instance) for the group. To select a different tool in the group, click the drop-down menu and select that tool.

Masking Brush for the Mask group, Healing Brush for the Retouch group, and the Push tool for the Liquify group. Other tools in that group will be visible in the drop-down menu next to the primary tool.



Each tool in Photo RAW—with the exception of the View tool—has an Options Bar, where you can adjust the settings for that tool. Shown here are the options for the Retouch Brush.

ADJUSTING TOOL SIZING PARAMETERS

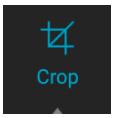
When using tools that have Size and Feather options, you have multiple ways to adjust those parameters:

- In the Options Bar for each of those tools, you can use the slider in the Size and Feather fields to increase or decrease the amount.
- You can use the left and right bracket keys on your keyboard – ' [' and '] ' – to adjust the size; additionally, hold down the Shift key to adjust the feather.
- You can also use your mouse's scroll wheel (see Using Photo RAW with a Scroll Wheel). Press Command-Option (Mac) or Control-Alt (Windows) and scroll to change the brush size. To change the feather, press Option-Shift (Mac) or Alt-Shift (Windows).
- You can also use your pressure-sensitive tablet, if you have one. Settings to turn that option on will be found in the Tool Options bar's Gear menu for the tool.

Standalone Tools

The standalone tools, Crop, Transform, Super Select AI, and View, each perform a single task inside ON1 Photo RAW 2026.

CROP TOOL



This tool lets you crop your image, and is fully non-destructive in the Edit module. The tool can suggest a crop based on a chosen aspect ratio, and also has a generative expansion option that lets you expand the photo canvas, filling the edges of a photo's frame with realistic detail.

To crop an image without content-aware fill, select the Crop tool from the Tool Well, which will display the crop overlay. Select any preset crop ratio you would like to use from the Options bar – the default is Freeform, which lets you crop in whatever size or

ratio you would like. Choosing a preset size (like 4x6) will display the crop overlay at that chosen aspect ratio.



The Crop interface, with a Rule of Thirds overlay and the Aspect pop-up open.

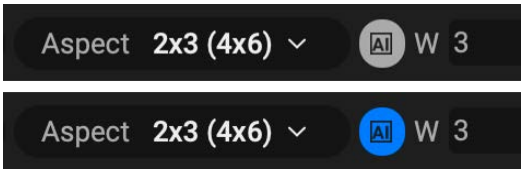
Adjust the corner handles of the crop overlay to get the area you wish. (The area outside the crop box appears darkened for guidance.) You can resize and move the image inside the crop box. When you are satisfied with your settings, press the Apply button in the Options bar or press Enter.

To move the image inside the crop box, simply click and drag inside the box. You can also nudge the image using the arrow keys on your keyboard. To resize the crop box, click and drag on any of the handles. Clicking on a corner handle allows you to adjust two sides at the same time; clicking on a side handle allows you to adjust that side. If you hold the Shift key down while adjusting the size, the box's proportions are maintained. To rotate the crop box, move outside a corner until the tool changes to rotate.

To straighten an image, you can use the Leveling Tool, which is found in the Tool Options bar when the Crop Tool is active. Click on it, and drag the tool across an element in your image that should be level.

AI Auto Crop and Level

To the right of the Aspect pop-up menu is the AI Auto Crop and Level button. To use it, select an aspect ratio and click the button. Photo RAW will analyze the photo and automatically crop and level it for you at the chosen aspect ratio, and the button will turn blue. If you don't like the crop, you can override it, or choose an alternative aspect ratio.



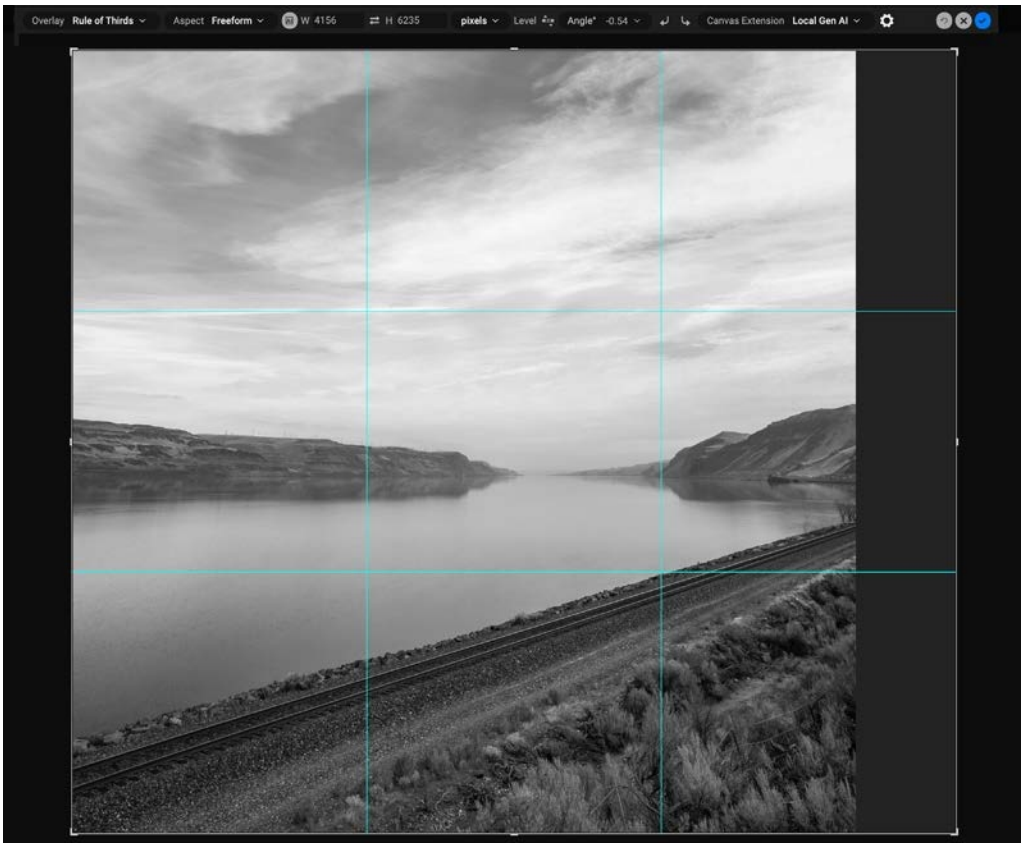
To use AI Crop and Level, choose an aspect ratio, and click the AI button. Photo RAW will suggest a crop and the button will turn blue.

AI Auto Crop and Level operations can be saved in a preset (see Creating your own Presets), or via the Copy Settings command (see Copying Settings and Synchronizing Edits), which lets you apply the auto crop aspect ratio to a group of photos.

NOTE: If the Freeform aspect ratio is selected when you click the AI Auto Crop and Level button, Photo RAW will use the photo's original aspect ratio.

Expanding your crop with Local Gen AI

Using Local Gen AI (or Stability AI), you can use generative AI to expand the boundaries of a photo, building new content based on the characteristics of the photo. Select the Canvas Extension option in the Crop's

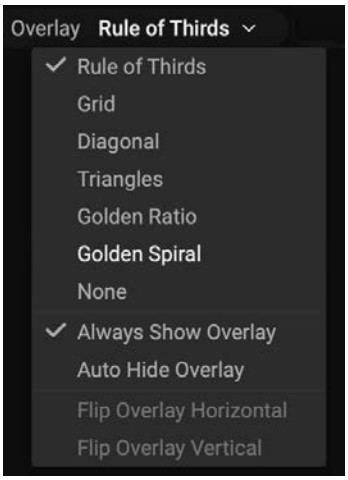


When you select the Canvas Extension option in the Tool Options bar, you can extend the canvas beyond the boundaries of the existing photo, using ON1's Local Gen AI (or Stability AI). Drag the crop border out from the photo, click Apply, and Photo RAW will fill the area based on the characteristics of the edges in the photo.

Tool Options bar, and extend the crop frame outward from the boundaries of the photo in the direction you wish to expand. When you click Apply, Photo RAW will generate the extended area and create a new layer with the results. If you would like to try a different expansion, you can either use the Undo command, or, if you would like to keep the old expansion, hide the expanded layer, select the base (original) layer, and redo the cropping operation.

See Generative AI Processing Options for information on the different generative models, system requirements, and why you would want to use one or the other in certain situations.

Crop overlays



When you select the Crop tool, Photo RAW has the option to display guidelines as an overlay on top of your photo. These overlays can be used as compositional aids for cropping. Photo RAW includes a number of overlays that you can display during a crop session, and they can be accessed from the overlay pop-up menu in the Tool Options bar when the Crop tool is active. There are seven options – Rule of Thirds, Grid, Diagonal, Triangles, Golden Ratio, Golden Spiral, and None – and you can easily go back and forth between them as desired while cropping.

In addition to overlay type, there are two other sets of options in the pop-up menu:

- You can choose to have the overlay displayed all the time during a crop session, or to have Photo RAW only display the overlay when your cursor is in the preview area of the workspace.
- When working with the Triangles or the Golden Spiral overlays, the Flip Overlay options will be visible, letting you flip the orientation of the overlays horizontally (Golden Spiral only) or vertically (Golden Spiral and Triangles).

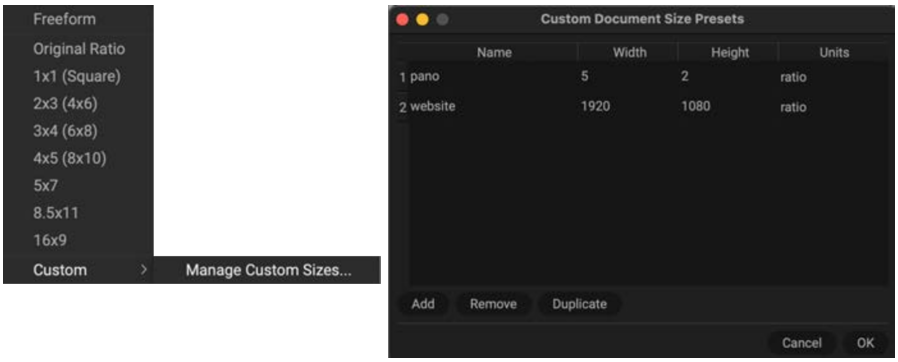
Crop Tool Options Bar:



- **Overlay pop-up**: Selects a crop overlay, sets overlay visibility, and flips the overlay.
- **Aspect pop-up**: Lets you choose aspect ratios, from Freeform constrained or custom preset ratios.
- **AI Crop and Level button**: Automatically crops and levels your photo, based on the current aspect ratio.
- **Width**: Sets the width of the crop box.
- **Swap Dimensions**: Swaps the width and height. Handy for rotating the crop box.
- **Height**: Sets the height of the crop box.

- **Leveling Tool**: Click and drag this tool across an element in your image that should be level.
- **Angle**: See and adjust the angle of rotation.
- **Rotation tools**: Rotates the photo 90° clockwise or counterclockwise.
- **Canvas Extension**: Selects a model (Local Gen AI or Stability AI) to expand the canvas size, filling the edges of the photo with new detail, using generative AI.
- **Reset**: Resets the crop area to the size of your original photo.
- **Cancel**: Cancels the crop application.
- **Apply**: Applies the crop.

Creating custom crop sizes

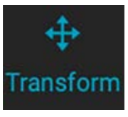


The bottom of the preset pop-up (above left) has a list of custom crop ratios that you can use in addition to the preset ratios. You can create your own presets via the Manage Custom Sizes submenu option, which opens the Custom Document Size Presets window (above right).

In addition to the preset crop ratios provided, you can create your own custom crop sizes. The bottom of the crop preset pop-up menu has a Custom submenu, which lists all of your custom ratios. To add a size, choose Manage Custom Sizes from the submenu. To add a new ratio, click the Add button, then enter a name, and the width and height ratio you wish to create (the units will always be “ratio” when you create a custom preset for the Crop tool). You can add as many as you’d like and click OK. The new crop ratios will appear in the Custom submenu.

NOTE: The Crop tool in the Edit module is non-destructive, while the one in Resize works destructively. Both modules can create custom crop presets, but the tool in Edit works solely as a crop ratio and has the label “ratio” in the Units column. If you change one of those preset sizes from “ratio” to a specific unit of measurement in Resize (such as “inches”) it will no longer be visible in the Edit module’s Crop tool Custom pop-up.

TRANSFORM (MOVE) TOOL



The Transform tool is a layer-specific tool, used to manipulate the contents of a layer. It works even if the only layer you have is the base photo layer. A layer may be repositioned, sized or rotated using the Transform Tool. When the tool is selected, handles will appear on the edges of the selected layer. You use these handles to manipulate the image. When you are done, click the Apply button in the Tool Options bar.

The Transform tool is layer-dependent, and each document layer can have its own transform operations. It is useful when compositing photos, or applying backgrounds and textures in a multi-layered file. The Transform tool is disabled when using Photo RAW as a plug-in.

Repositioning a layer

To reposition a layer, simply click and drag inside the transform box. You can also use the keyboard arrow keys to nudge a layer one pixel in any direction.

Resizing a layer

To resize a layer, click and drag on any of the transform handles. Clicking on a corner handle allows you to adjust two sides simultaneously. Clicking on a side handle allows you to adjust that side. If you hold the shift key down while adjusting the size, the proportions of the layer are maintained. If you hold down the Option (MacOS) or Alt (Windows) key while resizing, your image will resize from the center instead of from the edge. You can hold down Shift-Option (or Shift-Alt) to resize proportionally from the center.

You can type in the size you desire in the Tool Options bar (see below) in the width and height fields. You can also size a layer to fill the canvas automatically by pressing the Fill button in the Options Bar.

Rotating a layer

To rotate a layer, move the Transform Tool just outside a corner transform handle. Notice that the tool cursor changes to a rotate cursor. Now click and drag to rotate the layer. You can also use the opt (alt) left and right arrow keys to rotate a layer when the transform tool is selected. To rotate the layer quickly in 90 degree increments, you can use the rotate left and rotate right buttons in the Tool Options bar.

Flipping a layer

You can flip a layer either horizontally or vertically by pressing the flip buttons in the Tool Options bar.

When you have completed your transforms you need to commit the changes. You can do this by pressing the Apply button that appears in the Tool Options bar or by pressing the Enter key. You can cancel a transform by pressing the Cancel button in the Tool Options bar or by pressing the Escape key.

Restoring a layer after a move

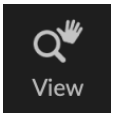
The Reset All command inside the Edit module will not reset transforms made with the Move tool. To reset your layer to its original, non-transformed state, click the Move tool and adjust any rotation you might have made, as well as any flip operations. Then choose the Fit to Canvas button.

Transform Tool Options Bar



- **Width**: Changes the width of the layer, in pixels.
- **Height**: Changes the height of the layer, in pixels.
- **Scale**: Proportionally scales the layer, in percentage.
- **Rotation**: Rotates the layer, by degrees.
- **Rotate Left/Right buttons**: Rotates the layer 90° clockwise or counterclockwise.
- **Flip Horizontal/Vertical buttons**: Flips the horizontal or vertical axis.
- **Fill Canvas button**: Scales the layer contents to fit the document size.

VIEW (ZOOM) TOOL



This is the default tool selected when opening an image in the Edit module. It adjusts the magnification of the image in the Preview window. With the Zoom tool selected, click in the Preview window to zoom in and center the image at the location clicked. Hold down the Option/Alt key to display the Hand tool, which lets you pan around the magnified image. You can also double-click the Zoom tool in the Tool well to set the image to 1:1 (or 100%) magnification view, which shows every pixel. This is best when examining small details.

The View tool has no tool options bar; you can adjust the zoom level via keyboard shortcuts (Command/ Control + or Command/Control -) or the Preview Size selector at the bottom of the main window.

Masking Tools

The Mask tool group has a total of eight tools, designed to help create and refine selections. Depending upon the complexity of the masks you are trying to create and manipulate, you will often use multiple tools to get achieve the perfect mask.

We go into much more detail later in the guide, but, at its simplest level, a mask shows or hides the effect of the filter or adjustment. Masks have no color: they are grayscale, and the tones range from pure white to pure black. A mask that is completely white

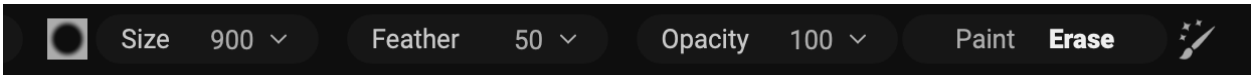
displays the entirety of the effect being used, a mask that is completely black hides that effect. Shades of gray are in effect the opacity of the mask. Darker shades reduce the effect, lighter shades let more of it through. For more complete information on masking and mask refinement, see Masking Basics.

MASKING BRUSH

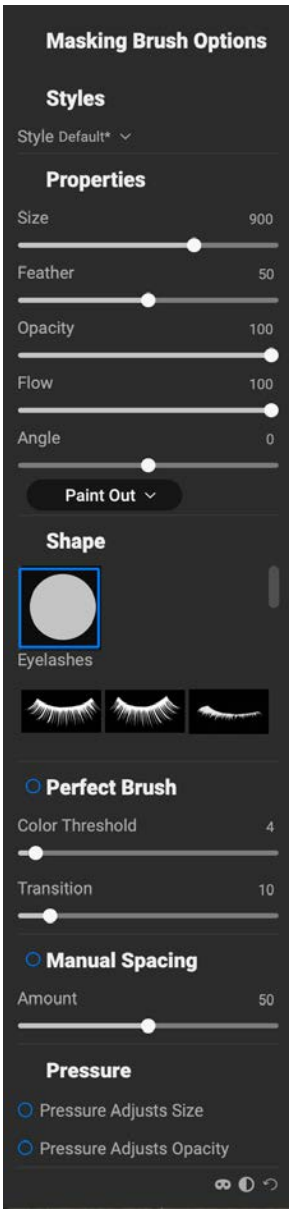


The Masking Brush is one of two tools used for masking filters in Effects and creating masks in Layers. Selected, the Masking Brush cursor looks like two concentric circles, one representing the inner hard edge of the brush, the other, the soft outer, feathered edge of the brush. At the center of the brush is either a plus or minus. The plus means that you are painting “in” a filter’s effect, while minus means the brush mode is set to paint out.

Masking Brush Tool Options Bar



The first icon is for the Masking Brush Options. Clicking on that displays a pop-up menu that contains all of the options available for the tool (see Masking Brush Options Menu for more). The five remaining items in the options bar are the most common tasks used with the Masking Brush, and include:



- **Brush Size**: You can control the size of the brush using the Size pop-up. Use a small brush at high magnification for precise work, and a large brush at fit to screen for general work.
- **Feather**: You control the amount of feathering—or hardness—of the brush by using the Feather pop-up in the Tool Options bar. The feather has a range from 1 to 100 percent. Use a small feather at high magnification for precise, hard-edged work and a large, soft-edged brush in Fit to screen mode for general work. You can visually see your feather by watching the outer concentric circle of the brush tool.
- **Opacity**: This controls the transparency of the brush, and ranges from 1 to 100 percent. You use a high opacity to paint quickly and hide large areas. You use a lower opacity for blending areas together or for subtle work. You can also control the opacity with a pressure-sensitive tablet, or by pressing Option (Mac) or Alt

(Windows) and one of the number keys on your keyboard. Each number represents an opacity percentage from 10% (1) to 100% (0).

TIP: Think of the opacity as the shade of gray you are painting onto your mask. White in a mask represents 100% of an effect and black (0%) represents no effect, and opacity settings in between will show a percentage of the effect.

- **Paint Mode**: There are two modes, Paint and Erase, and they control whether you are painting in (restoring the effect) or painting out (hiding the effect), respectively. You can tell your current mode by looking at the plus or minus icon in the center of the brush. If the icon is minus, you are painting out (Erase), and if the icon is a plus, you are painting in (Paint). You can change the mode in the Tool Options bar, by pressing the X key, or by holding down the Option (Mac) or Alt (Windows) key temporarily. To invert the mask (turn it from black to white), in order to paint a filter's effect into your image choose Invert Mask from the Mask Properties window.
- **Perfect Brush**: The Perfect Brush incorporates an automatic edge- detection technology to help create precise selections and masks. When you turn the option on–by clicking on the Perfect Brush icon in the Options bar–the Masking Brush collects the colors under the center of the brush and applies the effect only to those colors. This protects the adjustment from being applied across edges, such as tree branches.

MASKING BRUSH OPTIONS MENU

The Masking Brush Options pop-up menu has six sections, Styles, Properties, Shape, Perfect Brush, Manual Spacing and Pressure:

Styles

The Style pop-up lets you save the current brush state for use at another time. Selecting a saved item will open that saved brush's characteristics.

Properties

The properties section mirrors the Size, Feather, and Opacity options in the main tool options bar, as well as the current Paint Mode setting. Two additional options are also available, Flow and Angle:

- **Flow**: The rate at which the brush is applied, up to the Opacity setting. With a low flow number, as you brush back and forth, the brush color will build up to the Opacity setting. At 100, the brush stroke is applied at the Opacity setting.
- **Angle**: This sets the angle of the current brush shape. For the default, round brush shape, this setting has no effect; it is more useful when working with custom brush shapes (see below). You can also rotate the brush shape by pressing Shift-Option (Mac) or Shift-Control (Windows) and the left or right bracket keys ('[' or ']').

Shape

The Shape menu displays a list of all custom brush shapes in your library. The top item in the list is the default, round brush, which is the standard brush for working with masks in the Edit module. Custom brush shapes can be useful when you want to create specialized creations or enhanced photos: you can paint in stamps, watermarks, and other shapes in the Edit module's Local Adjustments tab.

For example, you could use a custom cloud brush to add interest to a lackluster sky, or you could create your own watermark and apply it precisely.

For more on using custom brushes in Photo RAW, see Using Custom Brushes to Add Overlays to Photos

Perfect Brush

You can tune Photo RAW's Perfect Brush settings via the Threshold and Transition options:

- **Color Threshold**: This option lets you control the balance between keep and drop colors, based on the area you are working on. For example, you may want the Perfect Brush to be very precise and only paint away very similar colors, while at other times you want it to paint away a broad range of colors in the same neighborhood.
- **Transition**: This slider controls the feather of the Perfect Brush based on color. To create a soft edge, increase the transition. To create a harder edge, decrease the transition amount.

Manual Spacing

When checked, this sets the spacing of the brush tip as you apply a stroke. This is primarily used when painting with custom brushes. See Using Custom Brushes to Add Overlays to Photos for information on how to use this setting.

Pressure options

Photo RAW supports pressure-sensitive tablets with the Masking Brush. You can enable pressure sensitive controls for the brush size, brush opacity, or both simultaneously. To turn this support on, click on the gear icon in the Tool Options bar. You can activate pressure sensitivity for both size and opacity by clicking the appropriate buttons in the drop-down menu.

GRADIENT MASK TOOLS



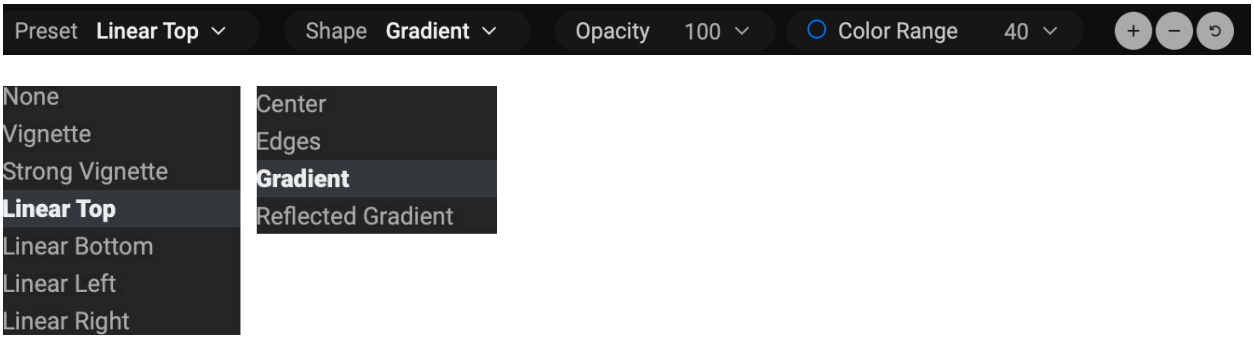
The Gradient Mask Tools are used for blending masks and layers by creating radial or linear gradient mask shapes. It works in a similar manner to the Adjustable Gradient tool

in the Local Adjustments pane. The mask goes from dark to light in tone, applying more of the adjustment where the gradient is lighter, and less of the adjustment where the gradient's tone is dark. The most common use of gradient masks is to darken the sky in an image, while preserving the brightness of the foreground, similar to using a gradient filter on your camera lens, or to adjust the effect of a filter mask in Effects.

To apply a standard gradient to a filter in Effects, a local adjustment, or a layer, click on the Gradient Mask in the Tool well, then click in the image roughly where you wish the gradient to go. You'll see the outline of the gradient, which is called a bug. You can use the handles on the bug to move your gradient around, increase or decrease the length of the gradient, or rotate it. You can also create (and delete) multiple masking bugs.

You can change the gradient shape via the Tool Options bar: in addition to the standard dark-to-light horizontal gradient, you can also create a circular gradient and a reflected gradient, which is like the horizontal gradient, but goes from black (no effect) at the outer edges to white (full effect) in the center.

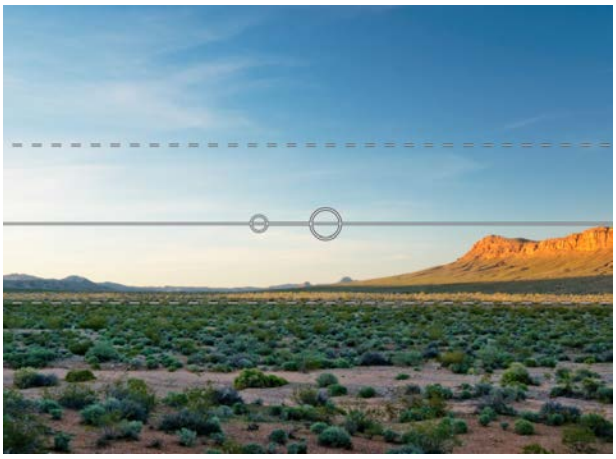
Gradient Mask Tool Options



- **Preset**: The preset pop-up includes six settings for the bug's mask (vignette, strong vignette, top down, bottom up, and linear left and right), and changes the current bug (if there is one) to match the preset.
- **Shape**: The shape pop-up controls the shape of the bug. In addition to the standard Gradient and the Reflected Gradient, there are two radial shapes: Center, which puts the light tones at the center and the dark tones on the outside of the mask, and Edges, which sets the gradient in the opposite direction. The Preset (left) and the Shape (right) options for the Gradient Mask tool.
- **Opacity**: Sets the maximum density of the mask.
- **Color Range**: When enabled, this detects the color under the gradient and applies the mask to only that color range. The higher the number, the wider the range of color that is selected.
- **Add**: Adds a new gradient using the current settings.
- **Delete**: Deletes the current gradient.

- **Reset**: Resets the mask on the layer completely. This removes all gradients and clears any brushing that has been done.

Manipulating a gradient mask



Once you've added a gradient to an image, you can modify it easily by accessing the following parts of the gradient overlay:

- To move a gradient, click on the large circle at the center of the gradient and drag.
- To resize a radial gradient, click and drag on the solid line.
- To adjust the feather (or hardness) of the mask, click and drag along the dashed line.
- To rotate the mask, click on the smaller circle near the center of the gradient and drag it up or down.

Working with multiple masking bugs

You can have up to six masking bugs per layer. Each bug is re-editable. To add another masking bug, press the Add button or click outside of the current bug while the Gradient Mask tool is selected.

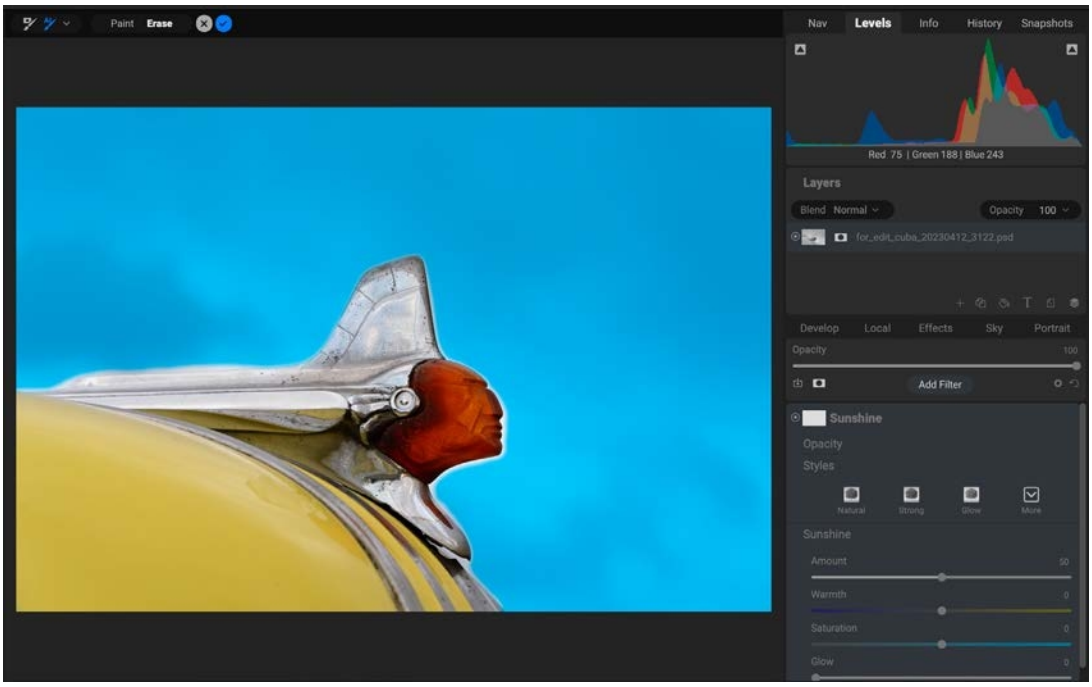
Only one masking bug may be adjusted at a time. You will see the overlay controls for the active bug while your mouse is over the preview area. Inactive bugs are marked with a small circle; to select an inactive bug clicking on this small circle marker.

Masking bugs are subtractive. Each bug hides more and more of the current layer. When masking bugs overlay each other they may hide more of the layer too. You can always use the Masking Brush to override and paint back in areas hidden by the masking bugs.

QUICK MASK AI BRUSH

The Quick Mask AI brush is functionally similar to the Super Select AI tool, but it is intended to create selections for the current filter, local adjustment, or layer – all it does it create a mask for that item. It does not create a new filter pane or local adjustment layer.

To use the Quick Mask brush, first create a filter in Effects, a local adjustment layer in the Local Tab, or the master layer mask, select the tool, and move your cursor over the photo. As you move around the photo, Photo RAW will display the various regions in your photo as blue overlays; clicking on a region will create a selection and change the overlay for that area to blue. If there are additional regions you wish to select, hover over the new area and click. To remove a selection, click on it a second time.



The Quick Mask AI brush is designed to be used when you have created a filter pane in Effects, a local adjustment in the Local tab, or a separate layer in Photo RAW. Here, a Sunshine filter has been applied to this image. To keep the sky from being affected by the filter, we have used the Quick Mask AI brush to select the sky and chosen Erase from the options bar to mask out the sky. Clicking Done will create a mask with the sky removed.

The Quick Mask AI Options bar has two options: Paint or Erase. Paint will apply the final adjustment to the selection you created with the tool, while Erase will apply the adjustment to the areas to the inverse of the selection (i.e. the areas that *have not* been

selected). Clicking the checkmark button will create the mask and select the Refine Brush so you can fine-tune the mask.

While the masks created by the Quick Mask tool are generated automatically, they function like any other mask created in Photo RAW. This means you can use the other masking tools to adjust and refine the finished masks. This also includes the Mask Control options found in the Masking tab of the Properties window (see Masking Basics and Masking Properties).

Quick Mask AI Brush Options bar



- **Mode Selector**: Paint means that the mask will be applied to the selection; Erase means that the adjustment or filter will be applied to all areas in a photo except for the selection.
- **Cancel**: Cancels the operation, deselecting the tool and selecting the Zoom tool.
- **Done**: Creates the mask and selects the Refine brush.

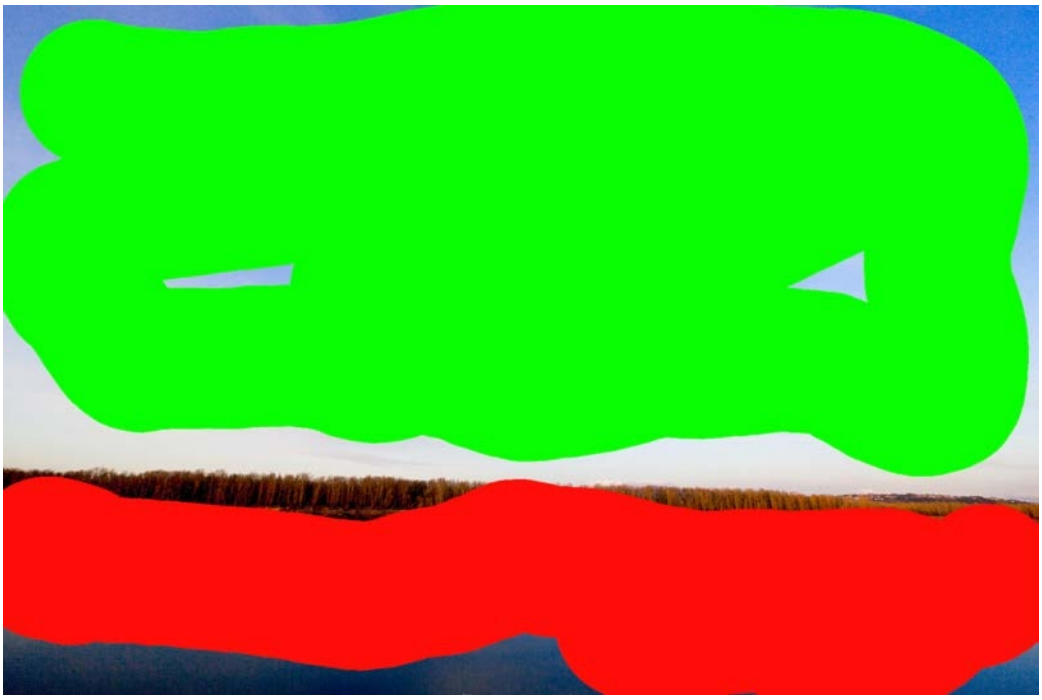
QUICK MASK BRUSH



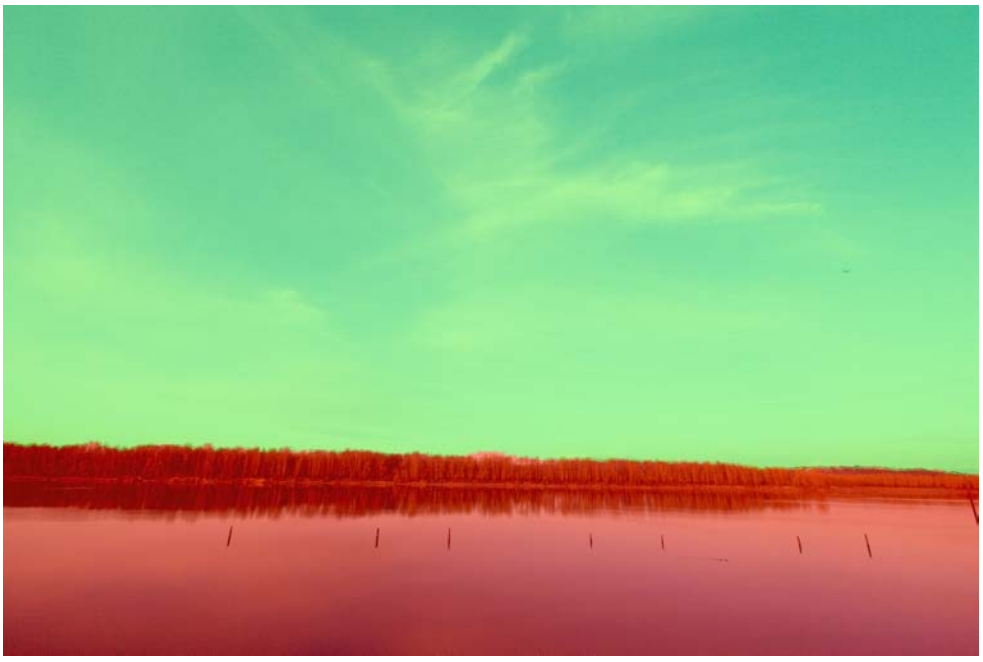
Powered by machine learning, the Quick Mask brush creates high-quality masks with just a few strokes. To use it, you paint areas you want to keep in green and areas you want to drop in red. Photo RAW analyses the color, tone and texture of the marked regions to learn what you want to make out and then automatically finds the edges and creates the mask for you. Use it with layers to replace skies or with filters to selectively apply them.

You can use this tool on a filter in Effects, a local adjustment, or on a layer. If you wish to use it on a filter, to mask some of the filter's effects out of your photo, add the filter in Effects, and select the Quick Mask Brush. To use it on a layer, select the layer. In both cases, you'll follow these steps:

1. First, you need to give the tool guidance as to what you want to keep and drop. This is done by loosely painting over the regions in your photo. There is no need to precisely paint the entire photo: just a few representative strokes of red and green are all that are needed. Paint with Drop mode—which is the default brushing mode—over the portions of your image that you want to remove. These brushstrokes will appear in red. Then change the tool's mode to Keep (via the Tool Options bar, or by holding the Option/Alt key) and paint over the areas you want to keep. These strokes will show up as green.



2. Now press the Apply button in either the Tool Options bar or the Original Quick Mask HUD.



This will generate a temporary mask to preview the results. Areas that are filled with red will be masked out, areas in green will remain. Keep in mind the edges will appear rough at this point and will be smoothed out when you generate the final mask.

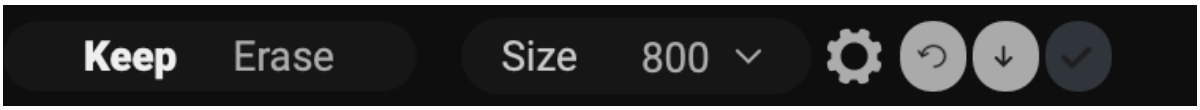
3. If the preview results look good, press the Done button in the Tool Options bar or the Original Quick Mask HUD. If there are areas that are incorrect, you can

continue to improve the results by adding more Keep and Drop strokes. Press Apply each time to preview the improved results. When you press Done, the edges are refined with high precision and ON1 Photo RAW switches to the Refine Mask tool.



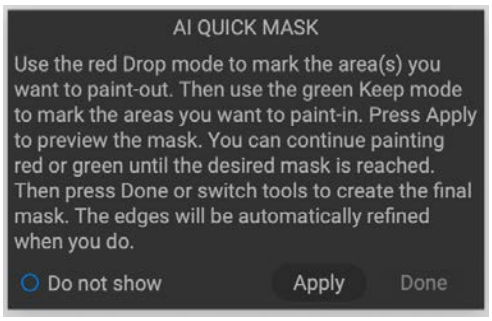
Once you click on the Done button, Photo RAW will create the finished mask (shown here as a red overlay), applied to the current filter. You can manipulate the mask further with any of the refine mask tools.

Quick Mask Brush Options Bar



- **Mode Selector**: Paint means that the mask will be applied to the selection; Erase means that the adjustment or filter will be applied to all areas in a photo except for the selection.
- **Brush Size**: Controls the size of the brush. Use a small brush at high magnification for precise work, and a large brush at fit to screen for general work.

Further settings for the Quick Mask brush can be found by clicking on the gear icon in the Tool Options bar. There, you can set the following options (shown right):



- **Pressure Adjusts Size**: This option lets you control the size of the brush using a pressure sensitive tablet. The harder you press, the larger the brush becomes up to the current setting of the size slider.
- **Refine Edge**: Applies the Refine Mask brush automatically to the edge of the resulting mask, creating a more natural transition. This the default and is recommended for most photos.
- **Show HUD**: This displays the Quick Mask Brush's HUD dialog, which provides guidance on how to use the tool.
- **Overlay**: Sets the transparency of the red and green mask overlays on top of your image. A setting of 100 displays only the mask; the default is 50.

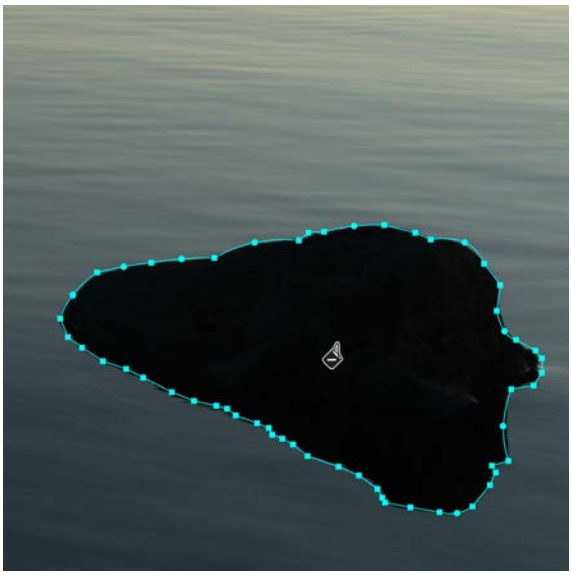
The Quick Mask Brush HUD gives displays instructions for using the tool. You can turn the HUD off via the Gear menu in the tool options bar.

LINE MASK TOOL



The Line Mask tool lets you create masks by drawing straight lines in your image, with the added flexibility of letting you adjust each individual line segment into curves to better fit the object you want to mask. Masks created with this tool are re-editable, can be copied and pasted like any other mask inside Photo RAW, and you can have multiple Line Mask selections for each mask.

To start, you click and drag along the outline of the area you wish to mask. Clicking your mouse button (or with a pen and tablet) adds a point to the line; you can continue to click along the edges of your desired selection, and the tool will add points along the way. These points will be represented by a small square. When you're finished, hover your cursor over the first point and click on it to close the path created by the tool. This will close the selection and change the cursor to a paint bucket icon; click inside the area, and Photo RAW will create and display the mask.



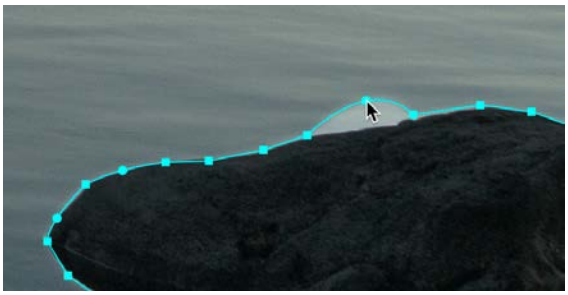
When you complete the mask area by clicking on the original point, the cursor will change to a paint bucket icon. Clicking in the area will generate the mask.

Once you've closed the mask, you can adjust the feather and opacity of the mask, and you can further adjust the points on the line in the following ways:

- You can click on any point in the selection and move it by dragging it.
- If you hover (or click) on a point, you'll see a circle appear between that point and the previous point on the line. This circle can be dragged in all directions to curve the line to better fit the object you are masking.
- Add a point by holding down the Shift key and clicking on the line.
- You can delete any point by right-clicking on it and choosing Delete Point from the pop-up.
- You can delete the entire mask by choosing Delete Line Mask from the pop-up menu.

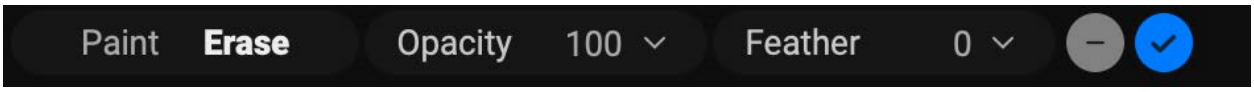
While you're creating the mask, the curve option is always available for the current point; move the cursor back over the line before the point, and the circle will appear. You can then drag the curve in or out, and when you're done, move the cursor and click on the next place you wish to add a point.

When you've made your adjustments to the selection, you can click the Done button in the Tool Options bar to quit the tool, or you can create another mask.



To re-edit the mask at a later time, select the filter, layer, or adjustment layer that has the mask attached to it and choose the Line Mask tool. When you move your cursor over the area that contains the mask, the mask's outline will appear in light blue. Click anywhere on the outline, and the mask's points–both square and circle–will appear, allowing you to adjust them as you see fit, including the curve option, which is visible when you hover over a point in the Opacity and Feather settings. selection–lets you fine-tune the line to make it better fit the object you're masking. (Shown here exaggerated for effect.)

Line Mask Tool Options Bar



- **Mode Selector**: Paint means that the mask will be applied to the selection; Erase means that the adjustment or filter will be applied to all areas in a photo except for the selection.
- **Opacity**: Controls the opacity, or transparency, of the finished mask, from 1 to 100 percent. At 100 percent, all of the effect will be displayed in the mask area; as the opacity level drops, more of the layer underneath the mask will be visible.
- **Feather**: Controls the hardness of the mask edge. The feather has a range from 1 to 100; 1 being a hard edge across the boundaries of the mask, 100 being a soft, wide edge that 'feathers' the transition between the masked and unmasked boundaries.
- **Delete**: Removes the currently selected line mask.
- **Done**: Saves the current line masks and closes the tool, returning Photo RAW to the View Tool.

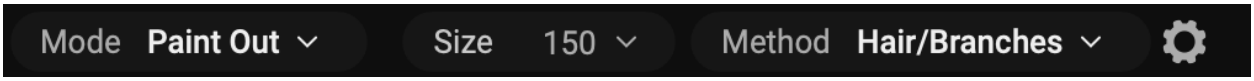
REFINE BRUSH



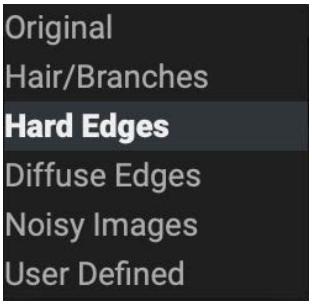
This tool, one of the most versatile in Photo RAW, can be used to clean up intricate areas and the borders along a mask. It is helpful for cleaning up a mask created with the Masking Brush, the Super Select AI tool, or other masking tools, or for creating a new mask entirely.

When you paint with the Refine Brush, the brush strokes are displayed as a red overlay, and when you let up off the mouse button, Photo RAW will work to make the mask edge better defined.

Refine Brush Tool Options



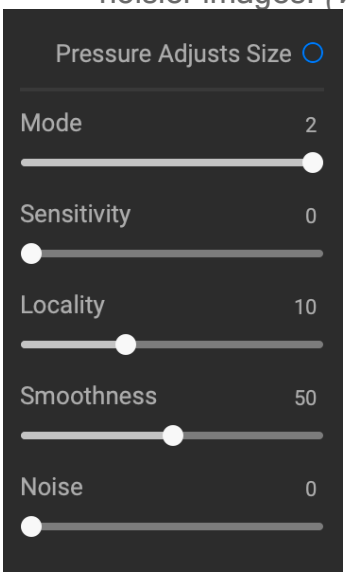
- **Mode**: Controls the refinement mode, either Paint Out, which refines to remove from the mask, Paint In, which refines to add to the mask, or Auto, which determines the best way to refine the mask edge. Paint Out is recommended in most cases.
- **Size**: This adjusts the size of the brush. Select a brush size that is just larger than the intersection of the subject and background. Avoid using oversized brushes it will take longer to process and may yield lower quality results. You can use your mouse's scroll wheel to adjust the size of the brush as well (see Using ON1 Apps With a Scroll Wheel). The Refine Brush's maximum size is 500 pixels.
- **Method**: Lets you choose the refinement algorithm and settings based on the subject of the masked area. There are five method types, plus a user-defined setting that is created when you adjust any of the individual parameters found in the Gear menu:



  - Original: Uses the refinement algorithm found in earlier versions of Photo RAW (referred to as Mode 1 in the gear menu).
  - Hair/Branches: Optimized for fine detail, like hair, branches and other subjects.
  - Hard Edges: Best method for refining masks with distinct edges between masked and unmasked areas.
  - Diffuse Edges: Works best on areas where edge detail is not as well-defined.
  - Noisy Images: Works well on photos that have higher The Method pop-up. degrees of noise in them.

The Gear menu includes a setting for controlling the size of the Refine Brush with pressure. It also can be used to adjust any of the refine methods in the Method menu. The parameters include:

- **Mode (1 or 2)**: As noted above, Mode 1 is the Refine Brush algorithm used in previous Photo RAW versions; it remains useful in many masking situations. Mode 2 uses the new (2023) version of the Refine algorithm.
- **Sensitivity (0-100)**: Refers to the edge sensitivity; low for diffuse edges, high for hard edges. (Works only with Mode 2)
- **Locality (0-30)**: This parameter varies the search for similar scene materials; higher values expand the search zone along the brush edges. *(Mode 2 only)*
- **Smoothness (0-100)**: Represents post-processing smoothing of the refine results. Higher numbers mean smoother edges. *(Mode 2 only)*
- **Noise (0-100)**: This is a post-processing-based noise filter; use higher values with noisier images. *(Works with both Mode 1 and 2)*



When you change any of the parameters in the Gear menu, those results will be applied to the User Defined settings, and will be saved until you change them again. In general, however, most of your masking refinement work with the Refine Brush should be found in one of the five primary Method options.

Working with the Refine Brush

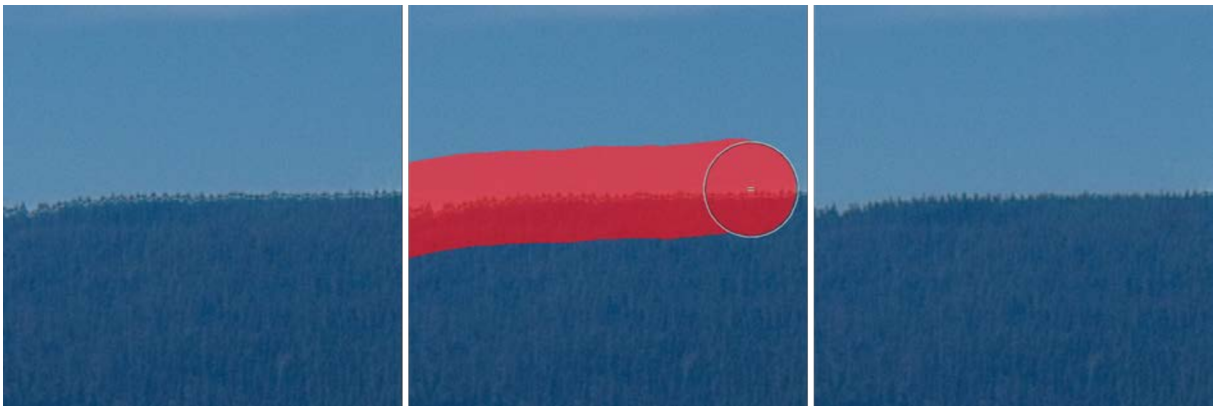
One of the biggest issues with masks is the transitions between edges, or in areas where one of the primary masking tools will miss some fine detail. You'll notice these transitions when you apply an effect or adjustment to a masked area, and there will be halos on the mask edges, or areas where the effect should be applied, but isn't. The Refine Brush, and, on occasion, the Chisel and Blur tools, can be used to help you fine-tune your masks and better transitions, ultimately creating more realistic masks.

The Refine Brush is often the first place you'll want to go when working with masks that could use some tuning. Some of the most common operations include:

- You can paint along the edges of a mask that might have areas where the mask isn't complete, or where the transitions between masked and unmasked areas could be smoother.

- You can paint over large areas of a masked area where there might be fine edges that could use further refinement, like trees or hair.
- You can also “encircle” an area in a photo where you wish to add to or subtract from a mask, or even create a new mask altogether.

For simple areas where you wish to refine an edge that has some halos or is otherwise a bit less than ideal, set the brush size a bit larger than the area you wish to tune set the appropriate method, and brush over the edge. This is shown in the enlarged area below.



In the photo above, a local adjustment on the sky, masked with Mask AI, left some ugly halos along a tree line. Using the Refine Brush, set to the Diffuse Edges method, smoothed the transition properly, making for a better mask. (Effect exaggerated for demonstration purposes.)

With tree branches, hair and other areas of fine detail, you can paint over the entire area that you wish the mask to refine, as shown in the following graphic.



The Refine Brush is a great choice for adjusting masks with fine details that are often obscured when building masks with some of Photo RAW’s primary masking tools. In the screen shots above, you can see the mask of a tree generated automatically with the Mask AI pop-up in a local adjustment layer (left). The tree’s interior branches are completely masked. Selecting the Refine Brush, with the Method set to Hair/Branches, we’ve painted broad strokes in and around the area where the branches are (center).

Photo RAW then refines the mask so that the branches are properly masked against the sky, making for a much more realistic mask.

The Refine Brush's "encircling method" lets you add to or subtract from an existing mask, or you can use it to create your own mask. To do this, use the brush to draw an outline around the object you wish to select and mask. What happens next depends upon what your intent is, and whether there is already a mask in the local adjustment or Effects filter you are currently working with:

- If there is a mask already created, and you wish to remove the stroked area, choose Paint Out before applying the brush. If you wish to add to the existing mask, choose Paint In.
- If there is no mask already present in the adjustment or filter, using the Refine Brush and drawing around an object or area will create a mask of the encircled space.

For more information about masking inside Photo RAW, see Masking Basics



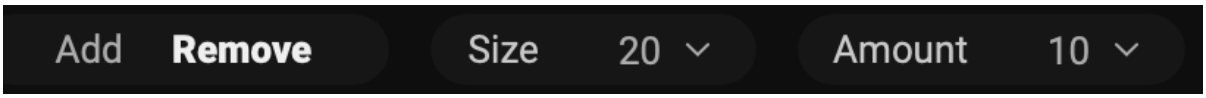
The encircling method.

CHISEL BRUSH



The Chisel brush works to remove fringes or halos along the hard edges of a mask; just click and drag along the edges of a mask you wish to refine. Fringes are common when the background to be removed is brighter than the foreground. The chisel works like a chisel or plane in a wood shop: It removes just a sliver along the edges, and, because it only works on the edges, you don't have to be too careful when using it.

Chisel Brush Options



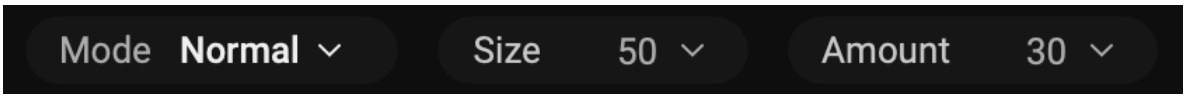
- **Mode**: Select remove or add from the mask edge
- **Size**: Adjusts the size of the chisel tool. Feel free to use a large chisel to make brushing fast. The size of the chisel does not affect how much is chiseled off.
- **Amount**: Controls the amount of pixels that will be removed or added during each stroke. **TIP:** Double-clicking on the Chisel icon applies the chisel to the entire mask.

BLUR BRUSH



The Blur brush softens edges of the mask where you paint; all you need to do is run the tool over the edges you wish to blur. Softening the edges on blurred or semi-transparent subjects like hair can make them blend with a new background in a more realistic manner.

Blur Brush Options



- **Mode**: Remove/Add/Normal lets you adjust what part of the mask edge to blur. Remove blurs and lightens the mask, Add blurs and darkens the mask, Normal blurs both light and darks.
- **Size**: Adjusts the size of the blur tool. Feel free to use a large size to make brushing fast. The size of the brush does not affect the blur amount.
- **Amount**: Controls the amount of blur. Use a low amount to maintain detail. **TIP:** Double-clicking on the Blur icon applies the blur to the entire mask.

Retouching Tools

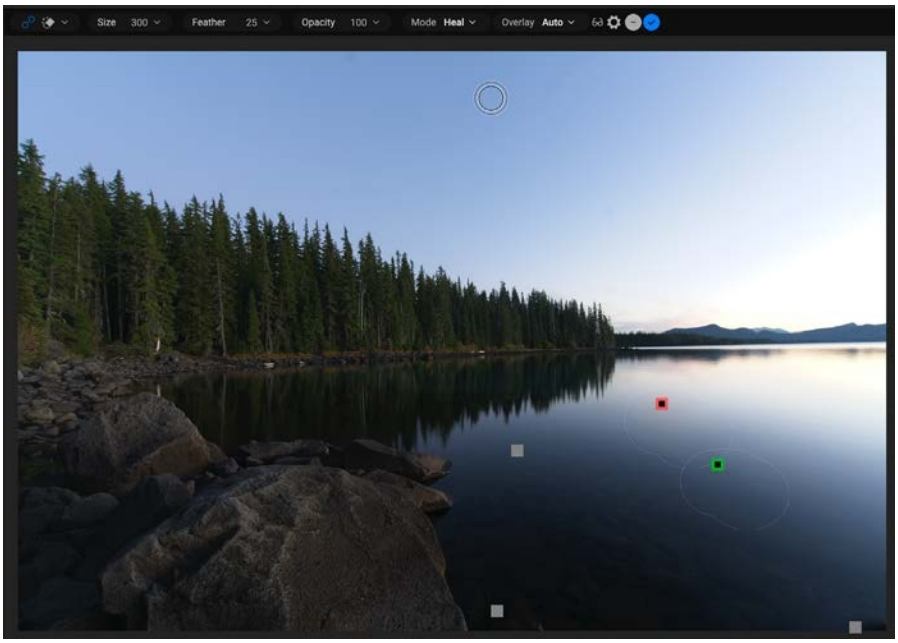
The Retouch tool group has a four tools, the Healing Brush, Prefect Eraser, Retouch Brush, and Clone Stamp, each of which have different options for removing distractions from your photos. The Healing Brush is a non-destructive tool, which means that you can adjust each individual application of the tool at any time. The remaining tools are destructive, in that you cannot remove individual operations, although you are able to reset all retouching operations from the Settings menu at any time (see Resetting Edits).

HEALING BRUSH



The Healing Brush is a tool for removing distractions like dust spots, power lines and unwanted people from your photos, using sophisticated content-aware fill technology. Like the other retouching tools, you can apply the brush to multiple portions of an image. Unlike the other tools, however, the Healing Brush is fully non-destructive: each area you apply the brush to is individually editable (and removable).

To use the brush, paint over a distraction and a matching area of your photo will be blended on top to replace it, using content-aware technology. You'll see two circular markers: red, which is the area that has been removed, and green, which is the area that was used to fill the source. Each marker is movable by clicking and dragging; sometimes, you'll want to try a different area to match to your source. Non-active markers will be displayed as gray squares until you click on them. (Press the Delete key to remove the current area.)



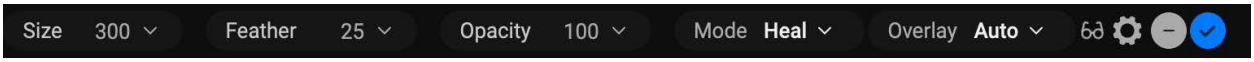
Areas that use the Healing Brush will be displayed as a gray marker. Clicking on a specific marker will display the source and area used to fill the source. You can then readjust its placement, or delete the area.

The Healing Brush has four modes, Heal, Stamp, Copy and Move. Each mode has a different approach:

- Heal mode applies content-aware matching from a nearby area to mask the object or area being painted out.
- Stamp mode acts like the Clone Stamp tool, applying the actual pixels from the area used to mask the object out; unlike that tool, however, this option is non-destructive.
- Copy mode is similar to the Heal mode, except that it makes a copy of the brushed area or object instead of masking it out.
- Move mode is similar to Copy mode, except that it masks the brushed area and moves the original area to a new location.

Healing Brush modes cannot be changed once they have been applied; if you wish to change the application in an area, you must select the old marker, choose Delete from the Tool Options bar, set the new mode, and re-brush the chosen area.

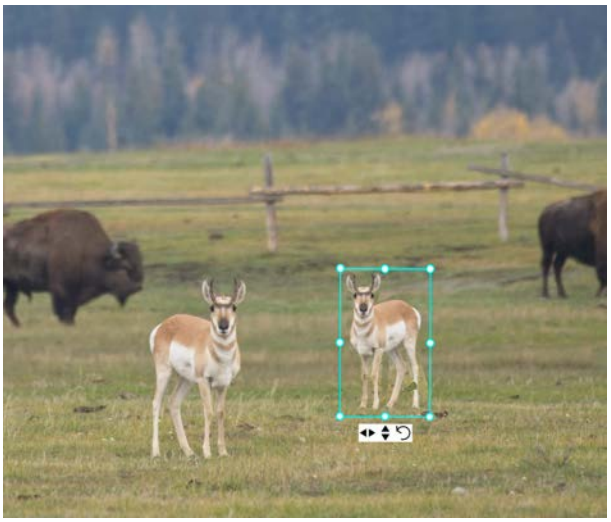
Healing Brush Options



- **Brush Size**: Adjusts the overall size of the brush.
- **Brush Feather**: Adjusts the hardness of the brush.

- **Brush Opacity**: This adjusts how strong the retouching is. Use 100% to completely remove an imperfection. Use a lower opacity to soften it.
- **Mode**: sets the type of healing that will be applied when brushing – Heal (content-aware), Stamp (pixel-exact), Copy (content-aware) or Move (content-aware).
- **Overlay**: Sets the display of the markers designating retouched areas. Auto displays all the markers in the photo, with the current marker highlighted in red and green, and the others as gray. Selected will only display the current marker (in red and green); the other markers will only be visible as you move over the photo with your mouse.
- **Visualize Dust**: Changes the view to a high-contrast overlay, to help view sensor dust spots more easily.
- **Pressure Adjusts Size** (gear icon): If you have a pressure-sensitive tablet, you can adjust the size of the brush according to the pressure. Click the button to activate.

Transforming retouched areas



As noted, all applications of the Healing Brush are non-destructive, meaning that you can adjust the source and destination areas for each marker, and you can delete markers by clicking on the appropriate market and choosing Delete from the Tool Options bar (or by pressing the Delete key).

You can also transform individual destination markers in a photo by holding down the Option/Alt key (Mac/ Windows) and hovering over the area. When you do this, a box will appear over the currently selected destination marker. You can resize the selection by adjusting the handles on the box; to resize proportionally, hold down the Shift key. You can also rotate the selection by clicking outside the box and pressing the mouse key, or you can flip the selected area vertically or horizontally by clicking the icons underneath the box.

When you hold down the Option or Alt key and hover over the currently selected Healing Brush marker, a box appears, which lets you adjust the size, rotation and orientation of the marker. When used in conjunction with the Healing Brush's Copy or Move modes, you can easily duplicate and transform individual subjects within your frame, as shown by the copy of the pronghorn above..

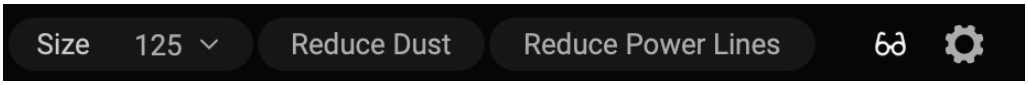
PERFECT ERASER



The Perfect Eraser can be used to remove distracting elements and blemishes from your image. It uses a content-aware algorithm that replaces the pixels with a natural-looking result within the boundaries that are painted. It also has specialize options for automatically removing dust spots and power lines from a photo.

Use the tool to paint over an area you wish to remove, covering the entire area. A red overlay appears where you paint. If the first attempt does not give you a perfect result, paint over it again and it will improve with each pass. You can also fine tune the area after by using the Retouch Brush (see below).

Perfect Eraser Options



The Perfect Eraser's Tool Options bar consists of five options; brush size, buttons for removing dust and power lines, a dust-spot overlay, and pressure-sensitive tablet support.

The default brush size for the Perfect Eraser is 125 pixels; you can make this bigger or smaller by clicking on the Brush Size in the Tool Options bar, or by pressing the right or left bracket keys on your keyboard. The maximum brush size is 500 pixels.

Clicking the Reduce Dust button will automatically scan the current photo for dust spots, removing obvious ones from the photo. By default, the Reduce Dust operation does not act aggressively, so as not to remove some items that might be questionably be dust or natural phenomenon. This means you might still find some dust spots in your photo.

Clicking the Reduce Power Lines button will scan the current photo looking for clear examples of power lines, and will remove them from the scene.

The Visualize Dust item displays a high-contrast overlay to help find and eliminate sensor dust spots.

If you have a pressure-sensitive tablet, select the Pressure Adjusts Size item, which is in the gear icon. The gear icon also includes a Legacy option, which is solely used to preserve compatibility with previous versions of Photo RAW.

GENERATIVE ERASER

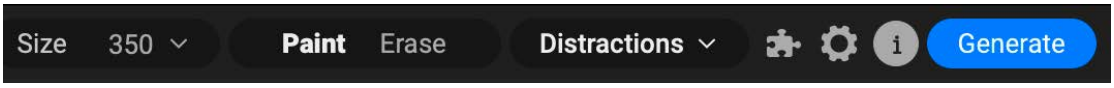


The Generative Eraser uses ON1's Local Gen AI technology to remove larger distractions from a photo than can be removed with the other retouching tools.

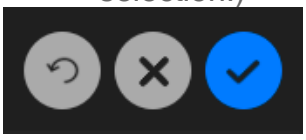
Use the tool to paint over the areas you wish to remove, covering the entire area of the object. A red overlay appears where you paint. When you have painted over all the areas you wish to have removed, click the green Generate Content button in the Tool Options bar. Photo RAW will analyze the areas and replace them with seamless areas that fit into your photo.

When you use the Generative Eraser, Photo RAW creates a new layer with all of the changes you make. When you close the file and return to Browse, your file will be saved in the .onphoto format; your original image remains at the bottom of the layer stack.

Generative Eraser Options

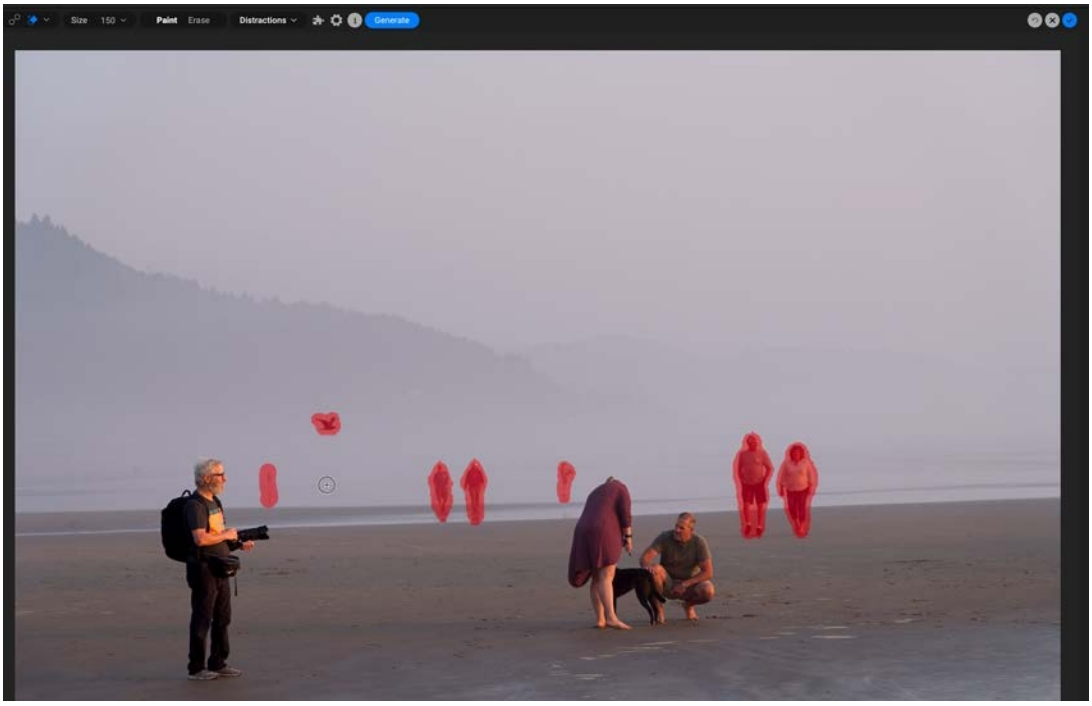


- **Brush Size**: Adjusts the overall brush size of the eraser.
- **Mode Selection**: The Generative Eraser defaults to Paint, which you use to paint over the subject that you wish to remove; use Erase before you generate content to refine a subject selection, or to remove that subject completely from the removal process.
- **Distractions**: Selects all of the people, wires or vehicles in a photo.
- **Quick Mask AI Brush** (puzzle icon): Select regions in a photo for removal using the Quick Mask AI Brush. Click to invoke the tool, then click the puzzle icon to add the selections to the current grouping (see Quick Mask AI Brush for the specifics of using this brush).
- **AI Model** (gear icon): Selects the Local Gen AI, Local NonGen AI, or Stability AI model.
- **Generate Content**: Removes the selections and replaces them with generated content. The button then changes to Retry if you wish to try again. (The Undo command will step you back to the selection group, if you wish to adjust your selection.)



There are three additional options, Clear, Cancel and Apply, which can be found on the far right of the options bar. Clear wipes out the current mask (objects selected for removal). Cancel quits the Generative Eraser session without applying the generated content (if you had generated it) and selects the Zoom tool. Apply applies the generated content and saves it to a new layer in the current photo.

You can use a combination of tools to select multiple objects for removal. For example (shown below), you could use the Distractions option to select all the people in a photo; click the Erase button and paint over any people you with to keep in the scene; and use the Quick Mask AI Brush to select additional objects for removal. When you're done, click the Generate button to perform the removal.



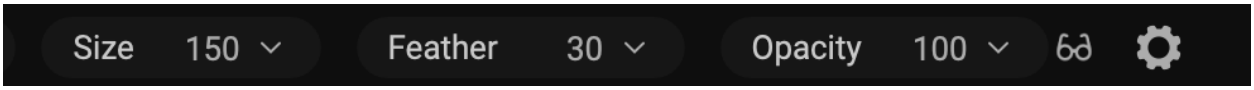
RETOUCH BRUSH



Use the Retouch Brush to remove small imperfections like dust or blemishes. Just dab the brush on areas that contain spots or other imperfections, such as acne, sensor dust, power lines and more. The tool looks at the neighboring areas in your image and fills in the brushed area with an area of similar color and texture.

It is best to use the smallest brush size possible and to work by dabbing rather than making large brush strokes. If you dab with the Retouch Brush and don't like the results, use the Undo command and try using a smaller brush or vary your brush stroke and try again. The Retouch Brush is also great for retouching skin.

Retouch Brush Options



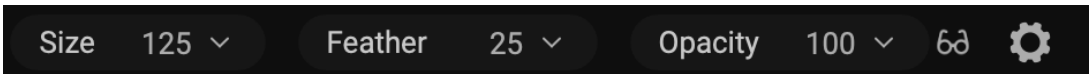
- **Brush Size**: This adjusts the overall size of the brush.
- **Brush Feather**: This adjusts the hardness of the brush. It works best to use a feather larger than 50 to blend and look natural.
- **Brush Opacity**: This adjusts how strong the retouching is. Use 100% to completely remove an imperfection. Use a lower opacity to soften them.
- **Visualize Dust**: Changes the view to a high-contrast overlay, to help view sensor dust spots.
- **Pressure Adjusts Size** (gear icon): Click on the button to activate the sensitivity controls for your pressure-sensitive tablet.

CLONE STAMP



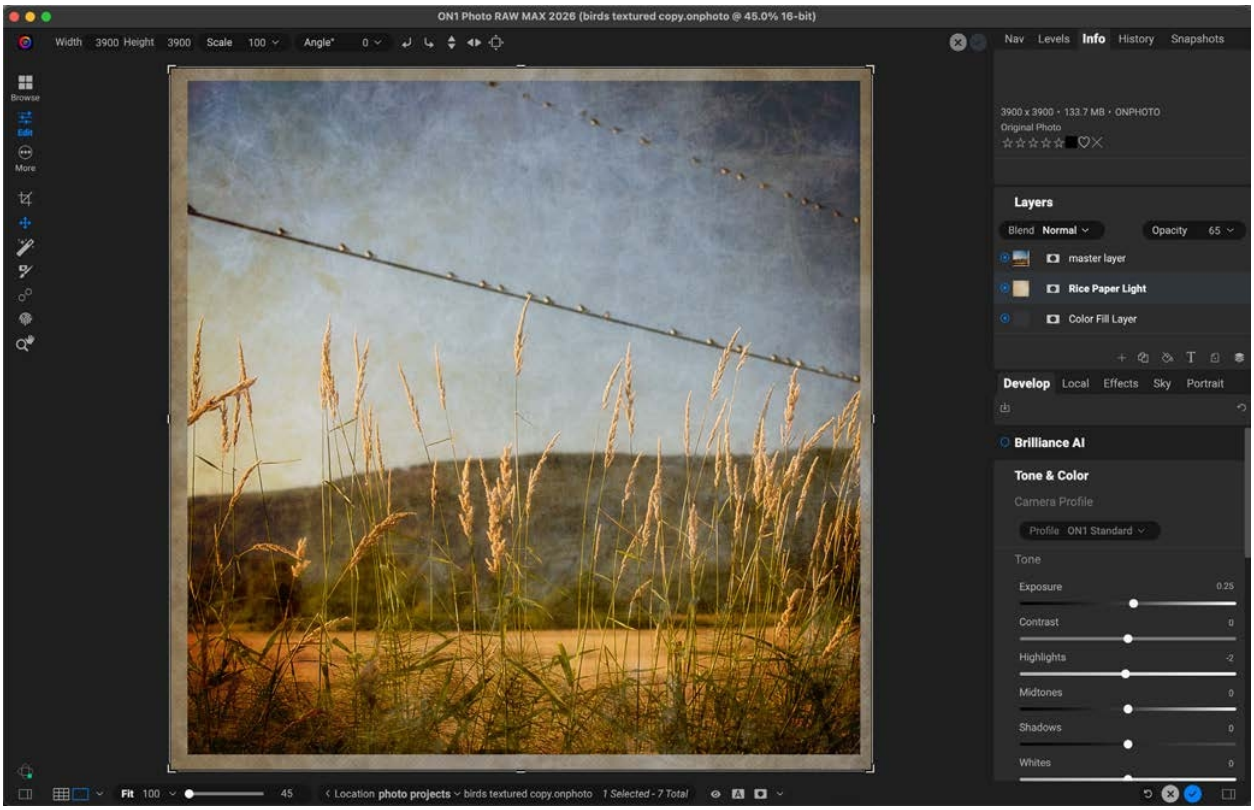
Use the Clone Stamp tool to replace an area of a photo with an area from a different part. Hold down Option (Mac) or Alt (Windows) and click the area you want to clone from. Then click and drag on the area you want to clone over and it will clone from the point you selected.

Clone Stamp Tool Options



- **Brush Size**: This adjusts the overall size of the brush.
- **Brush Feather**: This adjusts the hardness of the brush. It works best to use a feather larger than 50 to blend and look natural.
- **Brush Opacity**: This adjusts how strong the retouching is. Use 100% to completely remove an imperfection. Use a lower opacity to soften them.
- **Visualize Dust**: Changes the view to a high-contrast overlay, to help view sensor dust spots.
- **Pressure Adjusts Size** (gear icon): If you have a pressure sensitive tablet, you can adjust the size of the brush according to the pressure. Click the button to activate.

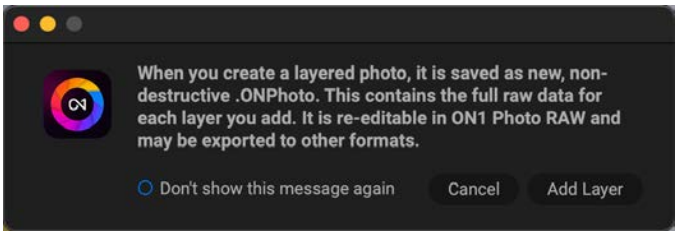
WORKING WITH LAYERS



The Layers feature is fully non-destructive. This means you can use all of the Edit module's tools, tabs and filters, along with layer-independent masking capabilities, and still preserve your original photos–and can come back at any time to further enhance your creations.

The Layers functionality inside the Edit module lets you create quick composites, blend multiple images together, paint in new skies or backgrounds, add text, align layers based on their content, and much more. And, because Layers is tightly integrated within the Edit module, all of your work remains re-editable at all times: you can go back and add, change or update any setting made inside the Edit module, on any layer.

You can combine multiple photos or copies of the same photo as layers. Each layer can be moved, sized and masked on its own, and each layer has its own non-destructive settings–just like any photo, all the way back to the original raw data. That means you can use all editing features–basic exposure changes, camera profiles, portrait retouching, Effects filters and more–as part of a layered photo.



When you add a layer to a photo, the app automatically creates a new document with an .onphoto extension, leaving your original photo intact. This document type, which is visible inside Browse, contains all the layer information and non-destructive editing operations made inside the app.

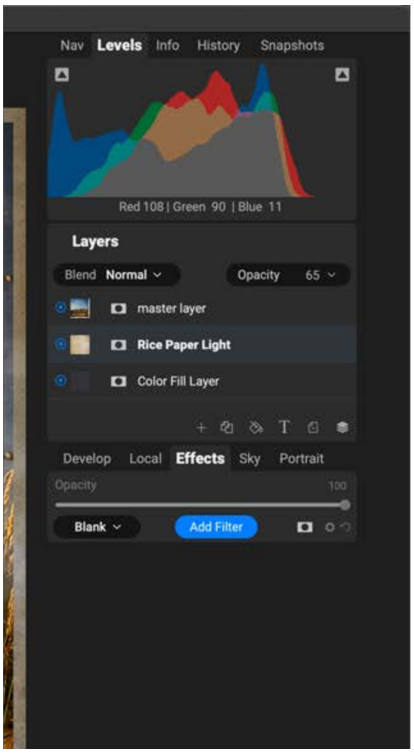
Layers can be as simple as copies of the current photo, to apply more complex adjustments to portions of an image than you could with local adjustments. You can also add other documents as a layer inside the current document, for replacing skies or other backgrounds, for adding textures, or for when you wish to create complex collages. ON1 apps support up to 14 layers in a document.

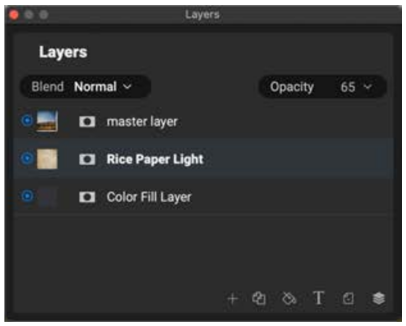
Once you have added a layer, the entire Edit module is available for that layer. When you click on a layer, you can add any adjustment from the four edit tabs, create masks, and more. You can use the Transform tool to move, rotate, and scale the contents of a layer independently from the complete document. (Because the Crop tool works at the document level, you can't crop individual layers.)

CONFIGURING THE LAYERS PANE LOCATION

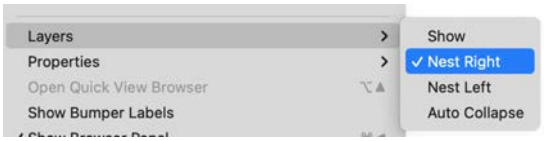
Like the Properties window, the Layers pane can be configured so that it resides in either the right or left panel on the screen, or works as a floating window. You can also hide the pane completely in any of the configurations.







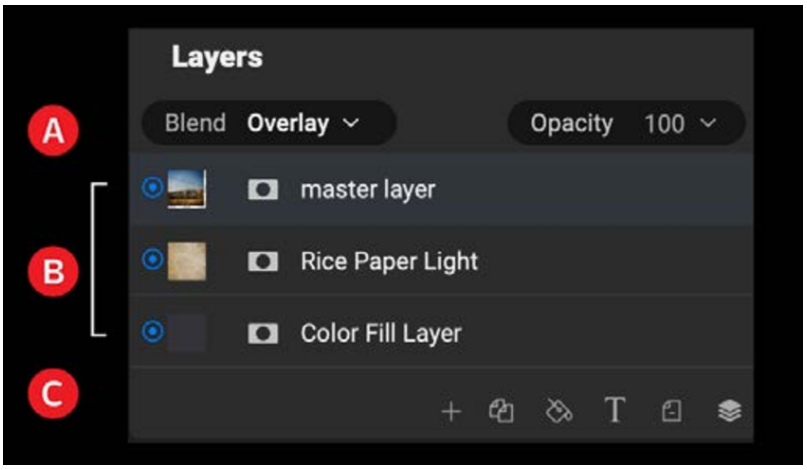
The Layers pane can be configured so that it resides in either the left or the right side panels of the Edit module. If you want a floating window, uncheck the Left Side and Right Side options in the Window menu.



You set up the Layers pane location and visibility via the Window > Layers menu. There you can nest the pane on either the right or the left side; unchecking both items will turn the pane into a floating window. Show will display the pane in all configurations, while Auto Collapse will reduce the pane to the title bar whenever you move the cursor away from it, and show it when you mouse over the pane (or window).

WORKING WITH THE LAYERS PANE

The Layers pane has three sections:



1. **Layer Blending and Opacity**: Lets you set the blending mode and the opacity of the currently selected layer.
2. **Layers**: All of the layers in the current document, with a thumbnail of the layer contents and the layer mask (if there is one); the currently selected layer has a slightly different background tone than the other layers. Layers can be renamed by double-clicking on the title.
3. **Layer Tools**: The toolbar at the bottom of the Layers pane includes buttons for performing basic layer operations (described in more detail below).

Layer Visibility

A layer's visibility can be turned on or off by clicking the button to the left of the layer thumbnail. When turned off, the layer has no effect on the composite image.

Changing Opacity

The opacity slider controls how opaque or how strong the selected layer is. The default is 100%. At lower settings, the layer will blend with the layer(s) under it. Altering the blending mode and opacity of a layer can create a wide range of color and tone effects.

Changing the Layer Order

You may change the order of layers by dragging and dropping layers into the order you prefer.

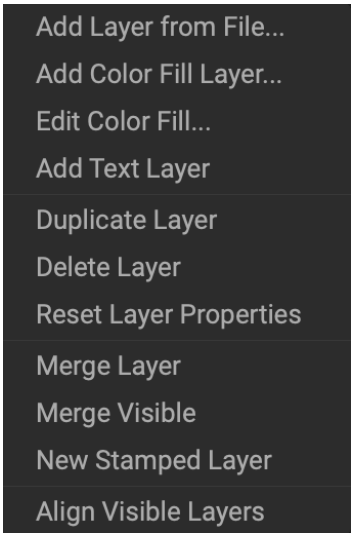
Renaming Layers

You can rename a layer by double-clicking on it. The name turns into an editable field. Type in your preferred name and press Enter.

Layer pane toolbar



All of the layer commands in Photo RAW can be accessed via the Layers menu and a pop-up menu that you get when you right-click on any layer. The toolbar at the bottom of the Layers pane contains the basic commands you need when working with layers. From left, the icons represent:



- **New Layer**: Adds a new layer, opening the Add Layer from File window.
- **Duplicate Layer**: Makes a duplicate layer, including any Edit module adjustments made in the original photo.
- **New Color Fill Layer**: Creates a new color fill layer.
- **New Text Layer**: Creates a new text layer.
- **Delete Layer**: Deletes the currently selected layer.
- **Merge Layer**: Merges the currently selected layer with the one directly beneath it.

Other layer commands, available via the Layer menu or pop-up, include:

- **Reset Layer Properties**: Deletes any layer masks or transform operations you have made to the current layer. To reset Develop, Effects, or Portrait settings or local adjustments made to a layer, click the Reset Layer button at the bottom right of the main window.
- **Merge Visible**: Unlike the Merge Layer command, this will merge all of the visible layers—ones with the layer visibility status set to on—in a file into a single composite layer, with all of the merged layers' effect applied.
- **New Stamped Layer**: When you have the top layer in the stack selected, this option will create a new composite layer at the top of the stack, with all of the layers' effect applied.
- **Align Visible Layers**: This will align the visible layers, based on the content of the layers.

Changing Blending Modes

Blending modes determine how the selected layer blend with the layer(s) below it. The default blending mode is Normal. This maintains the full opacity of the upper layer. Layers also supports many other blending modes which can be used to alter the brightness, contrast and color of the image. Blend modes are changed via the Blending tab of the Properties window. See Blending Modes for detailed information on adjusting the blend modes.

Layer Masks

If you use any of the masking tools – including the AI-based Super Select AI and AI Quick Mask tools – a layer mask will be created automatically. Clicking on the layer's mask icon will display the standard Photo RAW mask options, and you can use all of the Edit module's masking tools to create or modify layer masks, including the Mask AI feature used in the Effects and Local Adjustments tabs. You can also copy and paste layer masks–including masks from Effects filters–via the Mask options section or via the Mask menu. See Filter Masks, and Masking Tools for more on using Photo RAW's masking tools.

Adding layers via Filmstrip view

In addition to the Add Layer options detailed above, if you are in Filmstrip view inside the Edit module, you can also drag photos from the strip at the bottom of the screen into the main window. This will create a new layer with that photo on it. (See Working in Filmstrip View for more.)

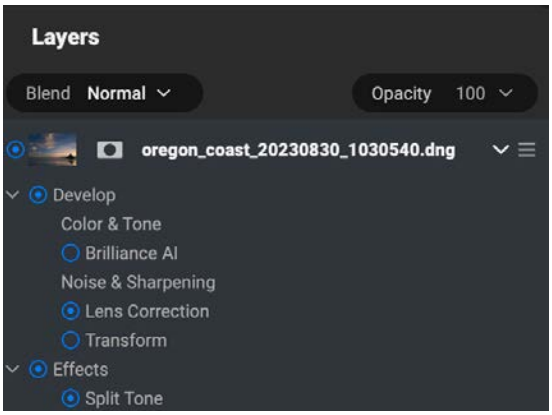
NOTE: If the file added is different than the pixel dimensions of the document, use the Transform tool to resize it as desired. If you wish to preserve the original aspect ratio of the placed file, use the Shift key to resize it.

VIEWING EDIT MODULE SETTINGS FOR A LAYER

Each layer in the Layers pane has a hidden list that shows all of the operations from the Edit module that have been applied to the current image. To view the list, click once on the layer's title. This will drop down the settings view for that layer.

The list will show every tab in the Edit module that has had adjustments made to it, and you can drill down further into the Develop, Effects, Portrait, Sky Swap and Local Adjustment tabs to see which adjustments were made to an image.

Double-clicking on any of the available items inside the Settings Applied area will jump to that setting inside the Edit module, where you can adjust it easily.



Clicking on a layer's title will display the Edit module settings that have been applied to that layer. Double-clicking on one of the items will open that specific pane in the Edit module tab. Click on the layer name once more to close the settings.

NOTE: This feature replaces the Settings Applied option found in the Info pane in previous versions of Photo RAW.

USING THE TRANSFORM TOOL WITH LAYERS

Use the Transform tool (see Transform Tool) at the top of the Toolbar to manipulate layers. A layer may be repositioned, sized or rotated using the tool. When selected, transform handles will appear on the edges of the selected layer. You use these transform handles to manipulate the image. You can only transform one layer at a time.

Repositioning a Layer

To reposition a layer, simply click and drag inside the transform box. You can also use the keyboard arrow keys to nudge a layer one pixel in any direction.

Resizing a Layer

To resize a layer, click and drag on any of the transform handles. Clicking on a corner handle allows you to adjust two sides simultaneously. Clicking on a side handle allows you to adjust that side. If you hold the shift key down while adjusting the size, the proportions of the layer are maintained. If you hold down the Option (MacOS) or Alt (Windows) key while resizing, your image will resize from the center instead of from the edge. You can hold down Shift-Option (or Shift-Alt) to resize proportionally from the center.

You can type in the size you desire in the Tool Options bar in the width and height fields. You can also size a layer to fill the canvas automatically by pressing the Fill button in the Inspector.

Rotating a Layer

To rotate a layer, move the Transform tool just outside a corner transform handle. Notice that the tool cursor changes to a rotate cursor. Now click and drag to rotate the layer. You can also use Option/Alt with the left or right arrow keys to rotate a layer when the Transform tool is selected. To rotate the layer quickly in 90 degree increments, you can use the rotate left and right buttons in the Tool Options bar.

Flipping a Layer

You can flip a layer either horizontally or vertically by pressing the flip buttons in the Tool Options Bar.

When you have completed your transforms you need to commit the changes. You can do this by pressing the Apply button that appears in the Tool Options Bar or by pressing the Enter key. You can cancel a transform by pressing the Cancel button in the Tool Options Bar or by pressing the Escape key.

ALIGNING LAYERS

One of the most advanced features is the ability to align multiple layers based on content. This can be a great aid when you've hand-held a group of shots, and want to blend portions of one image onto another, to use a better sky, for example.

To align layers, open them in the Layers pane, and choose Align Layers from the Layer menu or pop-up menu. The app will then analyze the contents of the layers, and aligns them to the one with the most commonality. When you look at the individual layers after aligning them, you'll see that some layers have been moved or rotated slightly to match the content. You can then use Photo RAW's masking tools to hide or show various aspects of the aligned layers.

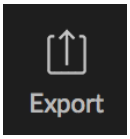
OUTPUT AND SHARING

While editing your photos is probably the most important task you'll do on a regular basis inside ON1 apps, there will be times when you want to "do something else" with your photos.
Whether it's enlarging photos for high-quality prints, sharing your photos with others or on social media, or printing to your desktop printer, ON1's export options have all the functionality you'll need to get your photos where you want them to be.

In this section, you'll find detailed information on the following topics:

- Resize: The industry standard for image enlargement and printing.
- Restore: An image restoration process utilizing the latest advancements in local and cloud processing to restore your photos.
- Export: The power of Resize in a quick and easy-to-use panel, letting you export your photos with flexibility, ease and control.
- Print: Print your photos in any size, as individual photos, or in contact sheet form.
- Share: A quick way to share your photos, including via SmugMug.
- Send To: Edit photos in other photo apps.
- Other Sharing Options (MacOS only).

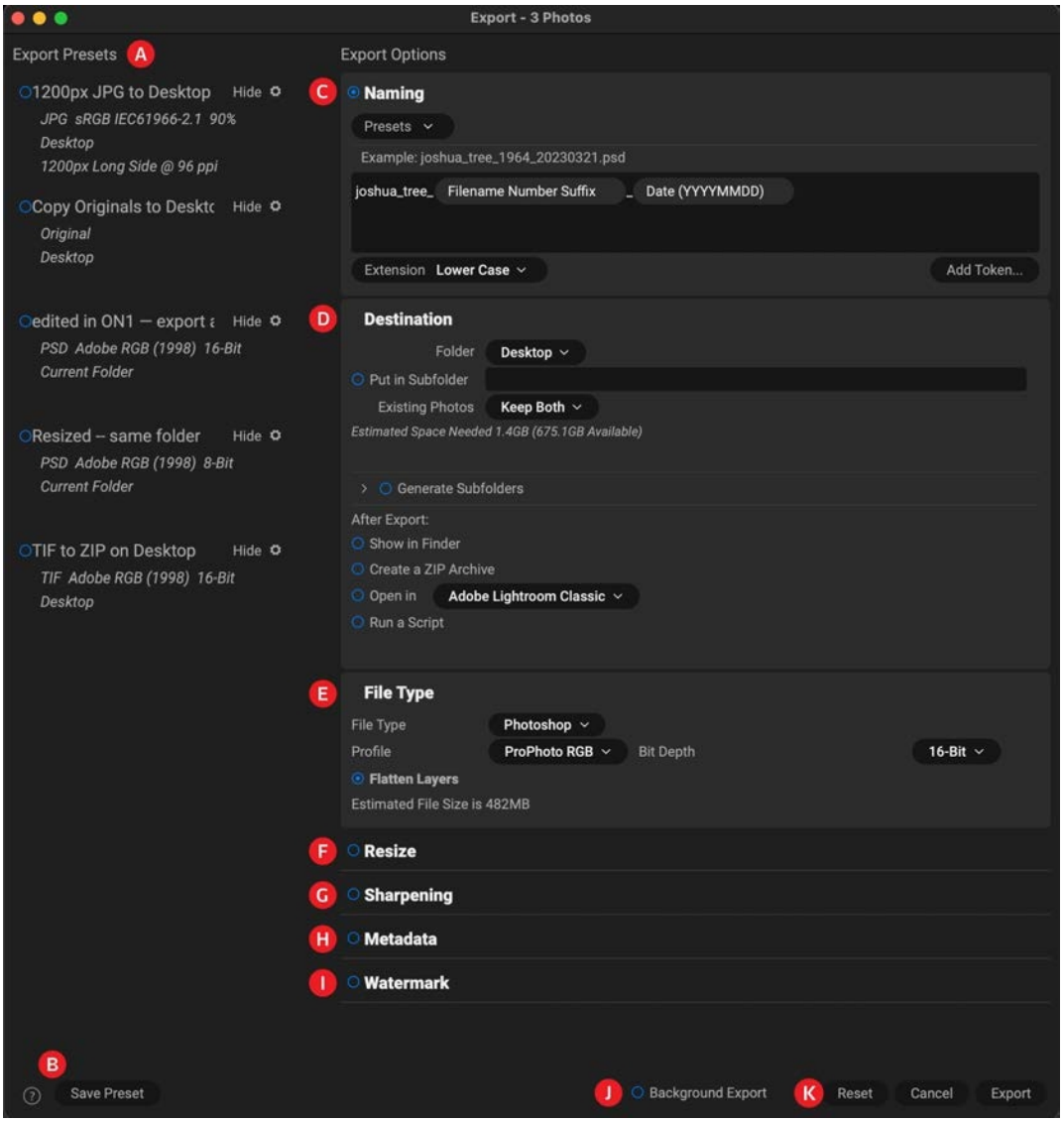
EXPORT



Export is a special function that is available throughout ON1 Photo RAW 2026, whether you're working from within Browse, Edit or Resize AI. The Export window gives you much of the power of Resize in an easy to use panel, letting you export your photos with incredible flexibility, ease and control.

The Export window is separated into two panels: Export Presets and Export Options. The Options panel contains specific types of options–file renaming, destination folders, file type and more–that you can use when you are exporting images from Photo RAW. If you find that you are using a specific set of options all the time for your workflow, you can create a preset and apply that whenever you use Export.

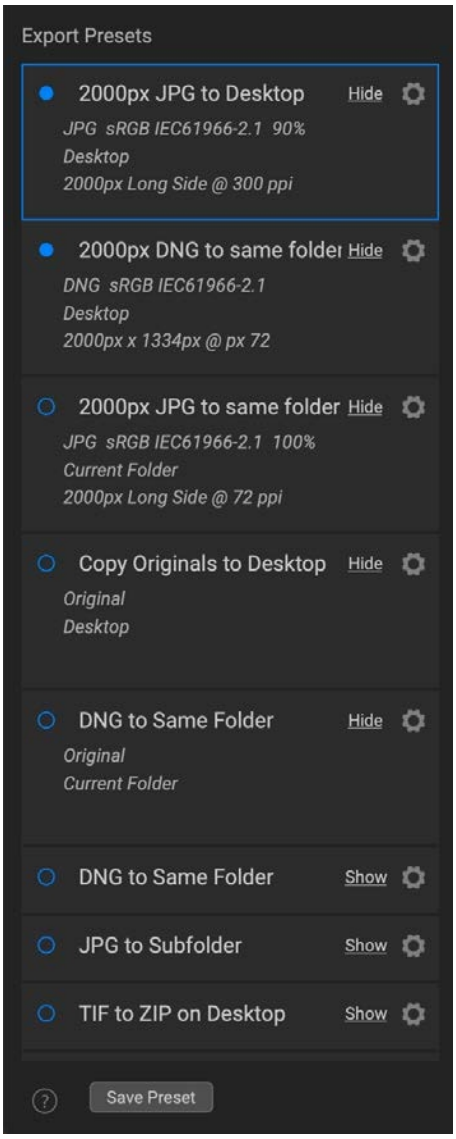
The contents of the Export window include:



1. **Export Presets**: The current preset (if used), will be represented with a selection box around it, and the filled circle to the left of the preset name means that it will be used when the Export button is pressed. To use the Export Options panel without any preset applied, turn off all of the presets in the list, and click in the current preset once.
2. **Save Preset**: Lets you save the current set of export options as a preset.
3. **Naming**: Renames the exported file based on criteria added to the rename box in the panel.
4. **Destination**: Lets you set the destination of the exported files. *(required)*
5. **File Type**: Sets the file type for each exported file. *(required)*
6. **Resize**: Adjusts the size for each image. *(not available when exporting from the Resize AI module)*
7. **Sharpening**: Applies sharpening to the exported images.
8. **Metadata**: Adds/removes metadata from the export.
9. **Watermark**: Lets you add a text or graphic watermark to an exported image.

10. **Background Export**: turns on background exporting when you click the Export button.
11. **Export/Cancel**: Starts the exporting, or cancels it and returns you to Photo RAW.

Exporting and Export Presets



All presets include an informational view that lists the export file type, the destination folder, and resize information. If you don't wish to see that, click the Hide button to collapse the view to just the preset title.

The Export window has been designed to offer as much or as little complexity as you would like. At its simplest, you can set the Destination and the File Type to your desired settings, leave all of the other panes alone, and click Export. Photo RAW will remember your last Export setting–including anything you did in the Naming pane–the next time you export, so you don't have to worry about which settings need to be set, and which

ones don't. You can use the Show/Hide buttons in the title bar of each pane of the Export Options panel to display only those settings you want to see.

Once you have your settings the way you'd like, you can save them as a preset by clicking the Save Preset option in the Preset panel on the left. Then, when you click that item in the Preset panel, the Export Options will be set to the specifications of that preset.

The Export Presets panel will display a list of the currently available presets. If you have selected a preset, it will have a selection box (in the app's accent color) around it, and if the control circle is filled, the preset is on, meaning that clicking the Export button will export using that preset. If you don't wish to use a preset, click the control circles off on all of the presets in the list.

By default, each preset will have up to three lines of explanatory text underneath the preset name, displaying the file type—DNG, PSD, TIFF—and the Destination information. This can be helpful when you're scanning presets for a specific destination, but you can also collapse the preset to its title by clicking the Hide button in the title bar.

When you change the settings for a selected preset, Photo RAW will ask you if you wish to update the preset with the new settings either when you click the Export button to start the process, or when you switch to another preset with the Export window.

It is possible to export more than one preset at a time. Every preset in the Presets panel that has the control circle set to On (filled) will be included in the export operation. This might be helpful to create backups on another disk, for example, or to build proxy versions for use while the original is being edited.

Naming

The Naming pane gives you extensive controls for creating customized filenames using tokens in the entry box inside the pane, as well as with any custom text entered directly into the entry box. You can use any combination of tokens and text in the entry box, and the Example label directly above the box will display what your new filename will look like, using the first item in the export group.



To use this feature, click the control circle to the left of the label in the panel. Add any custom text, or click the Add Token pop-up menu to add tokens based on information

associated with the image, including filename data, date and time information, and associated metadata There are four submenus in the Add Token menu:

- **Filename**, which includes options for using the original filename, number suffix (taken from the image as recorded by the camera) and enclosing folder name.
- **Date/Time**, which includes a list of date (year, month, day) and time data that can be combined in various ways.
- **Sequence**, which adds an incremented number to each renamed file in the batch, as well as the total number of files in the batch, with options for leading zeros in the resultant filename.
- **Metadata**, which lets you add specific EXIF and IPTC metadata to the filename.

To build a rename sequence using tokens, click on the Add Token button, and choose the appropriate token from the pop-up menu. The token will be added as a shaded item in the text field, and the Example item above the text field will show a sample of a renamed file using the current set of tokens and custom text. To change an existing token, click on the down arrow on the right of the token, which will display the full set of tokens. To delete a token, double-click on it and press the Delete key.

Custom text can be added anywhere in the entry field. You can click the cursor at the beginning or end of a token (or in between tokens) and add spaces, dashes, underscores and any other text you wish to be included in each renamed file. Each change you make will be updated automatically in the Example label.

The Presets pop-up menu at the top of the Rename window includes a set of common batch combinations that you can use as a starting point. You can also create your own batch-rename presets: build the rename options you wish, and choose Save New Preset from the bottom of the Presets menu. You can also update an existing preset and delete presets from this menu.

Because the Rename process is not undoable, make sure you use the Example field to check that your text and token combinations give you the filenames you expect for your batch process, and adjust as needed. When you're sure, click Apply, and Photo RAW will rename all of the files.

NOTE: A complete list of the tokens used in the Rename window, with explanations, can be found on Renaming Files and Folders.

About File-Naming Tokens

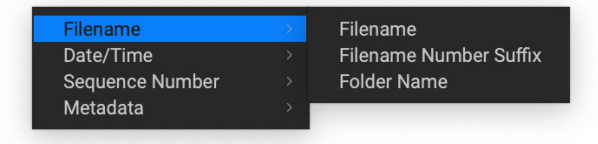
When using the Naming option in the Export window—or with Browse's Rename File and Import Photos functions— includes a broad set of tokens that you can use as part of the strings to build complex file names, in conjunction with any custom text you wish to enter. These tokens draw on image metadata, including filenames, dates taken, and EXIF and IPTC metadata fields, and can be used in any number of combinations.

To build a rename sequence using tokens, click on the Add Token button, and choose the appropriate token from the pop-up menu. The token will be added as a shaded item in the text field, and the Example item above the text field will show a sample of a renamed file using the current set of tokens and custom text. To change an existing token, click on the down arrow on the right of the token, which will display the full set of tokens. To delete a token, double-click on it and press the Delete key.

Custom text can be added anywhere in the entry field. You can click the cursor at the beginning or end of a token (or in-between tokens) and add spaces, dashes, underscores and any other text you wish to be included in each renamed file.

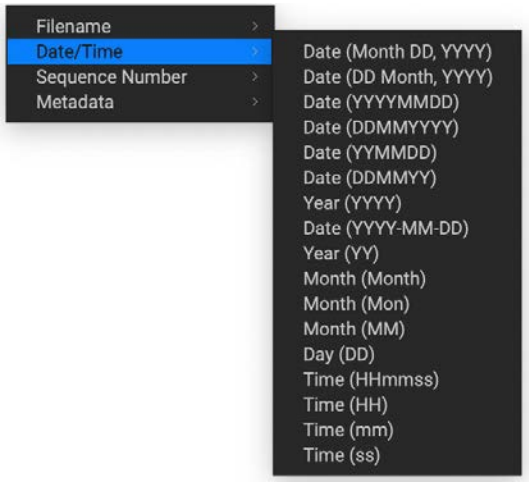
There are four categories of tokens, each with their own set of options: Filename, Date/Time, Sequence, and Metadata. A description of each is listed below.

FILENAME



The Filename tokens use information from the filename or the enclosing folder that the file resides in. There are three options, Filename, which adds the current filename of the file being worked on; Filename Number Suffix, which takes the index (shot) number from the original raw file, if available; and Folder Name, which grabs the name of the folder in which the renamed (or imported) file resides.

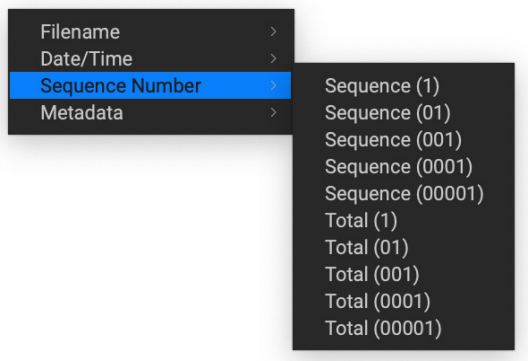
DATE/TIME



This submenu consists of 17 combinations of date and time data, as taken from the image's metadata. There are prebuilt date and time combinations (20220104, for example, for a year-month-date token) in the list, or your can build your own combinations out of the subtokens listed in this menu.

Year data can be presented in either 4- or 2-digit numbers, and Month data can be presented in month number, full name, or 3-letter abbreviations.

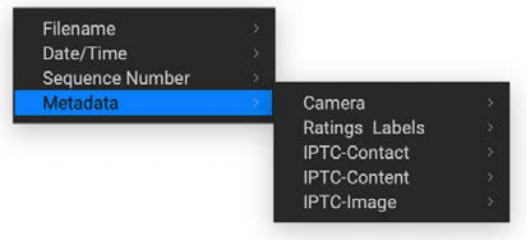
SEQUENCE NUMBER



The Sequence Number tokens come into play when exporting, importing or renaming a group of image files. There are essentially two tokens here, Sequence and Total, with options for padding zeros into each item. Sequence will take the group of images being worked on and, starting with the first item in the selection, will start at 1 and increment by one as each image is processed. The Total token will always be a single number–the number of items in the group being processed.

The combination of Sequence and Total tokens lets you create strings like 'filename_07 of 22' as part of the new filename.

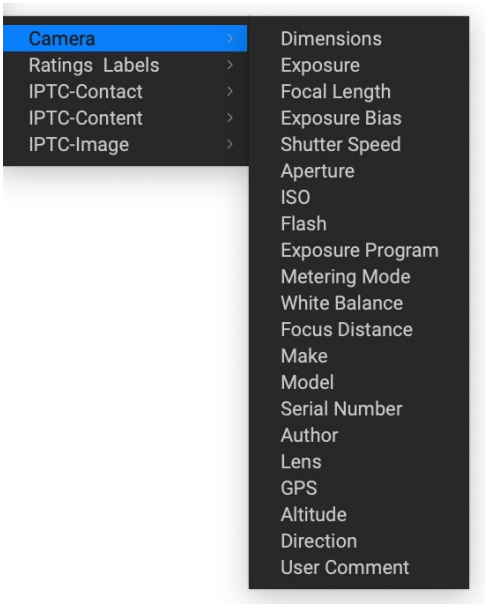
METADATA



This submenu has five items, each with its own submenu. All of the items create the chosen token based on the embedded metadata for each image being renamed, imported or exported. The specific text pulled from the Camera and IPTC tokens will be visible in the Metadata pane's EXIF (for camera-specific data) and IPTC (for IPTC data) tabs. The Ratings and Labels tokens are taken from any you have applied in Photo RAW.

If there is no information in the specified Metadata token, it will be ignored during processing.

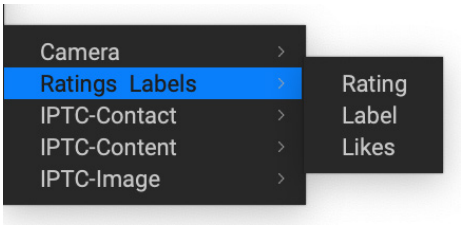
Camera



The Camera submenu includes 21 items, all of which are directly taken from an image's EXIF data. Not all cameras capture all of the items listed, but most of them save essential items like exposure information, focal length and more.

To look at the available camera information of any image, click the EXIF tab in Browse's Metadata pane if you're a Photo RAW user.

Ratings and Labels



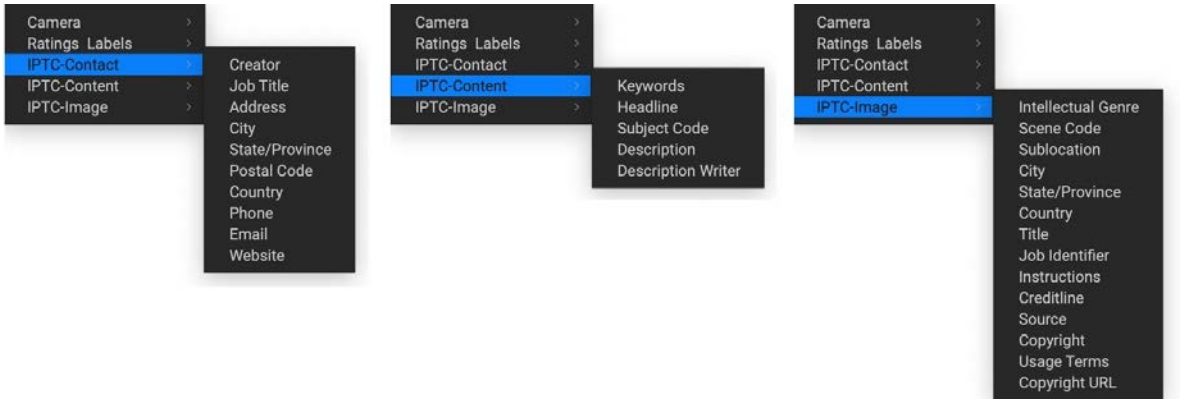
The three tokens in the Ratings and Labels submenu pull information from any rating, label and like information you've made to images in Photo RAW.

The Rating token will add the number of stars an image is rated, while the Label token will add any color label information (red, yellow, green, blue, purple), and the Likes token will add Liked, Not Set, or Disliked to the image name.

IPTC Metadata Tokens

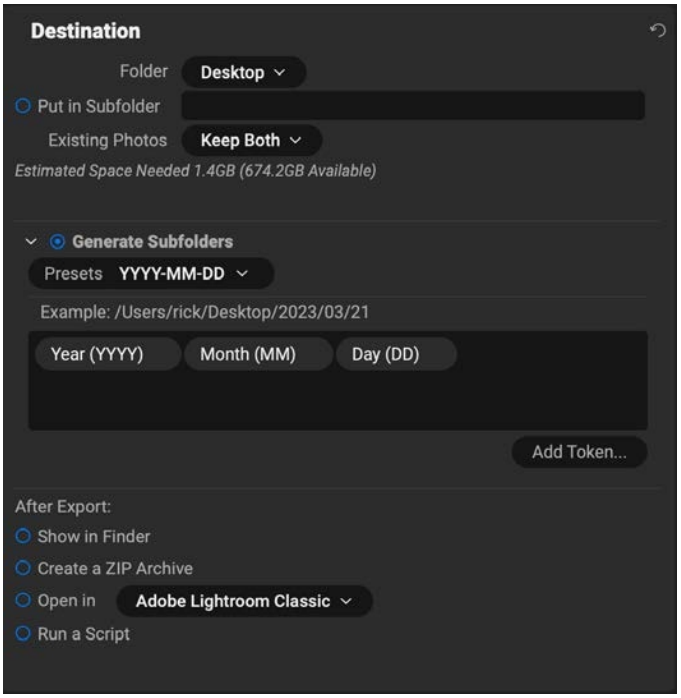
IPTC (International Press Telecommunications Council) is an industry-standard metadata format, and offers much more detailed metadata information than EXIF. It historically has been used by journalists and stock photographers to catalog and tag

photos, as well as add copyright information, captions, and other data. There are nearly 30 different tokens in the IPTC metadata submenus, which are divided into Contact, Content, and Image. All of these fields are visible in the IPTC tab of the Metadata pane for Photo RAW users, and can be added during the import process as well.



Using IPTC information makes the most sense when you have a strict method for importing and categorizing image data during import (or shortly thereafter).

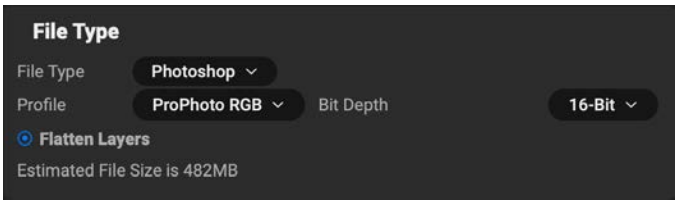
DESTINATION



The Destination pane is where you set the desired location for the exported images. At minimum, you must specify a destination folder for your export, but the pane has a number of options for adjusting the export location:

- The Folder pop-up menu lets you choose the same folder as the original images, another folder, or, can be set to ask for a destination every time, which can be helpful when you're using an export preset.
- Checking the Put in Subfolder option will export the images to the folder– or, create a new folder, if it doesn't exist–specified by option's text field.
- The Existing Photos pop-up is for those times when there might be a naming conflict within the destination folder. Replace will overwrite the file with the new one being exported, Skip will leave the destination file alone and not export the new file, and Keep Both will add a number '1' to the end of the filename of the exported file, preserving both files.
- Generate Subfolders will subdivide the export based on the exported file's metadata, creating subfolders as necessary–or, if the folders exist, placing the exported file into the appropriate subfolder. This option uses the same token-driven scheme (and presets) used in the Naming pane.
- After Export lets you determine what to do when Photo RAW completes the exporting process. Options include displaying the image location in the MacOS Finder or Windows Explorer, to create a ZIP archive of the exported group, to open in another editing application, or to run a script.

FILE TYPE

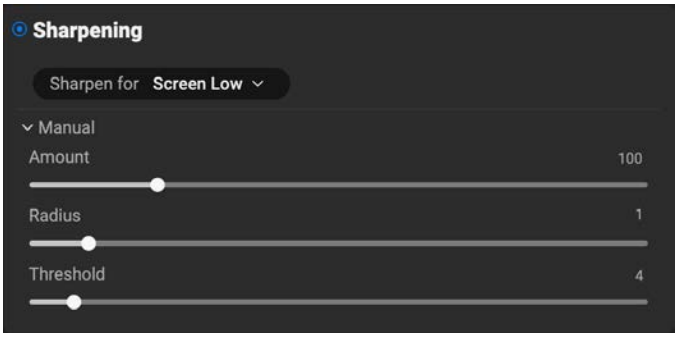


Like Destination, File Type is the other required element for using Export. Photo RAW can export in DNG, PSD, TIFF, JPG and PNG formats. With the exception of DNG and PNG, each file format has specific options in the pane:

- Original includes options for embedding metadata and saving an ON1 sidecar file with the exported images.
- JPEG includes options for JPEG quality and for attaching a color profile.
- Photoshop includes options for attaching a color profile, bit depth, and whether to flatten any layers in the original image.
- TIFF includes options for image compression (none, LZW or ZIP), attaching a color profile, bit depth, and to preserve transparency.
- DNG and PNG have no additional options.

The File Type pane also includes an estimated file size for the first item in the group.

SHARPENING



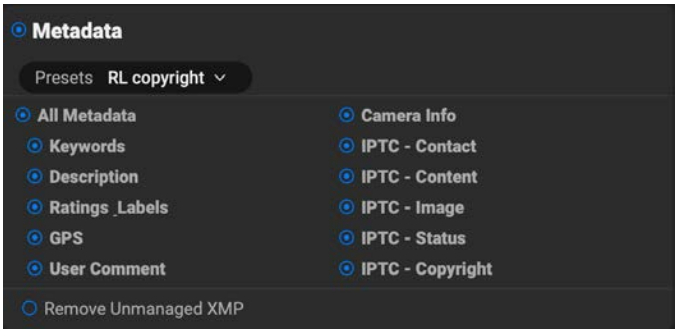
The Sharpening pane has two modes, Sharpen For and Manual. The Sharpen For pop-up menu lets you choose from six options, based upon your final intent. There are four options designed for print output, Glossy Paper High and Low, and Matte High and Low, and two option for display output (for social media or online sharing), Screen High and Low.

The Manual setting provides a bit more control over the output sharpening, letting you adjust the Amount (overall strength), Radius (detail) and Threshold (masks out areas that shouldn't be sharpened based on contrast).

For more specifics about the Manual sharpening options, see the Sharpening filter page: The Sharpening Pane.

METADATA

The Metadata pane lets you set which pieces of metadata are exported–or not exported–with the images in the export set. You can choose to export all Metadata or by clicking the control circle to the right of the All Metadata label.



If you click that label off, you can then select which metadata items you wish to save by clicking the appropriate label.

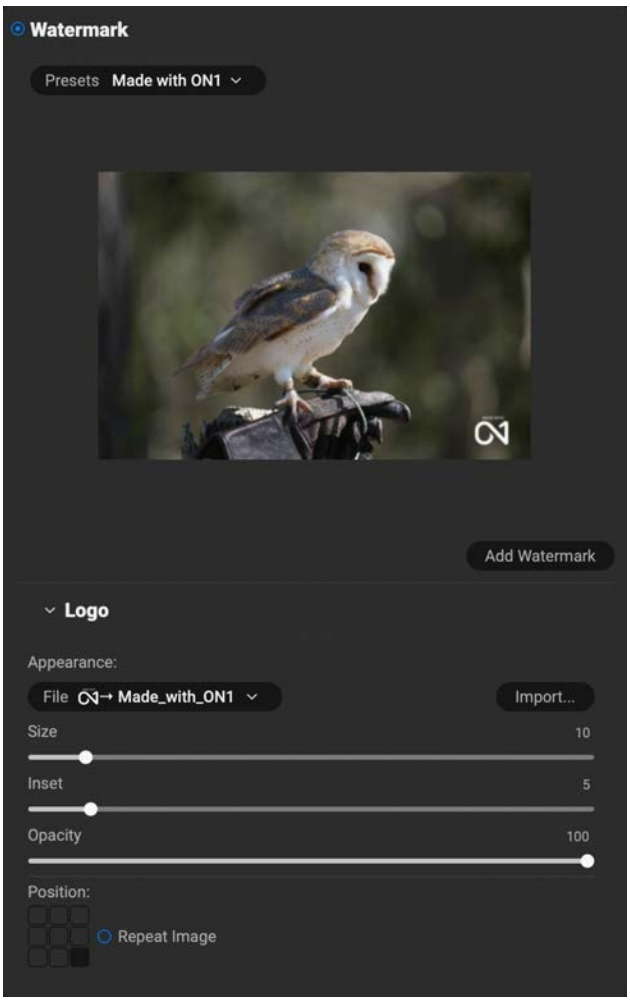
The metadata information exported is the same data found in the Metadata pane in Browse, and any metadata presets you have saved will be available from the Presets

pop-up menu. For specifics on the different types of data represented in the Metadata pane for Photo RAW users.

When checked, the Remove Unmanaged XMP button only exports metadata that is represented in Photo RAW's Metadata pane; any other unmanaged image metadata from other apps will not be included.

WATERMARK

The Watermark pane adds either text- or graphics- based watermarks to an image, with options for size and positioning, opacity, font type, and more. You can import your own logos and save either watermark type as a preset for frequent use.



The Watermark pane also gives you a representation of your chosen watermark (on the first image in your export group), so you can adjust the parameters of the watermark precisely.

To create a new watermark, turn on the pane by clicking on the control circle to the right of the label. Choose either a preset from the Presets menu or click on the Add

Watermark button in the lower right of the pane and choose either Text or Logo from the pop-up menu. Once you've selected a type, the bottom of the pane will open with settings for the chosen option. If you change your mind, click the Cancel button to the right of the Logo or Text labels.

Using graphics-based watermarks

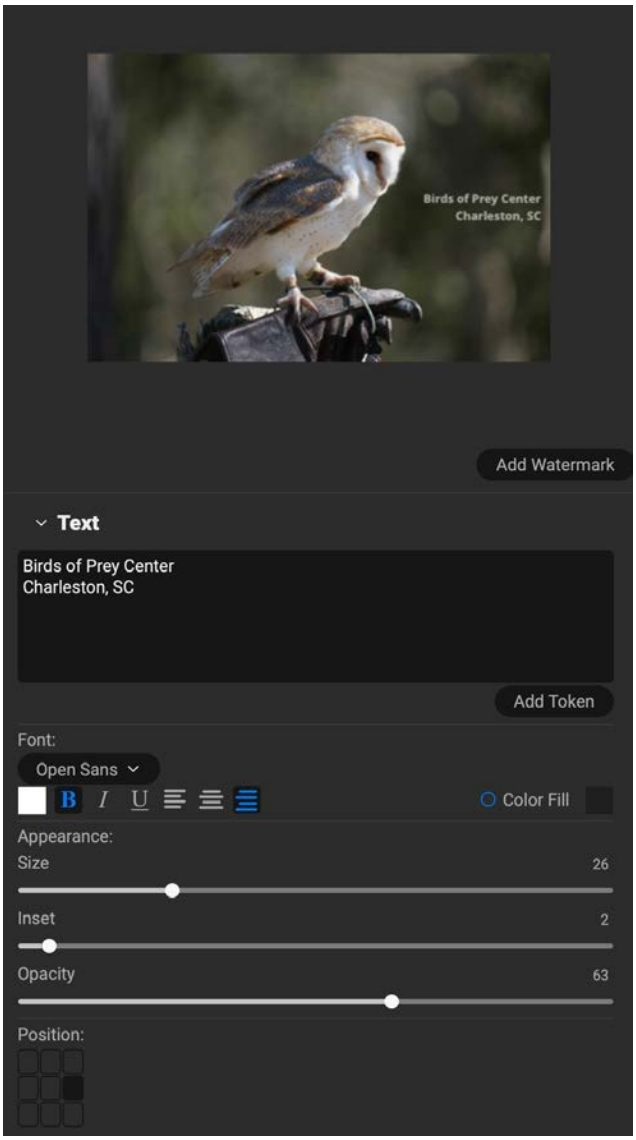
The Logo section of the Watermark pane lets you use either watermark files imported via the Extras Manager, which will be displayed in the File pop-up at the top of the Logo section, or by clicking on the Import button to the right of the menu (which will add them to the menu).

Use the Position grid at the bottom of the pane to place your watermark, and use the Size and Inset sliders to move it within the area chosen. The Opacity slider adjusts the transparency of the watermark on the final image.

The Repeat Image button will repeat the logo graphic rightward across the image from the location chosen in the Position grid. If you wish to repeat the watermark across the entire image, choose one of the sections on the left side of the Position grid.

When working with graphics-based watermarks, make sure your watermark file is sufficiently large for your usage. For example, if you want it to appear 2 inches wide on a 300-ppi image, your watermark needs to be at least 600 pixels wide. Or if you want it to appear across an entire photo—such as when posting to social media—it needs to be the same size as what you are exporting for the web, typically over 1000 pixels. Using a watermark file that is too small will create a pixelated watermark appearance. And, because most watermarks are overlays on top of an image, these files are usually PNGs with areas of transparency, although JPGs can also be used, depending on the logo.

Using text-based watermarks



With text-based watermarks, you can not only create simple, single-line watermarks showcasing your business, but you can also create data-driven watermarks (using tokens) for presentations and the like.

When creating text-based watermarks, the Text section of the pane has an entry box for your watermark text, a font selection area, and the same Appearance and Position options found in the Logo section.

The text entry box can contain multiple lines of custom text, and has the same token-based naming options found in the Naming pane , which can be helpful when exporting informational slides or for other data-driven uses.

You can set the font from the pop-up menu, and the font color by clicking the swatch on the left side underneath the font name. The text style can be set to bold, italic or underline, and the alignment to left, center or right. If you'd like to add a background color to the text box, turn on the Color Fill button on the right side of the pane.

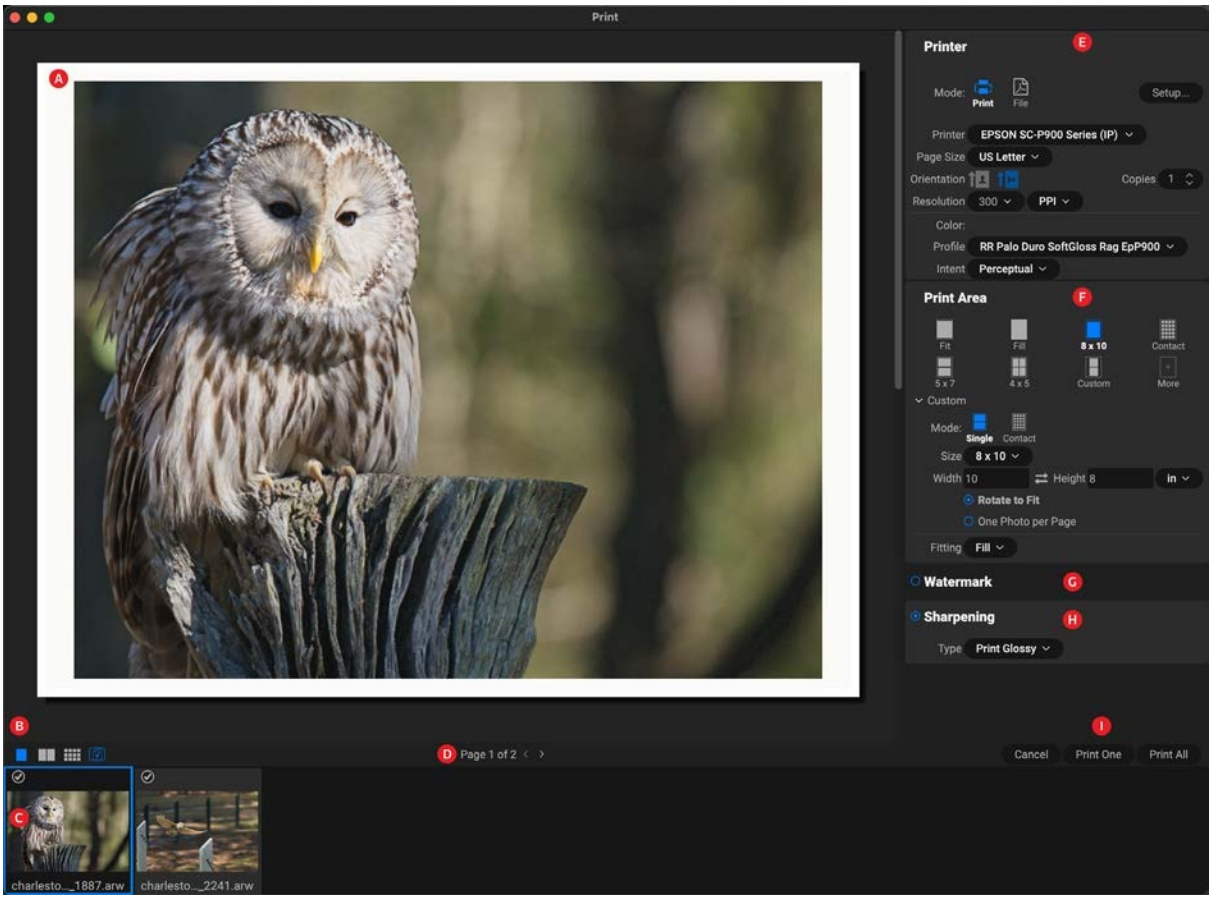
Use the Position grid at the bottom of the pane to place your watermark, and use the Size and Inset sliders to move it within the area chosen. The Opacity slider adjusts the transparency of the watermark on the final image.

Saving watermark presets

Both watermark types can be saved as a preset for re-use later. To save a preset, adjust your Logo or Text settings as desired, and choose Save New With text-based watermarks, you can not only create simple, single-line Preset from the Presets menu. If you wish to adjust an existing preset at a later time—with a new logo file, for example—choose the appropriate preset from the Presets menu, make your changes, and choose 'Update Preset with Current Settings' from the Presets menu. You can also rename and delete watermark presets from this menu.

PRINTING

ON1 Photo RAW 2026 has a flexible print engine that can print photos at any size. You can print photos individually; multiple photos package style, on a single piece of paper; and contact sheets for evaluating images. You can print from any module at any time.



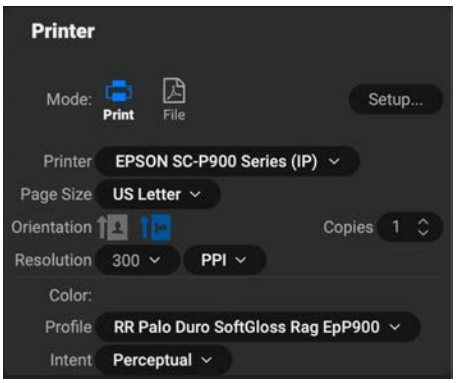
The print window can be opened by clicking on the Print icon in the module selector, or by selecting the Print command from the File menu. It has the following components:

1. **Preview**: Displays the photo or photos being printed.
2. **View Selector**: Lets you view the photos being printed individually, in facing-page view, or in grid view. The icon on the far right turns soft proofing on and off.
3. **Filmstrip**: Shows all of the photos that have been selected for printing, with check marks to turn printing on or off. (The Filmstrip is not visible when a single image has been selected for printing.)
4. **Page view**: Displays the number of pages being printed, and lets you move from page to page.
5. **Printer pane**: Contains options for output—printer or PDF—as well as printer, page setup, page size, number of copies, resolution, and printer profile and rendering intent.
6. **Print Area pane**: Contains options for fitting and selecting the print image size.
7. **Watermark pane**: For adding a watermark to printed photos.
8. **Sharpening**: Options for sharpening during the print process.
9. **Print/Cancel**: Print One (current image), Print All, or Cancel.

PRINTER PANE

The Printer pane is where you set the printer-specific features for your output. It has two modes, which are chosen by clicking on the icon at the top of the pane: Print, which lets you print to a connected printer, and File, which will print the selection to a PDF.

When choosing to output to a printer, you'll set the specifics of your printer, the paper size you wish to print to, the resolution, orientation, and the number of copies. When choosing resolution, make sure that you are printing at the printer's optimal resolution. Most photo printers, for example, work best with a file that has between 240 and 360 ppi. (The app will use its internal resampling engine to ensure that your photo is at the print resolution you choose.)



The Printer pane sets printer-specific options for the current print job. You can also choose to render the print job to a PDF file.

At the bottom of the pane is a section for choosing a printer-specific color profile; choose the media profile for the paper type you are printing to.

The rendering intent is related to the conversion of an image's colors to fit within the color range (or gamut) of the printer. The default intent, Perceptual, will change all of the colors in a photo proportionally to fit within the printer's range of colors. The other option, Relative Colorimetric will only change the colors out of the printer's gamut, to the closest in-gamut color. Depending upon the image, you might need to play with the intent settings, but Perceptual is usually the best place to start. (You can use Photo RAW's Soft Proofing feature to look at out-of-gamut colors in your photos. See Soft Proofing for more.)

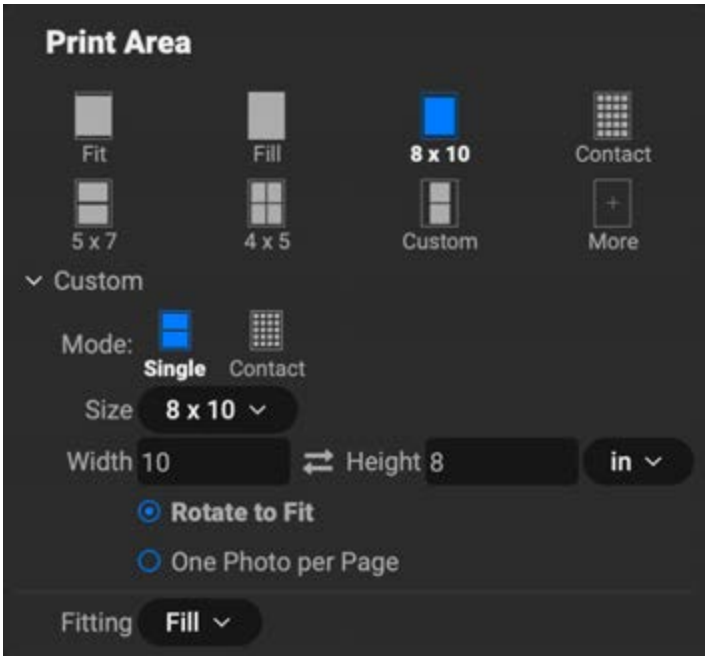
NOTE: Photo RAW's Print feature will work with borderless printing options as well. Be sure to choose your printer's borderless options in the page setup pop-up. Different printers will have specific borderless settings, so check the manual to see how to turn borderless printing on.

Printing to a file

In addition to sending images to a printer, you can also choose to export the current print job to a file. This can be helpful if you are submitting prints to an online service or to print remotely. To use this option, click on the File icon at the top of the pane. The app will ask you for a filename and a location to save the file. Choose a page size for the file from the Page Size pop-up, and adjust your print area settings. When you choose Print, the app will create a PDF of the photo (or photos) and save it with the name and destination you specified earlier.

PRINT AREA PANE

The Print Area pane is where you set the options for the size of the print, and how you wish your photos to be printed. You can also choose whether to print photos individually, package-style, or to create a contact sheet for evaluative purposes.



The top of the pane includes preset styles for either fitting the current photo inside the print size, or filling the entire print size; options for printing at common print sizes, including 8x10, 5x7, 4x6; and options for printing to a contact sheet. You can also create custom print sizes via the Custom section at the bottom of the pane; just set the width and height of the print size, and whether you wish to fit the image to the print size, or to fill the frame with it. If you would like to save this print size as a style, click on the More pop-up at the top of the pane, and choose Save as New Style from the menu. You'll then be able to recall that style from the More pop-up whenever you print.

If you are printing multiple photos, Photo RAW will attempt to put as many photos at your chosen print size on the paper size as defined in the Printer pane. To print only one photo per page, click that option at the bottom of the Print Area pane.

Page size vs. print size

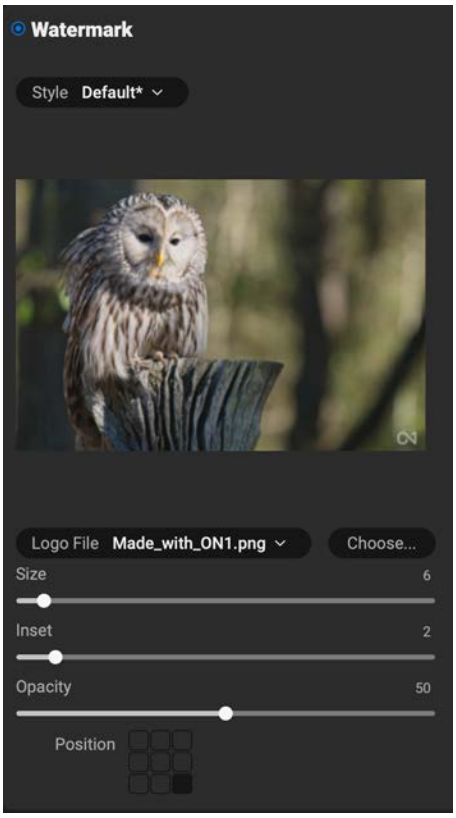
It's worth understanding the distinction between the page size and the print size. In some cases, the two will be identical. For example, if you wish to print on 4x6-inch photo paper, you would choose that option in the Printer pane's Page Size pop-up, and then 4x6 in the Print Area's Custom pop-up. Depending upon the aspect ratio of your photo, you then might need to choose Fit or Fill to get the proper crop. Fit does exactly what it sounds like: it will fit the entire photo within the bounds of the photo's dimensions, which means that there could be some extra white space around the final print. Fill will resize the photo to fill the dimensions of the chosen print size, centering the image.

In our example, a 4x6-inch print has an aspect ratio of 2:3. If the photo you are printing has that aspect ratio, then Fit and Fill do the exact same thing: the photo will fill the print area without any cropping.

For package printing, where you wish to generate multiple prints on a larger sheet of paper, you'll set the specific size paper you are printing to in the Printer pane, and then set the appropriate print size for each photo in the Print Area pane.

WATERMARK PANE

The Watermark pane adds an overlay to the printed image, and is most often used for your logo, signature or copyright. Watermarks generally need a transparent background, so make sure your watermark file is a PNG or PSD.



The module has the following options:

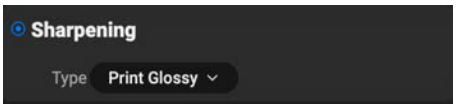
- **Choose**: Click the Choose button to select the file you wish to use as your watermark. Once you've added a watermark file, it will be saved to the Logo File pop-up.
- **Size**: This slider controls the size of the watermark file.
- **Inset**: This will determine the percentage in which the file is inset from the edge, based on the Position (see below).
- **Opacity**: This sets the opacity of the watermark.
- **Position**: This grid sets the location of the watermark. Click on the square of the location you desire.

When working with watermarks, make sure your watermark file is sufficiently large for your usage. For example, if you want it to appear 2 inches wide on a 300-ppi image, your watermark needs to be at least 600 pixels wide. Otherwise, it could appear pixelated on the print.

SHARPENING PANE

The Sharpening pane lets you select a type of sharpening that will be applied to your photos during the printing process. The pop-up menu has a set of options for general sharpening, including ones for a standard print, glossy papers, details, high-pass sharpening, and many more. Depending upon the image, you might need to play with

the settings here; performing test prints on small sections of a photo can often be quite helpful in determining the proper level of sharpening in a print.



In most cases, and depending upon the media type you print to–glossy papers often benefit from additional sharpening, for example–you'll need to add an additional sharpening step when printing. This is an additional level of sharpening beyond anything you might have applied in the Edit module.

Basic Printing

Printing is available throughout the app interface. If you are viewing a photo in either the Edit or Resize modules, or if you have an image selected in Browse's Grid or Detail views, clicking the Print icon will open the Print window with that image. There, you can set any of the options in the four panes on the right, and click the Print button to output your photo.

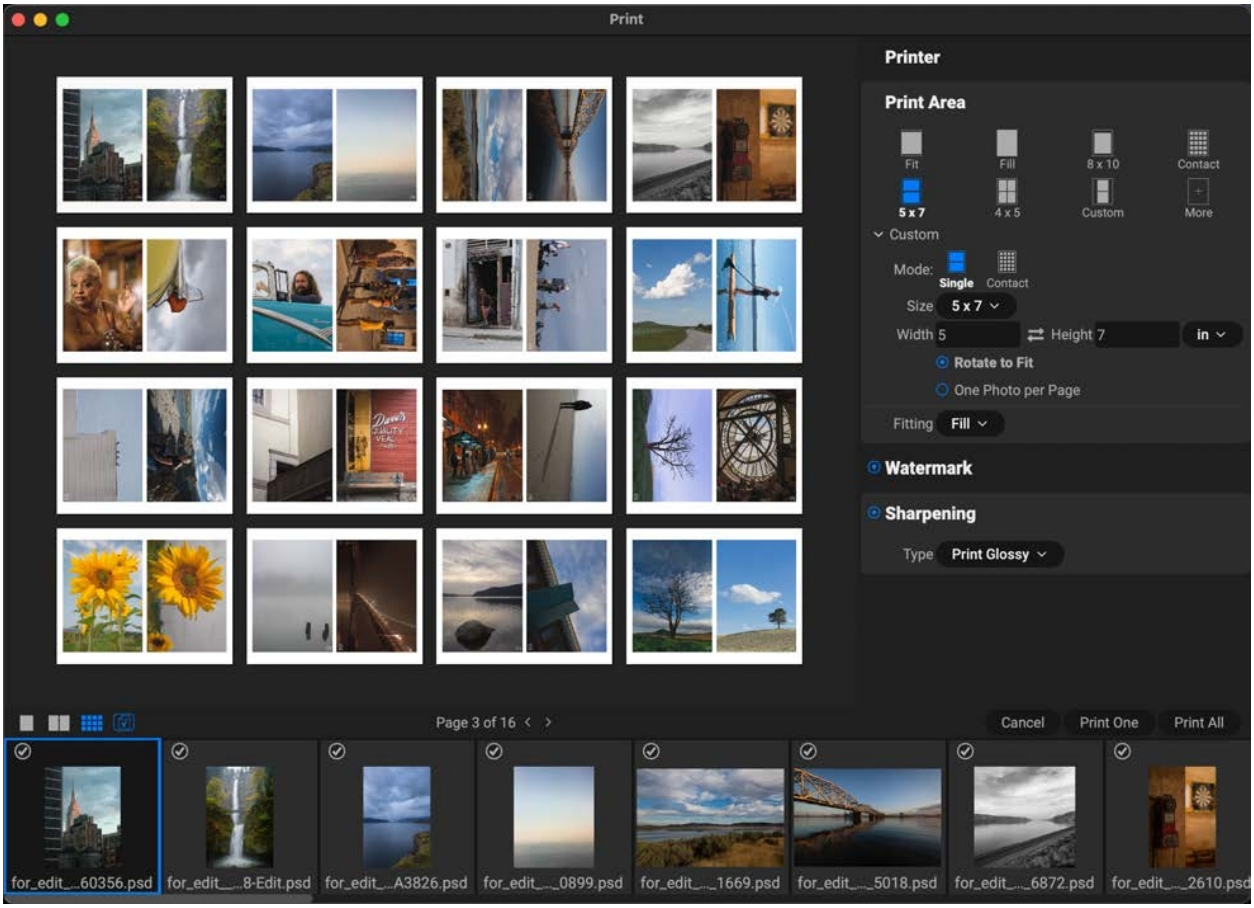
If you wish to get an on-screen proof of the final image before you print, using the chosen color profile for the media type you are using, click the soft proofing icon underneath the preview area.

PRINTING PHOTOS FROM ON1 CLOUD SYNC DEVICES

Any photo that can be displayed on your computer can be printed, even proxies of photos that reside on one of your ON1 Cloud Sync devices. In most cases – especially at smaller print sizes (8x10 and under), the proxy photo will have more than enough resolution to print at high quality. If you are printing at larger sizes, or wish to use all the available image data for your photo, either copy the file from your synced device to your computer, or change the sync setting for the photo's enclosing folder on the synced device, so that the original is in the ON1 Cloud.

PRINTING MULTIPLE PHOTOS

To print multiple photos–as a package or contact sheet–select the images you wish to print from the Grid or Filmstrip views (in Browse or Edit), and click the Print icon. The photos you've selected will be displayed in the filmstrip at the bottom of the window, and the preview area will display the current page (at the printer's page size) and print size settings. If you are printing a lot of photos at one time, you can flip from page to page via the Page View buttons under the preview. To see more pages, click on the Facing Pages or Show All Pages icons at the bottom left of the window.

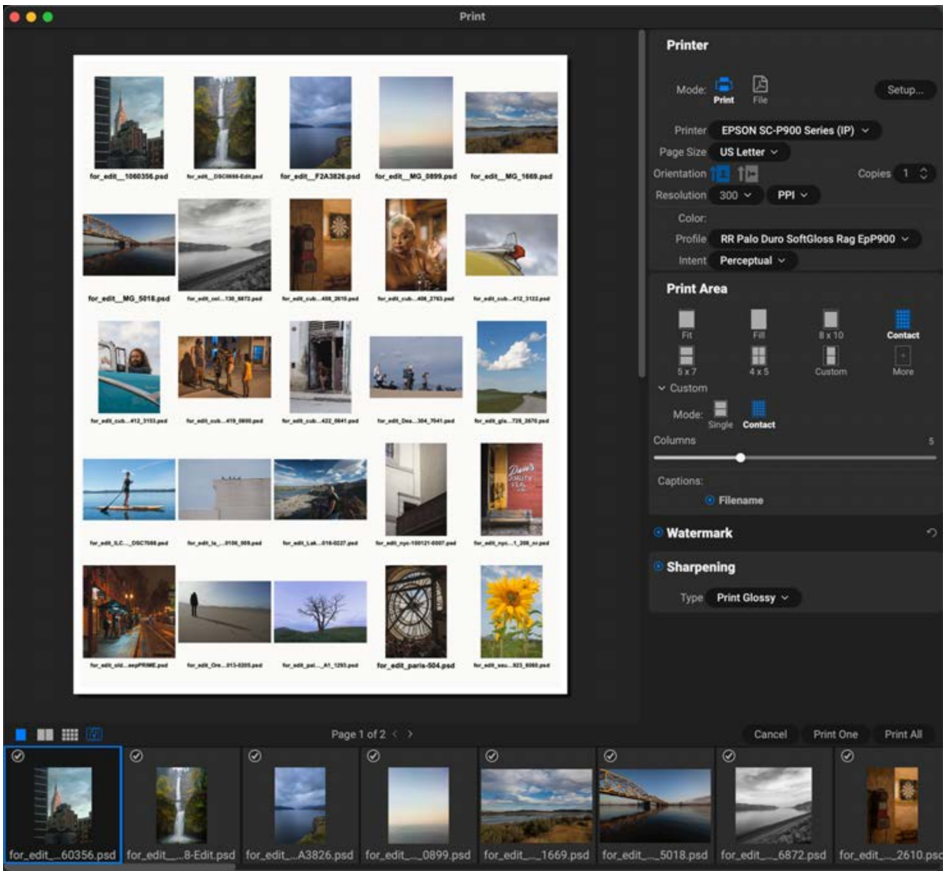


The Print feature gives you extensive options for printing multiple pages package style. Here, we have selected 32 photos to print at 5x7 inches on a letter-size sheet, on an Epson P600 printer. Clicking on the View All Pages button underneath the preview window, you can see all of the photos to be printed. Clicking Print One will print the currently selected page; clicking Print All will print the collection.

If you decide that you don't want to print a photo, click the checkmark for that photo in the filmstrip. To print all of the photos currently selected, click Print. If you would like to try a test print, with a single page, click on the Print One button, which will print the currently selected page, as found in the Page View listing.

Printing contact sheets

When you wish to evaluate a group of images but don't want to waste larger sheets of photo paper, use the Contact Sheet feature in the Print window. Select the photos you wish to print, set the paper size in the Printer pane, and click on the Contact icon in the Print Area pane.



The Contact Sheet option lets you evaluate a large group of photos in a high quality print, with captions.

When you switch from Package to Contact mode, you have two options, as found in the Custom section of the Print Area pane:

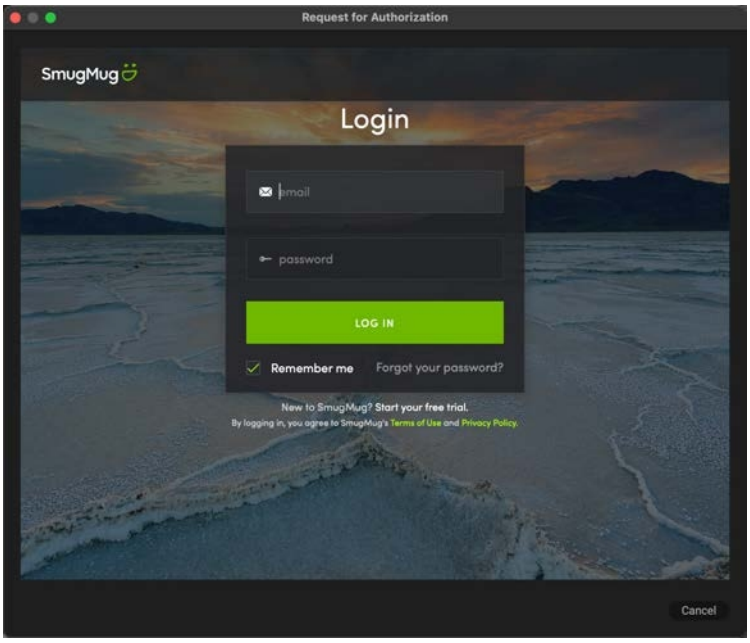
- **Columns**: lets you set the number of columns across the page width. The smaller the number of columns, the larger the individual cells.
- **Captions**: Currently, Photo RAW lets you add the filename as a caption underneath the printed photo. Click the button to the left of the label to turn this on or off. (We will be adding additional caption options in future releases.)

You can use the Page View controls underneath the preview area to move between pages, and, when you're ready to print, click the Print All button to print the contact sheets.

SHARING TO SMUGMUG



If you are a member of the SmugMug photo sharing and hosting service, ON1 Photo RAW 2026 offers an easy to use mechanism for posting one or multiple photos to the service. This is accessed via the Share menu, which is found throughout Photo RAW in the lower right section of the Module selector. On Windows, the Sharing button's pop-up contains only the SmugMug option; on MacOS, there are additional sharing options beyond SmugMug.



You can share a the currently selected photo or a group of photos by choosing SmugMug from the Sharing pop-up menu. The first time you access the service, you'll receive an authorization window inside Photo RAW; fill out your account information and password, and then click on the Authorize button.

Once authorized, you'll be presented with a window that lets you upload your photo or photos. The window contains a handful of options:

- Click the "Use photo metadata" control to include the photos' metadata for use in the title, caption and keyword.
- The Gallery pop-up lets you add the photos to an existing gallery, or lets you create a new gallery.

The first time you share to SmugMug, you'll be asked to log in to your account, and verify that you want to let Photo RAW post to your galleries on the site.



- The Open Gallery link to the left of the pop-up will open the currently selected gallery in your default web browser.
- The Size pop-up has three options, full-size, and either 4000 or 2000 pixels (on the long side).

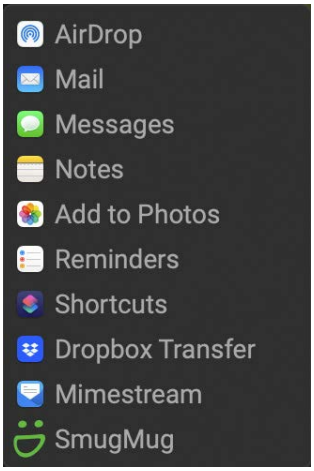
Once you have selected the appropriate options, click the Share button. Photo RAW will create high-quality JPEGs of the chosen photos and publish them to SmugMug.

More information about SmugMug can be found at smugmug.com.

When you post to SmugMug from Photo RAW, you can include metadata, choose the gallery to you want the photos to go into, and the size of the uploaded photos.

OTHER SHARING OPTIONS (MAC ONLY)

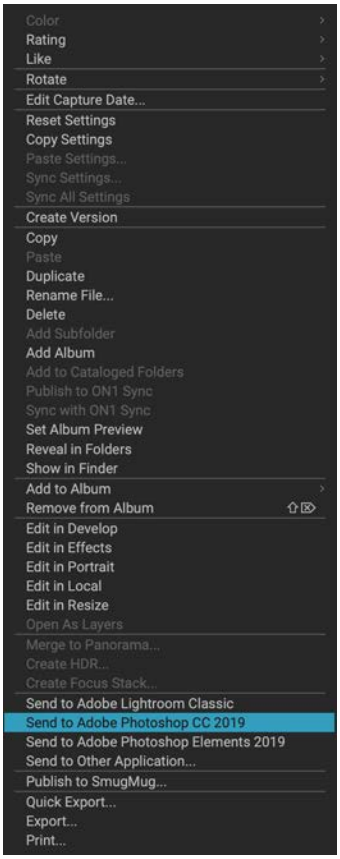
In addition to SmugMug publishing, the MacOS version of ON1 apps include other photo-sharing options, such as:



- **AirDrop**: Uses Apple's AirDrop networking feature to share with local MacOS or iOS devices.
- **Mail**: Creates a new email message in Apple Mail with the shared photo.
- **Messages**: Shares photo to Apple's Messages app.
- **Notes**: Adds the shared photo to Apple's Notes app. You can choose to create a new note, or add the photo to an existing note.
- **Add to Photos**: Adds the photo to Apple's Photos app.
- **Reminders**: Adds to the Reminders app.
- **Shortcuts**: Sends to the Shortcuts app.
- **Additional email apps** (Mimestream): Creates a new mail message with the shared photo in any additional email apps registered on your Mac.
- **SmugMug**: Post photos to the SmugMug service

All of the sharing options perform the same operation: exports a full-size JPEG of the selected photo and shares it with the selected target from the list.

SEND TO OTHER APPLICATIONS



The Browse module inside ON1 Photo RAW 2026 can send images you are viewing to other applications for editing. This is done via the Send to option, which is available from the right-click contextual menu or the Edit menu. ON1 Browse automatically

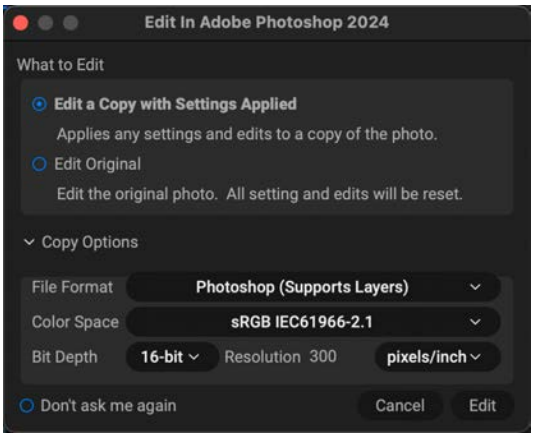
detects the following common photo managers or editors and lists the latest installed version:

- Adobe Photoshop
- Adobe Photoshop Lightroom
- Adobe Photoshop Elements

You can set up any application you want to send your photos to. Simply select the Send to Other Application option. Then select the application you want to send your photos to. The application will be remembered and listed with your other Send to options. (For example, if you use an email client you can add it to easily email photos.)

When you send an image to another application, you will be presented with the Edit in dialog box from ON1 Photo RAW 2026. There you'll have the option to send either the edited photo or the original, unedited image. If you choose to send a copy, you'll have options for choosing the file type, color space, bit depth and resolution. If you use the same set of options every time, you can check the "Don't ask me again" box in the window, and you won't be prompted again. (To change this setting, go to the File pane in Photo RAW's Preferences.)

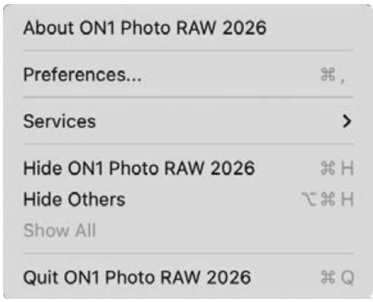
The Send To... section is available when you right-click on a photo inside Browse pop-up menu.



The Edit In dialog, with the Copy Options section expanded.

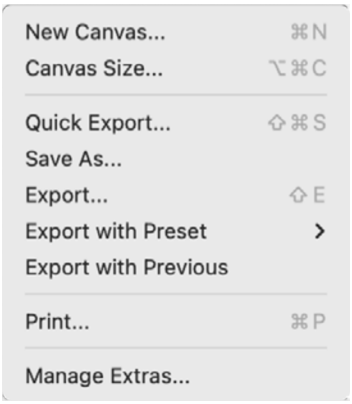
EDIT MENUS

ON1 PHOTO RAW (MACOS ONLY)



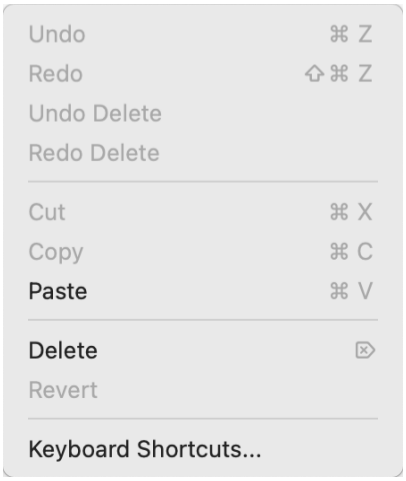
- **About ON1 Photo RAW**: Opens the About box and displays your version number. (This is in the Help menu on Windows)
- **Preferences**: Opens the preferences dialog. (In the Edit menu on Windows)
- **Quit ON1 Photo RAW**: Quits ON1 Photo RAW 2026.

FILE



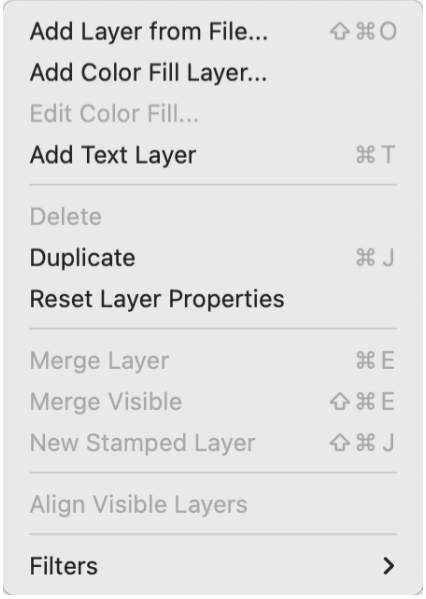
- **New Canvas**: Creates a new layered .onphoto file at the specified dimensions.
- **Canvas Size**: Lets you change the size of the current layered file.
- **Quick Export**: Saves the current image in Photoshop, TIFF, JPEG or PNG format.
- **Save As**: Saves the currently edited image in a variety of files formats.
- **Export**: Opens the Export window.
- **Export with Preset**: Exports the current selection using a preset from the hierarchical menu, bypassing the Export window.
- **Export with Previous**: Exports the current image with the last-used Export setting.
- **Print**: Opens up the print dialog box.
- **Manage Extras**: Opens the Extras Manager window.

EDIT



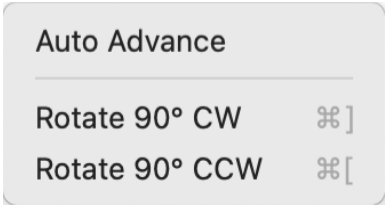
- **Undo**: Removes the last file operation.
- **Redo**: Redoes the undo operation. This is only available if the last thing you did was an undo.
- **Cut**: Cuts the currently selected item.
- **Copy**: Copies the currently selected item.
- **Paste**: Pastes (copies) the items in the clipboard to the current location.
- **Delete**: Deletes the current image (Filmstrip mode only).
- **Revert:** Reverts to the photo's original state.
- **Preferences** (Windows): Opens the Preferences dialog.
- **Keyboard Shortcuts**: Lets you add or modify the hotkeys for many of Photo RAW's commands.

LAYER



- **Add Layer from File**: Lets you add a new file to the current document as a layer.
- **Add Color Fill Layer**: Adds a new layer consisting of a solid color.
- **Edit Color Fill**: Lets you change the color of a selected color fill layer.
- **Delete**: Deletes the currently selected layer.
- **Duplicate**: Duplicates the currently selected layer.
- **Reset Layer Properties**: Removes any applied layer masks or transforms to the current layer.
- **Merge Layer**: Merges the current layer with the one beneath it.
- **Merge Visible**: Merges all of the visible layers into a new, merged layer.
- **New Stamped Layer**: Merges the visible layers into a new, composite layer, leaving the visible layers intact.
- **Align Visible Layers**: Aligns visible layers based on their content.
- **Filters**: Contains a list of installed Photoshop plugins. Selecting an item sends the current layer to the plugin and returns it in a new layer.

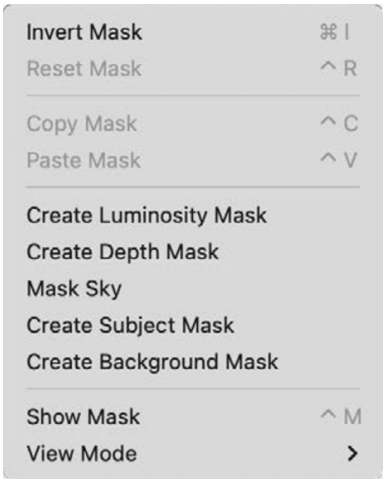
PHOTO



- **Auto Advance**: When checked, any color, rating or like setting applied to a photo will save it for that photo, then move on to the following photo.
- **Rotate 90 Degrees CW**: Rotates an image clockwise 90°

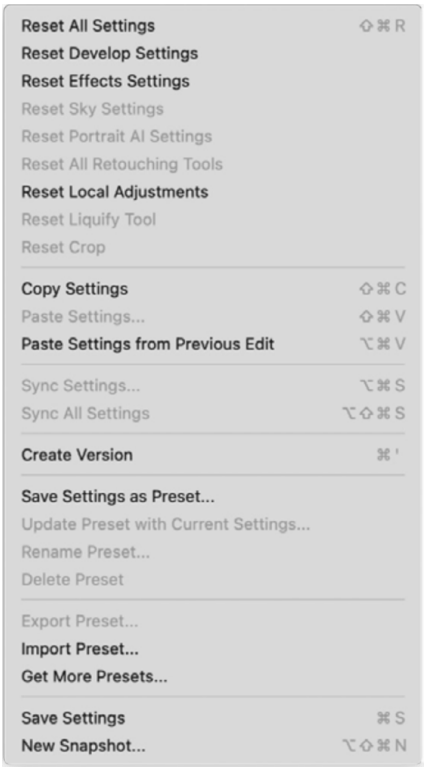
- **Rotate 90 Degrees CCW**: Rotates an image counterclockwise 90°

MASK



- **Invert Mask**: Inverts the mask, what was hidden is revealed and vice versa.
- **Reset Mask**: Resets the mask to plain white.
- **Copy Mask**: Copies the mask.
- **Paste Mask**: Pastes the mask.
- **Create Luminosity Mask**: Creates a luminosity layer mask based off of a photo's black or white tonal values.
- **Create Depth Mask**: Creates a depth mask.
- **Mask Sky**: Automatically creates a mask of the sky in the current image.
- **Create Subject Mask**: Finds the photo's subject and creates a mask of it.
- **Create Background Mask**: Selects the background of a photo and creates a mask of it.
- **Show Mask**: Displays the current mask either as a red overlay or as grayscale.
- **View Mode**: Sets the Show Mask mode to either color overlay, color overlay only when brushing, or grayscale.

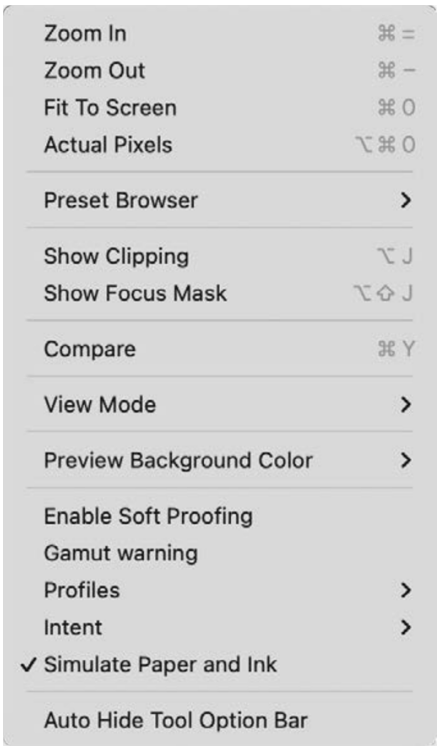
SETTINGS MENU



- **Reset All Settings**: Resets all Edit module settings.
- **Reset Develop Settings**: Resets all Develop settings.
- **Reset Effects Settings**: Resets all Effects settings.
- **Reset Sky Settings**: Resets any sky replacement.
- **Reset Portrait AI Settings**: Resets Portrait AI settings.
- **Reset All Retouching Tools**: Resets any retouching applied in the Edit module.
- **Reset Local Adjustments**: Resets all local adjustments.
- **Reset Liquify Tool**: Resets any application of the Liquify tools made to a photo.
- **Reset Crop**: Resets cropping made to a photo.
- **Copy Settings**: Copies all of the settings (Develop, Effects, retouching) applied to a photo.
- **Paste Settings**: Pastes the copied settings (with options)
- **Paste Settings from Previous Edit**: Applies (to the current photo) any Edit module adjustments made to the previous photo.
- **Sync Settings**: Selectively applies the Edit module settings from the primarily selected image to the rest of the images in a selection.
- **Sync All Settings**: Applies all of the Edit module settings from the primarily selected image to the rest of the images in a selection.
- **Create Version:** Makes a virtual copy of a photo, without duplicating the file on your hard drive.
- **Save Settings as Preset**: Saves the editing settings of the selected photo as a preset.

- **Update Preset with Current Settings**: If an image with a preset has had some settings changed, this lets you update the preset with the new settings.
- **Rename Preset**: Renames a preset.
- **Delete Preset**: Deletes a preset.
- **Export Preset**: Exports a preset as an ON1 preset file.
- **Import Preset**: Imports ON1 preset files.
- **Get More Presets**: Goes to ON1's Photo Presets web page.
- **Save Settings**: Saves the current state of your edits in the Edit module, in case of crash.
- **New Snapshot**: Creates a new snapshot of the current editing state.

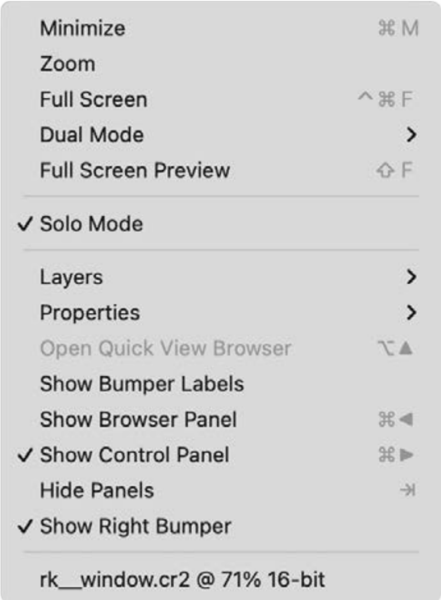
VIEW MENU



- **Zoom In**: Zooms the preview window in one increment. This will make the preview image larger.
- **Zoom Out**: Zooms the preview window out one increment. This will make the preview images smaller.
- **Fit to Screen**: This sets the preview image so that the entire image is on screen at once. Think of this as an overview of the entire image. This is the setting you will use most of the time.
- **Actual Pixels**: This sets the preview image so that it zooms to actual pixels or 1:1 also called 100%. This setting allows you to see every pixel in the image. This is useful when making precision adjustments.
- **Preset Browser**: Sets the Preset panel browser view to 1, 2 or 3 columns.

- **Show Clipping**: Shows the clipping overlay view, displaying the pure white or black pixels.
- **Show Focus Mask**: Displays a green overlay on those portions of the current image that are in focus.
- **Compare**: Displays an adjustable split-screen view of the current image, with the Before view on the left side of the preview area.
- **View Mode**: Toggles between Filmstrip and Detail view.
- **Preview Background Color**: Lets you set the background color options.
- **Enable Soft Proofing**: Turns on soft proofing for the current image.
- **Gamut warning**: Displays colors that the printer can't reproduce with a red overlay.
- **Profiles**: Displays a list of installed printer and display profiles; choosing a profile will apply soft proofing for that profile's paper type.
- **Intent**: Lets you switch between perceptual or relative rendering intent for the current image.
- **Simulate Paper and Ink**: When turned on, Photo RAW will set the white point and black point of the display to account for that of the chosen profile.
- **Auto Hide Tool Options bar**: When checked, the Tool Options bar for each tool will be hidden on-screen, and becomes visible when you hover over the top of the main window.

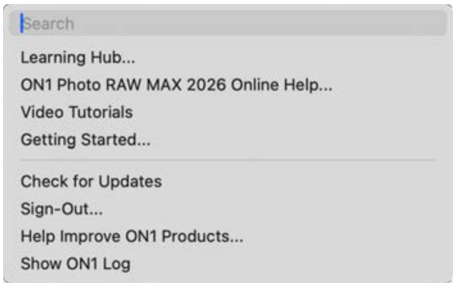
WINDOW



- **Minimize**: Minimizes your screen.
- **Zoom**: Zooms your window to full-size.
- **Full Screen**: Toggles full-screen mode (hides menus).
- **Dual Mode**: Turns on dual-display mode
- **Navigator**: Hides or shows the Navigator, Loupe, Histogram and Info pane.

- **Solo Mode**: Keeps only one pane open at a time.
- **Layers**: Sets display and nesting options for the Layers pane.
- **Properties**: Sets display and nesting options for the Properties window.
- **Open Quick View Browser**: Opens the Quick View Browser overlay for the selected preset category.
- **Show Bumper Labels**: Hides/reveals the text labels in the module selector.
- **Show Browser Panel**: Hides/shows the Browser Panel.
- **Show Control Panel**: Hides/shows the Control Panel.
- **Hide Panels**: Hides or shows all Panels.
- **Show Right Bumper**: Hides/reveals the legacy right-side bumper from previous versions of Photo RAW.
- **Document Name**: Shows the name, zoom level and bit depth of the open image.

HELP



- **Search**: Searches the menu options (MacOS only).
- **Learning Hub**: Opens the Learning Hub.
- **ON1 Photo RAW 2026 Online Help**: Opens ON1.com support page in your default web browser.
- **Video Tutorials**: Opens ON1.com product training page in your default web browser.
- **Getting Started**: Opens the initial Photo RAW startup screens.
- **Check for Updates**: Checks with the ON1 update server an updated version. If there is a newer version, you will be notified and be walked through the update process.
- **Sign-In/Sign-Out**: Uses your ON1 account login information to authenticate your copy of Photo RAW.
- **Provide Feedback**: Opens the default web browser and goes to the feedback page of the ON1 website.
- **About ON1 Photo RAW** (Windows Only): Opens the about box with the version number displayed.
- **Help Improve ON1 Products**: Opens the Improve ON1 Products dialog.
- **Show ON1 Log**: Diagnostic tool that can help ON1 support when you're having issues with Photo RAW.

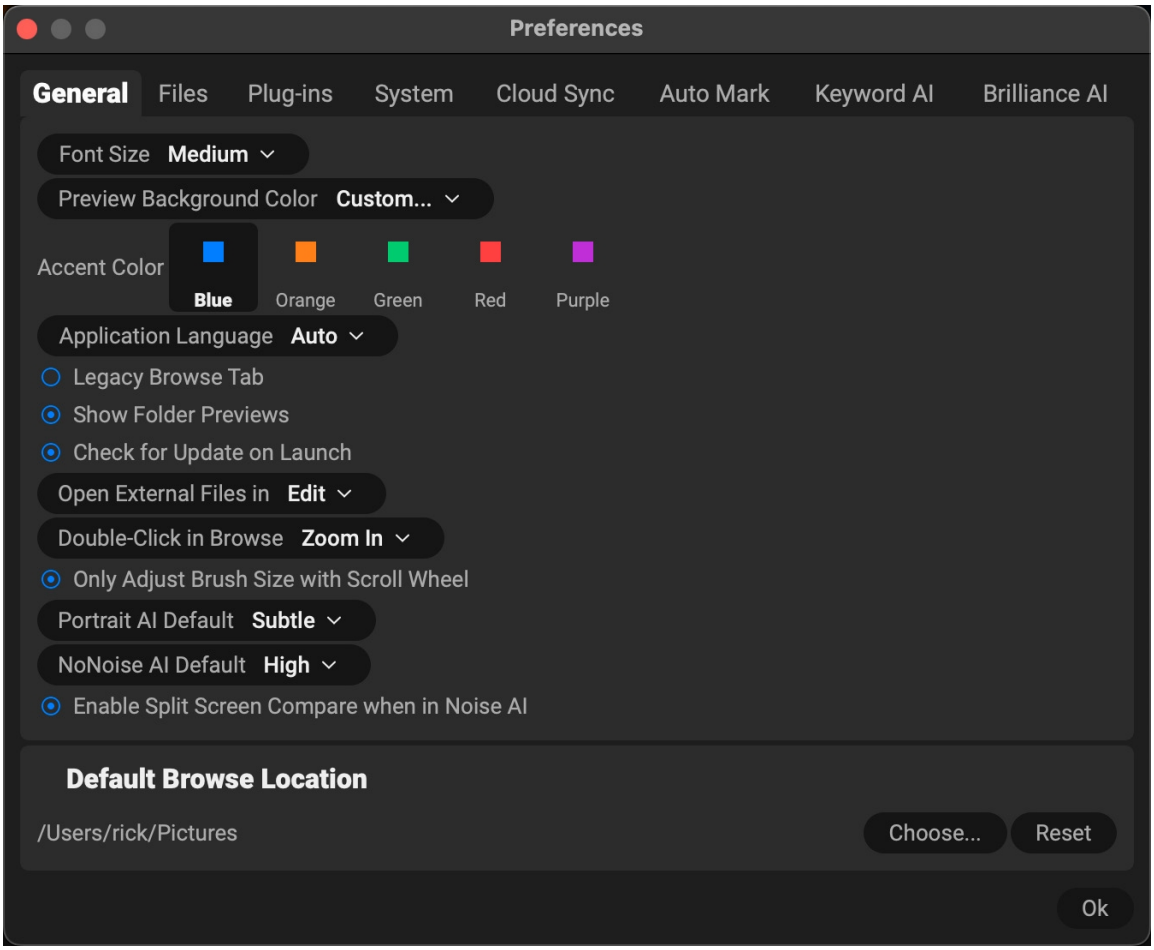
PREFERENCES

Photo RAW has a number of system-wide settings that you can set via the Preferences window. To access Preferences, either click on the gear icon at the lower left side of the screen, or choose Preferences from the ON1 Photo RAW 2026 menu (Mac) or the Edit menu in Windows.

The Preferences window has seven tabs: General, Files, Plug-Ins, System, Services, ON1 360 and Auto Mark. The settings in each tab are described below.

GENERAL SETTINGS

The General settings tab adjusts basic settings for the Photo RAW workspace, including background color, scrolling controls and more.



Font Size

Sets the size of the text in the basic Photo RAW workspace (labels, panes and pop-up menus) to one of three general sizes: Small, Medium, Large.

When changing the font size, you must quit and restart Photo RAW for the new setting to take effect.

Preview Background Color

You may select the color of the background behind the preview image. The default color is black. There is options for black, white, light gray, dark gray and custom. The custom option has a color picker where you can select your own background color.

Accent Color

Lets you choose the display color for highlighted items in the Photo RAW interface.

Application Language

Lets you change the display language for Photo RAW. Auto will use your system's default language.

Legacy Browse Tab

Checking this will change the separate My Catalogs and Browse panels to the single Browse panel found in earlier versions of ON1 Photo RAW. (See My Catalogs, Browse, and Preset Panels)

Show Folder Previews

When checked, will display a thumbnail of an image from the enclosing folder in Browse.

Check for Update on Launch

Enabled by default, the product will communicate with ON1's software update server when you start ON1 Photo; if an update is available it will prompt you to download or skip.

Open External Files

When double-clicking a photo to edit in Photo RAW from either MacOS Finder or Windows Explorer, specifies whether to open the file in the Browse module (default) or the Edit module, the latter by using Edit a Single Photo mode.

Double-Click in Browse

Sets the behavior when double-clicking on a photo in Browse's Grid view. The default is to zoom in to the photo; the alternative is to open the photo in the Edit module.

Only Adjust Brush Size with Scroll Wheel

Turning on this option overrides Photo RAW's default behavior, setting the app so that your mouse's scroll wheel will only change the size of a brush (when an appropriate tool is selected).

When not checked, Photo RAW uses the scroll wheel to scroll, zoom, pan and adjust brush size and feathering, depending upon the modifier keys being pressed. See Using ON1 Apps With a Scroll Wheel for specifics on the default settings for scroll wheel options in Photo RAW.

Default Browse Location

By default, the Pictures short cut in Browse is either Pictures (Mac) or My Pictures (Windows). You can change that location via this setting.

Portrait AI Default

Sets the strength of Portrait AI's retouching algorithms when you open a photo in the Portrait tab. There are two options, Subtle and Strong. The default is Subtle. (See Portrait AI Workflow for information on the options.)

NoNoise AI Default

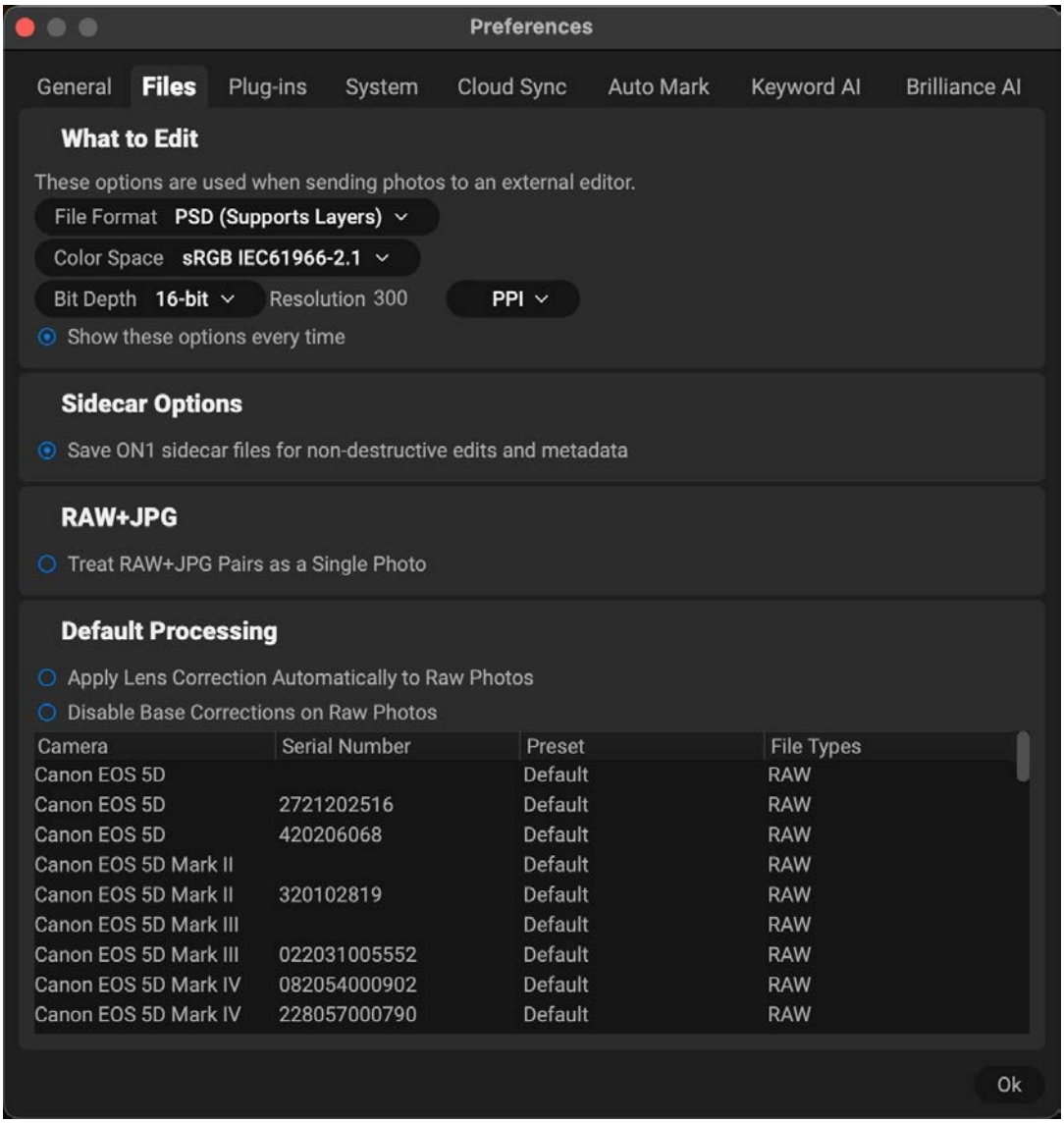
Sets the strength of NoNoise AI's noise reduction when you open a photo in the Portrait tab. There are three options, Low, Medium and High. The default is High. (See Noise & Sharpening for information on the options.)

Enable Split Screen Compare when in NoNoise AI

Lets you set the default option for working in Develop's NoNoise panel. When checked, Photo RAW will automatically switch to before/after Compare mode when you click on the NoNoise tab. When unchecked, you must click on the Compare button at the bottom of the screen to turn on the before/after view.

FILES

The Files tab is used to determine what file type ON1 Photo RAW will create when opening a file in Resize, or when creating copies to send to an external editor from within Browse. It also lets you apply camera- based presets.



What to Edit

There are five options in this tab:

1. **File Format**: Sets the file type you wish to create: PSD, TIFF, or JPEG. If you wish to use a layered workflow, you must choose PSD.
2. **Color Space**: Sets the default color space when opening a copy of a file; the list includes Adobe RGB 1998, Apple RGB (MacOS), sRGB, ProPhoto RGB, or ColorMatch RGB. (If you imported a profile, it will also be available here.)
3. **Bit Depth**: Sets the bit depth for the file when opening a copy of a file.
4. **Resolution**: Sets the resolution when opening a copy of a file.
5. **Show these options every time**: If you do not wish to use a predefined set of file characteristics for opening photos from Lightroom or Photoshop, click this box.

Sidecar Options

Click this box if you wish ON1 Photo RAW 2026 to create ON1-specific 'sidecar' files when you are editing images. This is helpful if you are using the same image library with multiple computers (on an external hard drive, for example), and want your edits to be visible on each machine.

Treat RAW+JPG Pairs as a Single Photo

If you shoot RAW+JPG, you can use this option to 'stack' both photos inside Browse. (RAW+JPG pairs are shown with a small icon in the lower left corner of the thumbnail.)

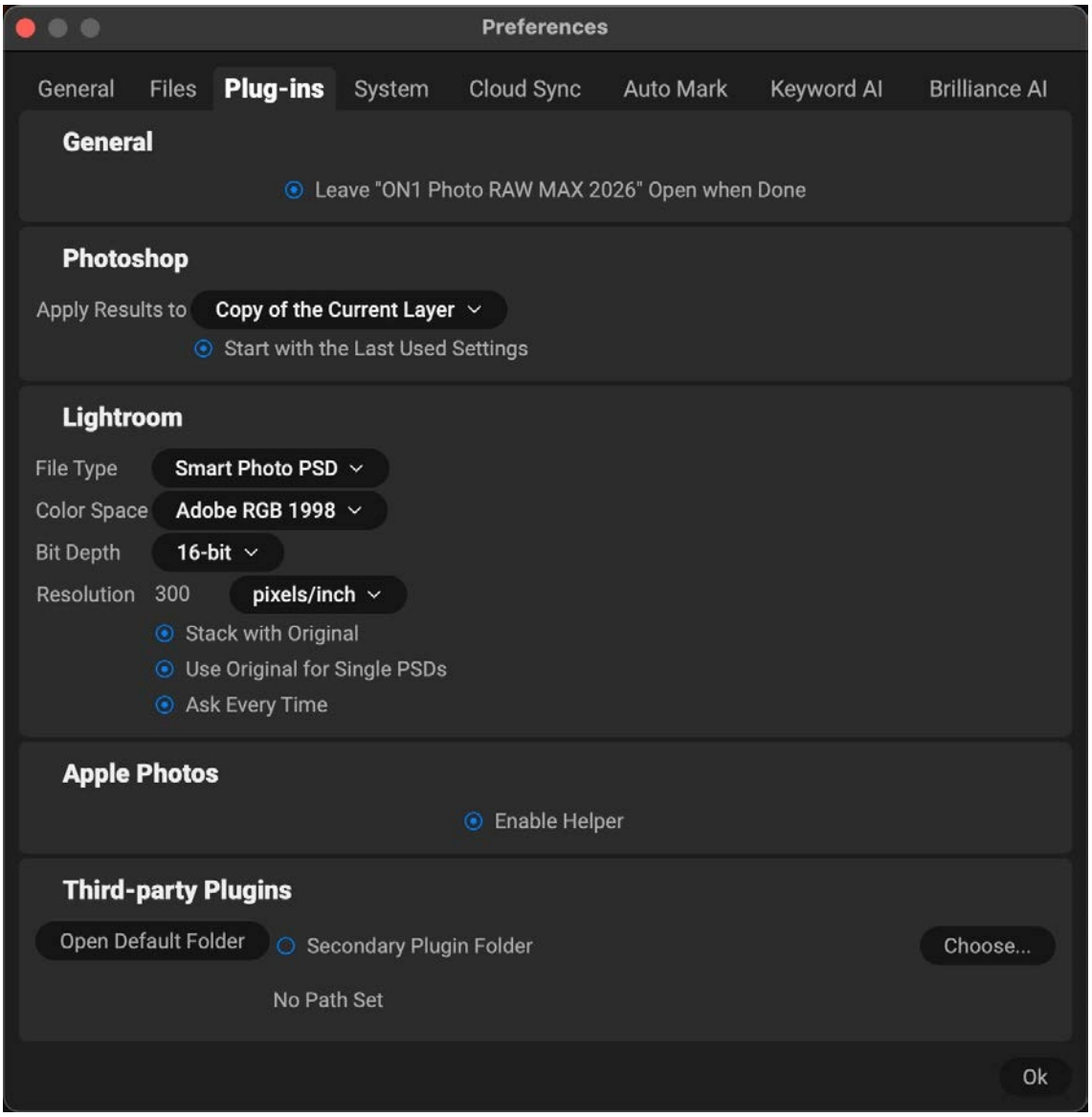
Default Processing

The Default processing section contains three options, for lens correction, base level raw-file corrections, and applying camera-based presets. The first, Apply Lens Correction Automatically, will use the lens correction automatically on any raw photo when you view it in Detail, Filmstrip or Compare modes. The Disable Base Corrections option turns Photo RAW's basic raw-file correction settings off. This can be helpful for scientific/technical photography, time-lapse, and other specialized applications.

The Camera-Based Presets section at the bottom of the Files pane will contain a list of known cameras you have shot with. You can have Photo RAW automatically apply any preset to a specific camera by choosing the preset from the appropriate pop-up. (See Camera-Based Presets for more about using camera-based presets.)

PLUG-INS

The Plug-Ins tab is used to load third-party Photoshop plugins for use within Photo RAW, and, when running ON1 Photo RAW MAX, includes options for using that app as a plugin to other applications.



General (Photo RAW MAX only)

Checking the “Leave ‘ON1 Photo RAW MAX 2026’ open when done will keep the app open after you’ve edited an image via a plugin.

Photoshop (Photo RAW MAX only)

- Apply Results to: When editing in Photoshop you can choose to have your edits added to a copy of your current layer or to the current layer. You can also choose to start with the last used settings when launching Photo RAW.
- Start with the Last Used Settings: When checked, Photo RAW will use the last settings when transferring a photo from Photoshop

Lightroom (Photo RAW MAX only)

This preference sets specific options for files opened via the Plug-In Extras menu in Lightroom:

- **File Type**: The file type drop-down menu determines what type of file will be created. The default is PSD, which maintains layers. You can also select ON1's Smart Photo format to preserve re-editability from within Lightroom, and JPG or TIFF if you prefer those formats. The last option, 'Same as Source,' maintains the file type of the original file, except for Lightroom raw files, which are saved as PSDs.
- **Color Space**: Sets the working color space; Adobe RGB, sRGB or ProPhoto RGB.
- **Bit Depth**: Sets the file bit depth, either 8-bit or 16-bit per pixel.
- **Resolution**: The resolution drop-down menu determines the resolution of the file.
- **Stack with Original**: When enabled, the new image is stacked with the original image.
- **Use Original for Single PSDs**: When enabled, if you select a single PSD file, it will be edited directly, rather than having a copy made.
- **Ask Every Time**: Presents these export options whenever you chose an item from the Plug-In Extras submenu. Turning this option off will bypass the file-export window, using the options in the Plug-In Preferences window every time.

NOTE: For detailed information about the Smart Photo format and re-editability options from within Lightroom, see Using Photo RAW as a Plugin.

Apple Photos (Photo RAW MAX and MacOS only)

- The Enable Helper option works to ensure a smooth connection between Apple Photos and Photo RAW. It should remain on by default.

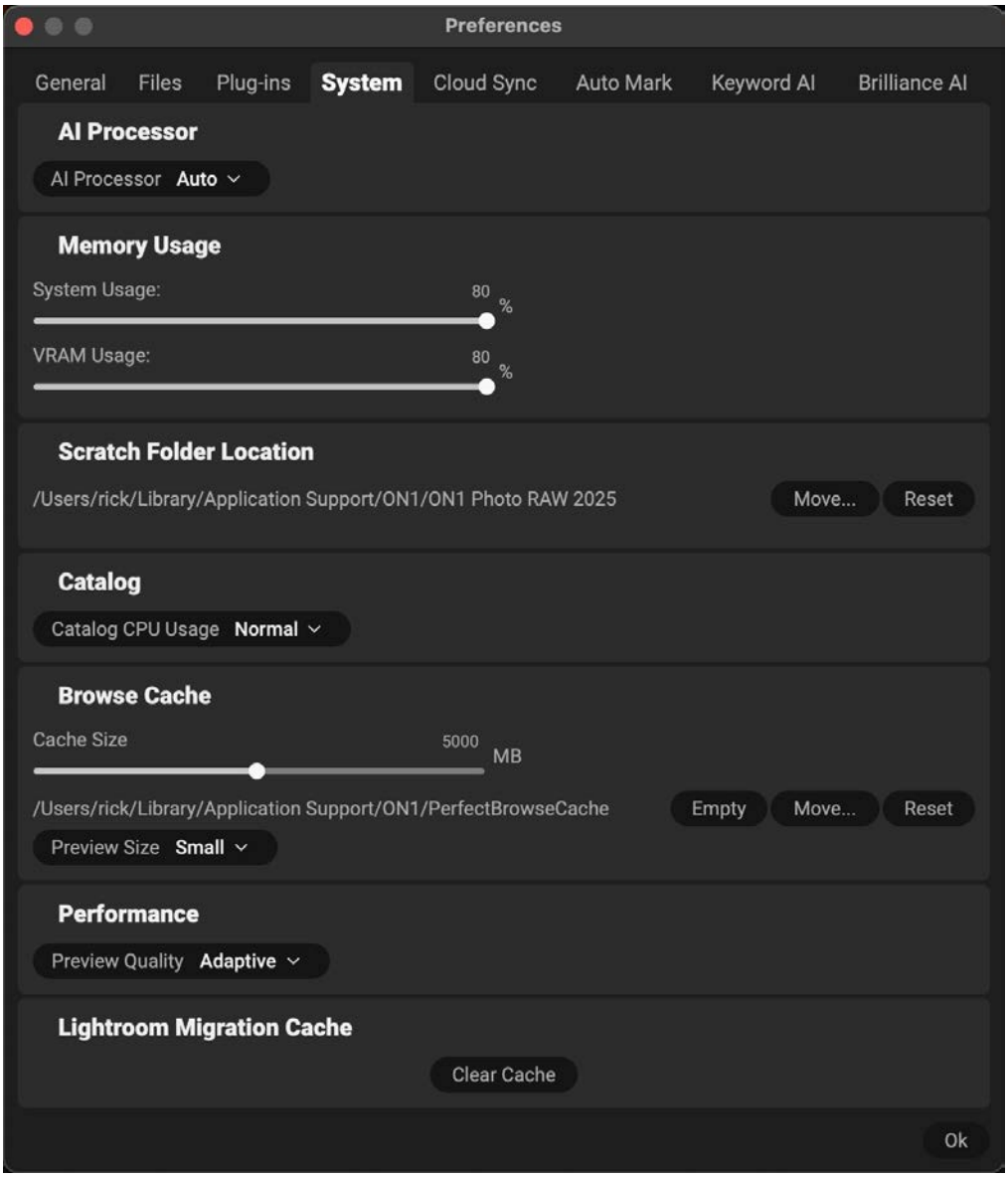
Third-party Plugins (all versions of Photo RAW)

To install Photoshop plugins in Photo RAW's default location, click the Open Default Folder button and copy the plugin files there. You can also have a secondary plugin folder; to use this, click the checkbox, and then choose the folder by clicking on the Choose button.

See Using Photoshop with Photo RAW for information.

SYSTEM

The System tab adjusts performance-related characteristics of Photo RAW 2026.



AI processor

Sets the processing option for Photo RAW's AI-based operations. By default, the option is set to Auto, which uses the best combination of system resources to process tasks. If you are noticing some performance issues with NoNoise, Sky Swap, or other AI-based tasks, you can try setting the options to either your CPU or your graphics card.

Memory Usage

- **System Usage**: Specifies the amount of RAM that is used by the application. The maximum (default value) is 80%.
- **VRAM Usage**: Specifies the amount of video memory (VRAM) used. The maximum (default) is 80%.

Scratch Folder Location

Lets you move or reset your memory cache, to speed editing operations while you're running Photo RAW. This is helpful if your system drive has limited space and wish to use a faster external drive as a cache. This cache information is purged each time you quit the application.

Catalog

The Catalog CPU Usage menu sets the default level of Browse's catalog folders processing. The options are Low, Normal (the default), High and Turbo. The higher the setting, the more Photo RAW uses your computer's CPU as it is processing cataloged folders.

Browse Cache

ON1 Photo RAW 2026 stores thumbnails previews on disk so that the next time you browse a folder it loads much faster. This setting lets you adjust the memory cache size as well as empty the cache, move it to another location, or reset it if you are having issues with Browse.

The Preview size sets the default preview size of cached photos. The default is Small, but if can also be set to Large (HQ) if you prefer larger thumbnails.

TIP: If you use cataloged folders and have a small SSD boot volume, move the Browse cache to another drive for performance and space considerations.

Performance

The Performance section deals with preview quality, and is designed to help you optimize Photo RAW for your specific setup. There are three options, Low, Adaptive (the default), and High.

Lightroom Migration Cache

If you run into problems with the Lightroom Migration Assistant, you can clear the cache here. (See Moving a Lightroom Catalog to Photo RAW)