



ON1 HDR

From A to Z

The Official ON1 HDR User Guidebook

Version 2023

Photo © Jim Choate

Contents

Part 1: ON1 HDR 2023 Overview	1
Getting Help.....	2
System Requirements	2
Installation.....	3
Free Trial version.....	3
Mac Installation location.....	4
Windows Installation location.....	4
Upgrading from Previous Versions	4
Product Improvement Program	4
Launching ON1 HDR 2023	4
MacOS	4
Windows 10	5
Uninstalling ON1 HDR 2023.....	5
Working with Files	5
Using ON1 HDR with Adobe® Lightroom® Classic.....	6
File characteristics when using ON1 HDR as a plugin.....	6
Processing bracketed photos in ON1 HDR from Lightroom	7
Editing single images from Lightroom	7
Batch-editing Multiple Images from Lightroom.....	8
Working with Smart Photos	8
Using ON1 HDR with Capture One	9
Editing Single Images from Capture One.....	9
Extras	10
How to Import Extras	10
Organizing Presets.....	11
What Type of Images Can I Import as Extras?	11
Using Imported LUTs in Effects	11
Using Extras With Layers in the Edit module.....	12
Using Custom Brush Shapes in Local Adjustments	12
Using Watermarks with Export	12
How to Delete Extras	12
Customizing ON1 HDR's Keyboard Shortcuts	13
Modifying hotkeys.....	14
Using ON1 HDR with a Scroll Wheel.....	14
Changing HDR's font size	15
Part 2: Creating HDR Images.....	16
Creating a Single HDR photo	16

Using the Batch Processor to Build Multiple HDRs	18
--	----

Opening other photo types from within ON1 HDR.....	19
--	----

Part 3: Edit Module Basics.....	20
--	-----------

Workflow in the Edit Module	20
-----------------------------------	----

ON1 HDR Edit Module Overview	21
------------------------------------	----

Alternative view modes	22
------------------------------	----

Navigator, Levels, Info and History Panes	23
--	-----------

The Navigator Pane.....	23
-------------------------	----

The Levels Pane	23
-----------------------	----

The Info Pane	24
---------------------	----

Settings Applied.....	24
-----------------------	----

The History Pane	24
------------------------	----

The Tool Well.....	25
---------------------------	-----------

Accessing and using tools.....	26
--------------------------------	----

Adjusting tool sizing parameters	26
--	----

Crop Tool	27
-----------------	----

Crop overlays.....	28
--------------------	----

Content-aware cropping	28
------------------------------	----

Crop Tool Options Bar.....	29
----------------------------	----

Creating custom crop sizes	29
----------------------------------	----

Transform (Move) Tool.....	29
----------------------------	----

Repositioning a Layer	30
-----------------------------	----

Resizing a Layer.....	30
-----------------------	----

Rotating a Layer	30
------------------------	----

Flipping a Layer.....	30
-----------------------	----

Restoring a Layer After a Move	30
--------------------------------------	----

Transform Tool Options Bar.....	30
---------------------------------	----

Super Select AI Tool.....	31
---------------------------	----

Super Select AI Tool Options bar.....	31
---------------------------------------	----

Adjustment Brush (Local group)	32
--------------------------------------	----

Adjustment Brush Tool Options.....	32
------------------------------------	----

Pressure-Sensitive Table Support.....	34
---------------------------------------	----

Adjustable Gradient Tool (Local group)	34
--	----

Adjustable Gradient Tool Options Bar:	35
---	----

Manipulating Gradient Masks.....	35
----------------------------------	----

Masking Brush (Mask Group).....	35
---------------------------------	----

Masking Brush Tool Options	35
----------------------------------	----

Pressure-Sensitive Tablet Support.....	37
--	----

Masking Bug (Mask Group).....	37
-------------------------------	----

Masking Bug Tool Options Bar:.....	38
------------------------------------	----

Manipulating a Gradient Mask	38
------------------------------------	----

Working with Multiple Masking Bugs	39
--	----

AI Quick Mask Tool (Mask Group)	39
---------------------------------------	----

AI Quick Mask Tool Options bar	40
Original Quick Mask Tool (Mask Group)	40
Original Quick Mask Tool Options Bar	41
Line Mask Tool (Mask Group)	42
Line Mask Tool Options Bar.....	43
Refine Brush (Refine Group)	44
Refine Brush Tool Options	44
Working with the Refine Brush.....	45
Chisel Mask Tool (Refine Group).....	47
Chisel Mask Tool Options.....	47
Blur Mask Tool (Refine Group).....	47
Blur Mask Tool Options	47
Healing Brush (Retouch Group).....	48
Healing Brush Options.....	48
Transforming retouched areas.....	49
Perfect Eraser (Retouch Group).....	50
Perfect Eraser Options.....	50
Retouch Brush (Retouch Group).....	50
Retouch Brush Options.....	50
Clone Stamp (Retouch Group)	51
Clone Stamp Tool Options:	51
View (Zoom) Tool	51
Masking Basics	52
The Masking Tools and View Options	52
Masking control options.....	54
Color Range selections.....	55
Luminosity masks.....	55
Masking tips	56
Presets	58
Applying Presets.....	59
Inserting Presets (Effects tab only)	60
Creating Your Own Presets	60
Creating and Using AI Adaptive Presets.....	60
Managing Presets and categories	61
Importing & Exporting Presets.....	61
Deleting presets.....	61
Managing categories	62
Nesting presets.....	62
Resetting edits	62
Soft Proofing	63
Other Preview Options.....	64
Changing the magnification view	64
Before/After previews.....	65

Show/Hide Mask	65
Focus and Clipping Views	66
Clipping.....	66
Focus Mask.....	66
Showing or Hiding Edit Module Adjustments.....	67
Saving Your Work	67

Part 4: Basic Editing with Develop

Develop Adjustment Panes.....

Working with panes.....	68
Tone & Color.....	69
Camera Profile.....	69
Tone	69
Color.....	70
Adjusting Tone & Color settings via hotkeys	71
Details	71
Sharpening	71
Noise Reduction	72
Styles.....	72
Lens Correction.....	73
Applying Manual Lens Correction.....	73
Transform	74
Creating and Adding Custom Camera Profiles	76

Part 5: Stylizing with Effects.....

Filters

Filter Overview	79
Applying Filters with the Add Filter Button	79
Using ON1 HDR's AI-based tools to mask regions automatically.....	80
Applying filters with the Filter Browser.....	81
Searching for filter styles inside the Filter Browser.....	82
Saving filter styles as favorites.....	82
Working with filter panes	82
Styles.....	82
Filter Masks.....	83
Deleting a Filter.....	84
Filter Opacity	84
Blending Modes.....	84
How blending modes work	85
Master Opacity, Blending and Mask options.....	85

Filter Types

Black & White	86
Tone	86
Toner.....	87

Film Grain	87
Curves.....	87
Dynamic Contrast	88
Glow.....	89
HDR Look.....	89
LUTs.....	89
Sharpening	90
Vignette.....	90

Part 6: Local Adjustments 92

The Local Adjustments tab 92

Painting with Color.....	94
Working with Local Adjustments.....	94
Manipulating a gradient mask	95
Other masking options.....	95
Using Custom Brushes to Add Overlays To Photos.....	96
Tips for using custom brushes.....	97

Part 7: Combining Photos with Layers 98

Adding a New Layer.....	99
Opening a layered Photoshop file	99
Creating a Color Fill Layer.....	99
Working with the Layers Pane	100
Layer Visibility	100
Changing Opacity	100
Changing the Layer Order	100
Renaming Layers	100
Layer pane toolbar	100
Changing Blending Modes	101
Layer Masks	101
Using the Transform Tool with Layers	101
Repositioning a Layer	102
Resizing a Layer	102
Rotating a Layer	102
Flipping a Layer	102
Aligning Layers	102

Part 8: Output and Sharing 104

Export 105

Export Options..... 106

Naming.....	106
Destination.....	107
File Type.....	108
Resize	108
Sharpening	109

Metadata.....	110
Watermark	110
Using graphics-based watermarks.....	110
Using text-based watermarks.....	111
Saving watermark presets.....	111

Exporting and Export Presets.....112

About HDR’s File-Naming Tokens.....112

Filename	113
Date/Time.....	113
Sequence Number	114
Metadata.....	114
Camera.....	114
Ratings and Labels.....	114
IPTC Metadata Tokens	115

Printing116

Printer Pane	117
Printing to a file.....	117
Print Area Pane	118
Page size vs. print size.....	118
Watermark pane.....	119
Sharpening pane	119

Other Sharing Options (MacOS Only)..... 120

Part 9: ON1 HDR 2023 Reference..... 121

Edit Menus122

ON1 HDR (MacOS Only)	122
File Menu	122
Edit Menu	122
Layer Menu	123
Photo Menu	123
Mask Menu	123
Settings Menu	124
View Menu	124
Window	125
Help.....	125

Preferences.....127

General Settings.....	127
Font Size.....	127
Preview Background Color	127
Accent Color.....	127
Application Language.....	127
Check for Update on Launch.....	127
Only Adjust Brush Size with Scroll Wheel.....	128
Files.....	128
Sidecar Options	128

Default Processing.....	128
Plug-ins	128
General	128
Lightroom	128
System.....	129
AI processor.....	129
Memory Usage.....	129
Scratch Folder Location.....	129
Performance	130

PART 1: ON1 HDR 2023 OVERVIEW



ON1 HDR 2023 is a full-featured photo editor designed to create rich, detailed high-dynamic-range (HDR) images from two to 13 bracketed photos. With HDR 2023, you can take multiple shots of a scene, at varying exposure levels—accurately capturing shadows, midtones and highlights in different frames across the series—and then blend them together to create a final image that has a much wider tonal range than a single shot could do.

When using ON1 HDR 2023 as a standalone app, there are two primary components, one for the creation of an HDR image from a bracketed set of photos, and an editing module for finishing your photos. You can also use the batch-processing feature to create multiple HDR photos from a group of brackets taken at different times. To get started with a series of bracketed photos, see [“Creating HDR Images” on page 16](#).

The Edit module has three tabs—Develop, Effects, and Local—each with a specific area of functionality: Develop for basic tonal editing, Effects for stylization, and Local for targeted editing of specific areas in your images. Information on using the Edit module starts on [page 20](#).

The Edit module also supports a layered workflow, for creating blended composites from multiple images. You can use this feature to fine tune your HDR photos even further. For more on Layers, see [page 98](#).

Once you’ve completed your finished HDR photos, you can print, export and share them directly from within ON1 HDR. See [page 104](#) for complete information on these features.

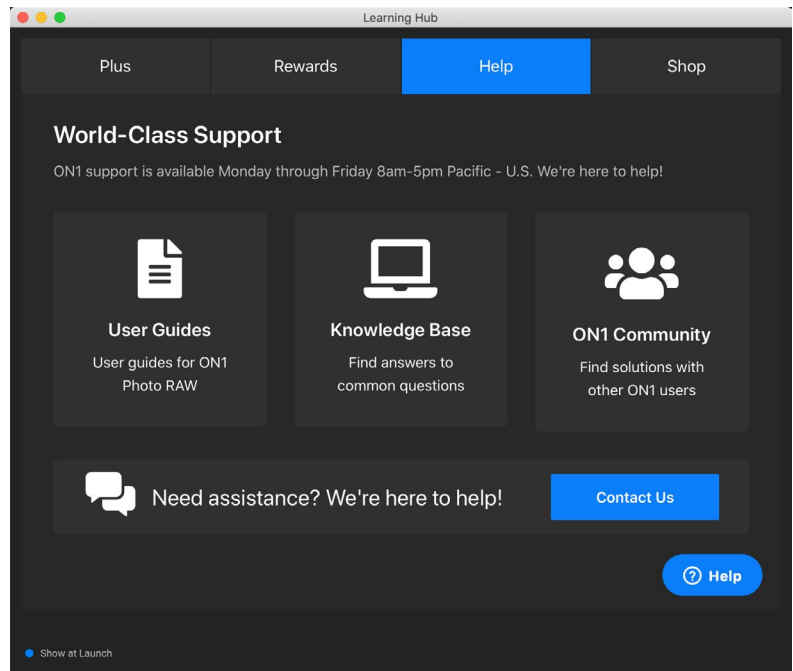
ON1 HDR also works as a plugin for Adobe Lightroom Classic and Capture One, giving you full access to all of the tools found in the standalone app. When used with Lightroom and ON1’s Smart Photos feature, you also have full re-editing capabilities inside ON1 HDR.

Getting Help

You can find an extensive collection of video tutorials and help documents for HDR in the Help section of the ON1 website (on1help.zendesk.com). This is the quickest way to dig into the app. There, you can search our Knowledge Base for frequently asked questions, and more.

Inside ON1 HDR, you can use the Learning Hub to directly display videos for getting started with the app, search the ON1 online help system—including with and online chat assistant—and the ON1 Shop, where you can purchase add-ons and courses for ON1 HDR.

The Learning Hub is accessible via the Help menu or from the Help icon at the bottom left bumper panel.



The Learning Hub is available directly within ON1 HDR 2023, and includes links to videos (which can be played directly in the Hub), ON1's online help system, and the ON1 store.

System Requirements

	MINIMUM	RECOMMENDED
OPERATING SYSTEM	macOS 10.15.6 and above; Windows 10/11 (current maintenance releases, 64-bit only)	macOS 12 or Windows 11 (current maintenance releases, 64-bit only)
PROCESSOR	Intel or AMD processor with 64-bit support, 2 GHz or faster with SSE 4.2 or later; Apple Silicon	
RAM	8 GB	16 GB or more
HARD DRIVE	2 GB for installation	2 GB for installation; SSD drive
DISPLAY	Windows: DirectX 12, DirectML, Vulkan 1.1, and OpenGL 4.2 compatible video card with 2GB VRAM, 1920x1080 resolution (at 100% scale factor) macOS: Metal, Vulkan 1.1, and OpenGL 4.2 compatible video card with 2GB 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 OpenGL 4.2 compatible video card with 8GB VRAM, 1920x1080 resolution (at 100% scale factor)
OPTIONAL APPLICATION INTEGRATION	Photoshop Lightroom Classic CC 2020 and above; Capture One 10 and above	
INTERNET	A high-speed internet connection and active account for activation, auto-update checking, content downloads, and tutorials.	
SUPPORTED OPTIONS	Supports ICC/ICM profiles for camera input, display, soft-proofing, and printing. Hardware display calibration tool is recommended.	
LANGUAGES	English, German, Spanish, French, Japanese, Korean, Simplified Chinese, Russian, Portuguese, Italian, Dutch	

Installation

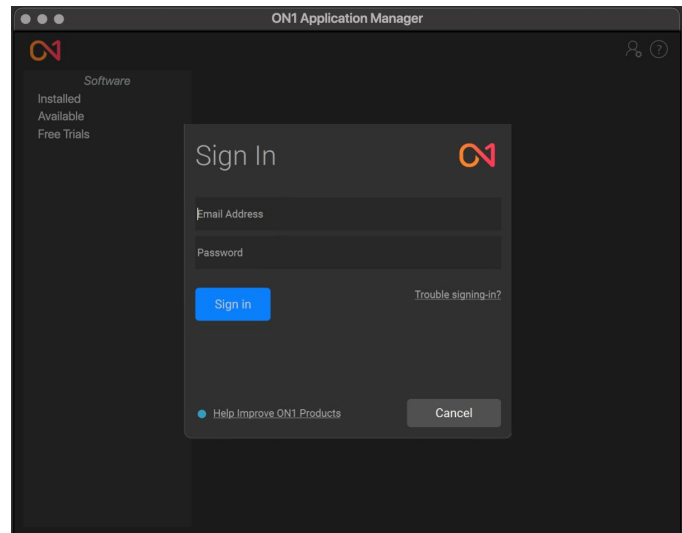
To install ON1 HDR 2023, you must first download and install the ON1 Application Manager, which manages your ON1 applications and free trials. Once you've installed the Application Manager, double-click on the app icon. You will first be prompted to sign in to your ON1 account. The Application Manager will then communicate with the ON1 servers, and display any apps you already have installed, as well as any newer apps that are available for your account. To install HDR, choose Available from the list on the left side of the window, and click on the Install button for the ON1 HDR AI 2023 item. The Application Manager will install HDR in the proper location, and add it to the Installed section. From there, you can open the app. The first time you launch HDR AI, you'll need to sign in again to your ON1 account; after that you're software will be authenticated.

Your license lets you install HDR on two computers. When you enter your ON1 account info, your software is registered for that computer.

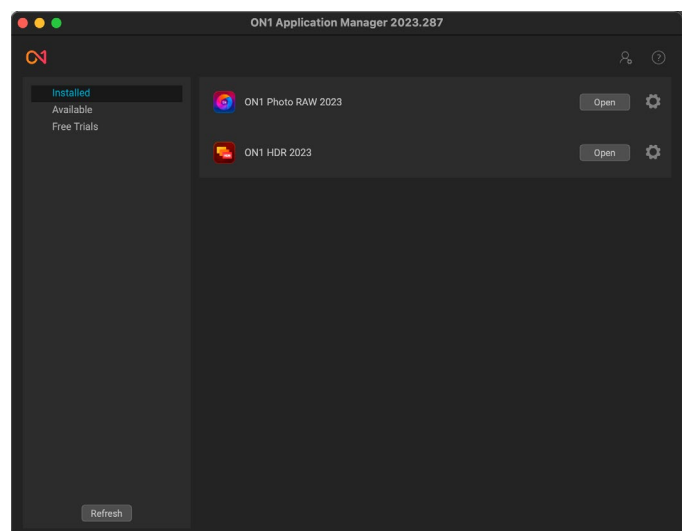
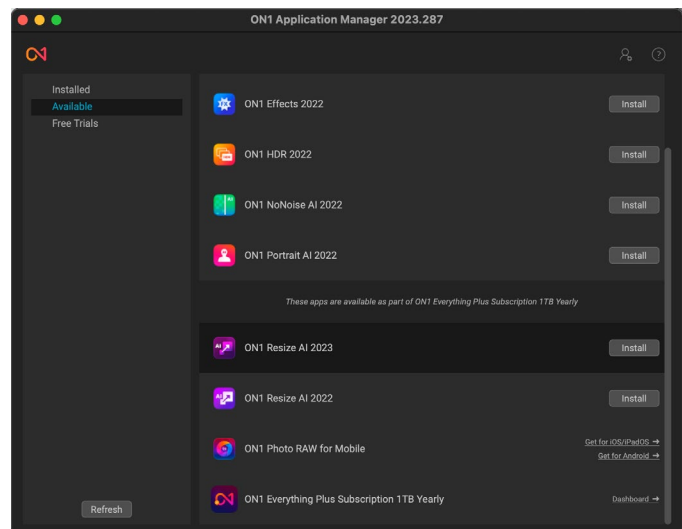
If you wish to move your copy of HDR from one registered computer to a new one, and you are not going to be using the older machine, it is best to sign out of the old computer first. Open HDR and select Sign Out from the Help menu. This will deactivate HDR 2023 on the current machine, and you can install and sign in on another machine from the Application Manager.

FREE TRIAL VERSION

ON1 HDR 2023 can also operate as a fully featured trial version for 15 days from when you first launch it. This gives you time to evaluate the product and see if it fits your needs. To install HDR as a trial, click on the Free Trials label in the Application Manager, and click on the Install button. The Application Manager will display the number for days left in your trial; to purchase HDR, click on the Buy button in the Free Trials section, or the Buy Now button in the top right corner of the HDR window.



The Application Manager is used to install and manage your ON1 apps and plugins. The first time you launch it, you'll need to sign in with your ON1 account details.



When using the ON1 Application Manager, the Available section (shown top) will list all licensed apps and plugins associated with your account. You can install any of those apps by clicking on the Install button, after which they will be listed in the Installed section of the Manager.

MAC INSTALLATION LOCATION

On a Mac, the application is installed in the ON1 HDR 2023 folder in the Applications folder.

If a previous version of ON1's HDR, Perfect Photo 10 or Perfect Photo Suite is found, it will be maintained or replaced based on your preference during installation.

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

WINDOWS INSTALLATION LOCATION

The application is installed in the ON1 HDR 2023 folder in the \Program Files\ON1\ directory. If a previous version of ON1's HDR, Perfect Photo 10 or Perfect Photo Suite is found, it will be maintained or replaced based on your preference during installation.

Support files are installed into \ProgramData\ON1\.

UPGRADING FROM PREVIOUS VERSIONS

If you have earlier versions of HDR on your computer, the installation process will move over any presets.

PRODUCT IMPROVEMENT PROGRAM

We believe that the best products are made by listening to our customers. We use many methods to gather your ideas and feedback including: emails, surveys, direct conversations, market analysis and the Product Improvement Program. The Product Improvement Program is built into our software and gathers information about how our software is used. It is the most accurate way for us learn what features are important to you and how our products fit into your workflow.

Enrollment in the program is voluntary. When you participate, we collect basic information about how you use our programs and basic information about your computer. This information helps us learn what features are important to you and how we can make our software easier to use. No personal information is collected and you will not be contacted.

You can choose to participate in the Product Improvement Program the first time you launch ON1 HDR AI 2023. You can change your participation later, just click the Help menu, then Help Improve ON1 Products.

To learn more about the Product Improvement Program, go to the Support area of the ON1.com website.

Launching ON1 HDR 2023

To launch HDR 2023 as a standalone app, follow these steps:

MACOS

1. Open your Finder and navigate to the Applications folder.
2. Navigate to the ON1 HDR 2023 folder, and double-click on the ON1 HDR 2023 icon.

You can add ON1 HDR 2023 to your dock for easy access by clicking and holding the icon in the dock and selecting the Keep In Dock option. If you use Launchpad it can be found there as well.

WINDOWS 10

1. Open the Start screen by pressing the Window key.
2. Select ON1 HDR 2023.
3. If you selected the “Add Icon to Desktop” option during installation you can also access ON1 HDR 2023 from there.

NOTE: For information about running ON1 HDR 2023 as a standalone app, see [“Creating HDR Images” on page 16](#). To learn how to access HDR as a plugin from Adobe Lightroom, see [page 6](#). For information about launching ON1 HDR as a plugin to Capture One, see [page 9](#).

Uninstalling ON1 HDR 2023

To uninstall ON1 HDR 2023, follow these instructions:

First, deactivate your product: open ON1 HDR 2023 and select Sign Out... from the Help menu. (This will allow you to transfer your license to another computer.)

On MacOS, go to the Applications/ON1 HDR 2023/Documentation folder. Double-click on the Remove ON1 HDR 2023 application.

On Windows, go to Control Panels. Under Programs select Uninstall a program, and select ON1 HDR 2023 from the list and click on the Uninstall button.

Working with Files

ON1 HDR 2023 can view and open the following file types, in RGB color, at either 8 or 16 bits per pixel:

- Raw files from most major camera manufacturers (file extension varies by manufacturer)
- Digital Negative (DNG)
- Photoshop (PSD)
- Photoshop Large Document (PSB)
- Tagged Image File Format (TIFF)
- Joint Photographic Experts Group (JPEG)
- Portable Network Graphic (PNG)
- High Efficiency Image Format (HEIC)
- ON1 Photo format (ONPHOTO)

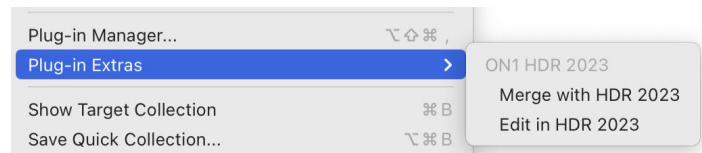
When you are finished editing a photo in ON1 HDR, the app will save your merged image as a master .onphoto file, which you can use to re-edit it at any time. You will also be prompted to save an edited version in PSD, PSB, TIFF, JPEG, or PNG format.

Using ON1 HDR with Adobe® Lightroom® Classic

ON1 HDR 2023 can also be accessed from within Lightroom Classic CC, providing an integrated, round-trip workflow for creating HDR images. Lightroom interoperability gives you the following features:

- Create finished HDR images from a series of bracketed shots (see [page 7](#)).
- Re-editability of those finished HDR photos when they're saved via ON1's proprietary Smart Photos format (see [page 8](#)), which saves all your edits made in HDR, for re-editing at a later time.
- Editing either single images or a group of images (see [page 7](#)).

You access ON1 HDR from Lightroom's File > Plug-In Extras menu item, where you will find two options. The first, Merge with HDR 2023, is designed to create an HDR image from a series of bracketed photos. The other, Edit with in HDR 2023, is for editing a single image inside ON1 HDR, or for batch-processing a set of single images using HDR's Develop, Effects and Local Adjustments tabs.

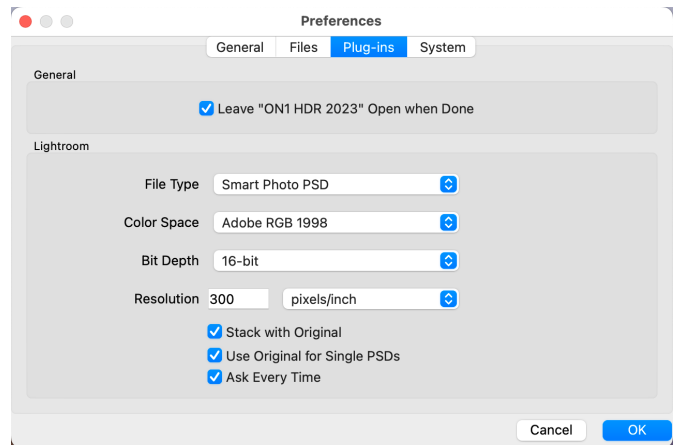


The Plugin Extras submenu is found in Lightroom Classic's File menu.

FILE CHARACTERISTICS WHEN USING ON1 HDR AS A PLUGIN

When you access ON1 HDR 2023 through the Plug-in Extras menu, the file handling is controlled via the Plug-Ins tab of the HDR Preferences window. These options can be configured in advance, based on your workflow, and, depending upon how you set it up, can be changed as desired when working inside Lightroom.

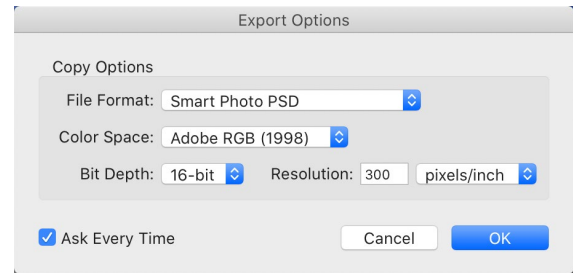
The file export options include the following settings:



- **File Type:** This determines what type of file will be created. The default is PSD, which does not support re-editability. You can also select Smart Photo PSD, JPG or TIFF, if you prefer those formats. One other option, Same as Source, will edit the original file; if that file is a Smart Photo PSD, it will open in that format.
- **Color Space:** The color space menu determines which RGB working color space is used; Adobe RGB 1998, sRGB or ProPhoto RGB.
- **Bit Depth:** Sets the exported file's bit depth to either 8 or 16 bits per pixel.
- **Resolution:** Determines the resolution of the newly created file.
- **Stack with Original:** When enabled, the new image is stacked with the original image upon return to Lightroom from HDR.
- **Use Original for Single PSDs:** When enabled, if you select a single image in PSD format, the original file will be edited, rather than having a copy made.

- **Ask Every Time:** When checked, Lightroom will present these export copy options whenever you chose an item from the Plug-In Extras submenu. Turning this option off will bypass the file-export window inside Lightroom, using the options set in Plug-In Preferences window.

If you have the Ask Every Time option checked, you'll be presented with the Export Options window (shown on the right) inside Lightroom whenever you send an image to Effects. The Export Options window lets you adjust the file format characteristics as needed, and is designed for users with variable workflow needs. If you find that you use the same options every time, then you can set those parameters in ON1 HDR's Preferences window by unchecking the Ask Every Time option.



PROCESSING BRACKETED PHOTOS IN ON1 HDR FROM LIGHTROOM

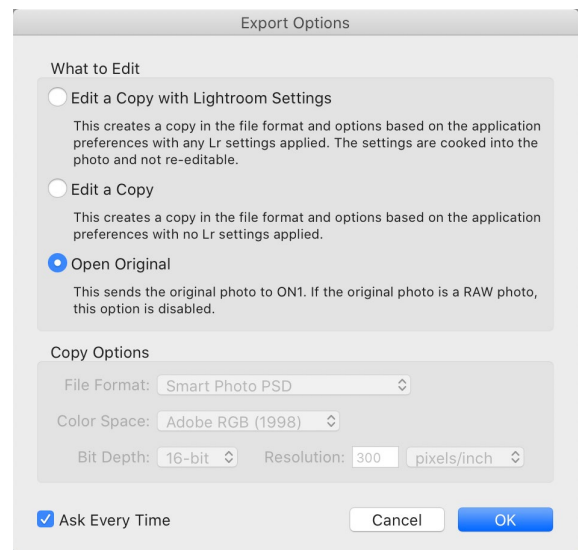
To send a set of bracketed files from Lightroom for HDR processing, select two or more photos in Lightroom's Library module, and choose Merge with HDR 2023 from the File > Plug-in Extras menu. Your bracketed set will be exported to ON1 HDR for processing. When you have completed your editing and click Done, your merged HDR file will be saved in the format chosen in the Export Options dialog box.

NOTE: For details on using the Merge to HDR function, see [“Creating HDR Images” on page 16](#).

EDITING SINGLE IMAGES FROM LIGHTROOM

If you use the Edit in HDR 2023 from the File > Plug-in Extras menu, you can either export or edit a single image for processing in ON1 HDR, or batch process a group of images for editing in ON1 HDR. To edit a single photo, select it in Lightroom and choose Edit in from the Plug-In Extras submenu. The Export Options will now include three choices for sending the photo to ON1 HDR:

- **Edit a Copy with Lightroom Adjustments**, which makes a copy of the file that includes any edits you have made in the photo;
- **Edit a Copy**, which copies the original photo without any changes made in Lightroom; or
- **Edit Original**, which sends the original version of the photo to HDR (this item is not available when the file is in the raw format).



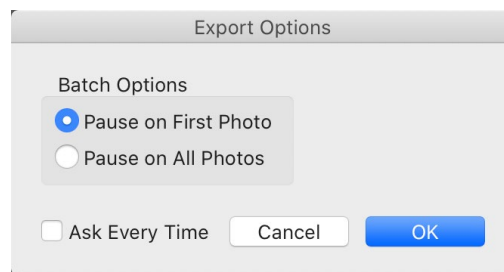
Using Plug-In Extras > Edit in HDR 2023 will give you additional options for editing individual (or batched) images.

When you have finished with your edits, click Done. HDR will then apply all of the edits, save the file in the format you've chosen, and return you to Lightroom.

Batch-editing Multiple Images from Lightroom

You can also edit multiple (separate) images in ON1 HDR via Lightroom. Select the images you wish to work with in Lightroom's Library module and choose Edit in HDR 2023 from the Plug-In Extras submenu. The Export Options window will open with two batch options:

- **Pause on First Photo:** Use this option when you wish to apply *the exact same editing operations* to a group of photos. This option will open the first selected image inside HDR. There, perform any editing option you wish, including adding presets, retouching operations, cropping, masks, local adjustments and more. When you have finished with your edits, click Done. HDR will then apply all of the edits to each image in the group, and return you to Lightroom.
- **Pause on All Photos:** This option lets you sequentially edit the images in the batch. HDR will open each image in the destination tab, where you can edit it as desired. When you are finished editing with one photo, click Done, and HDR will save that photo and open the next one, with the previous photo's HDR settings applied. (You can reset any or all of those settings as desired.) When you have finished editing the last photo in the group, clicking Done will save the image, close HDR and return you to Lightroom.



The Batch Options window comes up when you wish to send a group of photos from Lightroom to ON1 HDR for editing. (If you have the Ask Every Time option set in HDR's Preferences, This will be displayed as a section in the Export Options window, and you will be able to set the file copy options for the photos in the batch.)

WORKING WITH SMART PHOTOS

ON1's Smart Photo technology is a variation of the Photoshop file format that has been engineered to preserve all editing and retouching operations made within HDR: filter operations, masks, local adjustments, retouching, and so forth.

When you choose Smart Photo PSD as an export option in the Plug-In Extras submenu from within Lightroom, ON1 HDR creates a standard Photoshop file with "Smart Photo" at the end of the original file's name. As you work in HDR, all of your editing operations are saved in a 'sidecar' file that sits alongside the PSD on disk inside the same folder as your original image. When you are done editing and return to Lightroom, your edited photo will look as it did in HDR, but is completely re-editable.

To re-edit a Smart Photo from within Lightroom, select the image, and choose Edit in HDR 2023 from the File > Plug-In Extras File menu. Depending your ON1 HDR's Plug-ins Preferences settings, the Smart Photo will open automatically, or you will need to select Edit Original from the Lightroom Export Options window.

There are a few things to know about with regards to Smart Photos and re-editability:

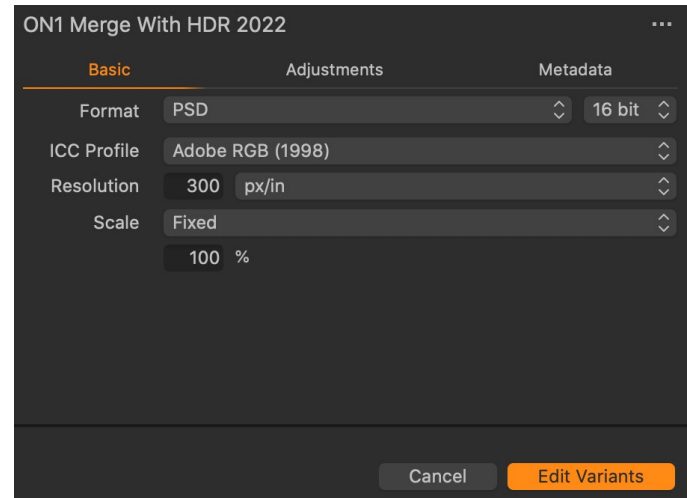
- Smart Photos have been specifically designed to work as a conduit between Lightroom and ON1 HDR to preserve re-editability. If you use HDR as a standalone app, you can open and view a Smart Photo from within HDR, and can re-edit the photo; as long as your sidecar file is present, all of your edits will be present. However, when you complete your edits, HDR will create a new file in any of the available file formats (PSD, PSB, TIFF, JPEG, and PNG), but the file will be flattened, and your edits will not be preserved. (Your original photo will remain re-editable via Lightroom, however)
- If you open a Smart Photo in Adobe Photoshop, the layers will be merged into a single, composite layer. If you make any edits to the photo and save it, re-editability in HDR will no longer be available.

Using ON1 HDR with Capture One

When you send a group of photos to be merged as an HDR from Capture One to ON1 HDR, Capture One creates what it calls a ‘variant’ of each of the photos in the group. Primarily, the variants have a new file type, but can also preserve cropping information for each of the brackets.

To merge HDR brackets inside Capture One, follow these steps:

1. In Capture One, open and select the photos you want to merge to HDR.
2. From the Image menu, select Image > Edit With > ON1 Merge with HDR 2023.
3. Choose the file characteristics you wish to use in HDR—File Type, Bit Depth, ICC Profile, and Resolution—and click the Edit Variants button to launch ON1 HDR.
4. When you’re finished editing your photo, click the Done button in HDR. Your merged photo will be saved according to the file format settings found in the Files window of HDR’s Preferences window (see [page 128](#)).



After you’ve returned to Capture One, your new variant will be visible in the current collection.

EDITING SINGLE IMAGES FROM CAPTURE ONE

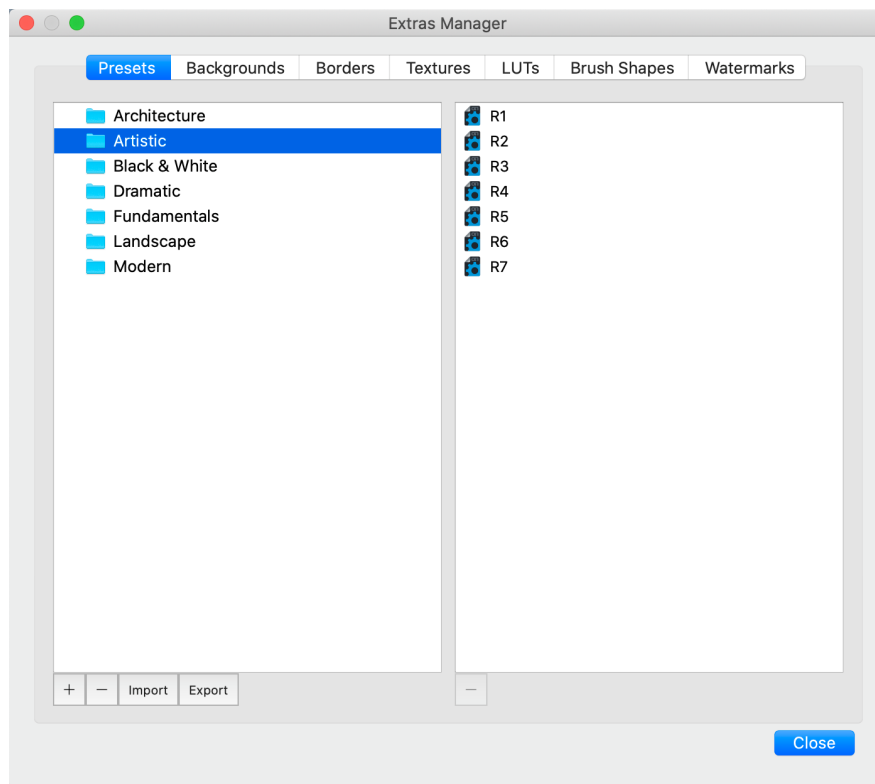
To send a single image from Capture One to ON1 HDR, select the image, and then choose Edit With > Other, and select ON1 HDR 2023 from its location on your hard drive (see [“Installation” on page 3](#) for the exact locations for your operating system).

If you’d like to add ON1 HDR to the application list in the Edit With menu, go to Capture One’s Plugins Preferences tab, and click the check box next to ON1 HDR 2023 in the list.

Extras

ON1 HDR 2023 supports a number of additional file types that can be used in various locations within the app. These files are called Extras, and the file types include:

- **Presets** for use within the Develop, Effects and Local Adjustments.
- **Backgrounds** that can be imported and used in HDR's Layers feature.
- **Borders** than can be imported and used in Layers.
- **Textures** that can be imported and used in Layers.
- **Look-up tables (LUTs)** for use with Effects' LUTs filter.
- **Custom brush shapes** for use in Local Adjustments layers.
- **Watermarks**, image files (transparent PNGs) that can be used with the Watermark pane of HDR's Export function.



The Extras Manager lets you import presets, textures, backgrounds, borders, look-up tables (LUTs), custom brushes and watermarks for use with the different modules in ON1 HDR 2023.

ON1 includes a number of extras in the product when you install HDR, and you can create your own, or add extras downloaded from the ON1 website. You can use the Extras Manager to import and manage your own extras, creating categories for each type, and deleting extras that you no longer want.

HOW TO IMPORT EXTRAS

To import extras, choose Manage Extras from the File menu, then follow these steps:

1. Select the type of extras you wish to import from the list of tabs at the top (Presets,

Backgrounds, Borders, Textures, LUTs, Brush Shapes, Watermarks) You can only import extras of one type at a time.

2. Click on the Import button in the footer of the left column. A dialog will appear where you can select the files to import. If you want to import an entire folder, open the folder, select the first file, then shift-click on the last file. Click Import when your selection is complete.
3. Select a category for your extras to live in. This is where you will be able to find it inside of the ON1 HDR 2023. You can select from an existing category or create a new one.

When your extras have been imported you will see them in the Extras Manager in the category you selected, in the type of extra they belong to.

Organizing Presets

The Presets tab of the Extras Manager gives you additional options for working with large groups of presets inside Develop and Effects. When you are using the Presets tab, you'll see '+' and '-' buttons, which let you add or delete categories to the list of your presets.

You can also add subfolders to any of the Presets categories, which can help organize and manage large collections of presets. You can use drag-and-drop to move existing categories into another, or you can add a category subfolder to an existing category by clicking on the category and then clicking on the '+' button in the Extras Manager window. (When you are importing presets, HDR gives you the opportunity to add presets to any category folder or subfolder.)

In addition to the Import option, the Presets section of the Extras Manager will also let you export presets, for sharing with other users, or to save seldom used presets for archiving purposes. To export a complete category, click on the category in the list on the left side of the window and click on the Export button. This will export a folder that contains a single .ONpreset file, which includes all of the presets from that category. To export a single preset, click on the preset from the list and click on the Export button.

What Type of Images Can I Import as Extras?

Backgrounds and textures may be any image file that HDR can open, including JPEG, TIFF, raw or Photoshop files. Border files must have a large central area that is transparent, so only files that support transparency, such as PNG, can be imported as borders. LUTs can be in either .3DL or .CUBE format. Brush shapes can either be in the Adobe Brush Preset (.abr) file format, or saved as black-and-white TIF files. Watermark files are usually PNG files with transparency, although JPGs can also be used if desired.

NOTE: If you download an .ONPreset or .ONP file, you can simply double-click on it to install it. For more information, see the Presets section of this guide, starting on [page 58](#).

USING IMPORTED LUTS IN EFFECTS

You access LUTs from within the LUTs filter in Effects. To use them follow these steps:

1. Open an image in ON1 HDR.
2. In the Filter Options pane, select the LUTs filter type.

3. From the Category pop-up, select a category you have imported. User-added extras categories will appear at the bottom of the category list.
4. From the LUT pop-up in the filter, select an item from the desired category.

NOTE: More information on the LUT filters can be found on [page 89](#).

USING EXTRAS WITH LAYERS IN THE EDIT MODULE

You can view and add extras to any open document in the Edit module by adding a new layer. Just click Layer > Add Layer from the File menu to open up a file browser window on-screen, where you can choose installed extras or any file from your computer. For more on this, see [page 98](#).

USING CUSTOM BRUSH SHAPES IN LOCAL ADJUSTMENTS

Custom brushes are used in Local Adjustments layers to add overlays to a photo. Examples include adding clouds, stars and watermarks. For complete instructions on using custom brushes, see [page 96](#).

USING WATERMARKS WITH EXPORT

Watermarks are often used as overlays over exported photos, usually with a unique logo that identifies the photographer and protects it from unauthorized use. ON1 HDR lets you import watermark files and use them in the Export and Print windows. For more on using watermarks, see [page 110](#) (Export) and [page 119](#) (Print).

HOW TO DELETE EXTRAS

You can remove imported extras using the Extras Manager. Follow these steps:

1. Open the Extras Manager in any module (File > Manage Extras).
2. Click on the extras type that contains the content you wish to remove. This will display categories within that type.
3. To delete an entire category, select in the left column and click on the Delete button in the footer of the left column.
4. To delete individual extras, select them in the right column and click on the Delete ('-' in the Presets tab) button in the footer of the right column.

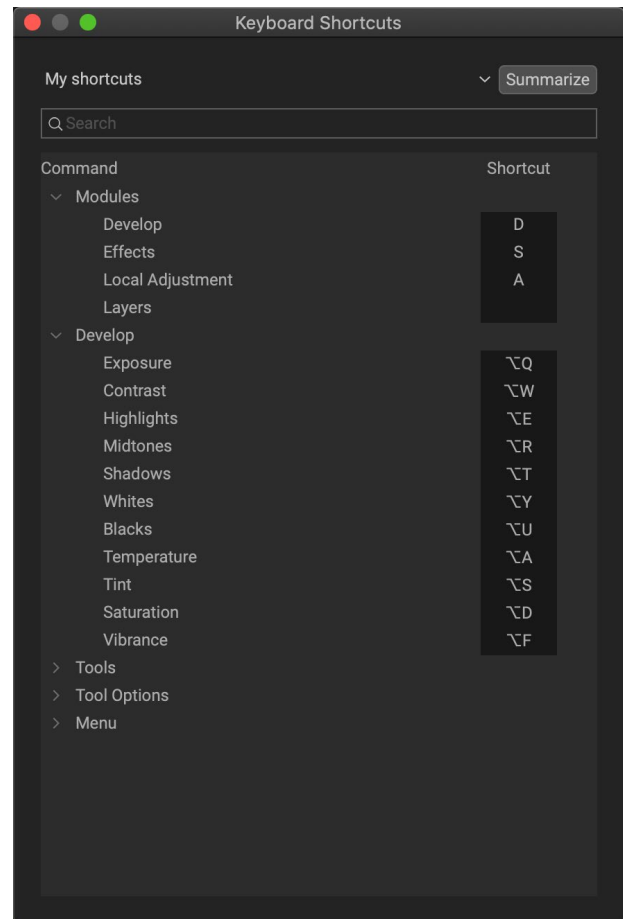
Deleting extras is permanent and cannot be undone.

Customizing ON1 HDR's Keyboard Shortcuts

You can customize ON1 HDR 2023's hotkeys via the Keyboard Shortcuts window. This window lets you view and change the shortcuts for any tool, tool option, module, or menu item inside HDR. You can assign shortcuts to 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 the app's hotkeys, choose Keyboard Shortcuts from the Edit menu. By default, HDR's shortcuts will be displayed, organized hierarchically by the following groups:

- **Modules**, commands for switching between Develop, Effects and Local Adjustments.
- **Develop**, for applying tone and color adjustments directly from the keyboard while you are working in HDR's Edit module. (See [“Adjusting Tone & Color settings via hotkeys”](#) on page 71 for details.)
- **Tools**, for the 16 tools available in HDR.
- **Tool Options**, for the brush and mask viewing options available in any masking tool's Options Bar.
- **Menu**, which includes all of ON1 HDR's menu items.



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.

Each command that has 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.

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

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, and HDR will make a duplicate of the Default set.

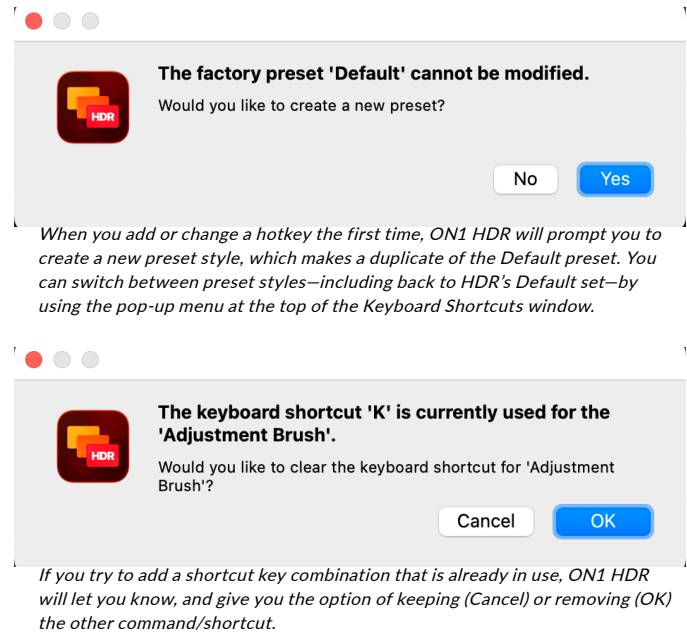
At this point, you can change any existing hotkeys—or add your own shortcuts for commands that don't have them—by double-clicking in the Shortcut field for that command. The field will be highlighted, and you can press the key or key combination you wish to use. If that key is used by another command,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

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 HDR 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.



Using ON1 HDR with a Scroll Wheel

When you are using ON1 HDR 2023 with a mouse that has a scroll wheel, there are number of different options available throughout the app, on both Mac and Windows.

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

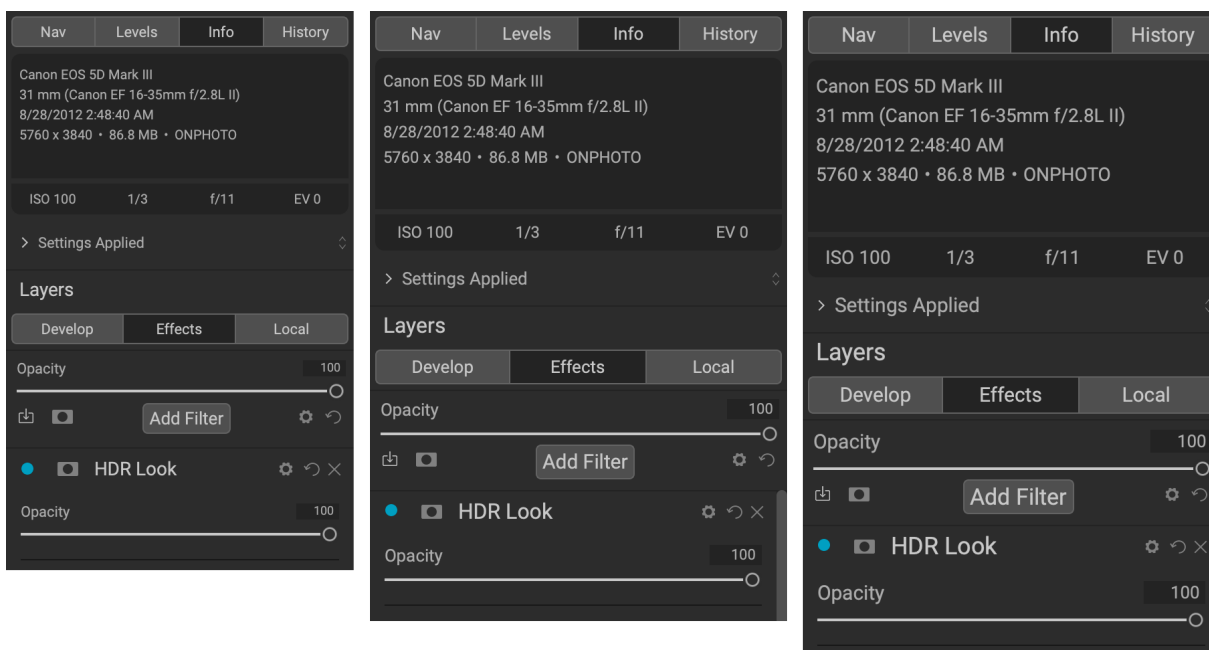
- Using the scroll wheel will pan up and down in the current window. In Browse's Thumbnail view, it will scroll the window. In most other views, using the scroll wheel with the cursor over the preview area will pan the image on screen up and down. Holding the Shift key down and scrolling will pan left 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).

NOTE: If you want the scroll wheel only to change brush size, turn on the “Only Adjust Brush Size with Scroll Wheel” option in HDR’s Preferences window. See [page 127](#) for more information.

Changing HDR’s font size

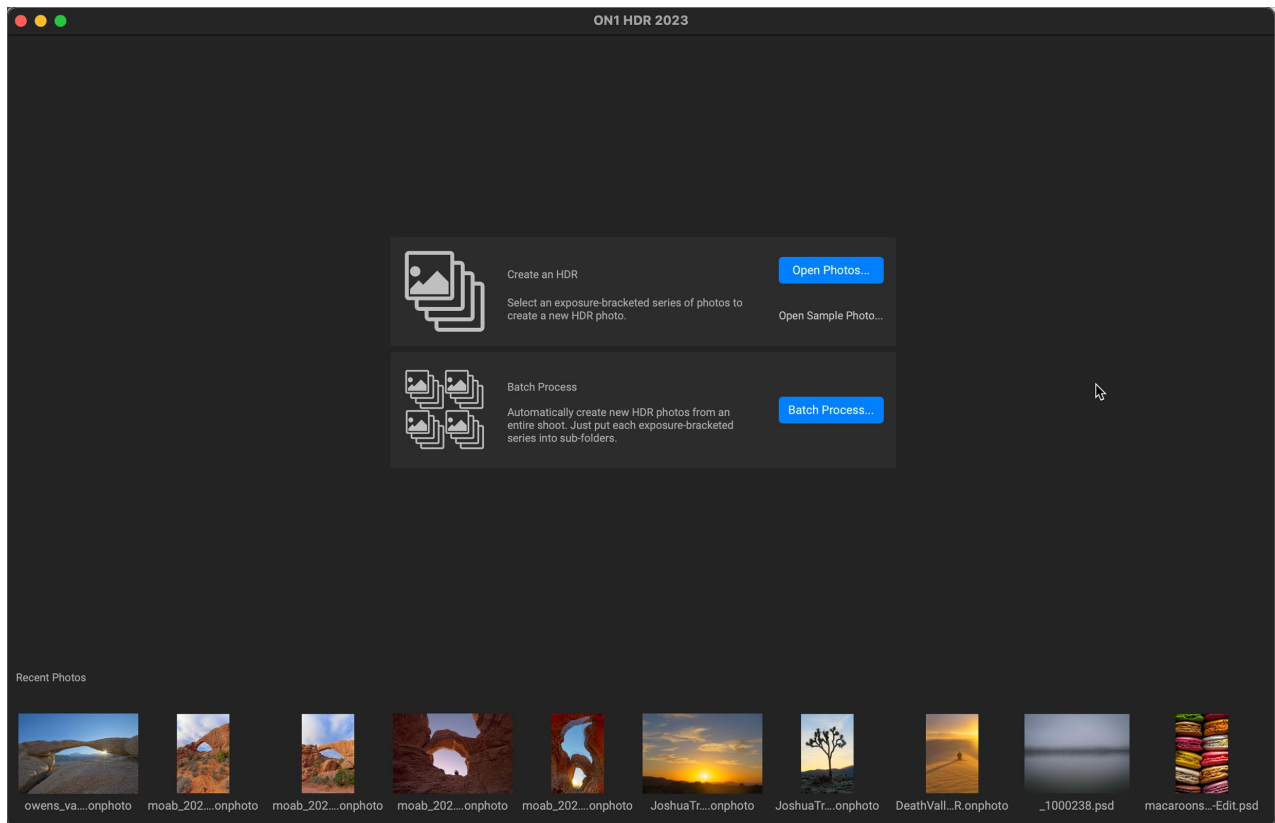
By default, ON1 HDR prioritizes the main workspace to focus on photos, using a small font size to display panel names, labels, file names any other basic text. You can adjust the default font size to one of three settings, Small, Medium or Large, by choosing the General tab of HDR’s Preferences window.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



ON1 HDR has three options for displaying type in the main workspace, Small (left), Medium (middle), and Large (right). To change the size, go to the General tab of the Preferences window, and pick the new option from the Font Size window. The change will take effect the next time you launch the app.

PART 2: CREATING HDR IMAGES

When you first launch ON1 HDR 2023, the main window will have two buttons in the center of the screen: Open Photos, which lets you open a set of bracketed photos for processing, and Batch Process, which you can use to perform an HDR operation on a folder full of bracketed image sets.



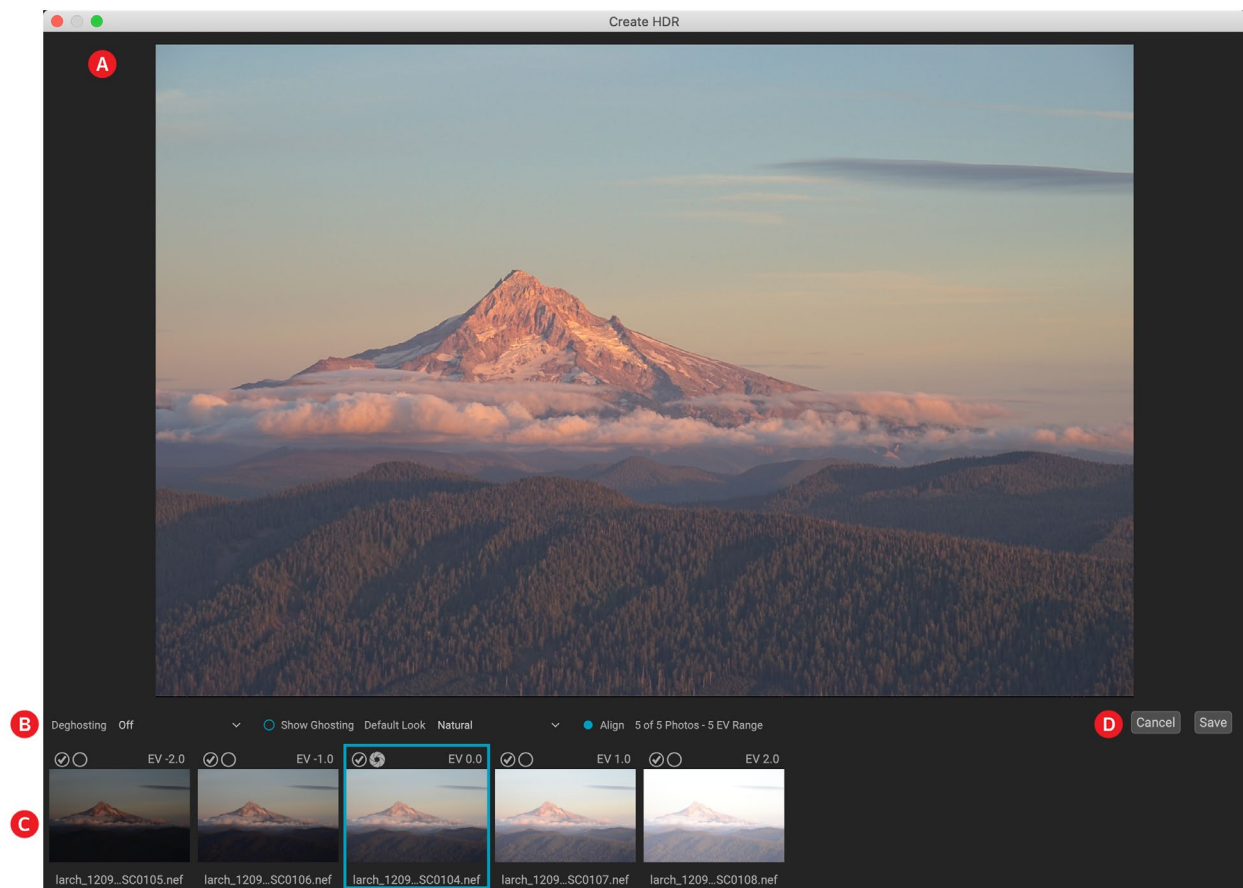
NOTE: Once you have created HDR photos with ON1 HDR, the bottom of the main startup screen will display a filmstrip of your most recently generated images; double-clicking one of those files will open it in the Edit module.

Creating a Single HDR photo

If you wish to create a single HDR photo from a bracketed series of files, click on the Open Photos button. Locate the set of images and select all of the items you wish to merge. To select a group of contiguous photos (ones next to each other in order), click on the first one you wish to select, then hold down the Shift key and click on the last photo. If you want to add noncontiguous photos (ones not next to each other), click on the first photo, then use the Command (Mac) or Control (Windows) key and click on each photo you wish to compare. When you have your selected photos, choose Open. (You can also open a set of HDR brackets by dragging them into the main ON1 HDR startup window.)

Once you've selected your bracketed set, the Create HDR window will open, giving you a simple set of controls for building your final HDR images.

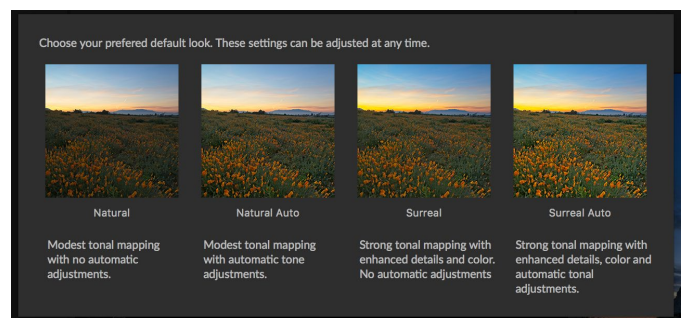
The Create HDR window has the following options:



- A. The **Preview** window displays a rendition of your merged HDR image (and is resizable).
- B. The **Options bar** has settings for adjusting ghosting, choosing a default look, and which module you wish the resultant image to open in.
- C. The **Reference panel** includes the images used to build the HDR, with their exposure values relative to the base image. The image with the outline is the base version used for deghosting; the base image for exposure is represented by the lens aperture icon next to the checkmark.
- D. **Save/Cancel buttons.**

Once the Create HDR window is open, you can use the various options to tune your image. You can adjust the base image: clicking on the different frames in the Reference panel will choose a different base image for deghosting; to select a different base exposure image, click on the small lens aperture icon in a different image of the series. (By default, HDR chooses the image it felt was closest to the middle of the series for both exposure and deghosting.)

The Default Look options are also designed to help get you started, corresponding to style options in the Tone and HDR Look panes in the Edit module. Natural and Surreal use those styles from the HDR Look pane, and the Natural Auto and Surreal Auto options also add the Auto



The four options in the Options Bar's Default Look popup correspond to settings found in the Tone and HDR Look panes in the Edit module. Once you've built your HDR file, you can go into the Edit module and edit any of the settings, add other filters and more.

Tone option from the Tone & Color pane. They are only designed to be a starting point: You can override any of the options by adjusting the settings in the two editing panes.

The deghosting section of the Options bar has options to blend portions of the frame that might have shifted during the image series (things such as clouds, flowing water or moving branches). Depending upon the amount of ghosting, you can choose from four levels of deghosting (or none). If you wish to see those areas in your image that will need deghosting applied to them, click the Show Ghosting button. Those areas that have ghosting issues will be shown with a red overlay. Depending upon how much movement there was in your scene, you can then choose the appropriate level of deghosting, or, in some instances, cancel and choose a different set of images to blend into an HDR.



With the Show Ghosting option turned on, areas that have ghosting issues will be shown with a red overlay.

The Align button in the Options bar is on by default, which means that, during the HDR generation process, HDR will attempt to automatically align the images, based on their contents. Turn the Align button off when the alignment process results in a bad composite, or when you don't want HDR to align the images (when working with star photography, for example). With the Align feature off, HDR will use the selected base image for the HDR process.

Once you have your settings adjusted to the way you'd like them, you can click Save and ON1 HDR will build your HDR, saving it in the .onphoto file format (in the same folder as the original bracketed files) and opening it in the Edit module.

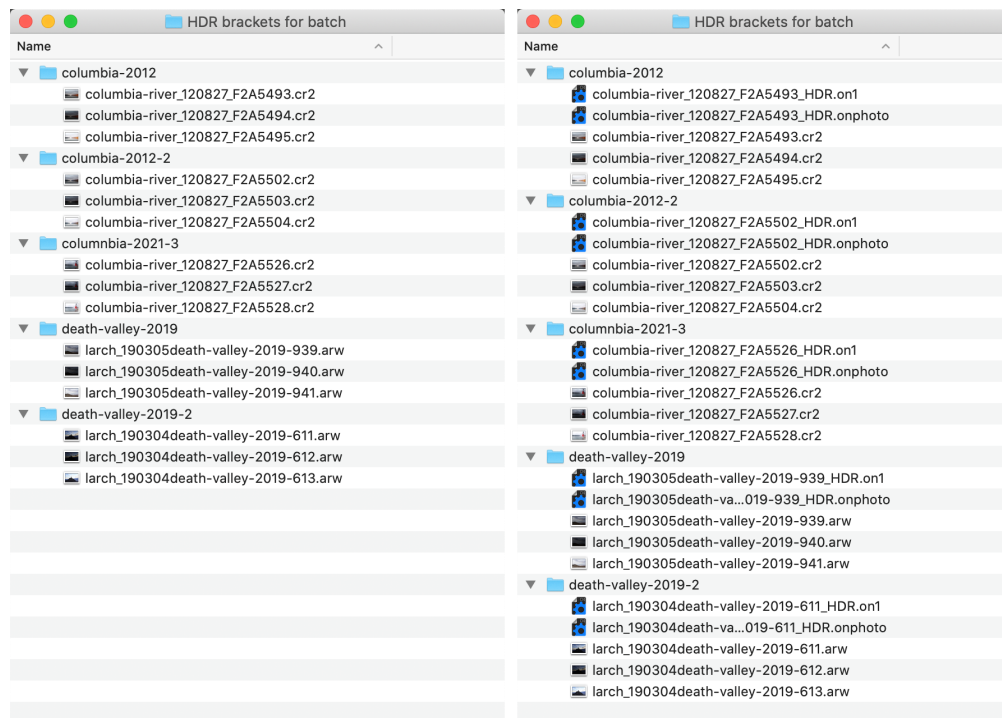
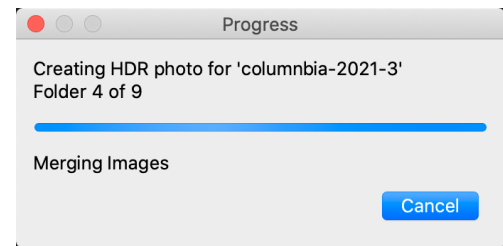
NOTE: The .onphoto format is proprietary to ON1, and saves your edits as you work, which means you can re-edit your HDR at a later time, and export a new file with your changes. If you decide that you wish to use a different HDR Look style, or want to add additional effects to your photo, open the .onphoto file in HDR and your previous edits will be present.

Using the Batch Processor to Build Multiple HDRs

The Batch Process option in ON1 HDR 2023 lets you take a folder containing multiple sets of bracketed shots from a shoot, and automatically turn them into HDR photos ready for editing. The process creates separate .onphoto files that can be opened directly in ON1 HDR via the Open Photos option.

To set up your shoot for batch processing, create a master folder, with subfolders that contain each individual bracket set inside them. Then, click the Batch Process button and select your master folder and choose Open. ON1 HDR will go through the subfolders, building each bracketed set using the default settings for the Create HDR window, and saving the merged HDR image as an .onphoto file in each subfolder.

After the batch operation is complete, you can open any of the merged HDRs via the Open Photos button in ON1 HDR, or by double-clicking the .onphoto file in Windows Explorer or the MacOS Finder. The photo will open in the Edit module, ready for further editing.



To set up your brackets for batch processing in ON1 HDR, create a master folder, then add subfolders to it, creating each subfolder as an individual set of bracketed photos, as shown in the MacOS screenshot on the left side, above. When you run the Batch Process option, the app will go through each folder, and create an .onphoto file (and a .on1 sidecar file) with the default Create HDR settings (see the screenshot above right). Double-clicking on the .onphoto file will open it in the Edit module, where you can further to refine or stylize your photo.

Opening other photo types from within ON1 HDR

In addition to letting you create and edit blended HDR photos, ON1 HDR will also open single photos in any of the supported file types mentioned in the list on [page 5](#). Use the Open Files button to open them, or drag them into the ON1 HDR startup window. Doing this will open the photo in the Edit module, where you have the full power of HDR 2023, including layers. This can be helpful when you want to use the layers functionality to perform more complex composites from multiple photos (“Combining Photos with Layers” on [page 98](#)).

If you open an .onphoto file via the Open Files button, ON1 HDR will open that photo with your previous settings intact, using information from the stored .on1 sidecar file.

PART 3: EDIT MODULE BASICS

ON1 HDR 2023's photo-editing power is found in the Edit module, which consists of three distinct editing functions, separated into tabs:

- **Develop** is where you perform basic, global editing operations—adjusting tone and color, removing noise, sharpening and more. (see [page 68](#))
- **Effects** is the stylization center of HDR, with nine filters that can be stacked in any order, all with extensive blending and masking options. (see [page 78](#))
- **Local Adjustments** are designed to apply targeted edits to parts of your photos, letting you perform traditional photo-editing tasks—like dodging and burning—with ease. (see [page 92](#))

HDR 2023's Edit module also includes a Layers pane, which lets you stack multiple images together to achieve sophisticated composites that aren't available in many standalone photo editors (see [page 98](#)).

To help you save time and create the looks that you love best, ON1 HDR 2023 also includes a robust preset system that lets you save your Edit module settings for applying to other photos. (Presets are discussed in detail starting on [page 58](#).)

Workflow in the Edit Module

Once you've built your HDR image via the Create HDR screen, you'll move into the Edit module for finish editing and stylization. There, you can work in whatever way suits your creativity. Switching between the different tabs in the Edit module is as simple as clicking on the appropriate tab, and, while you work on an image, all of your settings in each tab are saved as you edit.

When you are finished editing your photo, click the Done button at the bottom of the screen. ON1 HDR will save your edits to the master .onphoto file and also will ask you to export a copy of your finished photo at full size, in your choice of formats: PSD, JPEG, TIF, or PNG. You will then be returned to the ON1 HDR startup screen, where you can build another merged HDR image, edit another photo, or quit the app.

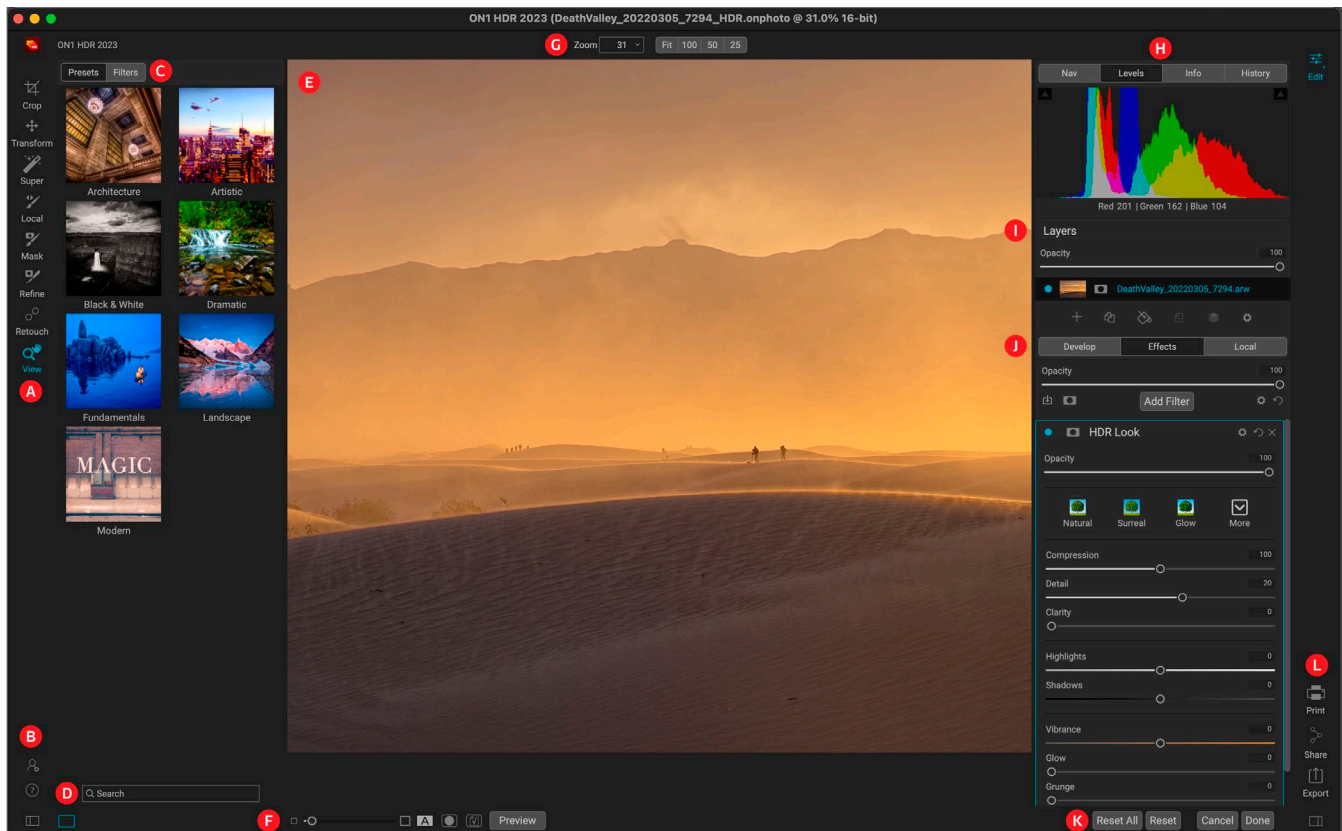
NOTE: When using HDR as a plugin from Lightroom, clicking Done saves the file in the format chosen in the Plug-ins Preference setting (see [page 128](#)) and returns to Lightroom. When using HDR from within Capture One, clicking Done uses the file format chosen in the File Preferences setting (see [page 128](#)).

To re-edit your HDR, open the .onphoto file, either by choosing it from the Open Photos button in the ON1 HDR startup screen, or by double-clicking it in Windows Explorer or the MacOS Finder.

If you would like to export your finished photo with a more customized settings (including watermarks and other options), use ON1 HDR's Export function (see [“Export” on page 105](#)) before pressing the Done button. You can also print your photos directly from within ON1 HDR 2023; see [“Printing” on page 116](#) for more.

ON1 HDR Edit Module Overview

Edit provides you with an easy-to-use workspace for editing your photos. Below is an overview of the main window sections of the Edit module:



- A. **Tool Well:** Tools for working within the Edit module.
- B. **Preferences/Help:** Shortcuts to app preferences and help; bottom icon opens and closes the Presets/Filters panel.
- C. **Preset panel:** List of all installed presets (by category). When working in the Effects tab, a Filters panel is visible as well.
- D. **Search:** Searches presets (and filters, when working in Effects) by name.
- E. **Preview Window:** Displays the current photo in detail view.
- F. **Preview option toggles:** Magnification slider for current image, compare (before/after) mode, show/hide mask, turn soft proofing and preview on or off.
- G. **Tool Options bar:** Options and settings for currently selected tool.
- H. **Photo Information pane:** Navigator, levels (histogram) and general photo information.
- I. **Layers pane:** Add, edit and manage layers here.
- J. **Edit tabs:** Tabs for accessing Develop, Effects and Local Adjustments. Clicking on a tab brings up the settings for that tab.
- K. **Reset bar:** Reset all (resets all Edit module settings), Reset (resets the current tab's settings), Cancel (cancels all settings and returns to opening screen), Done (closes photo, opens a dialog box to let you specify the file name and type of the finished photo).

- L. **Output:** Shortcuts for printing, exporting and sharing the current photo. (Bottom icon opens and closes the right panel.)

The left side of the window contains a Tool Well and a Presets pane (when using the Effects tab, you will also see a Filters tab alongside Presets).

The right side of the screen contains some photo informational panes at the top—Navigator, Levels/Histogram, Info and a History pane—the Layers panel, and tabs for the three editing areas inside Edit: Develop, Effects, and Local. Clicking on a tab will bring up the options and settings for that area.

ON1 HDR provides several ways to navigate and view your image in the Preview window:

- By default, your image is presented in Fit view, which displays the image within the preview area, and the Zoom tool is selected. Clicking on the image with the Zoom tool will zoom in to 100%, and the cursor will change to the Hand tool. You can move around your image by clicking and dragging in the preview area. Clicking once will take you back to Fit view.
- You can also zoom in and out via the View menu and the Navigator pane. The Navigator pane displays a bounding box around the area currently on-screen, and you can reposition what is displayed in the preview area by clicking and dragging the box around the pane. Clicking on one of the buttons at the bottom of the Navigator pane will automatically zoom to Fit, 100%, 50% or 25% views. (The buttons are visible in the Zoom tool's Options bar.)
- When the preview zoom is larger than the viewable area, holding down the spacebar will display the Hand tool if any editing tool is selected. Clicking and dragging while holding the spacebar will reposition your image at the current view level.

ALTERNATIVE VIEW MODES

You have three options for viewing the photo in the current window:

- The default is a resizable, movable window.
- **Full Screen Mode**, which can be found in the Window menu, will expand the main window to fit the contents of the current display. The menu bar is hidden, but it can be viewed by moving the mouse cursor to the top of the screen. This mode can be toggled on and off by pressing Option-Control-F (Windows) or Command-Control-F (MacOS).
- **Full Screen Preview**, also found in the Window menu, will display the currently selected photo full-screen, without any of the other interface elements. This option is helpful when you wish to view a selection of photos as large as possible without any distractions.

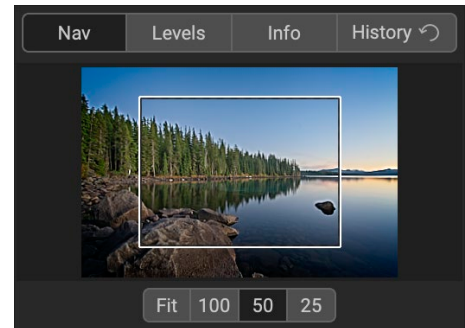
Navigator, Levels, Info and History Panes

At the top of the control panel on the right of the main window are the Navigator, Histogram, Info and History panes. These tools can be useful for inspecting and viewing details of your image, as well as for looking at all of the Edit module adjustments made during a session.

THE NAVIGATOR PANE

This gives you a thumbnail view of your image. The white square region marks the image area that is visible in the preview pane. You can pan your image by clicking and dragging inside the square.

At the bottom of the Navigator pane are several zoom buttons representing percentage zoom views (100%, 50% and 25%). Click on one of the buttons to change the view. Fit zooms to fit the current canvas size, while 100 zooms to 100%, displaying the actual pixels.

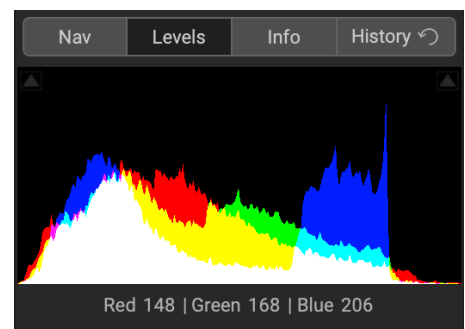


NOTE: You can also use your mouse's scroll wheel to pan and zoom inside your photos. See [“Using ON1 HDR with a Scroll Wheel”](#) on page 14 for specifics.

THE LEVELS PANE

This gives you a color chart of the shadow, midtone and highlight areas based on the image RGB values (commonly known as a histogram). This is useful to show areas within the image that may be clipping. Clipping is when your image contains pure blacks or white and can signify loss of highlight or shadow detail.

The left side of the histogram represents the shadows, while the right represents the highlights. At the top of each end is a triangle. If the triangle is lit, there is clipping on that side of the histogram. If you click on the arrows, you will activate the clipping overlay on your image, which displays the areas that are clipped. Those areas with a blue overlay are pure black, while the areas with the red overlay are pure white. You can turn the clipping view off again by clicking on one of the triangles. You can also temporarily enable clipping view by holding down the J key at any time. The clipping view is useful when you are making adjusts to the brightness and contrast of your image. (See [page 66](#) for more information about using the clipping view.)



The Histogram pane also displays the RGB values under the cursor at the bottom of the pane.

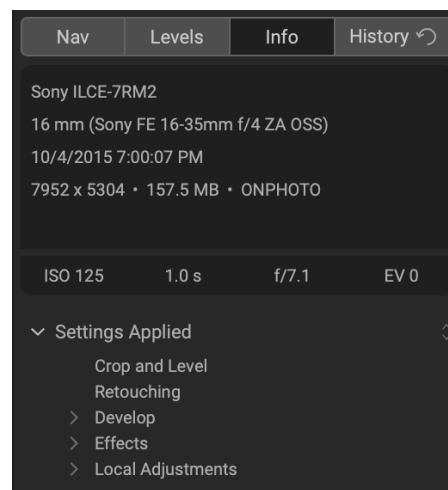
THE INFO PANE

The Info pane displays metadata for the current image in an easy-to-read format. This includes camera make and model; lens focal length; capture date and time; file type; ISO setting; and more. The pane also displays file-specific data, including name, and image dimensions.

Settings Applied

At the bottom of the Info pane is a section that shows all of the operations from the Edit module that have been applied to the current image. Clicking on the right arrow to the left of the label will display a list of every tab in the Edit module, as well as primary adjustment options, including cropping, retouching and text operations. If an image has had any adjustments made to it, that section of the Settings Applied area will be represented in white type, and you can use the arrows to the left of the label to drill down further into the Develop, Effects and Local Adjustment tabs to see which adjustments were made to an image. (On an image that has had no adjustments, all of the settings will be grayed out.)

Double-clicking on any of the available items inside the Settings Applied area will take you to that specific setting inside the Edit module, where you can make any desired changes.

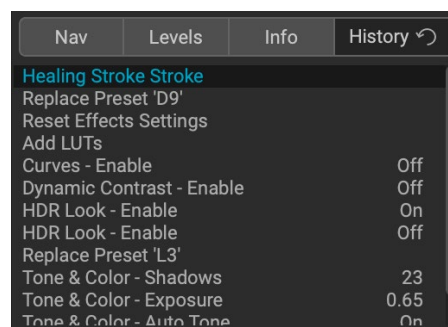


THE HISTORY PANE

ON1 HDR 2023 has a robust Undo capability, which is helpful when you wish to back up a few steps during the editing process. When you want to go back further, it can be tedious to keep pressing Command/Control-Z. That's where the history pane can be extremely useful. It displays every adjustment made during an editing session. From the History pane, you can scroll through your edits, all the way back to the state of your photo when you opened it for editing. The History is not saved once you finish editing.

As you work, the History pane tracks all of your edits—even when working with layered files—adding each change you make to the top of the pane. History displays not only the adjustment, but in many cases will display the settings of sliders in the various panes and filters.

You can scroll through the list, and, if you click on an item, HDR will “roll back” your edits to the spot you clicked. You can click up and down in the list, and, as long as you don't make any changes, the entire Edit history is preserved. If you roll back to an edit and make a change, the History pane “resets” from that point on, losing any of the edits you made after the point you rolled back.

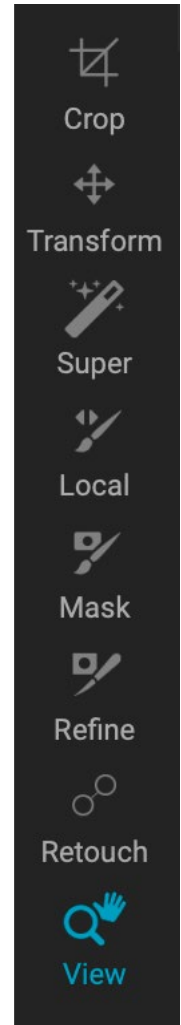


TIP: If you click on an item in the History pane, and you wish to step up or down in the adjustment history from that point, you can use the Undo/Redo commands to quickly go through the list. If you are happy with your edits, click back on the top item in the History pane to preserve the state of the photo.

The Tool Well

The Edit module has 18 tools available for you when you are working on a photo, and are accessible via the Tool well on the left side of the screen. Some tools— Super Select AI, Transform (Move), Crop, and View—are self-contained within the tool icons. Others are nested within a tool group—Local, Mask, Refine, and Fix—and are accessible via the Tool Options bar at the top of the screen when you click on one of those tool icons:

- **Crop Tool:** Trims an image to your desired size or ratio. *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*
- **Adjustment Brush (Local group):** Paints in or out local adjustments. *Shortcut key: Shift+K*
- **Adjustable Gradient (Local group):** Applies a selective gradient in local adjustment mode. *Shortcut key: Option+K*
- **Masking Brush (Mask group):** Mask large similar areas quickly. (Includes Perfect Brush option.) *Shortcut key: B*
- **Masking Bug (Mask group):** Applies a selective gradient as a mask in any filter (or to the entire stack). *Shortcut key: M*
- **AI Quick Mask Tool (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*
- **Original Quick Mask Tool (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. *Shortcut key: Shift-P*
- **Refine Brush (Refine group):** Lets you refine an existing mask's edges, to help mask difficult areas, such as hair. *Shortcut key: N*
- **Chisel Tool (Refine group):** Removes fringes from the edge of a mask. *Shortcut key: Shift-H*
- **Blur Tool (Refine group):** Blurs the edges of a masked area to help it blend more naturally. *Shortcut key: L*
- **Healing Brush (Retouch group):** Paint over a distraction and a matching area of your photo is magically blended on top to replace it. *Shortcut key: Q*
- **Perfect Eraser (Retouch group):** Removes distractions like signs and power lines. *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 a sample of another area. *Shortcut key: Shift-S*



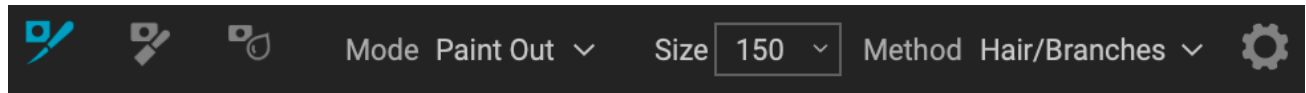
- **View Tool:** Adjusts the magnification of the image in the Preview area, and lets you move around the Preview window. *Shortcut key: Z*

When working with nested groups, the icon of the currently selected tool will be visible in the Tool Well.

NOTE: The tools in the Mask and Refine groups are only accessible once you have applied a filter or preset to your photo. Clicking on the Local group will automatically create a new local adjustment layer.

ACCESSING AND USING TOOLS

To access a tool, click on the tool or use the shortcut key. When selected, the cursor will change, and you will see a set of options for the tool in the Tool Options bar above the Preview window. If the selected tool is part of a tool group, you will see the other tools in that group, on the left side of the Tool Options bar.



Each tool in Effects has an Options Bar, where you can adjust the settings for that tool. Shown here are the options for the Refine Brush.

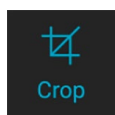
ADJUSTING TOOL SIZING PARAMETERS

When using any of the 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. 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.

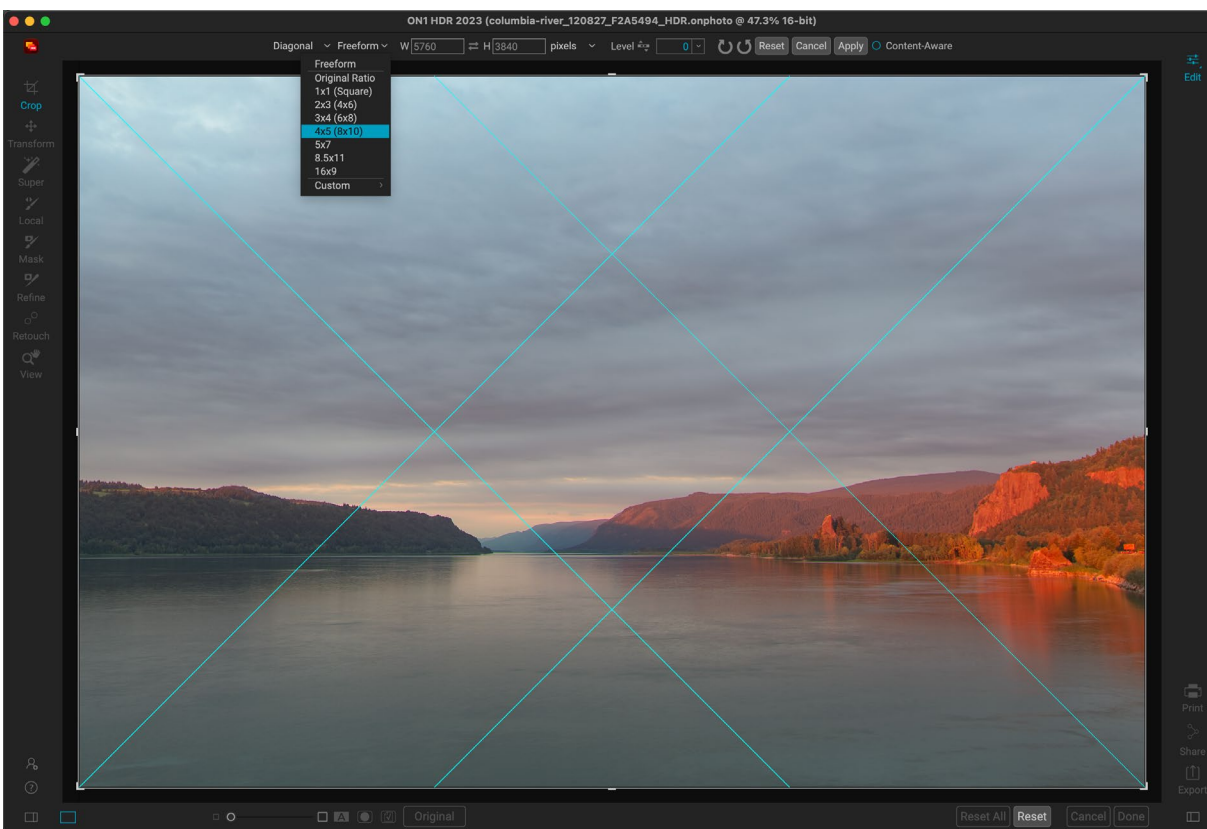
NOTE: More information about the different ways that you can use your mouse’s scroll wheel can be found on [page 14](#).

CROP TOOL



This tool lets you crop your image, and is fully non-destructive in the Edit module. The tool also has a content-aware 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 the Crop Preset 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.

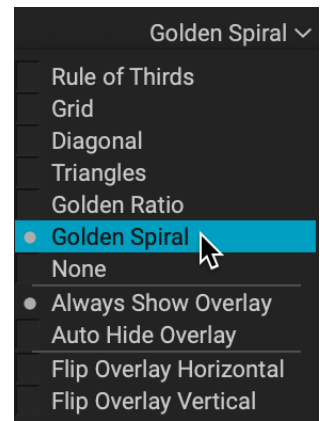
To straighten an image, you can use the Leveling Tool, which is found in the Tool Options bar when the Crop Tool is active. Click on it, and drag the tool across an element in your image that should be level.

Crop overlays

When you select the Crop tool, HDR has the option to display guidelines as an overlay on top of your photo. These overlays can be used as compositional aids for cropping. HDR 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 HDR 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).



The Crop Overlay pop-up includes seven options for setting and displaying overlays.

Content-aware cropping

The content-aware feature lets you extend the crop beyond the edges of the frame. To use this, click the Content-Aware option in the Tool Options bar, and move the crop handle past the desired edge. When you click Apply, ON1 HDR will fill the expanded area with detail based on the content along the existing edge.



When you select the Content-Aware option in the Tool Options bar, you can extend the canvas beyond the boundaries of the existing photo. Clicking Apply will fill the area based on the characteristics of the edges in the photo.

Crop Tool Options Bar

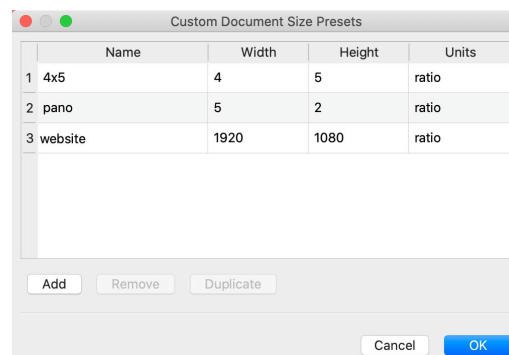
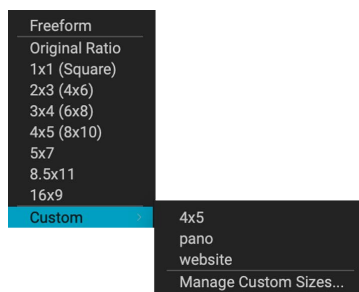


- **Overlay pop-up:** Selects a crop overlay, sets overlay visibility, and flips the overlay.
- **Preset pop-up:** Lets you choose from Freeform, constrained or custom preset ratios.
- **Width:** Sets the width of the crop box.
- **Swap Dimensions:** Swaps the width and height. Handy for rotating the 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.
- **Reset:** Resets the crop area to the size of your original photo.
- **Cancel:** Cancels the crop application and returns you to where you previously were in the Edit module.
- **Apply:** Applies the crop.
- **Content-Aware:** When clicked, will expand the canvas size, filling the edges of the photo with new detail, based on the area next to the expanded space.

Creating custom crop sizes

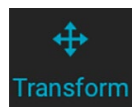
In addition to the preset crop ratios provided, you can create your own custom crop sizes.

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.



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).

TRANSFORM (MOVE) TOOL



The Transform tool is used to manipulate the contents of a layer, and 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.

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

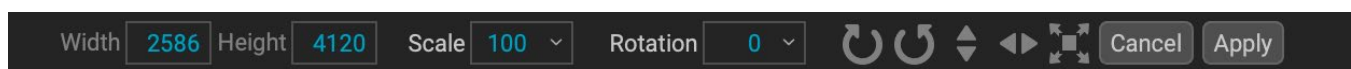
You can flip a layer either horizontally or vertically by pressing the flip buttons in the Tool Options bar.

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



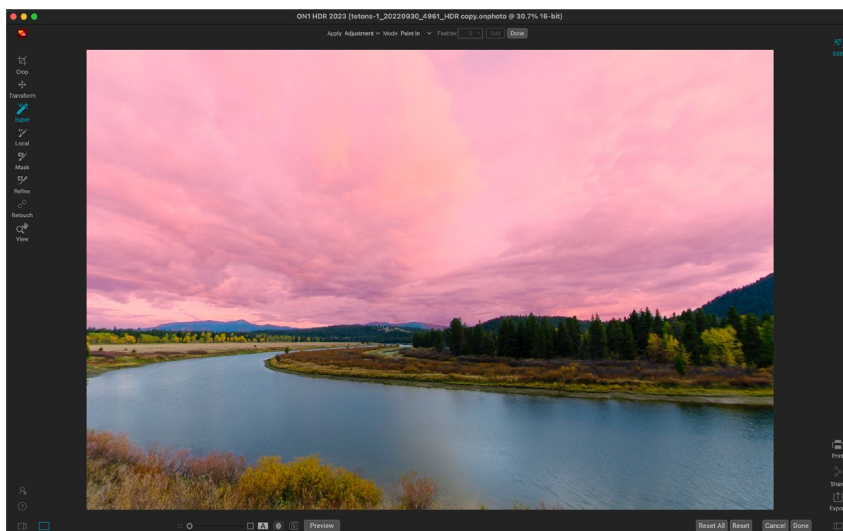
- **Width:** Changes the width of the layer, in pixels.
- **Height:** Changes the height of the layer, in pixels.
- **Scale:** Proportionally scales the layer, in percentage.
- **Rotation:** Rotates the layer, by degrees.
- **Rotate Left/Right buttons:** Rotates the layer 90° clockwise or counterclockwise.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

SUPER SELECT AI TOOL



The Super Select AI tool is a specialized selection tool that lets you make a selection (or multiple selections) and automatically apply a local adjustment or any Effects filter to the selected area.

To use this tool, select it from the Tool Well and move your cursor over the photo. As you move around the photo, HDR will display the various regions in your photo as red overlays; clicking on a region will create a selection and change the overlay for that area from red 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.



When you pick the Super Select AI tool and hover over a region in a photo, HDR will display that area in red. Clicking on the area will create the selection — changing the overlay from red to blue. From there, you can choose to add a local adjustment layer or any Effects filter from the Apply menu.

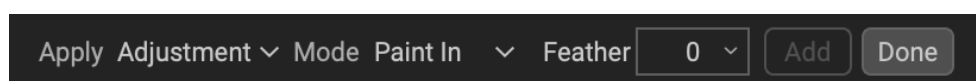
When you have completed your selection, choose an option from the Apply pop-up menu in the Tool Options bar. The menu includes a Local Adjustment option, as well as all of the filters found in the Effects tab. Each option in the Apply menu includes all of the styles for that local adjustment or filter. You can see the effects of each option in real time on your photo as you scroll over each of the items. When you've selected your editing option, click Add, and HDR will create that local adjustment or filter — in either the Local or Effects tabs — and apply the adjustment to the chosen selection.

If you would like to add another filter or local adjustment to the photo, you can make a new selection and choose the effect you wish to apply. Clicking Add will add that enhancement to the photo. When you are finished adding adjustments, click the Done button; the Super Select AI tool will be deselected, and HDR will choose the Zoom tool.

The Mode menu in the Super Select AI Tool Options bar has two options: Paint In or Paint Out. Paint In will apply the final adjustment to the selection you created with the tool, while Paint Out will apply the adjustment to the areas to the inverse of the selection (i.e. the areas that *have not* been selected).

While the masks created by the Super Select AI are generated automatically, they operate like any other mask created in HDR. This means you can use any of the other masking and mask-refinement tools to adjust and refine the finished masks. (See [“Masking Basics”](#) on page 52 for more.)

Super Select AI Tool Options bar



- **Apply:** For choosing the local adjustment style (Local tab) or the Effects filter and style to be applied.

- **Mode:** Sets the masking mode for selections when using the Super Select AI tool. Paint In means that the local adjustment or filter will be applied to the selection; Paint Out means that the adjustment or filter will be applied to all areas in a photo except for the selection.
- **Feather:** After you have added an adjustment or filter (by clicking on the Add button), this option will apply a feather to the edges of the selection.
- **Add:** Creates the adjustment layer or the Effects filter based on the current selection.
- **Done:** Quits the tool and selects the Zoom tool.

ADJUSTMENT BRUSH (LOCAL GROUP)



The Adjustment Brush, which works within the Local Adjustments tab, works like a standard brush tool, with adjustable sizes, feathering and opacity. You can paint an adjustment in or out via the Mode pop-up in the Tool Options bar, and adjust the size and feathering of the brush via the bar or with the bracket keys on your keyboard. The Adjustment Brush is especially powerful when used with the Perfect Brush option, represented by its icon at the right of the

Tool Options bar.

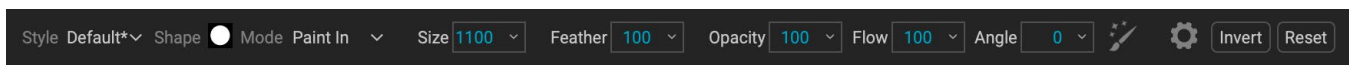
The Perfect Brush option incorporates a color-based, self-masking technology to help create precise selections and masks. When you turn the Perfect Brush option on, the Adjustment Brush collects the colors under the center of the brush and applies the effect only to those colors. This protects the adjustment from being applied across edges. A great example of using the Perfect Brush would be if you wanted to darken the sky in an image, but didn't want to darken a group of mountains on the horizon.

The Threshold slider will allow you to 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, other times you want it to paint away a broad range of colors in the same neighborhood.

The Transition slider controls the feather of the Perfect Brush based on color. To create a soft edge, increase the transition. To create a harder edge you need to decrease the transition.

TIP: You can turn the Perfect Brush on and off using Command/Control-R (Mac/Windows). You can also temporarily lock the color to remove by holding down the Control key (Windows) or the Command key (Mac). This is useful when brushing through areas with a lot of openings like tree branches.

Adjustment Brush Tool Options



- **Style:** The Style pop-up lets you save brush information to use at another time. Selecting a saved item from the menu will open that saved brush's characteristics.
- **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.
- **Paint Mode:** The paint mode controls if you are painting out (hiding the effect) or painting in (restoring the effect). 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, and if the icon is a plus, you

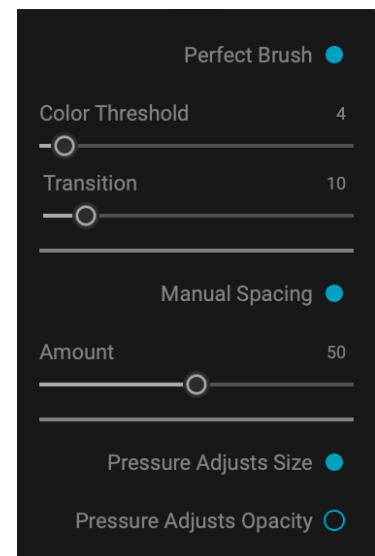
are painting in. You can change the mode in the Tool Options bar, or by pressing the X key, or by holding down the Option (Mac) or Alt (Windows) key temporarily.

- **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. In addition to the Feather pop-up, you can adjust the size of the feather by holding down the Shift key and pressing the right or left bracket keys on your keyboard.
- **Opacity:** You can control the opacity, or strength of the brush with the Opacity pop-up in the Tool Options bar. The opacity has a range 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 control the size of the brush several ways:
 - Use the Opacity pop-up in the Tool Options bar.
 - Press the Option (Mac) or Alt (Windows) key on your keyboard and press one of the number keys. Each number represents an opacity percentage from 10% (1) to 90% (9); 0 represents no opacity.
 - Use your pressure-sensitive tablet.

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 showing and black represents no effect showing; opacity settings in between will show a percentage of the effect. This can be useful when you wish to blend masks in a realistic manner.

- **Flow:** This is the rate at which the brush color is applied, up to the Opacity setting. With a low flow number, as you brush back and forth across a stroke, the brush color will build up to the Opacity setting. At a flow of 100, the brush stroke color will be 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. You can also rotate the brush shape by pressing Shift-Option (Mac) or Shift-Control (Windows) and the left or right bracket keys ('[' or ']').
- **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.

Further settings for the Perfect Brush can be found by clicking on the gear icon in the Tool Options bar. It has these options:



Perfect Brush, spacing and tablet options can be found in the gear menu drop-down.

- **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:** Sets the spacing of the brush tip as you apply a stroke. This is primarily used when painting with custom brushes. See [page 96](#) for more.
- **Pressure options:** HDR supports pressure-sensitive tablets. 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.

Detailed information on using Local Adjustments in ON1 HDR 2023 starts on [page 92](#). There is also a short section, [page 52](#), that includes best practices for using the different masking tools in HDR.

NOTE: The Adjustment Brush can also be used to apply custom brushes to an adjustment layer. See [page 96](#).

Pressure-Sensitive Table Support

ON1 HDR supports pressure-sensitive tablets with the Adjustment Brush. When you use 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.

Detailed information on using Local Adjustments in ON1 HDR 2023 starts on [page 92](#).

ADJUSTABLE GRADIENT TOOL (LOCAL GROUP)

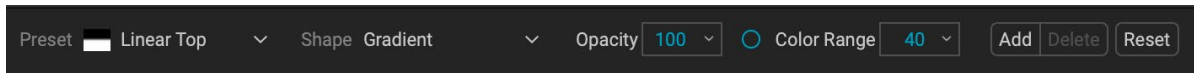


The Adjustable Gradient tool is very similar to the Masking Bug (see [page 37](#)), but it is solely for use within the Local Adjustments tab. It lets you create a linear or radial gradient mask across part of your image. The gradient mask goes from dark to light in tone, applying more of the adjustment 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.

To apply a standard gradient to a local adjustment, click on the tool, then click in the image roughly where you wish the effect to be. 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, increase or decrease the length of the gradient, or rotate it.

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.

Adjustable Gradient Tool Options Bar:

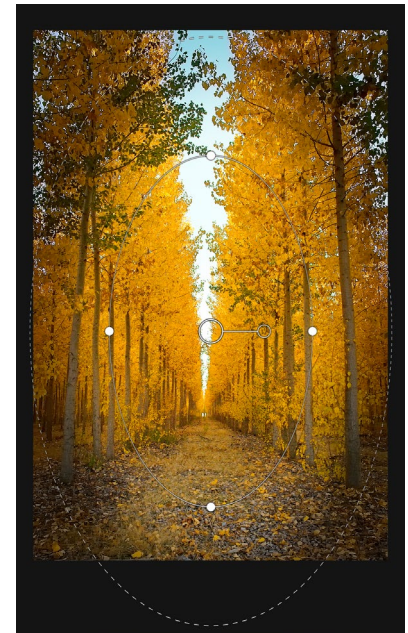


- **Preset:** The preset pop-up includes several common ways to use the Gradient Adjustment tool (top down, bottom up, left and right, and circular vignettes), and changes the current bug (if there is one) to match the preset.
- **Shape:** The shape pop-up controls the shape of the bug. In addition to the gradient options, there are two radial shapes: Center, which puts the light tones at the center and the dark tones on the outside, and Edges, which sets the gradient in the opposite direction.
- **Opacity:** Sets the maximum opacity or density of the mask.
- **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 Gradient Masks

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

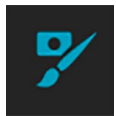
- To move a gradient, click on the big circle at the center of the gradient and drag.
- To resize a radial gradient, click and drag on the solid line.
- To adjust the feather (hardness) of the mask, click and drag along the dashed line.
- To rotate the mask, click the smaller circle near the gradient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



The Edges gradient shape lets you create such masking effects as customized, adjustable vignettes.

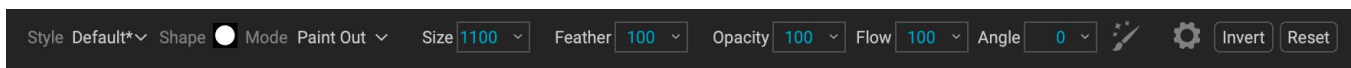
Detailed information on using Local Adjustments in ON1 HDR 2023 starts on [page 92](#).

MASKING BRUSH (MASK GROUP)



The Masking Brush is one of two tools used for masking filters in Effects, as well as layer masks. When you select the Masking Brush, your cursor changes to look like two concentric circles, one representing the inner hard edge of the brush, and 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

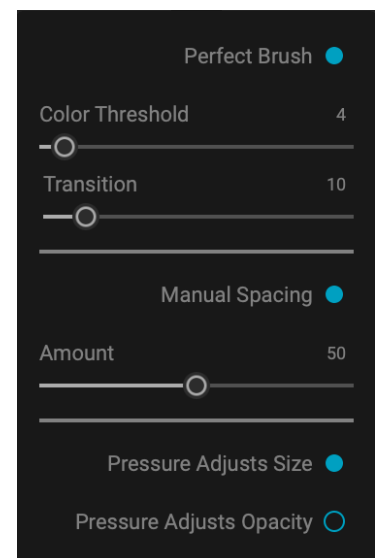


- **Style:** The Style pop-up lets you save brush information to use at another time. Selecting a saved item from the menu will open that saved brush's characteristics.
- **Shape:** The Shape menu displays a list of all custom brush shapes in your library. The top item in the list is the default, round brush.

- **Paint Mode:** The paint mode controls if you are painting out (hiding the effect) or painting in (restoring the effect). 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, and if the icon is a plus, you are painting in. You can change the mode in the Tool Options bar, or by pressing the X key, or by holding down the Option (Mac) or Alt (Windows) key temporarily.
- **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 hardness of the brush by using the Feather pop-up. 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. In addition to the Feather pop-up, you can adjust the size of the feather by holding down the Shift key and pressing the right or left bracket keys on your keyboard.
- **Opacity:** You can control the opacity, or strength of the brush with the Opacity pop-up in the Tool Options bar. The opacity has a range 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 control the size of the brush several ways:
 - Use the Opacity pop-up in the Tool Options bar.
 - Press the Option (Mac) or Alt (Windows) key and press a number key. Each number (1-9) represents an opacity percentage from 10% to 90% ; 0 represents no opacity.
 - Use your pressure-sensitive tablet.

TIP: Think of the opacity as the shade of gray you are painting onto your mask. While white in a mask represents 100% of an effect showing and black represents no effect showing, all opacity settings in between will show a percentage of the effect. This can be very useful when you wish to blend masks in a realistic manner.

- **Flow:** The rate at which the brush color is applied, up to the Opacity setting. With a low flow number, as you brush back and forth across a stroke, the brush color will build up to the Opacity setting. At a flow of 100, the brush stroke color will be 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. You can also rotate the brush shape by pressing Shift-Option (Mac) or Shift-Control (Windows) and the left or right bracket keys ('[' or ']').
- **Perfect Brush:** The Perfect Brush has automatic edge-detection technology to help create precise selections. When you turn the option on—by clicking on the Perfect Brush icon—the Masking Brush collects the colors under the brush center and applies the effect only to those colors. This protects the adjustment from being applied across edges, such as tree branches.



Perfect Brush, spacing and tablet options can be found in the gear menu drop-down.

Further settings for the Perfect Brush can be found by clicking on the gear icon in the Tool Options bar. It has these 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 [page 96](#) for more.
- **Pressure options:** HDR supports pressure-sensitive tablets from 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.

Detailed information on using Local Adjustments in ON1 HDR 2023 starts on [page 92](#). There is also “[Masking Basics](#)” on [page 52](#), which includes best practices for using the different masking tools.

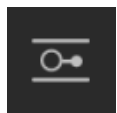
NOTE: The Adjustment Brush can also be used to apply custom brushes to an adjustment layer. See [page 96](#).

Pressure-Sensitive Tablet Support

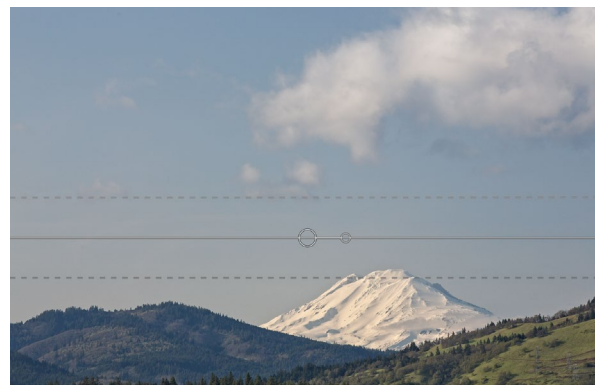
ON1 HDR supports pressure-sensitive tablets from Wacom and others with the Adjustment Brush. When you use the Masking Brush you can enable pressure sensitive controls for the brush size, brush opacity, or both simultaneously. To turn this support on, click on the gear icon in the Tool Options bar. You can activate pressure sensitivity for both size and opacity by clicking the appropriate buttons in the drop-down menu.

Detailed information on using Local Adjustments in ON1 HDR 2023 starts on [page 92](#).

MASKING BUG (MASK GROUP)



The Masking Bug is used for blending layers by creating radial, gradient and reflected gradient mask shapes quickly. 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.

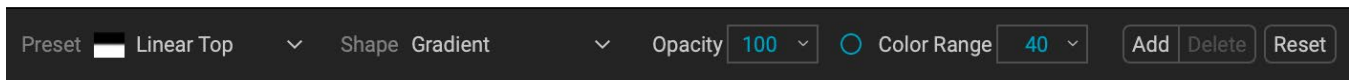


In this image, a Dynamic Contrast filter has been applied in Effects. To keep the effect out of the clouds, a Masking Bug has been added.

To apply a standard gradient to a filter, click on the Masking Bug 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 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.

Masking Bug Tool Options Bar:



- **Preset:** The preset pop-up includes several common ways to use the tool (linear top down, linear bottom up, left and right, and circular vignettes), 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.
- **Opacity:** Sets the maximum opacity or density of the mask.
- **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.



TIP: To see the mask created by the Masking Bug, and the range of black to white tonality, choose Show Mask from the View menu. You can choose either a red overlay, which presents the mask over your image, or grayscale, which just shows the mask as black to white tones.

Working with Multiple Masking Bugs

You can have up to six Masking Bugs per layer. To add another Masking Bug, press the Add button or click outside of the current bug while the Masking Bug 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 areas back in hidden by the Masking Bugs.

AI QUICK MASK TOOL (MASK GROUP)

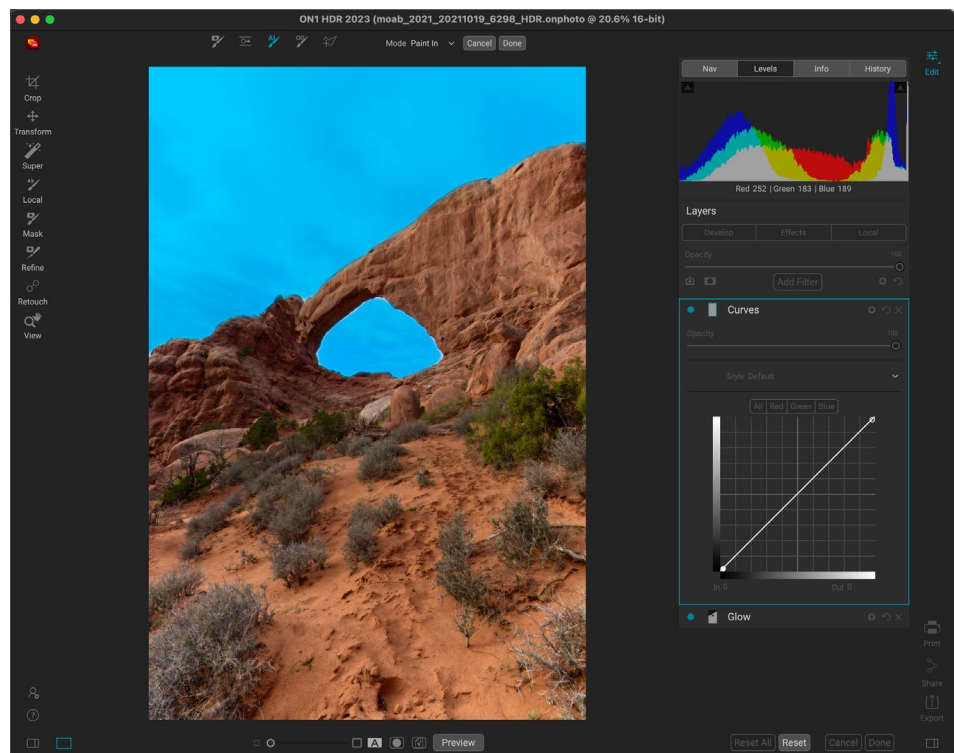


The AI Quick Mask tool is functionally similar to the Super Select AI tool, but it is intended to create selections for the current filter, local adjustment, or layer — all it does it create a mask for that item. It does not create a new filter pane or local adjustment layer.

To use the Quick Mask tool, 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, HDR will display the various regions in your photo as red overlays; clicking on a region will create a selection and change the overlay for that area from red 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.

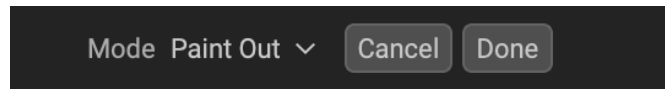
The Mode menu in the AI Quick Mask Options bar has two options: Paint In or Paint Out. Paint In will apply the final adjustment to the selection you created with the tool, while Paint Out will apply the adjustment to the areas to the inverse of the selection (i.e. the areas that *have not* been selected).

While the masks created by the Quick Mask tool are generated automatically, they function like any other mask. This means you can use the other masking tools to adjust and refine the finished masks. This includes the Mask Control options found in all Effects filters, local adjustments, and in the layer masks. (see “Masking Basics” on page 52 and “Masking control options” on page 54.)



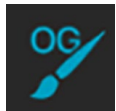
Use the AI Quick Mask tool instead of the Super Select AI tool when you wish to create an AI-generated mask, but already have an existing Effects filter or local adjustment layer, or when you want to add a mask to the current layer in your document.

AI Quick Mask Tool Options bar

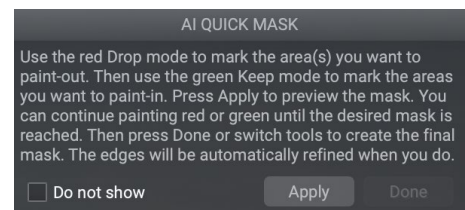


- **Mode:** Sets the masking mode for selections. Paint In means that the local adjustment or filter will be applied to the selection; Paint Out means that the adjustment or filter will be applied to all areas in a photo except for the selection.
- **Cancel:** Cancels the operation, deselecting the tool and selecting the Zoom tool.
- **Done:** Creates the mask for the current filter, adjustment or layer and selects the Refine brush.

ORIGINAL QUICK MASK TOOL (MASK GROUP)



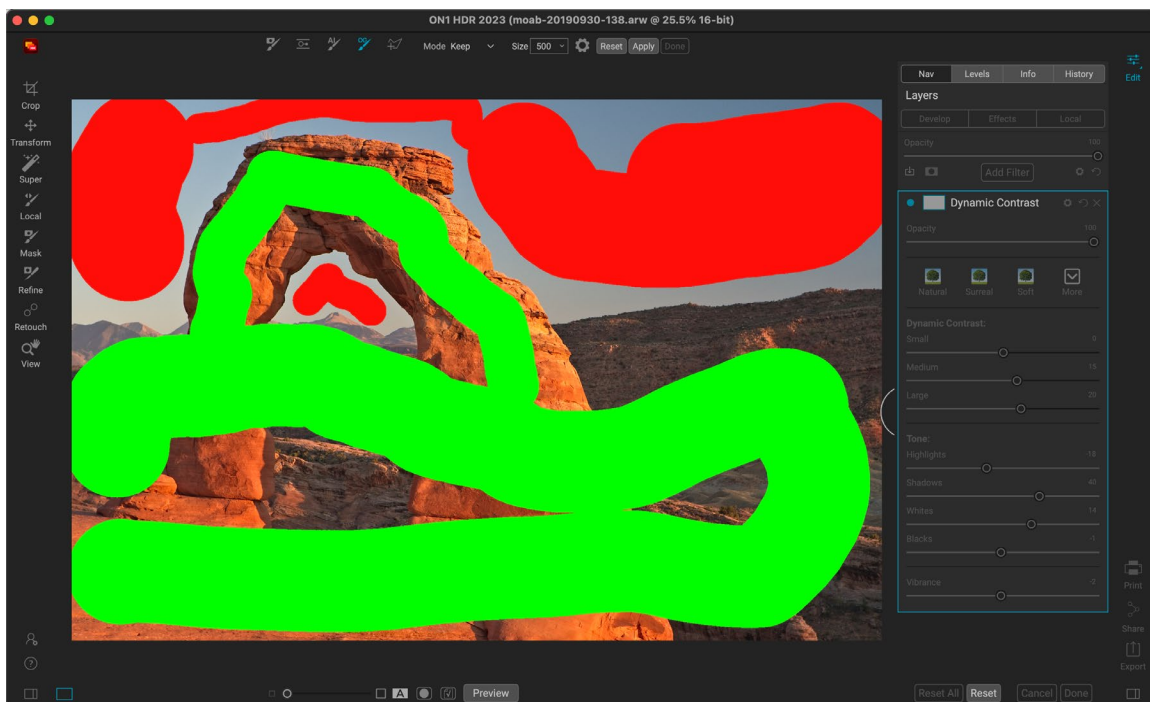
The Original Quick Mask tool (formerly known as the AI Quick Mask tool in previous versions of ON1 HDR) can create high-quality masks with just a few strokes as guidance. To use it, just mark areas you want to keep in green and areas you want to drop in red. When you click Apply, the Original Quick Mask tool 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.



When you first open the AI Quick Mask tool, you'll see a window—called the HUD—that includes instructions for using the tool.

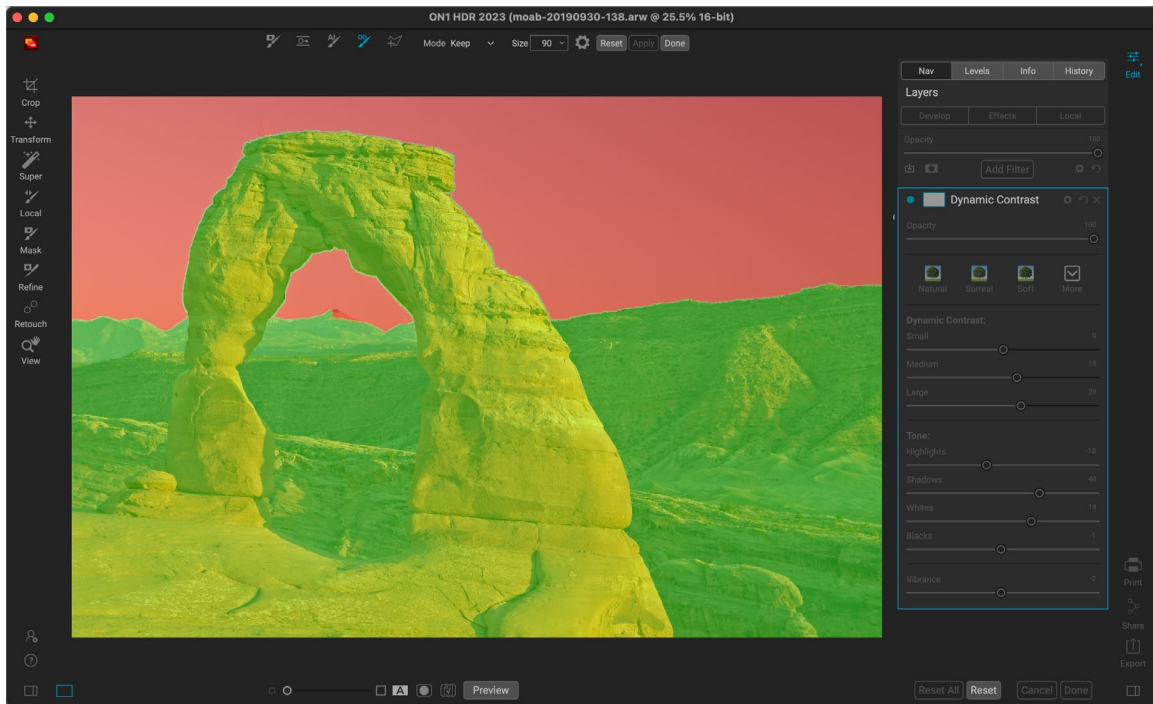
Here are the steps you need to follow to use the Original Quick Mask Tool:

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



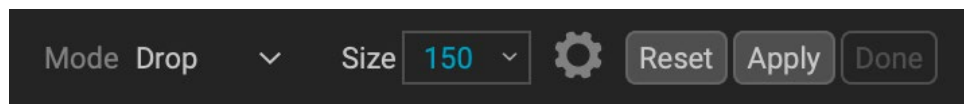
you want to remove. These brushstrokes will appear in red. Then change the tool's mode to Keep (via the Tool Options bar, or by holding the Option/Alt key) and paint over the areas you want to keep. These strokes will show up as green.

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 HDR switches to the Refine Mask tool, which you can use over difficult, semi-transparent areas—like tree branches—if necessary.



NOTE: The Original Quick Mask tool resets existing masks on a layer or filter.

Original Quick Mask Tool Options Bar



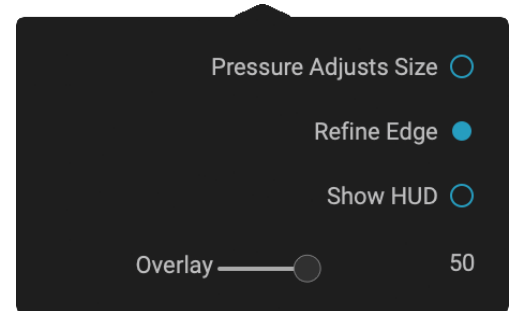
- **Mode:** This controls keeping (painting green) or dropping (painting red). Green areas are protected in your mask, and are the areas of a layer or filter that will remain. The areas marked in red will be removed or masked. In your layer these areas will become transparent. On a filter in Effects, these areas will have the filter's effect removed.
You can tell your current mode by looking at the plus or minus icon in the center of the

Original Quick Mask brush. If the icon is minus, you are painting drop (red) areas; if the icon is a plus, you are painting keep (green) areas. You can change the mode in the Tool Options bar, or by pressing the Shift-X key, or by holding down the Option (Alt) key temporarily.

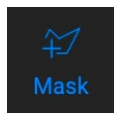
- **Brush Size:** You can control the size of the brush using the Size pop-up. Use a small brush at high magnification for precise work, and a large brush at fit to screen for general work.

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

- **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:** This applies the Refine Mask Brush automatically to the edge of the resulting mask, creating a more natural transition. This is on by default and recommended for most photos.
- **Show HUD:** This displays the Original Quick Mask HUD dialog (shown on [page 40](#)), 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 setting is 50.



LINE MASK TOOL (MASK GROUP)

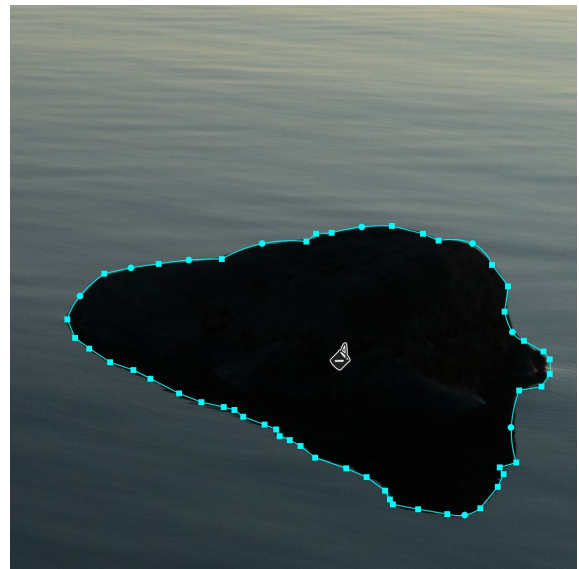


The Line Mask tool lets you create masks by drawing straight lines in your image, with the added flexibility of letting you adjust each individual line segment into curves to better fit the object you want to mask. Masks created with this tool are re-editable, can be copied and pasted like any other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



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, and let you adjust any of the points, or add curves for further refinement of the mask edge..

- 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.

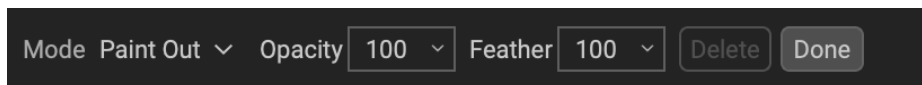
When you've made your adjustments to the selection, you can click the Done button in the Tool Options bar to quit the tool, or you can create another mask.

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, and you can adjust it as you see fit, even the Opacity and Feather settings.



The curve option—visible when you hover over a point in the 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:** The mode controls if you are painting out (hiding the effect inside the mask boundaries) or painting in (showing the effect).
- **Opacity:** This 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 Effects to the View Tool.

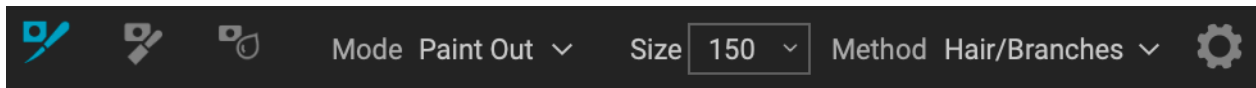
REFINE BRUSH (REFINE GROUP)



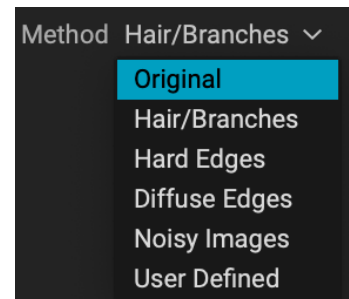
This tool, one of the most versatile in HDR, can be used to clean up intricate areas and the borders along a mask. It is helpful for cleaning up a mask created with the Masking Brush, the Super Select AI tool, or other masking tools, or for creating a new mask entirely.

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, HDR will work to make the mask edge better defined.

Refine Brush Tool Options



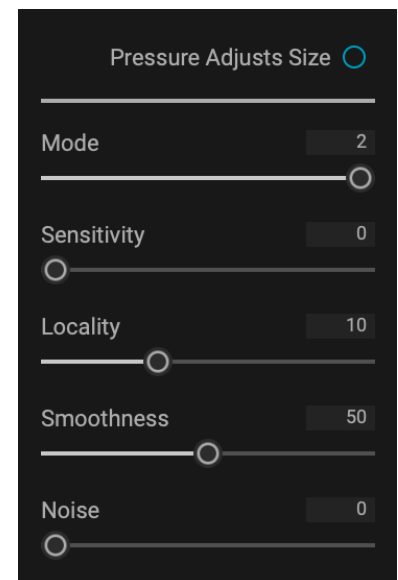
- **Mode:** Controls the refinement mode, either Paint Out, which refines to remove from the mask, Paint In, which refines to add to the mask, or Auto, which determines the best way to refine the mask edge. Paint Out is recommended in most cases.
- **Size:** This adjusts the size of the brush. Select 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 [page 14](#)). Unlike the other masking brushes in HDR, the Refine Brush has a maximum size of 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 HDR (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 degrees of noise in them.



The Method pop-up.

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 HDR versions; it remains useful in many masking situations. Mode 2 uses the new (2023) version of the Refine algorithm.



The Gear menu for the Refine Brush has options that let you fine-tune the brush settings, and saves them in the User Defined option for the Method pop-up.

- **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.

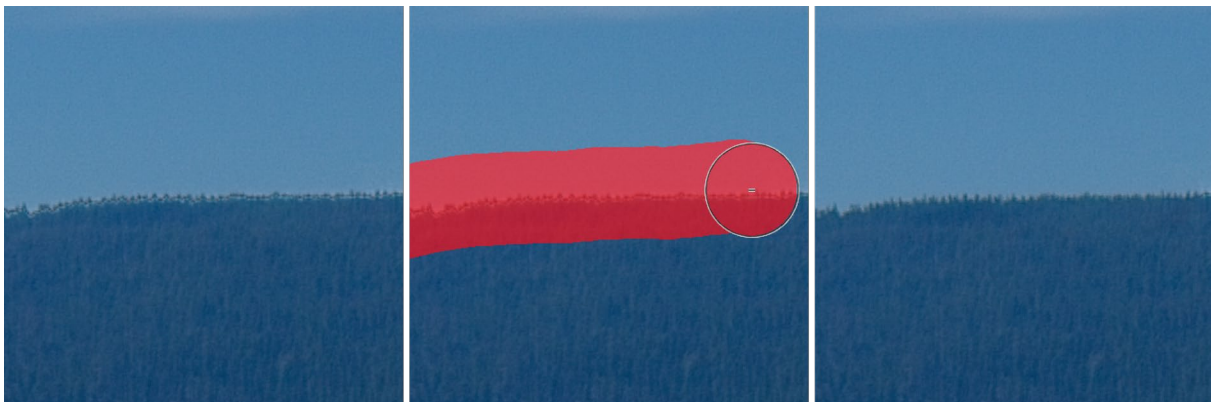
Working with the Refine Brush

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 treeline. 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 Effects' 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). Effects 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 HDR 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 HDR, see [page 52](#).



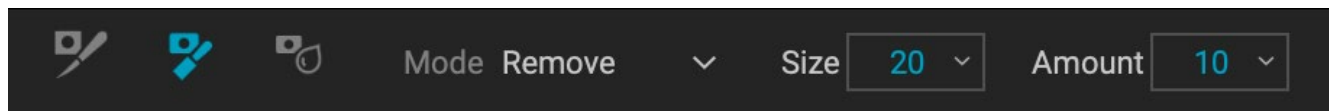
The encircling method.

CHISEL MASK TOOL (REFINE GROUP)



The Chisel tool, accessible via the Refine Tool Options, bar 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.

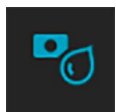
Chisel Mask Tool Options



- **Mode:** Select remove or add
- **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.

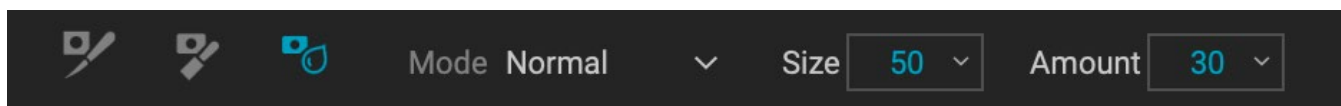
TIP: Double-click on the Chisel tool icon to apply the chisel to the entire mask.

BLUR MASK TOOL (REFINE GROUP)



The Blur Mask tool 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.

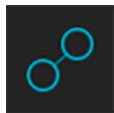
Blur Mask Tool Options



- **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 tool size. Use a large size to make brushing fast; size doesn't affect blur amount.
- **Amount:** Controls the amount of blur. Use a low amount to maintain detail.

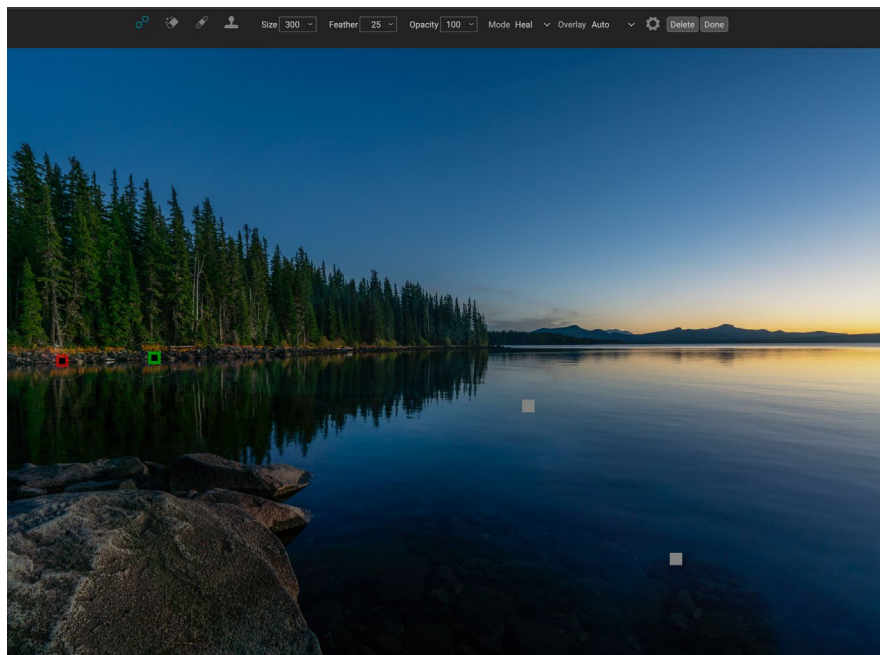
TIP: Double-clicking on the Blur tool icon applies the blur to the entire mask.

HEALING BRUSH (RETOUCH GROUP)



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.)



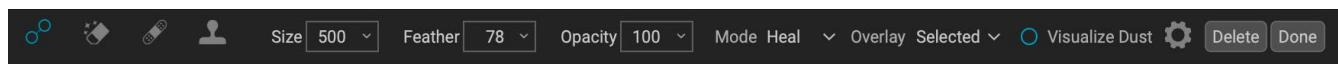
Areas that use the Healing Brush will be displayed as a gray marker. Clicking on a specific marker will let you readjust its placement or delete it.

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 (see [page 54](#)), 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 marker 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 (RETOUCH GROUP)



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.

Using the tool is easy: paint over the area you wish to remove and release the mouse, 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. You can also fine tune the area after applying the tool by using the Retouch Brush (see below).

Perfect Eraser Options



The Perfect Eraser's Tool Options bar consists of two options; brush size, 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. If you have a pressure-sensitive tablet, select the Pressure Adjusts Size button in the Options bar.

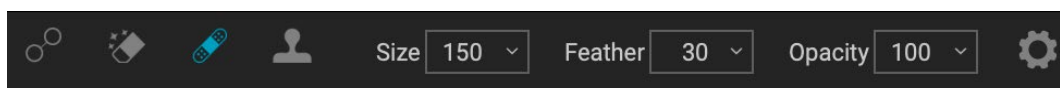
RETOUCH BRUSH (RETOUCH GROUP)



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.

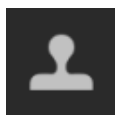
It is best to use the smallest brush size possible and to work by dabbing rather than making large brush strokes. If you dab with the Retouch Brush and don't like the results, use the Undo command and try using a smaller brush or vary your brush stroke and try again. The Retouch Brush is also great for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

Retouch Brush Options



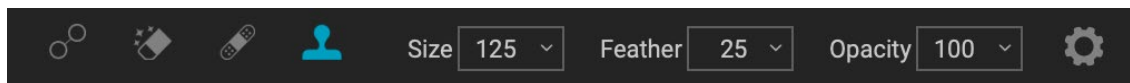
- **Brush Size:** This adjusts the overall size of the brush.
- **Brush Feather:** This adjusts the hardness of the brush. It works best to use a feather larger than 50 to blend and look natural.
- **Brush Opacity:** This adjusts how strong the retouching is. Use 100% to completely remove an imperfection. Use a lower opacity to soften them.
- **Pressure Adjusts Size:** Click on the button to activate the pressure-sensitivity controls.

CLONE STAMP (RETOUCH GROUP)



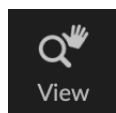
Use the Clone Stamp tool to replace an area of a photo with an area from a different part. Hold down Option (Mac) or Alt (Windows) and click the area you want to clone from. Then click and drag on the area you want to clone over and it will clone from the point you selected.

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.
- **Pressure Adjusts Size:** If you have a pressure-sensitive tablet, you can adjust the size of the brush according to the pressure. Click the button to activate.

VIEW (ZOOM) TOOL



This tool, which is the default tool selected when you open an image in the Edit module, 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.

Masking Basics

One of ON1 HDR 2023's most powerful features is its masking capabilities. Every filter in Effects, every adjustment panel in the Local tab, and every layer can have a mask associated with it.

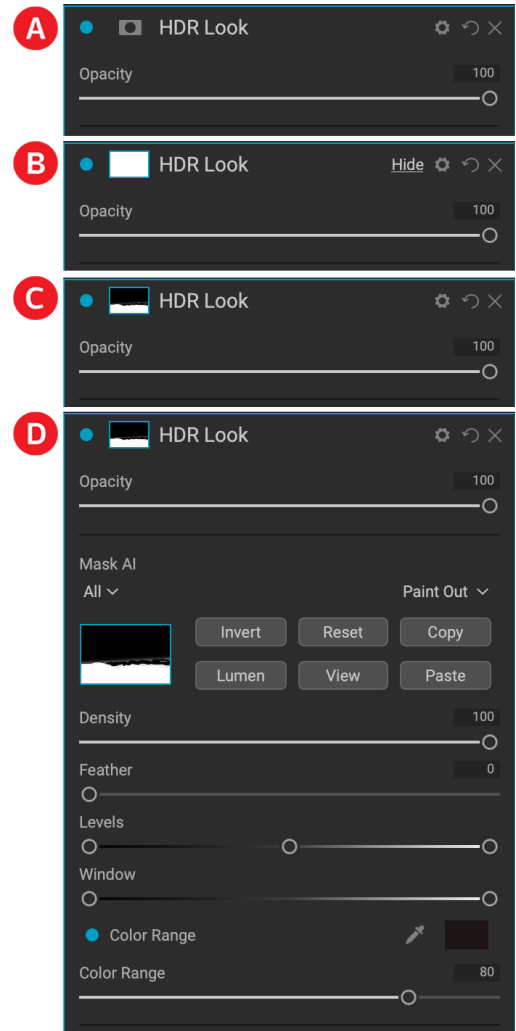
At its simplest level, a mask shows or hides the effect of the filter or adjustment. Masks have no color: they are grayscale, and their tones range from pure white to pure black. A mask that is completely white displays the entirety of the effect being used, a mask that is completely black hides that effect. (A common way to remember it is via the phrase “**black conceals, white reveals.**”) Shades of gray are in effect the opacity of the mask. Darker shades reduce the effect, lighter shades let more of it through.

The beauty of the masks is that you can paint with black, white or any shade in between, so you can “mask” portions of your photo so that they will not have that effect—or will have a reduced effect. You can also copy masks from one filter and paste them into other filters. Using this feature, you can mask out the sky in one filter, copy the mask, paste it into another filter and invert it, applying a different effect to everything but the sky. HDR even lets you create luminosity masks, which are masks that are solely based on the brightness of the pixels in the image. You can view your masks, either as a red overlay or as the grayscale version of the actual mask, which can be helpful when you wish to look at the edges of mask.

Creating masks can be as simple as choosing the Super Select AI tool and clicking on a region in a photo; adding an Effects filter or local adjustment and using the Mask AI options; using the Masking Brush with the Perfect Brush option on; or placing an adjustable gradient. You can also use multiple tools and masking functions to create more complex masks. For instance, you can drop a gradient on a photo, use the Masking Brush to paint in places where don't want the gradient applied, or you can use the Color Range tools (found in the Masking Control Options area) to select portions of an image based on color.

THE MASKING TOOLS AND VIEW OPTIONS

Inside ON1 HDR 2023, there are six basic tools used to create masks: the Masking Brush, the Masking Bug, and the Super Select AI, AI Quick Mask, Original Quick Mask, and the Line Mask tools. There are variants of the first two that are specific to Local Adjustments (Adjustable Brush and Adjustable Gradient).



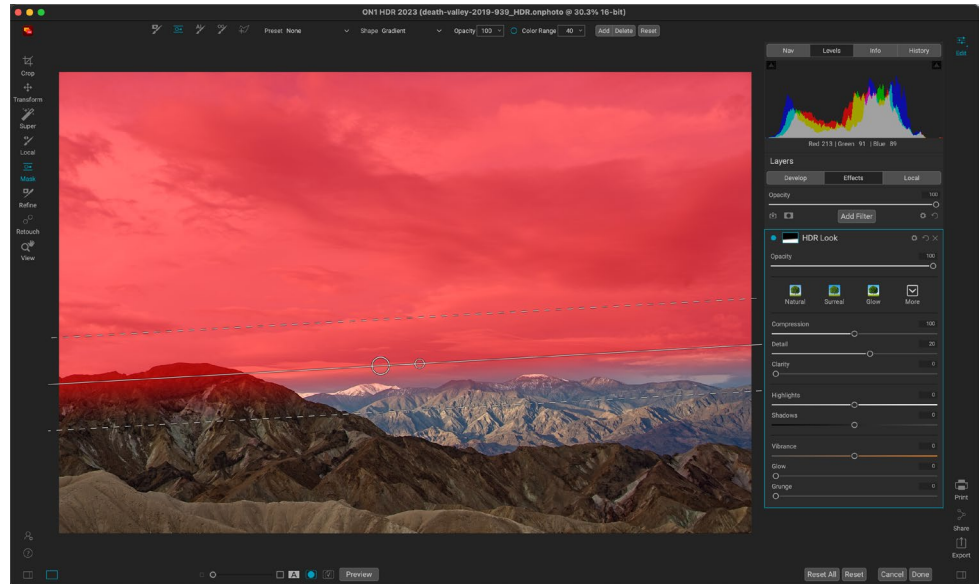
Three views of a mask (A-C), along with the Masking Control Options section, here shown attached to a HDR Look filter in Effects. When you first add a filter (or a layer), the mask is empty (A). If you click on the empty mask, HDR will automatically generate the mask, here shown filled with white, which means all of the effect will come through (B). When you use any of the masking tools, the areas masked out (partially or completely), will be shown in the filter's mask view (C). And, whenever you click on the mask icon in the pane, it includes options for displaying, copying and pasting, and fine tuning that mask (D)

You can use the gradient and masking brush tools cumulatively, meaning that you can add to or subtract from the current mask. However, if you select the AI Quick Mask tool or the Original Quick Mask, it will replace any existing masks on that pane or layer.

The Refine group of tools—Blur, Chisel and Refine—are designed to help work with edges and halos that can crop up when you have areas of strong contrast between a masked area and an unmasked one.

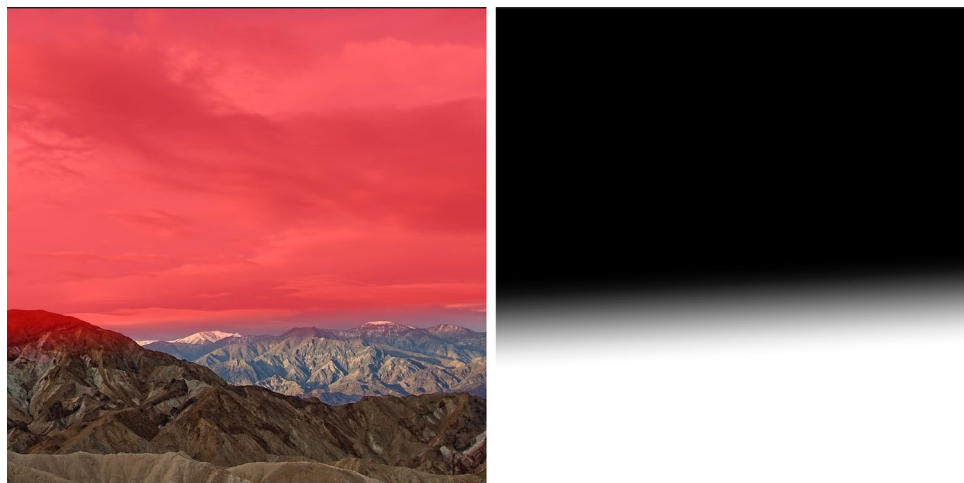
In addition to the masking tools, each mask has a set of controls you can use to manipulate the mask to refine it further.

When you add a filter or a layer, the mask is technically hidden. You can create a mask by either using one of the masking tools, or by clicking the Show/Hide Mask icon in the title bar of the pane, to the right of the filter name. The contents of the Show Mask icon will represent the mask on that layer. (Local Adjustment panes automatically create a black layer mask, so you can ‘paint in’ the adjustment to the image.)



Here is a local adjustment—using the Adjustable Gradient tool—that has been applied to a photo to hide the HDR Look filter's effect on the sky. The Show Mask option has been turned on (red), so you can see where the effect has been masked out.

There are two primary options for viewing the contents of a mask: either as a red overlay on top of your image (the default) or a view only of the mask itself, represented as grayscale. The grayscale view can be helpful when checking edges, or when refining some of the advanced masking controls. These mask view options are available from the Mask menu; select Show Mask to see the mask, while the View Mode option



The two Mask View options help in different ways. The Red Overlay option (above left) can give you an idea of what portions of your photo are successfully masked in or out. The Grayscale option (above right) lets you view the mask solely as luminance values, where pure black indicates portions that have been masked out completely, pure white is where the effect is applied completely, and the levels of gray indicate partial application of the effect. The Grayscale option is especially useful when you wish to check the edges along a mask border.

lets you switch between the two modes. You can also set the app to display the red overlay when you are brushing with the Masking Brush and its cousins. (HDR will remember the previous settings.)

When you're viewing a mask in either overlay or grayscale modes, you have access to all of the tools in the Edit module. You can zoom in, to view the mask in greater detail, you can use the Refine masking tools to adjust the fine edges of your mask, or you can use any of the other the masking options described below.

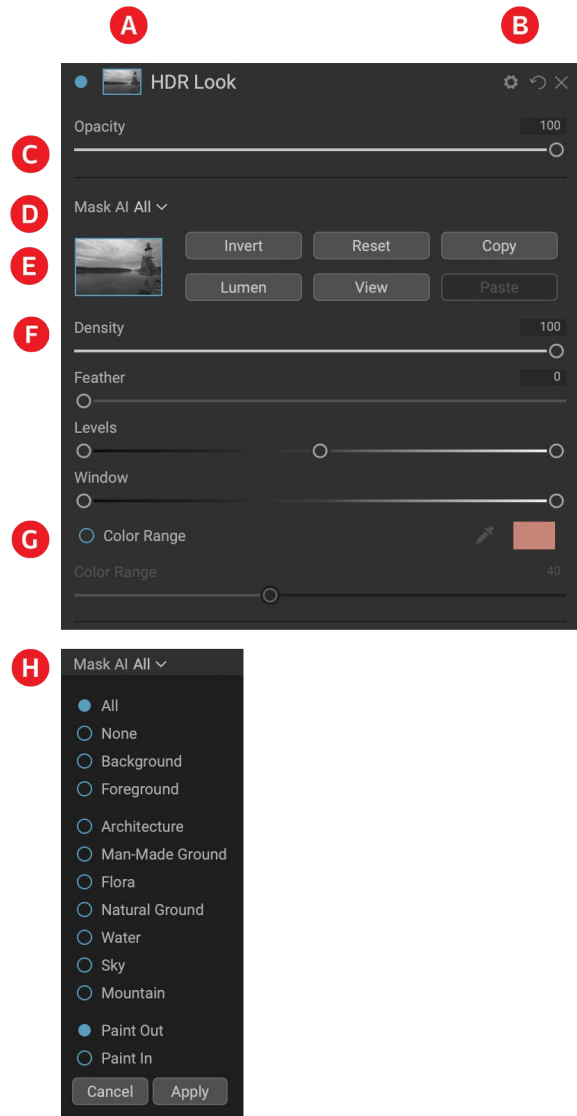
MASKING CONTROL OPTIONS

When you click on the Mask icon at the top of a pane or in a layer, HDR will display a set of options for that mask. This section has the following contents, as shown, using the Color Enhancer filter as an example:

- A. The Show/Hide Mask icon, which displays the contents of the current mask. The default mask is white when you add an effect, and black when you add a local adjustment layer.
- B. Buttons for opening the blending options, resetting the filter, and removing the filter.
- C. Sets the overall opacity of the effect.
- D. Mask AI pop-up (Effects and Local tabs only) for selecting an area based on region.
- E. Larger display of the current mask, option to invert, reset, copy, paste, create a luminosity mask, and view/hide the mask.
- F. Density adjusts the overall density from black (100) to white (0). Feather blurs the mask. Levels and Window let you adjust the black and white points of the mask, fine tuning them in different ways.
- G. The Color Range option lets you choose a color and make or tune the mask based on the range of the color selected.
- H. Contents of the Mask AI pop-up menu, when clicked.

The buttons at the top portion of the Mask Options can be quite helpful, especially when you're working with complex masks, or when you wish to reuse masks in other parts of HDR. Their functions are as follows:

- **Invert** reverses the contents of the mask, swapping the tones.
- The **Reset** button erases the current mask, leaving it filled with white.
- The **Copy** and **Paste** buttons let you copy the current mask, to paste it into another filter, local adjustment or layer.



Overview of the Mask Options section, shown with a Color Enhancer filter. The Mask AI pop-up is displayed beneath the options. Mask Options is also applicable when working in the Local Adjustments tab, or on a layer in the Layers pane.

- The **View** button toggles the Mask View on and off.
- The **Lumen** button creates a luminosity mask of the image for the current filter, adjustment or layer, replacing any existing masks (see [page 55](#)).

Color Range selections

The Color Range option lets you create a mask using a specific color, either one inside your image, or one via your system's color picker. To use this option, click the On button next to the Color Range section, and click the eyedropper tool to select a color inside your image that you wish to sample. You can then use the slider to expand or contract your mask based on that color: lower numbers means that fewer colors (related to the chosen color) will be selected, higher numbers mean a wider range of will be selected.

The Color Range option found in the Gradient masking tools can be controlled from the Mask Options section of the pane. When you add a gradient mask and click on the Color Range option in the Tool Options bar, the color chosen is sampled from the center of the gradient control, but you can open the Mask Options pane and sample a different color using the eyedropper. Note that if you do this, and move the masking bug, it will resample using the color from the center of the bug.



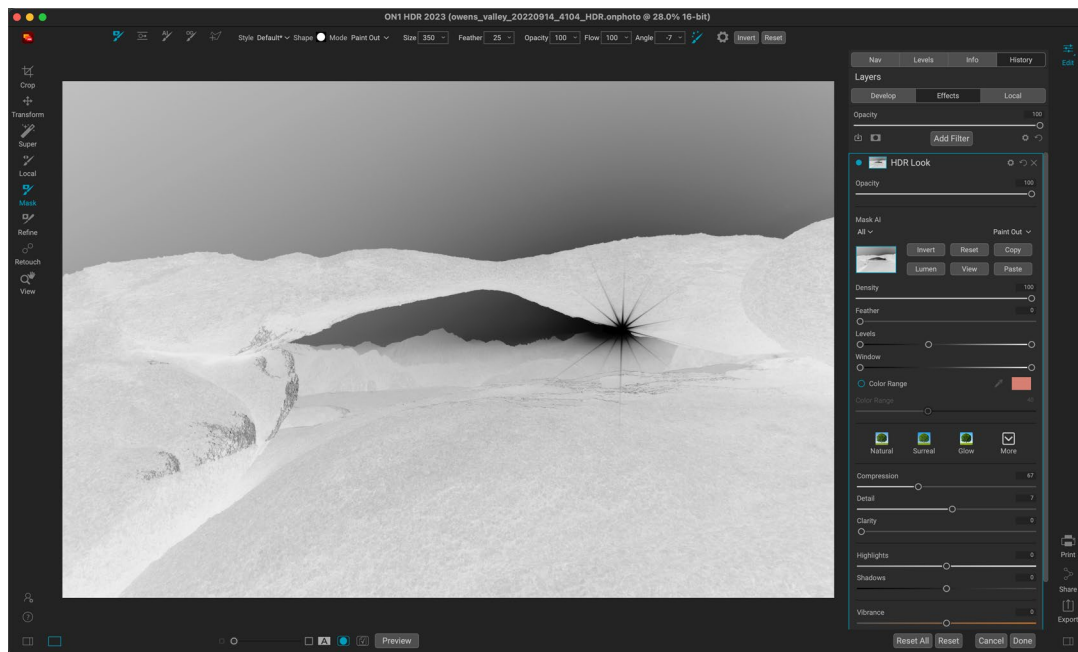
Here, we've created a mask using the Color Range option in the Mask Options section for this local adjustments layer. We clicked on a blue color in the sky to use as the base for the selection range. Adjusting the Color Range slider while viewing the mask lets us fine tune the selection without using brushes or gradient masks. We can then further refine the mask using other masking tools or the refine mask tools.

Luminosity masks

A luminosity mask is a specialized mask type you can create anywhere you can create a mask inside HDR. This mask uses the brightness (or luminance) values in your image to let you target specific tonal ranges with an effect (or to hide the effect from those tones). It is ideal for subtle enhancements to very specific areas of an image. They can be used for targeted sharpening and contrast operations, highlights control, and much more.

To add one of these masks, click on the Lumen button in the Mask options area or choose Create Luminosity Mask from the Mask menu. Because luminosity masks take the brightness levels of a photo, when you view the mask, it will look like a grayscale version of the image. With a luminosity mask, your effect will be applied in an increasing amount depending upon the brightness value of the pixel underneath: if the pixel is black, none of the effect will be applied; if it is white, it will be entirely applied; for all other tones, the effect will get applied as a percentage of the pixel's brightness, from 0 (white) to 100 (black).

You can use the Levels or Window controls to further target tones with your luminosity mask. The Levels setting lets you set the black (left triangle) and white (right) points of the mask, with the midpoint, or gamma, setting being adjusted by the middle triangle. This lets you refine the mask to focus on narrow bands of luminance values in an image; for example, if you wanted to focus an effect on the midtones, bringing the white and black points into the middle of the Levels slider, and adjusting the midpoint, will achieve this much quicker than you could with the Masking Brush.



Viewing a luminosity mask is similar to a black-and-white version of your photo; the lighter the tones, the more the intended effect will be, and the darker the tones, the lower the effect. You can use the Invert button to swap the tones in a luminosity mask, or use the Levels and Window controls to restrict the mask to specific tones in your selection.

The Window slider is similar to the Levels slider, in that it works like a black point slider from both sides. When you move the right and left triangles, all of the tonal ranges outside the points will be black, leaving those areas affected that are within the 'window' of the mask. For example, if you wanted only the shadows in your image to have an effect, you would move the right slider over towards the left by about two-thirds.

MASKING TIPS

Here are a few tips for working with the various options in the Mask pane:

- You can use multiple masking tools to create, modify and refine masks. For example, you can start with a luminosity mask, adjust the tonal range of the mask with the Levels or Window sliders, and then further refine your mask by painting in or out with the Masking Brush or Masking Bug. Adding a luminosity mask always overrides the current mask (as is the case with the AI Quick Mask tool), however, so you should start there.
- While the AI-based masking tools can be quite good when building selections, they aren't

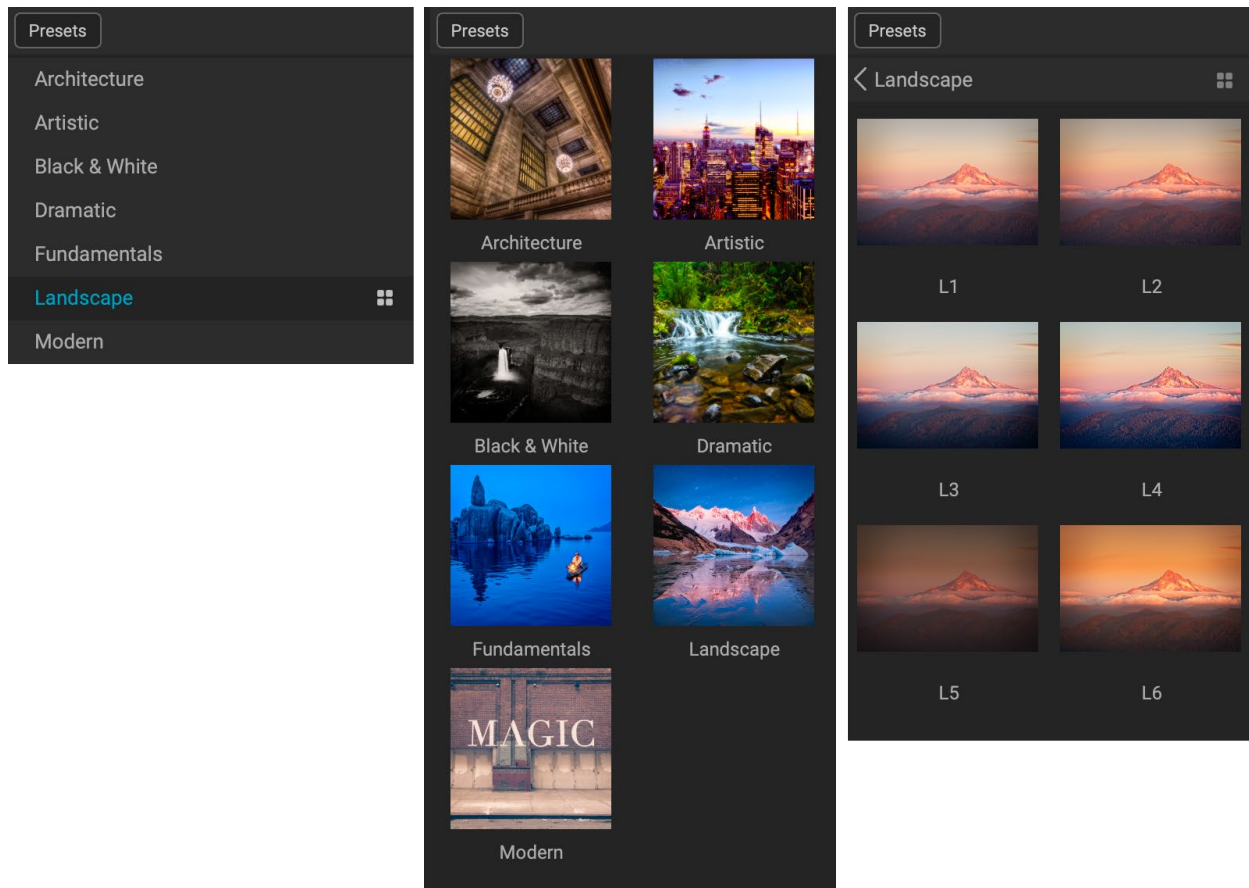
perfect. You should inspect your AI masks after applying them, and use the other masking tools, the refine mask tools or Mask Options to fine-tune your selections.

- Use the Feather slider to smooth transitions between masked and unmasked sections.
- Lowering the Density slider helps intensify an effect after you've created a mask. Think of it like a 'reverse fade': at the 100, all of your mask is viewable, at 0, the mask is entirely white.
- Don't forget that masks aren't just for Effects filters and Local Adjustments; you can create a master layer mask that will apply your selection to the cumulative adjustments made in the Edit module. To do this, click on the Mask icon to the right of the layer.
- It can sometimes be helpful to use the same mask on different filters, so use the Copy button to grab the contents of a mask from one filter and the Paste button to paste that onto the mask of another filter. The Invert command can be invaluable when you wish to apply a filter to the opposite portion of a photo, such as a sky and your foreground.
- Because masks are tied to the actual pixels of the current photo (or layer), they cannot be copied from one photo to another, or between layers in a multi-layered document.

Presets

Presets are stored “recipes” that include sets of Develop settings, Effects filters and local adjustments, and can be applied to a photo with one click. Presets are a fast way to get consistent results when editing a group of images, helping you hone your own look. You can also create your own presets, even presets that incorporate ON1 HDR’s Mask AI technology to apply masks automatically to regions in a photo (See “Creating and Using AI Adaptive Presets” on page 60).

ON1 HDR 2023 comes with more than 50 built-in presets, in seven categories, ranging from landscapes to black and white and much more. You can create your own presets, or import presets from other ON1 users and photographers.



Three different views of the Preset panel. On the left is the List view, in the center is Thumbnail view; these views display the categories of presets. (The view options can be set in the View > Preset Browser submenu.) On the far right is an expanded category, displaying the various presets, with a thumbnail of the current image with the preset applied. From there, you can apply a preset to the current image.

As you hover over a category, the Quick View Browser icon appears on the left side of the category's name. (Landscape is shown above in the preset category list.) Clicking on that icon will open a full-screen window showing your photo with that category's presets applied to it. (See the following page for a screen shot of the Quick View Browser.

HDR lets you create your own custom presets and categories, and you can also create subcategories of presets. (See [page 9](#) for more.)

You can create presets that apply Develop adjustments, Effects settings, and local adjustments that use the Adjustable Gradient tool, and any combination of these.

Presets can also store crop settings and retouching information, as well as masks created with brush tools, Effects' Masking Bug, and the Adjustable Gradient Tool in the Local Adjustments panel. If you apply a preset that contains these options, you should check to make sure that you have the desired result; if not, you can reset the various individual operations via the Settings menu.

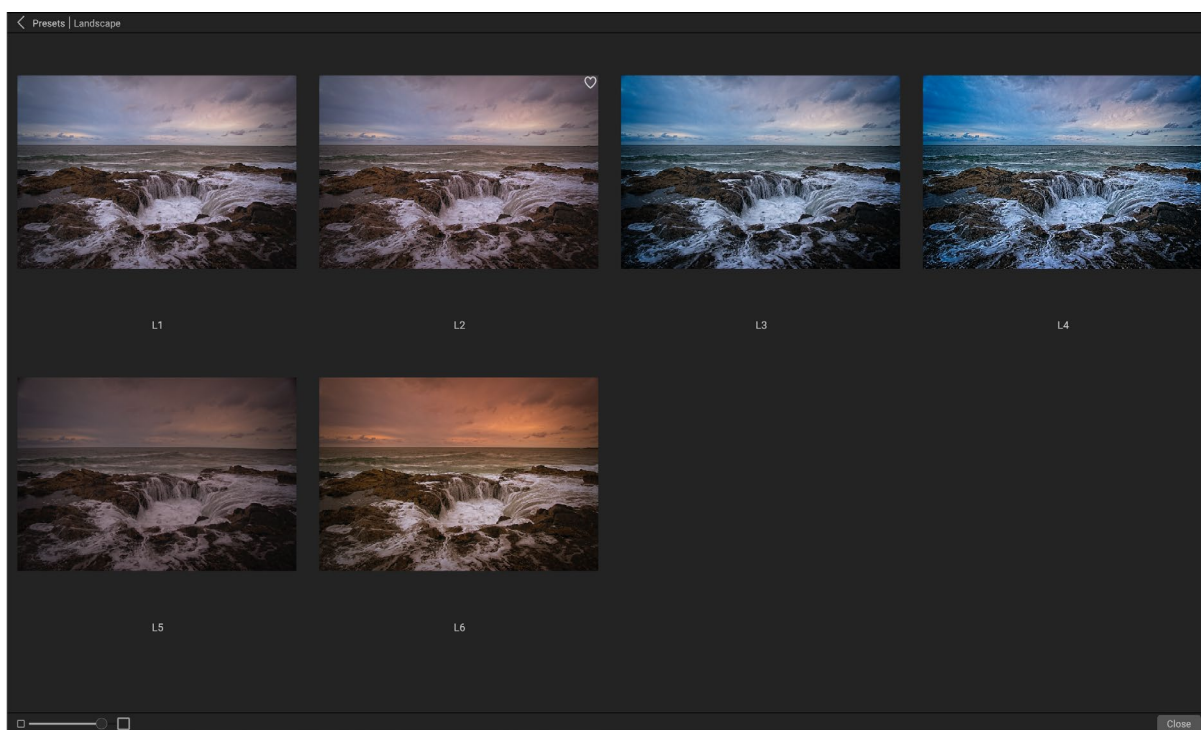
APPLYING PRESETS

To apply a preset to an image, click on the Presets panel. There you will see any built-in presets supplied by ON1—ordered by category—as well as any presets you might have created or installed yourself. Clicking on a category name will open it and display any presets within that category, with a tiny thumbnail showing your selected image with that preset applied to it. To change the size of the thumbnails in the Presets panel, select the Browser Mode option from the View menu and choose One, Two or Three Column View.

To help you view the effects of a specific preset, HDR will display a real-time representation of that preset over your current photo when you hover your cursor over a preset in the subcategory view. To see a larger representation of what your selected photo will look like with all of a category's presets, click on the Quick View Browser icon in the category's title bar. That will display a window with all of the presets in that category. (Press the Escape key to close the Quick View Browser.) To apply a preset to a photo, click on the preset in the mini-browser or in the Quick View Browser. Presets are not cumulative; clicking on another preset will remove the previous one and apply the new one.

Landscape

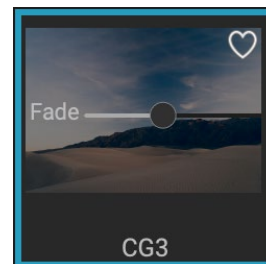
A preset with the Quick View Browser icon shown.



Clicking on the Quick View Browser icon in the Panels pane (or choosing Open Quick View Browser from the Window menu) will open a full-screen representation of that category's presets, giving you a larger representation of how that preset will look on your image.

Once you've applied a preset, you can reduce its overall effect by hovering over the chosen preset. There, you will see a Fade slider, where you can lower the opacity of any Effects filters applied with the preset. (Develop and local adjustments included in a preset are not reduced.)

After you have applied a preset, you can still make changes to any of the settings—in Develop, Effects, and Local Adjustments—add or remove adjustments, switch to another preset, perform any retouching or more.



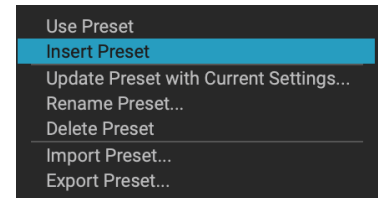
The Fade slider reduces the opacity of Effects filters applied with a preset.

If you don't like a preset, clicking on another one will replace the settings of the previous preset with the settings of the new preset. To remove a preset entirely, choose one of the reset options from the Settings menu, or remove the individual settings from the appropriate panes in Develop and Effects. (The latter approach is recommended if you have created masks or local adjustments that you wish to preserve.)

You can save a preset as a favorite by hovering over its thumbnail in the browser, and clicking on the heart icon. This will add that preset to a Favorites category that resides at the top of the Presets panel. To remove a favorite, click again on the heart icon.

Inserting Presets (Effects tab only)

When you click on a preset, HDR's default behavior is to remove any existing adjustments and apply the newly chosen preset to your photo. Sometimes, however, you would like to add a preset on top of your adjustments. To do this, open the Presets pane, right-click on the preset you wish to add, and choose Insert Preset from the pop-up menu. This will add the preset's filters above the currently selected filter pane and will preserve any edits you made in the Develop or Local Adjustment tabs.



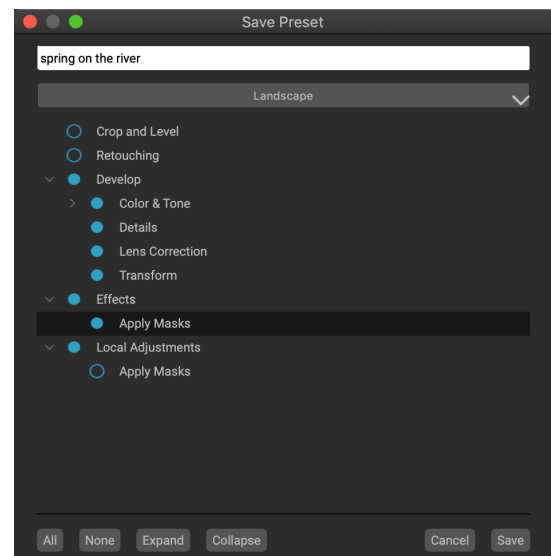
The Insert Preset option is only available when working in the Effects tab.

Inserting a preset will only add that preset's Effects filters to your currently edited photo. Develop adjustments and local adjustment layers will not be added.

CREATING YOUR OWN PRESETS

Once you have a group of edited settings that you wish to save, go to the Settings menu and select Save Preset. The Save Preset dialog will appear, with options for which module's settings you wish to save, naming the preset, and adding it to an existing or new category. Nearly all of the Edit module settings can be saved as a preset, including cropping, retouching, and masks. To save your masks — AI adaptive or otherwise — check the Apply Masks option for each tab in the Edit module.

If you have applied a preset to an image, and subsequently updated any of the edit settings (or add or remove adjustments), you can update the preset with the new settings by choosing Update Preset with Current Settings from the Settings menu. This will only change the preset in your app; any images that had the old version of the preset will keep those settings unless you reapply the preset. (You can also update a preset by right-clicking on the preset in the Preset Browser.)



The Save Preset window includes all of the operations possible in the Edit module, with the exception of layer operations. Filled circles to the left of a setting mean that the setting will be saved in the preset; click the circle if you don't wish that setting to be saved.

If you would like to create a new preset category—which will be added to the Presets panel throughout ON1 HDR—choose Add New Category from the category pop-up.

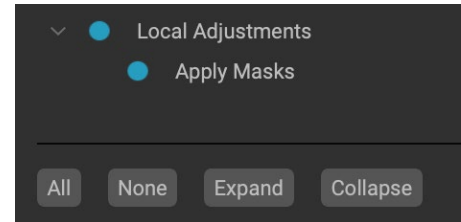
CREATING AND USING AI ADAPTIVE PRESETS

When you use the Super Select AI tool or the Mask AI options in the Effects, Local Adjustments or in the

Layers panel, you can save those region selections when you create a new preset, by clicking on the Apply Masks item in the appropriate tab. Then, when you apply the preset to a new photo, anything (Effects filter or local adjustment) that had an AI-generated mask region — such as a sky — will be applied to those regions with the same name in the new photo. These preset types are called “adaptive,” meaning that they are applied to a photo based on HDR’s AI models.

Here are a few tips to think about when working with adaptive presets:

- It’s best to create an adaptive preset that only uses AI-generated masks. If you save a preset where any filters or local adjustments have masks that have been created by the standard masking tools (like the Masking Brush or Masking Bug), those masks will be regenerated based on the precise location of the mask in the image that was used to create the preset.
- Any changes to the mask made via the Mask control options pane (see [page 54](#)) are saved with the preset.
- After you apply an adaptive preset to a photo, check the masks that the preset created. Quite often, you’ll find that you might need to use some of the mask refinement tools — or even the Masking Brush — to fine-tune your mask.
- Feel free to add your adaptive presets to any of the existing preset categories, or create your own category (see below for how to do that). For best practice, however, name or categorize adaptive presets such that you know which ones contain AI-generated selections.



Clicking Apply Masks in the Save Preset window will save your AI-generated regions. When you use that preset, those masks will be applied to similarly named regions.

MANAGING PRESETS AND CATEGORIES

You can perform a variety of operations on presets and preset categories, including importing and exporting presets (individually or by category), deleting individual presets, and hiding categories.

Importing & Exporting Presets

You can import presets you have downloaded from the ON1 website or other source. Some files will be individual presets, while others might be preset “packs,” which will include more than one preset.

A preset will have an ‘.ONP’ extension, while a preset pack has an ‘ONPreset’ extension; all you need to do is double-click on the file—or choose Import Preset from the Settings menu—and HDR 2023 will ask you to pick a category where you wish to place the preset or pack, and it will copy the presets into the app. You can delete the downloaded files, if desired.

To export an individual preset, click on it and choose Export preset from the Settings menu. You can also export an entire category of presets, via the category preset menu (shown below).

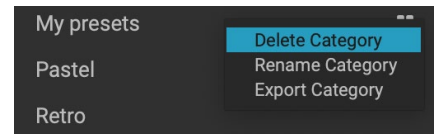
Deleting presets

To remove a preset if you no longer want to have access to it, select the preset you wish to remove in the Preset panel, and choose Delete Preset from the Settings menu. You can also right-click on an individual preset and click Delete Preset from the pop-up menu.

You can delete any preset, including the presets that came pre-installed with ON1 HDR. If you think you might wish to save a preset, export it first, then delete it.

Managing categories

In addition to creating your own preset categories, which get displayed in the Presets pane, you can also perform other operations on categories, including deleting, renaming or exporting. These options are all available via the Preset Category pop-up menu, which is available when you hold right-click on a category name:



Right-click on a preset category to get the category pop-up menu.

- To remove a category—and its presets—from the Presets panel, choose Delete Category from the pop-up.
- Choose Rename category if you wish to change the name of the category.
- To export a category and all of the presets within it as an ONPreset pack, choose Export Category from the pop-up menu.

TIP: Many preset management options can also be performed by clicking on a preset in the Preset panel and right-clicking on the preset. This is helpful if you want to update, export or rename a preset without applying it to an image in Develop or Effects.

Nesting presets

To help manage large groups of presets, HDR's Extras Manager lets you nest preset categories. See [page 9](#) for details on how to create and manage preset category subfolders.

RESETTING EDITS

Any edits you have made with ON1 HDR 2023 can be completely reset from within the Edit module.

The Settings menu offers six options for erasing edits made to a photo:

- **Reset All Settings:** This removes all adjustments made to a photo in the Edit module. (This option can also be accessed from the Reset All button at the bottom right of the Edit window.)
- **Reset Develop Settings:** Removes only the settings applied in the Develop tab.
- **Reset Effects Settings:** Removes only the settings applied in the Effects tab.
- **Reset All Retouching Tools:** Resets any retouching applied anywhere in the Edit module.
- **Reset Local Adjustments:** Removes all local adjustment layers.
- **Reset Crop:** Returns the image to its original, uncropped size.

You can undo any of these changes immediately after making them; otherwise resetting with the appropriate option will permanently reset the image.

NOTE: The Reset settings work on the currently selected layer, not on the file.

Soft Proofing

ON1 HDR's soft proofing feature lets you see how a photo will look when printed, using the color profiles that get installed with your printer. Soft proofing helps you determine where there might be issues when you print, so that you can adjust your tone, color and effects to give you a print that is closer to your editing vision.

Normally, when you're viewing an image in HDR, you are viewing it through the lens of your monitor's display profile. The color gamut of your computer's display is wider than that of most photo printers, which means that some colors you are able to view on-screen are not reproducible when you print. When this happens, the color profile conversion that happens in the print engine will cause substitutions of colors that the printer cannot print to the closest color that it can. This means that your image could have subtle (or broad) shifts in color, especially in certain color ranges.

Soft proofing is turned on via the View menu, or by clicking on the soft proofing icon to the left of the Preview button at the bottom of the main HDR window. You soft-proof various paper types by choosing an installed printer profile from the Profiles submenu. The image will change to approximate the color of the paper you're profiling. You can also turn on an overlay that will display out-of-gamut colors.

The primary soft-proofing options are available underneath the Enable Soft Proofing item in the View menu. The options are as follows:

- **Gamut warning:** When checked, this displays colors in the image (via a red overlay) that don't correspond to the current printer profile being soft proofed.
- **Profiles:** The Profiles submenu lists the currently available printer profiles. Choosing one will change the on-screen display to use that profile. You can also import profiles via this submenu.



These three screen shots show the results of soft proofing options, as viewed in the Edit module. The top image is with soft proofing off (and is using the display color profile). The middle image is with soft proofing turned on, and using a printer profile for Epson's Velvet Fine Art Paper. The bottom image has the Gamut warning turned on; out of gamut colors are highlighted by the bright red overlay.

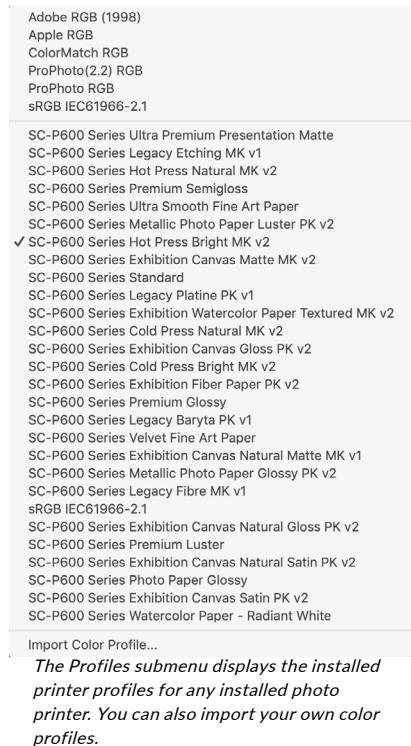
- **Intent:** HDR offers two different rendering “intents” when soft proofing, which are used to convert the color from display to print. Perceptual shrinks the color gamut during the conversion, which works to preserve the relationship between colors in the image. The other intent type, Relative, only converts colors that are outside the current color gamut, but this can sometimes cause two colors, one in gamut, and one outside, to be identical after conversion.

Neither rendering intent is perfect or desired; it often is a matter of the makeup of the image, your editing intent, the paper being printed on, and so forth. Often, you’ll want to switch back and forth between Relative and Perceptual, seeing which gives you a better print.

- **Simulate Paper and Ink:** Turning this setting on will cause HDR to use the white point for the chosen paper type (instead of the white point of your monitor), and the paper’s actual black density (instead of the display’s black point). If you’re trying to match a print, you will usually want this setting turned on.

Adjusting images with soft proofing is often a bit of trial and error. It’s easy to get caught up in eliminating out-of-gamut colors, but most modern photo printers—both home printers and online print services—do a pretty good job of properly approximating colors.

The biggest thing you want to be looking for when viewing a soft proof is tone, contrast and color accuracy between screen and print. When using a home printer, use test prints to hone in on the right mix of Edit module adjustments.



Other Preview Options

In addition to soft proofing, ON1 HDR 2023 offers a few other previewing options in the Edit module, which can be found in the previewing section at the bottom of the HDR window. With these options, you can compare the before and after views of a photo—in either split-screen or full-screen views—see the current mask, and turn soft proofing on or off.



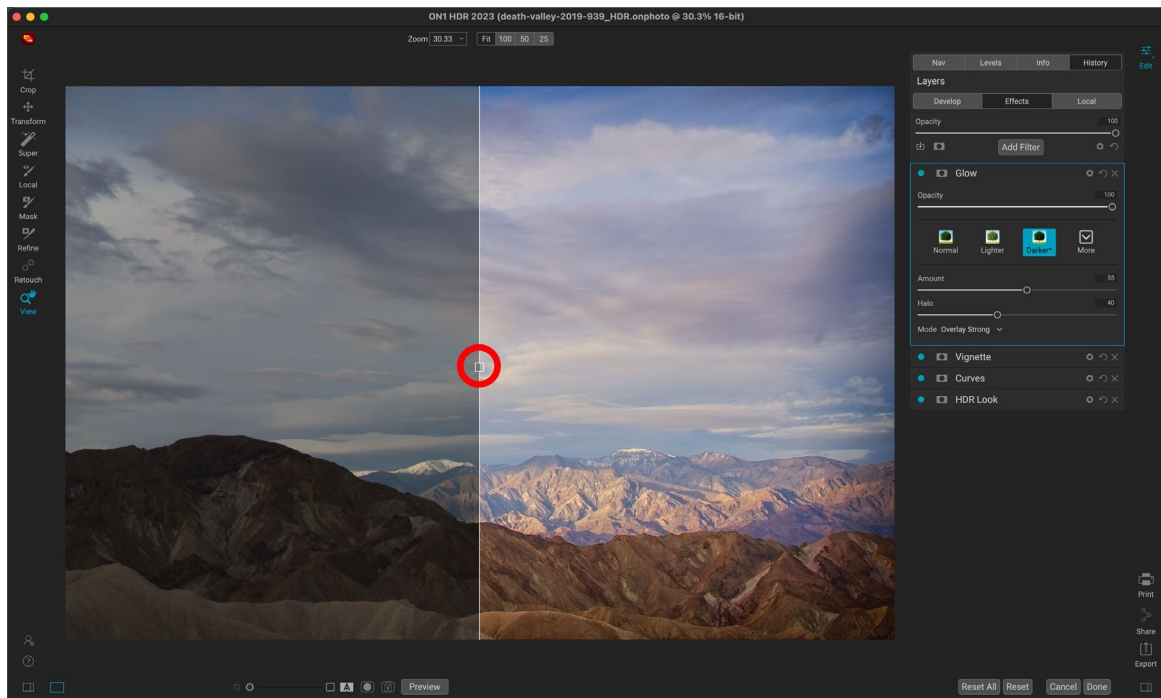
The Preview area at the bottom of the main HDR window includes options for adjusting the preview magnification, turning compare (before/after) view on or off, viewing the current mask, turning soft proofing on or off, and for viewing the original photo, with all edits removed.

CHANGING THE MAGNIFICATION VIEW

HDR includes various options for zooming in or out of a photo while you’re working on it. In addition to the Zoom tool and the Navigation pane (see [page 51](#) and [page 23](#), respectively), you can change the zoom view by moving the magnification slider. You can either click on the control and slide it to the right to zoom in and to the left to zoom out, or you can click on the boxes at the ends of the slider.

BEFORE/AFTER PREVIEWS

As you work in the Edit module, it can be helpful to see how individual edits—via items in the different edit tabs—affect your photo, as well as to see the cumulative changes made to the original image. The Edit module's Compare mode displays a side-by-side view of your photo, with the original version on the left, the edited version on the right. There is a movable slider in the middle of the screen, which lets you view more or less of each view; click on the box at the center of the slider and drag it to the left (to view more of the edited image) or to the right (to view more of the original). While working in Compare view, you can use the magnification slider to zoom in or out of the image, which can be useful when you wish to see the effects of your edits on smaller sections of your photo.



Edit's Compare view displays a before/after view of your current photo, with a movable slider for expanding and contracting the different views.

You can also view your original image full-screen by clicking the Preview button at the far right of the previewing toolbar. When you click this button, the original photo is displayed with a “Preview Off” overlay. To return to your edited version, click the Preview button again. (You can also use the backslash key—‘\’—to show and hide the full-screen preview.)

SHOW/HIDE MASK

ON1 HDR 2023 has extensive masking capabilities throughout the Edit module. While you're in the process of creating a mask, you have two options for displaying the contents of a current mask:

- As a transparent red overlay, where the masked sections of your photo are shown in red.
- As a grayscale mask, where you do not see the photo, but see only the mask. Masked areas are shown in shades of gray, with pure black meaning that those pixels are completely masked. Gray values (from 1% to 99%) represent the opacity of those pixels relative to the mask, and areas of pure white are not masked.

The overlays can be set in the Mask menu's View Mode submenu while you are working in the Edit module. (You can also, via this menu, show the mask as a red overlay only when you are brushing a mask.) You can toggle the current mask view by clicking on the Show Mask icon in the previewing toolbar, or by pressing the O key.

For more information on the varying aspects of masking in ON1 HDR 2023, check the respective masking tools earlier in this chapter, as well as the [“Filter Masks” on page 83](#).

FOCUS AND CLIPPING VIEWS

Two additional previewing tools that can be quite powerful aids when you are editing photos are the Clipping and Focus Mask overlays. These options can be displayed in any of the Edit module tabs.

Clipping

Clipping occurs when the shadow and highlight tones in an image are suddenly cut off to completely white or black, rather than fading smoothly. (Large expanses of white pixels in a photo are often referred to as 'blown' highlights, and can be quite distracting to a viewer.) One of the benefits of shooting in raw format is that, while many photos will have areas of pure white or black when originally viewed on-screen, there is still recoverable data in the raw image. The Clipping overlay can help determine how big a problem you might have with a photo, and how easy (or difficult) it will be to fix.

To display the Clipping overlay temporarily, press the J key; to turn it on permanently as you move from photo to photo, choose View > Show Clipping, or press Alt (Windows) or Option (Mac) J on your keyboard.



Clipping view displays pure white pixels with a bright red overlay, and pure black pixels with a bright blue overlay.

The Clipping view overlay displays the areas that have either pure white or pure black in them. Those areas with a bright blue overlay indicate pure black pixels, while the areas with the bright red overlay indicate pure white pixels.

Focus Mask

It can often be difficult to view the sharpness in a photo without zooming in to 100% or more, and if you have a lot of photos from a shoot, it can be a bit tedious to check focus at that level. Luckily, HDR's Focus Mask overlay can help winnow your shots down to the sharpest ones.

To turn on Focus Mask, choose View > Show Focus Mask, or press Shift-Alt-J (Windows) or Shift-Option-J (Mac). The sharpest areas in your image will be represented by a bright green overlay. As you move from photo to photo in a folder, you'll be able to tell whether you have an acceptable level of sharpness where you need it by the strength of the overlay. The mask will continue to be displayed even as you zoom in on a photo.

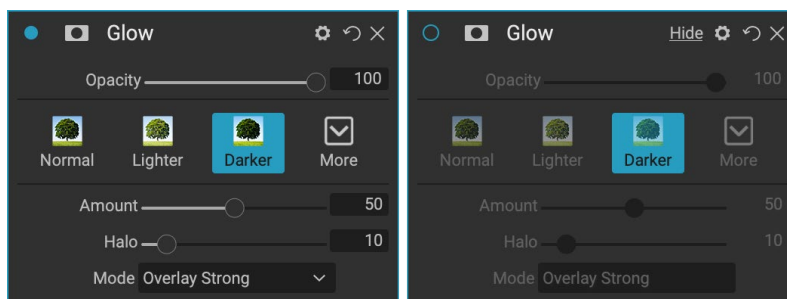


The Focus Mask option displays areas of sharpness with a bright green overlay.

SHOWING OR HIDING EDIT MODULE ADJUSTMENTS

You can also show or hide many individual adjustments made throughout the Edit module. Most of the panels in the Develop, Effects and Local tabs have a Show/Hide control in the upper left-hand corner of the panel. You can make your adjustments, and can click the control to turn the effect on or off.

That this option is not solely for previewing an effect; if the adjustment is turned off, it will not be present in the edited image. This can be helpful if you're trying different filters in Effects, for example, and you want to see if one looks better than another, or if you wish to see if it truly helps the photo or not. To turn the adjustment back on, click on the Show/Hide control so that the circle is filled.



To turn an effect or other adjustment off, click on the Show/Hide control in the upper left of an adjustment's panel. If the control's circle is empty, that effect is not implemented. Clicking the control will turn it back on.

The only adjustment inside the Edit module that cannot be turned off in this way is the Tone & Color panel in the Develop module. If you wish to view your photo without those adjustments, you need to press the Reset icon, which is represented by '↺' at the top right side of the panel.

For a complete description of the controls in most Edit module panels, see [page 79](#).

Saving Your Work

ON1 HDR saves your non-destructive settings for the photo you are editing when you return to the startup screen. If you would like to periodically save your settings during your editing session, you can use the Save Settings command. This saves your work in the off chance the application encounters an error. To save the current state of your actions, choose Save Settings from the Settings menu, or press Command-S (MacOS) or Control-S.

PART 4: BASIC EDITING WITH DEVELOP



Develop is the module for performing basic global editing operations—adjusting tone and color, removing noise, sharpening and applying transforms to a photo. It is the perfect place to begin editing your photos.

Develop Adjustment Panes

The Develop tab has four adjustment panes found in the Overall Settings panel. Unlike the Effects tab, which lets you stack filters in any order, the Develop tab's adjustments are applied in the following order:

1. Tone & Color
2. Details
3. Lens Correction
4. Transform

WORKING WITH PANES

The Tone & Color pane is at the top of the stack, followed by Details, Lens Correction and Transform. These panes are not removable from the stack, although you do not have to apply any of these operations to a photo. The remaining panes can be applied based upon what you wish to do with your photo. Clicking on the button to the left of the pane's name will turn that pane on or off, which can be helpful if you want to see the effect in the context of other edits you have made. The Reset button—designated by the circular arrow icon at the top right of each pane—will reset that pane's settings to their default state.

TIP: Each pane can be collapsed, by clicking in the pane's title bar (a Hide/Show link is visible when you move your cursor over the bar, but the entire title bar is clickable). If you don't want to have to scroll up and down the Settings panel when you have a lot of open panes, choose Solo Mode from the Window menu. This will leave only the current pane open, and will hide all the other panes. Clicking on another pane will open that one and collapse the previous one.

TONE & COLOR

This pane adjusts the tonal and color characteristics of an image, letting you correct and enhance exposure, contrast, detail and color. It is split into two sections, Tone and Color, with a Color Profile option at the top of the pane.

Camera Profile

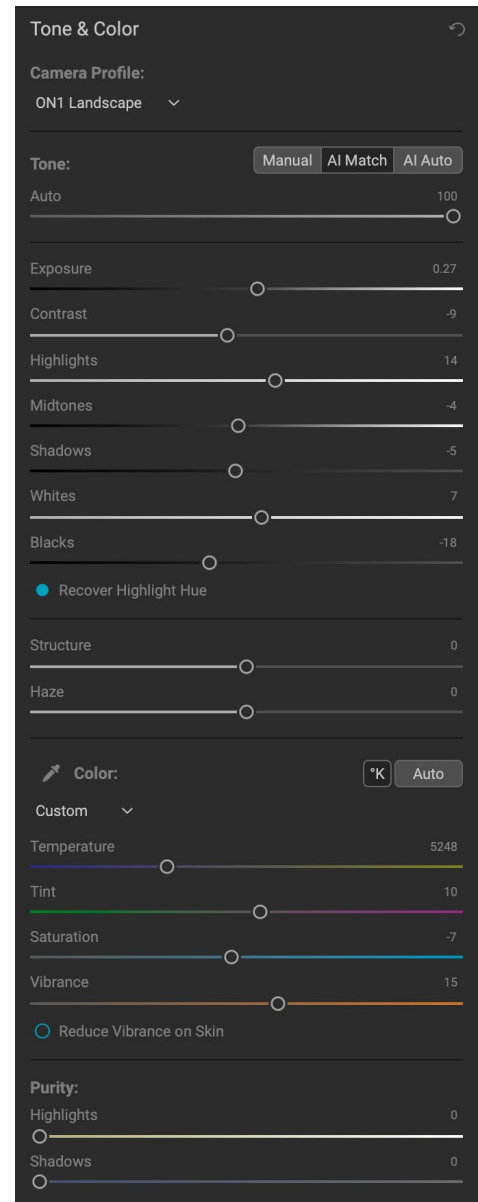
Camera profiles apply alternative interpretations of the raw data in an image based upon different genre types or intents. The pop-up menu displays HDR's built-in profiles: ON1 Standard, Landscape, Portrait, Vivid and Neutral. If your camera has its own embedded profiles, you will see those profiles in the list as well, and you can also import your own custom camera profiles using HDR, and X-Rite's ColorChecker and ColorChecker Camera Calibration software. (See [page 76](#) for more information on how to create and import custom camera profiles into HDR.)

HDR's camera profiles are non-destructive, and work independently of any changes you make to tone or color.

Tone

The Tone sliders control the global tonality, or brightness and contrast of the image. You can adjust each of the following:

- **Manual, AI Match and AI Auto buttons:** The AI Match button uses artificial intelligence technology to automatically adjust the controls in the Tone panel to closely match your photo as you saw it on the back of your camera's display (this option is only available when opening individual raw files inside ON1 HDR). The AI Auto button performs an automatic tone adjustment on your photo using a proprietary ON1 algorithm. If you don't use either of these options, or if you make subsequent adjustments, the Manual button will be highlighted.
- **Auto Tone slider:** This option is only available when using the AI Match or the AI Auto option. Using this slider will let you 'fade' the effect of those options.



- **Exposure:** Adjusting this slider to the right will lighten your image. Adjusting to the left will darken your image.
- **Contrast:** Increase or decrease the contrast in your image.
- **Highlights:** Darkens the highlights, recovering detail.
- **Shadows:** Lightens the shadows, revealing details.
- **Whites:** Adjusts the white point, adding or removing contrast in the highlights.
- **Blacks:** Adjusts the black point, adding or removing contrast in the shadows.
- **Structure:** Adjusts the detail in your image by changing the local contrast.
- **Haze:** When moved to the left, this will remove haze or fog from your photos; moving it right will enhance fog or haze.

NOTE: The AI Match and AI Auto buttons only affect the tone and saturation of your image; they don't adjust the white balance. If you wish to change the white balance, use the Auto button in the Color section of the panel, or adjust the Temperature and Tint sliders as desired, as described below.

Color

The Color sliders control the Temperature, Tint and Vibrance. They are used to remove a color cast and enhance the color of the image. By default, when working with raw (or DNG) files, the color temperature is measured in degrees Kelvin (°K), which gives you a larger and more accurate range to make adjustments.

The settings in this section of the Tone & Color pane include:

- **Auto Button:** The auto button attempts to detect and remove a color cast. It makes adjustments to the Temperature and Tint sliders.
- **Gray Dropper:** Used to remove a color cast of an image. Click the icon to activate, then click on an area in the image that should be gray.
- **White Balance presets:** This pop-up lets you change the white balance according to common color temperatures (As Shot, Auto, Daylight, Cloudy, Shade, Tungsten, Florescent, Flash, Custom). The default is As Shot, which is the color temperature that the camera recorded when you took the photo.
- **Temperature:** This slider shifts the color either cooler (blue) or warmer (yellow). When editing a raw file, the °K button will be blue, which means that the temperature is measured in degrees Kelvin. Clicking the button will change the slider to a relative color ramp. (The Kelvin ramp is only available when working with raw photos; other formats use the relative slider.)
- **Tint:** Shifts the color either green or magenta.
- **Saturation:** Increases or decreases the saturation of your image.
- **Vibrance:** Increases/decreases the color of muted tones, leaving more saturated colors alone.
- **Reduce Vibrance on Skin:** When turned on, adjustments made with Vibrance slider are reduced on skin colored areas. This allows you to increase the vibrance of clothing and the background without adversely affecting the skin color.

- **Purity – Highlights:** Reduces the saturation in the highlights.
- **Purity – Shadows:** Reduces the saturation in the shadows.

Adjusting Tone & Color settings via hotkeys

When you're working in any tab inside the Edit module, you have the capability to adjust the basic tone and color settings for your current image directly from the keyboard, based on the hotkeys found in the Keyboard Shortcuts window. These include the following sliders: Exposure, Contrast, Highlights, Midtones, Shadows, Whites, Blacks, Temperature, Tint, Saturation and Vibrance.

To use this feature, first invoke the setting you wish to change with the appropriate keyboard shortcut. An on-screen overlay label will appear, indicating that you are changing that setting. Use the Up and Down arrow keys to increment or decrement the chosen slider. When you're done, press the Escape key, or click in the window.

Command	Shortcut
> Modules	
> Develop	
Exposure	⌘Q
Contrast	⌘W
Highlights	⌘E
Midtones	⌘R
Shadows	⌘T
Whites	⌘Y
Blacks	⌘U
Temperature	⌘A
Tint	⌘S
Saturation	⌘D
Vibrance	⌘F

You can view (and change) the hotkeys for the primary Tone & Color adjustments from the Keyboard Shortcuts window, which is found in the Edit menu.

This feature can be helpful when, for example, you apply a set of filters in Effects and feel that they caused the shadows to darken in your image. Using the keyboard shortcut for the Shadows adjustment, you can make changes dynamically without having to go back to the Develop tab.

ON1 HDR 2023 has a set of pre-assigned keys for these adjustments in the Develop section of the Keyboard Shortcuts window, but you can change them easily. See [“Customizing ON1 HDR’s Keyboard Shortcuts” on page 13](#) for more.

DETAILS

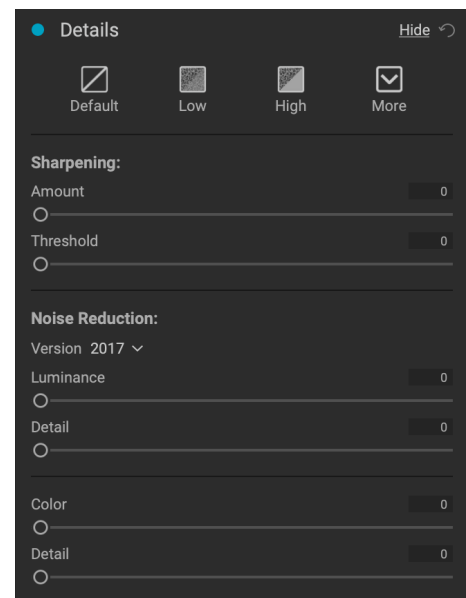
The Details pane incorporates sharpening and noise reduction, two adjustments that often compete with each other when working on a photo. We’ve added them together into a single pane to help you achieve the right balance between sharpness and noise during your initial photo editing.

Sharpening

The sharpening section of the Details pane is designed to help visually sharpen an image based on its initial state from your camera—for example, to bring back some sharpness that might have been lost. It has two basic controls: Amount and Threshold. Amount controls the strength of the sharpening applied, while Threshold reduces sharpening in areas of low detail via a threshold mask.

If you hold down the Option (Mac) or Alt (Windows) key as you adjust the Amount slider ON1 HDR will display your photo in grayscale, which can make it easier to view the degree of sharpening you’re applying.

With the Threshold slider, a setting of 0 means that the sharpening amount gets applied to every pixel. As you increase the amount, it focuses the sharpening only where there is a difference between



neighboring pixels. To help you determine which edges are sharpened, you can use the same Option/Alt key trick mentioned above. In this view, as you adjust the Threshold slider, everything that is white will get sharpening applied to it; everything displayed as black will not have sharpening applied.

NOTE: When you are adjusting the sharpening or the noise in a photo, it is best to be working at 100% view. To do this, you can click on the 100 button in the Navigator pane, choose View Actual Pixels from the View menu, or press Command-Option-0 (Mac) or Control-Alt-0 (Windows) on your keyboard.

Noise Reduction

The Noise Reduction section reduces luminance and color noise, while maintaining image detail. By default, ON1 HDR applies a small amount of noise reduction on your photo, based on the camera type used. You can then further refine both luminance and color noise, as defined below:

- **Luminance:** Adjusts the overall strength of the noise reduction applied to the luminance or detail of the image. Hold down the Alt/Option key to see just the luminance while adjusting this slider.
- **Color:** Controls the amount of noise reduction applied just to the color noise or chroma, of the image.
- **Detail:** Controls how much edge detail is protected. Hold down the Alt/Option key to see the edge mask while adjusting this slider.
- **Remove Hot Pixels:** If you have any individual, blown-out pixels in your image, turning this setting on will remove them, changing that pixel's color to one that blends in with the surrounding pixels. This setting can also be helpful in reducing noise in long exposures.

The Details pane is intended to adjust the base-level sharpening and noise reduction of a photo. If you wish to apply further sharpening for printing or other output uses, you can add more targeted sharpening in the Effects tab, or the Print window, if you wish to sharpen for output.

Styles

The Details pane has a set of built-in styles in the top part of the pane. Styles are like preset adjustments for a pane: they provide a group of settings to help you get started in the pane, or to apply a specific effect.

You use a style by clicking on the style's icon in the pane, and then can adjust the sliders as desired to get the right effect for your photo.

You can save your own settings as a style. Simply click on the More icon on the far right side of the styles list for that pane, then choose Save New Style from the pop-up. Name your style, and it will then be added to the top of the More menu. To apply a saved style, choose the style from the More pop-up menu. To adjust the settings for a saved style, apply it, make any changes you would like to the sliders or other options, then click on the More pop-up and choose Update Style with Current Settings from the menu.

LENS CORRECTION

The Lens Correction pane uses the lens metadata embedded in a photo and searches HDR's internal lens database for an appropriate profile. If found, the profile will be applied automatically, reducing distortion, color fringing (chromatic aberration) and peripheral fall-off. You can also make your own manual lens-correction adjustments, if you prefer.

NOTE: Lens profiles can only be applied to raw photos that are opened when using ON1 HDR as a standalone. If you use HDR as a plugin from Lightroom or Capture One, lens profiles will not have any effect on your photo, although adjustments made in the Manual section of the pane will get applied to your final photo.

ON1 HDR detects embedded lens profiles in modern lenses from Panasonic, Fujifilm, Canon, Nikon and Sony. The lens database also has hundreds of profiles for many third-party lenses from companies like Tamron, Sigma, Tokina, Zeiss, Voigtländer and others. It will automatically apply a profile when the camera and lens models are from the same manufacturer.

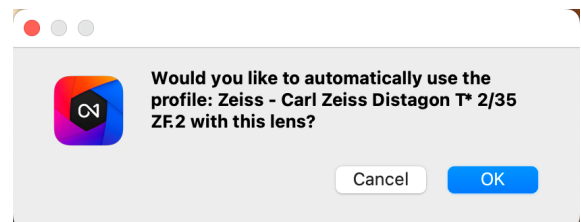
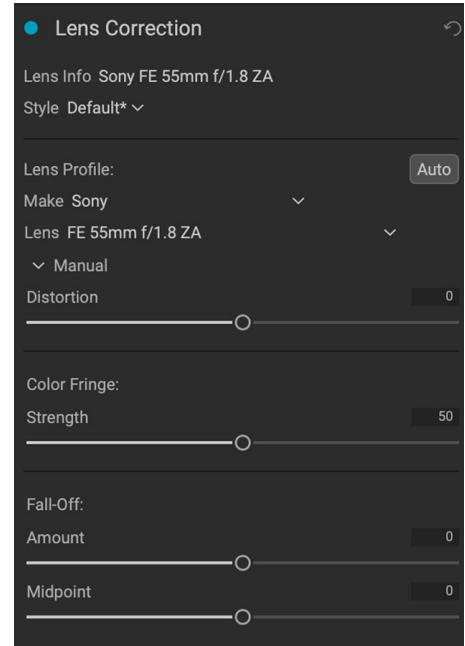
When working with third-party lenses and your specific camera, you can use the Lens Profile section of the Lens Correction pane to find the appropriate lens profile from the database and apply it to your image. When you do this, you will be asked if you wish to apply this lens profile to any other images for that lens. If you say yes, the profile will be saved as a custom style in the Lens Correction pane, and will be applied automatically every time HDR sees this combination.

If the app doesn't have a built-in profile for your lens, it will automatically attempt to correct the image in real time, based on a comparison between the embedded JPG of the raw image and the raw data itself. In this case, there is no need to save the correction as a style—if you feel that this representation is accurate. If it needs tweaking, you can further adjust the correction in the Manual section of the pane (see below), and then save the correction as a style and apply it to other images taken with that lens and camera combination. (They will not be applied automatically, however.)

Applying Manual Lens Correction

To apply your own lens correction to a photo, click on the Manual triangle at the bottom of the pane and choose the manufacturer of the lens (or the camera make, if you don't have that). The Manual section lets you adjust the following parameters:

- Pincushion (where lines in a photo curve inward) or barrel (lines curve outward) distortion;
- Purple or green color fringing that might occur along edges in an image shot with that lens/camera combination; and



When you pair a camera with an existing lens profile from a third-party lens manufacturer, HDR will ask if you would like to use that profile on all images with this combination.

- The light fall-off (vignetting) that can occur at the outer edges of a lens at certain focal lengths or aperture. Once you've adjusted the sliders as needed, choose Save New Style from the Style pop-up to use this profile on other lenses.

NOTE: Lens corrections are applied automatically inside ON1 HDR, but you can turn this setting off via Default Processing section of the Preferences' File tab (see [page 128](#)). If you have this setting turned off and wish to apply corrections to an image, you must enable the Lens Correction pane in the Develop module.

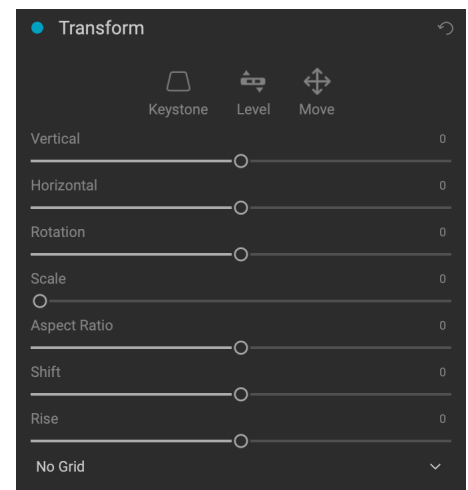
A list of the currently supported lens profiles can be found on the ON1 support website, via [this link](#).

TRANSFORM

Transform applies distortion and perspective correction to your image, and offers rotation and scaling options as well. You can use these settings to make small adjustments to perspective or distortion.

The three icons at the top of the pane let you apply specific transforms to the current photo:

- **Keystone** lets you project your image as if it were on an angled surface. This type of effect is often used to help adjust the perspective in architectural photos. Selecting the Keystone option will give you a box with four handles at the corners. You can extend the handles in any direction. Once you're done, click on the Apply button at the center of the keystone box.
- **Level** works in a similar fashion to the one found in the Crop tool (found on [page 27](#)). Select the tool and click and drag across an element in your image that should be level.
- **Move** lets you adjust the image's position on the canvas. Click and drag to reposition.



Keystoning can be helpful when you want to adjust the perspective in a photo; just adjust the four corners to align with an object that should have parallel lines, like a window or door, then click the Apply button. The Transform pane doesn't apply a crop when you apply a transformation; use the Crop tool for that.

In addition to the above tools, the following options will apply specific transform operations:

- **Vertical:** Adjusts the vertical perspective.
- **Horizontal:** Adjusts the horizontal perspective.
- **Rotation:** Rotates the canvas up to 45° clockwise or counterclockwise.
- **Scale:** Scales your image up from the center, to 100%.
- **Aspect Ratio:** Stretches your image horizontally (moving the slider to the left) or vertically (to the right).

- **Shift:** Translates the image left or right.
- **Rise:** Translates the image up or down.

The Grid pop-up menu at the bottom of the Transform pane lets you display a grid overlay while you are adjusting the pane's sliders. The default for the pane is No Grid, but you can also choose between 10% (large), 5% (medium) or 1% (fine) grid settings.

The Transform tool works best most of the time in small amounts. It's not necessarily going to fix a photo with an extreme perspective, but it can often help with slight adjustments, especially if you fine-tune them with some of the Transform panel's other controls or the Manual section of the Lens Correction panel. In addition, the tool does not apply a crop after an operation; if you are happy with the transform results, use the Crop tool to finish your work.



The Transform pane's Keystone option can help with perspective issues in a photo. Clicking the Keystone icon gives you a box that you can use to align the four corners of an object that should have parallel lines (above left). Once you have the edges of the object aligned, click the Apply button in the center to create the transform, and apply a crop as necessary. (Sometimes, you'll find that using the manual section of the Lens Correction pane can help reduce some of the distortion that the Keystone operation can create.)

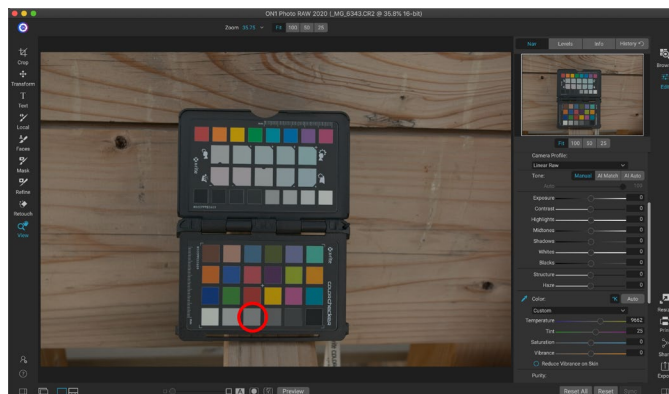
CREATING AND ADDING CUSTOM CAMERA PROFILES

As noted in the section on the Tone & Color panel (page 68), you can create your own custom camera profiles and import them into HDR. Custom camera profiles can help improve the fidelity of color reproduction in your photos, and for some photographers, this can be a useful tool.

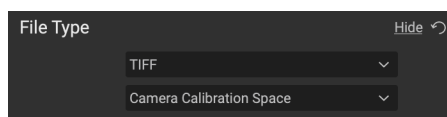
To build a new profile, you'll require a color profiling target and special software that creates the profile. ON1 worked with X-Rite Inc. during the development process to create a workflow that helps ease this process and ensure consistent results when building camera profiles. In addition to ON1 HDR 2023, you'll need a reference target, such as one of the ColorChecker series, and X-Rite's ColorChecker Camera Calibration app.

The process for creating a custom profile is as follows:

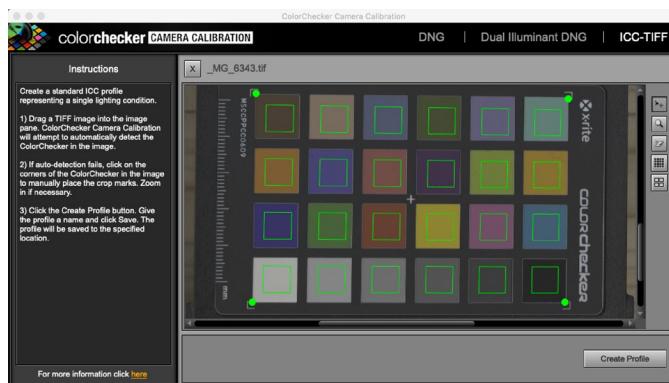
- Turn off automatic white balance on your camera; set it to the lighting conditions—daylight, tungsten, flash, fluorescent—in which you are shooting the target.
- Place the color reference target in the center of your scene, with even light. Take the photo.
- Open the photo in HDR's Develop tab.
- In the Camera Profile section of the Tone & Color panel, choose the Linear Raw profile from the pop-up.
- Click on the dropper icon in the Color section of the Tone & Color panel (see page 70), and click on one of the light gray patches in the target. This will neutralize the image.
- Using the Export feature, export your photo as a TIFF, selecting the Camera Calibration color space from the pop-up under the file type option. (See page 105 if you need help with exporting photos from HDR.)
- Using X-Rite's ColorChecker Camera Calibration software, open the exported TIFF file. The app should find and align the target; if so, click the Create Profile button, and save the exported profile. If it doesn't find the target, follow the guidelines in the software to help improve your chances with a new photo.
- In HDR, go to the Develop module with a photo created with the camera you profiled. In the



When you open the photo with the color target, set the camera profile to Linear Raw, and use the gray dropper to neutralize the photo, by clicking on one of the light gray targets (circled, above).



When exporting your neutralized target, set the file type to TIFF, and the color space to Camera Calibration Space.



Using X-Rite's ColorChecker Camera Calibration app, you can open the exported TIFF file, and create your own custom camera profile. Then, import the profile via the Camera Profile pop-up in Develop to use it with any photos taken with that camera.

Tone & Color panel, click on the Import Profile item in the Camera Profile pop-up menu. Find the exported profile and choose Open. Your profile is now installed.

NOTE: You can find the different ColorChecker options on the X-Rite website at xritephoto.com/camerasolutions.

PART 5: STYLIZING WITH EFFECTS



If Develop is the base from which you start editing your photos, Effects is the finishing school. With eight filters that can be stacked in any order, and with extensive blending and masking options, Effects lets you create stunning, pro-level photos with ease. And, since it is built upon ON1 HDR 2023's non-destructive editing engine, you can go from Develop to Effects to Local and back again, preserving your edits, masks and more without having to worry about saving multiple versions of your files.

While Develop and Effects share the same tools, Effects is much more customizable in how adjustments—called filters in Effects—are applied. The editing stack inside Develop is fixed, while the stack in Effects is extremely flexible. Here are just a few of the things you can do with an image in Effects:

- You can add filters in any order (even multiple instances of the same filter).
- Move filters up and down in the stack.
- Add blending options to all or some of the filters and set the opacity of each filter individually.
- Create complex masks for each filter you add, letting you selectively apply a filter to specific portions of an image.

Filters

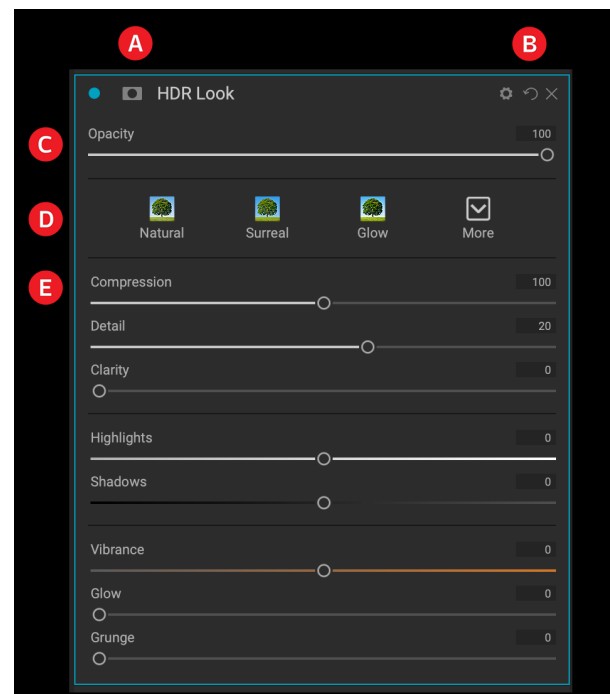
Filters are the building blocks of Effects' editing power. Each filter is an adjustment type, much like the basic adjustment panes inside Develop, but Effects filters have much more functionality than the Develop panes. The Effects tab has eight filter types, added either by the Add Filter button found at the top of the Effects tab, or via the Filters pane on the left side of the window. You can apply filters in any order, and you can have more than one instance of a filter in the stack. This can be helpful when you are creating complicated masks on an image and wish to apply the same filter differently in parts of the photo. And, like everything else in ON1 HDR, filters can be added, adjusted and removed easily, and they never affect the base image that you start with.

Each filter is like a movable, editable layer over the base image you are working on. You can use HDR's masking tools to apply a filter to only part of an image and can change the blending mode (and opacity of the filter) to alter the way the filter interacts with those above and below it in the stack. And, when you add a filter via the Filters window (see below), you can use ON1's Mask AI technology to select a region in your photo and apply the filter to that area automatically – without using any of the built-in masking tools.

FILTER OVERVIEW

Each filter pane has a different set of adjustment options and controls, but every filter pane has the same five sections:

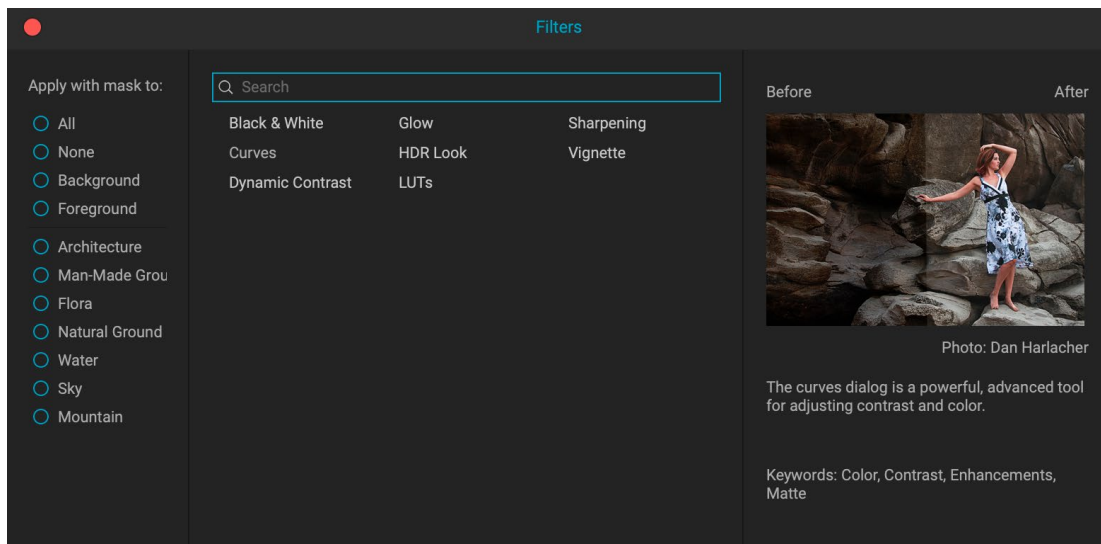
- A. Filter on/off button (left); Show/Hide Mask (right). Clicking the mask icon will open the Masking Control Options section for that filter's mask.
- B. Displays blending mode options (left); Resets filter (middle); Deletes filter from the stack (right).
- C. Filter opacity setting.
- D. Styles pane for filter presets.
- E. Control area for adjusting that filter's specific settings (these control options change, based on the filter chosen).



APPLYING FILTERS WITH THE ADD FILTER BUTTON

If you click the Add Filter button at the top of the Effects tab, the Filters window opens up, with a list of all eight filters on the right side of the window, and the Mask AI pane on the left (see screenshot on the following page). If you run your cursor over a filter name, the right side of the window will have a small before/after thumbnail, a short description, and a list of keywords that relate to that filter. To add a filter, click once on the filter name, and it will add it to the stack, above the current filter. If there aren't any filters in the stack, the new filter will be at the top of the stack. You can click and drag the title bar in any filter to move it up or down in the stack.

If you're not sure what you might be looking for, you can search for filters using keywords, like "monochrome," "contrast," "sharpening," and so forth. ON1 HDR will then narrow down the search to those filters that match your search terms.



When you click on the Add Filter button in the Effects tab, the Filters window is displayed, which consists of the Mask AI controls (left), the list of filters (center), and a description (right) of the filter your cursor is currently hovering over, with a sample preview (including a before and after split view).

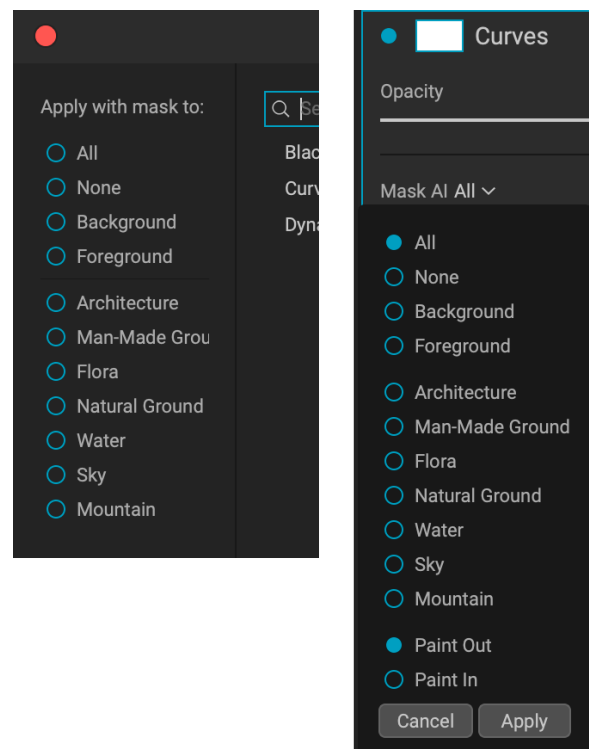
Using ON1 HDR's AI-based tools to mask regions automatically

Normally, when you add a filter, the filter is placed at the top of the Effects stack, and is applied to the entire image. If you'd like to selectively apply a filter automatically to specific areas in a photo, you have three options:

- You can use a tool like the Super Select AI tool to select a region and create a filter in Effects (see [page 31](#) for information on using this tool).
- To add a filter from within the Effects tab, choose the Add Filter button, and select the region in the Mask AI section on the right side of the Filters window.
- If you have an existing filter, you can also select a region from the masking control options section of the filter.

In addition to these options, you can also use an AI adaptive preset when you wish to create selections based on regions in a photo. (See [page 58](#) for more on presets and their application.)

If you click the Add Filter button at the top of the Effects tab, the Filters window opens up, with a list of all nine filters. If you run your cursor over a filter name, the right side of the window will have a small before/after thumbnail, a short description, and a list of keywords that relate to that filter. To add a filter, click once on the



In addition to using the Super Select AI tool to add filters selectively to a photo, ON1's Mask AI technology can be found in the Add Filters window (above left), and in the masking control options section of the filter itself. (Click the mask icon in the filter to open the mask options section.)

filter name, and it will add it to the stack, above the current filter. If there aren't any filters in the stack, the new filter will be at the top of the stack. You can click and drag the title bar in any filter to move it up or down in the stack.

If you're not sure what you might be looking for, you can search for filters using keywords, like "monochrome," "contrast," "sharpening," and so forth. HDR will then narrow down the search to those filters that match your search terms.

APPLYING FILTERS WITH THE FILTER BROWSER

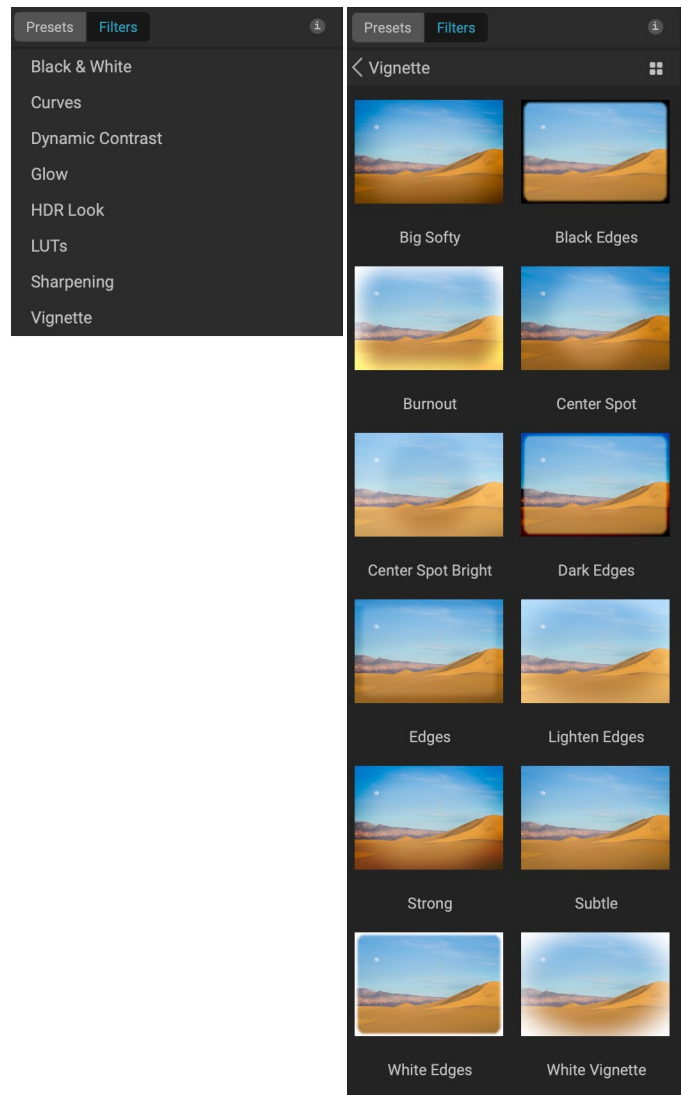
In addition to the Presets panel, Effects has an additional Filter panel on the left side of the screen. This panel lets you browse all of the filters inside Effects, and display previews of the available styles for that filter.

To choose the Filters panel, click on the Filters tab. A list of the filters will appear, and clicking on a filter will display thumbnails of your image with that filter's available styles. To choose one, click on the style, and Effects will add that filter to the Overall Settings pane. Note that this will replace the currently selected filter in the stack; to add a new one on top of the stack, click the Add Filter button at the top of the Effects tab on the right, then choose a filter from the list. (You can also click and drag the title bar of any filter and move it up or down in the stack.)

If you'd like to see a larger representation of what your selected photo will look like with a filter's styles, click on the Quick View Browser icon in the category's title bar. That will display a window with all of the presets in that category. (Press the Escape key to close the Quick View Browser.)

To change the size of the thumbnails in the filter styles panel, select the Browser Mode option from the View menu and choose One, Two or Three Column Thumbnail View. (If you choose Thumbnail from the Browser Mode submenu, the Filters and Presets panels will display as thumbnails.)

If you'd like help with what the different filter operations do, click on the Info button at the top right of the panel. With that button checked, when you hover over a filter, HDR will display a small pop-up window containing the same description (with before/after thumbnail) found in the Add Filter window. Click the Info button again to turn off this display.



The Filter Browser has a list of all the filters available in Effects (left). Clicking on a filter will display thumbnails of the filter's styles using your photo (right). You can also click the icon on the right side of any filter to view the styles in the Quick View Browser.

Searching for filter styles inside the Filter Browser

To search for styles inside the Filter Browser, type in the name in the search field at the bottom of the panel. The search results will appear in a new subfolder called 'Search Results.'

Saving filter styles as favorites

If you hover over a filter style's thumbnail in either the Filter Browser or the Quick View Browser, you'll see a heart icon. Clicking the icon will add that style to your Favorites category. This category resides at the top of the filter list, and contains all filter styles you have selected as a favorite. To remove a favorite, open the Favorites category, and click again in the heart icon. To apply a style to a photo, simply click on the style in the Filter Browser or in the Quick View Browser.

WORKING WITH FILTER PANES

By default, the filter stack is empty, although, if you have applied a preset that uses filters from Effects, you will see those filters in the stack. Clicking the button in the top left corner of the filter pane will turn that effect on or off, which can be helpful if you want to see the effect in the context of other edits. If you don't like the effect, click on the 'X' icon in the pane's title bar to get rid of it. The Reset button, which is next to the Delete button, represented by '↺,' will reset that pane's settings to their original state.

To move a filter up or down in the stack, click on the pane's title bar and drag it up or down. A heavy white line will appear between panes as you drag; let go of the mouse at the location you wish the filter to go.

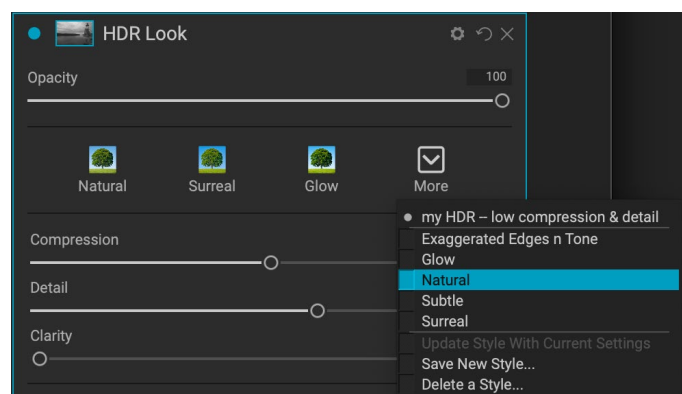
TIP: Each pane can be collapsed, by clicking in the pane's title bar (a Hide/Show link is visible when you move your cursor over the title bar, but the entire title bar is clickable). If you don't want to have to scroll up and down the filter stack when you have a lot of open panes, go to the Window menu and choose Solo Mode. This will leave the current pane open, and will hide all the other panes. Clicking on another pane will open that one and collapse the previous one.

STYLES

All of the Effects filters have a set of built-in styles in the top part of the pane. Styles are like preset adjustments for a pane: they provide a group of settings to help you get started in the pane, or to apply a specific effect.

You use a style by clicking on the style's icon in the pane, and then can adjust the sliders as desired to get the right effect for your photo.

You can also save your own settings as a style. Simply click on the More icon on the far right side of the styles list for that pane, then choose Save New Style from the pop-up. Name your style, and it will then be added to the top of the More menu (see right). To apply a saved style, choose the style from the More pop-up menu.



The Styles' More menu lets you save your own custom styles for each filter.

To adjust the settings for a saved style, apply it, make any changes you would like to the sliders or other options, then right-click on the More pop-up and choose Update Style with Current Settings from the menu.

FILTER MASKS

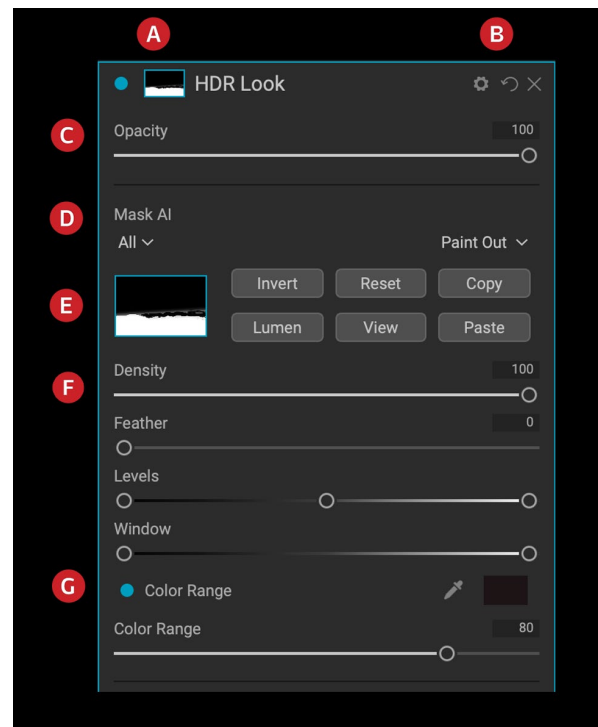
Every filter (and local adjustment) has a mask associated with it, which lets you apply that filter's effect to specific areas of an image, using the Masking Brush (or the Local Adjustment Brush and Gradient, when working in the Local tab) and Masking Bug tools. By default, the mask is white, which means that the effect is visible in every part of the image. Using the Masking Brush, for example, you can 'paint out' the effect in areas that you wish not to be affected by the filter. Alternatively, you can invert a filter's mask and choose to 'paint in' the filter where you would like it to be.

When you add a filter, the mask is technically hidden. You can add one by either selecting and using one of the two masking tools, or by clicking the Show/Hide Mask icon in the title bar of the filter pane (this icon will initially be represented with a plus sign in the middle of it). When you add a mask in either way, the contents of the Show Mask icon will represent the mask on that filter layer.

HDR has two options for viewing the contents of a mask: either as a red overlay on top of your image (the default) or a view only of the mask itself, represented as grayscale. These options are available from the Mask menu; select Show Mask to see the mask, while the View Mode option lets you switch between the two modes. (HDR will remember the previous settings.)

The Mask section of any effect or local adjustment has the following contents, as shown below (using the Glow filter as an example):

- A. The **Show/Hide Mask** icon, which displays the contents of the current mask. The default mask contents are white when you add an effect, and black when you add a local adjustment layer.
- B. Buttons for opening the blending options, resetting the filter, and removing the filter from the stack.
- C. Sets the overall opacity of the masked effect.
- D. Mask AI selection pop-up. Displays a list of the known regions in the current photo. To create a mask with any of the specified areas, click on the item and choose Apply
- E. Larger display of the current mask, with buttons to invert, reset, copy, paste, create a luminosity mask, and view/hide the mask contents.
- F. Mask adjustment tools. **Density** adjusts the overall mask density from black (100) to white (0). **Feather** blurs the mask. The **Levels** and **Window** settings let you adjust the black and white points of the mask, fine tuning them in different ways.



Overview of the Mask Options section of a filter pane in Effects, showing a luminosity mask. Mask Options is also applicable when working in the Local Adjustments tab, or on a layer in the Layers pane.

- G. The **Color Range** option lets you choose a color (selected via the dropper tool), and make or tune the mask based on the range of the color selected.

For more details about creating and manipulating masks in ON1 HDR—as well as some tips and tricks for working with masks—see “[Masking Basics](#)” on [page 52](#); information on the Masking Brush and Masking Bug tools starts on [page 35](#).

DELETING A FILTER

You remove a filter by selecting it and pressing the ‘X’ icon to the right of the filter’s pane.

FILTER OPACITY

Every filter has an opacity setting, which effectively adjusts the strength of the filter. The Opacity slider, which is found at the top of each filter’s pane, ranges from 0 (no effect) to 100 (full effect). What this means is that at 100, all of the filter is applied to the image in the stack. At 50, the filter strength is half, and the effect is much less strong. Playing with a filter’s opacity can often help soften an effect in a way that you wouldn’t be able to get otherwise. For example, if you add a Black & White filter to an image, but would like a faded, muted color effect, reduce the opacity of that filter. The more you reduce the opacity, the less effect the filter will have.

By default, when you add a filter, the opacity will be set to 100. You can create presets, however, with whatever opacity you wish for a given filter.

BLENDING MODES

In addition to opacity, you have one other very powerful option for adjusting the strength and effect of a filter: blending modes. Blend modes determine how a filter interacts with the filters below it in the image stack. Blend modes can darken or lighten an image, depending upon the mode chosen, while others adjust contrast or color. ON1 HDR 2023’s blend modes also let you apply a blend mode to specific colors or tones in your image, making them a very useful tool for precision editing of your images. You can apply sharpening, for example, only to the midtones in an image, which can be very helpful in a landscape image.

To see the blending modes, click on the Blending Options gear icon at the top of a filter’s pane. The Blending Options area will drop down from the top of the panel. The blending option controls are:

- **Blending Options:** A pop-up list of blending modes. There are 24 common blending modes available in the list, including Normal, Lighten, Darken, Screen, Multiply, Soft Light, Hard Light, Overlay and Color.

ON1 HDR BLEND MODES

	Normal
	Darken
	Multiply
	Color Burn
	Linear Burn
	Darker Color
DARKENS	
	Lighten
	Screen
	Color Dodge
	Linear Dodge (Add)
	Lighter Color
LIGHTENS	
	Overlay
	Soft Light
	Hard Light
	Vivid Light
	Linear Light
	Pin Light
	Hard Mix
ADDS CONTRAST	
	Difference
	Exclusion
ADJUSTS BASED ON COMPARISON	
	Hue
	Saturation
	Color
	Luminosity
AFFECTS COLOR OR BRIGHTNESS	

- **Apply To:** This lets you apply the blending mode to a specific color or tonal range. The options are; All (the default), Highlights, Midtones, Shadows, Reds, Greens, Blues, Magentas, Cyans, Yellows, Flesh Colors, Vivid Colors and Neutrals. (You can also manually choose a color range by selecting the Dropper Tool in the pane and clicking on a color in your image.)

When you choose one of the options in this menu, the adjustment is only applied to that part of the image that is based on the lightness, hue, or saturation range specified. The Range slider expands or contracts the selected option, and the Highlights, Shadows, and Skin sliders protect those settings from your adjustments.

How blending modes work

At their basic level, blend modes determine how the pixels on one layer interact with the layers below it. With 24 blend modes in ON1 HDR 2023, it might be difficult to know which ones to use in any given situation, but they can easily be grouped into Normal (the default mode) and five categories: Darken, Lighten, Contrast, Comparison, and Color/Luminosity.

Normal is the most widely used: it simply applies the effect to all of the pixels in the adjustment (or effect), assuming the layer opacity is 100%.

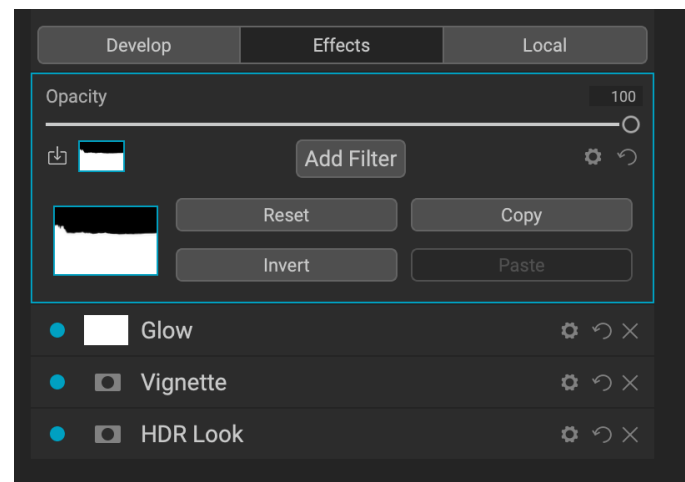
The other modes apply different levels of that category's effect using various mathematical formulas, and sometimes it can be hard to know which mode will work best with what photo. Most often, when you know how you want to apply an effect —by darkening, for example—you'll need to perform a bit of experimentation with the different modes in that category to determine which mode works best.

MASTER OPACITY, BLENDING AND MASK OPTIONS

Effects also has master opacity and master blend mode options for the entire image stack, and includes a Master mask option. The Master Opacity slider, found at the top of the Effects tab, controls the strength of the composite filter stack against the original image—if you haven't performed any other editing operations on it—or against the image as it has been inside the Edit module.

The Master Blend Mode options can be accessed via the gear icon at the top of the Edit tab. It has the same controls as the blending options in the individual filter panes.

To create a Master mask, click on the mask icon next to the Save Preset icon in the Edit tab. This mask works on the entire effects stack, letting you selectively add or remove an entire effect.



At the top of the Edit module stack, you can find a master opacity setting, as well as a master mask, with corresponding blending modes. Masks created here get applied to all of the edits you've made to a photo in each of the three Edit tabs.

Filter Types

Effects has eight filter types available for you to use inside ON1 HDR 2023. Each filter has a set of styles in the top row, providing a range of popular or useful options for using that filter. You can also save your own preset styles by clicking the More pop-up at the end of the Styles row.

BLACK & WHITE

This pane is used to turn a color image into a monochromatic image, with some additional toning features.

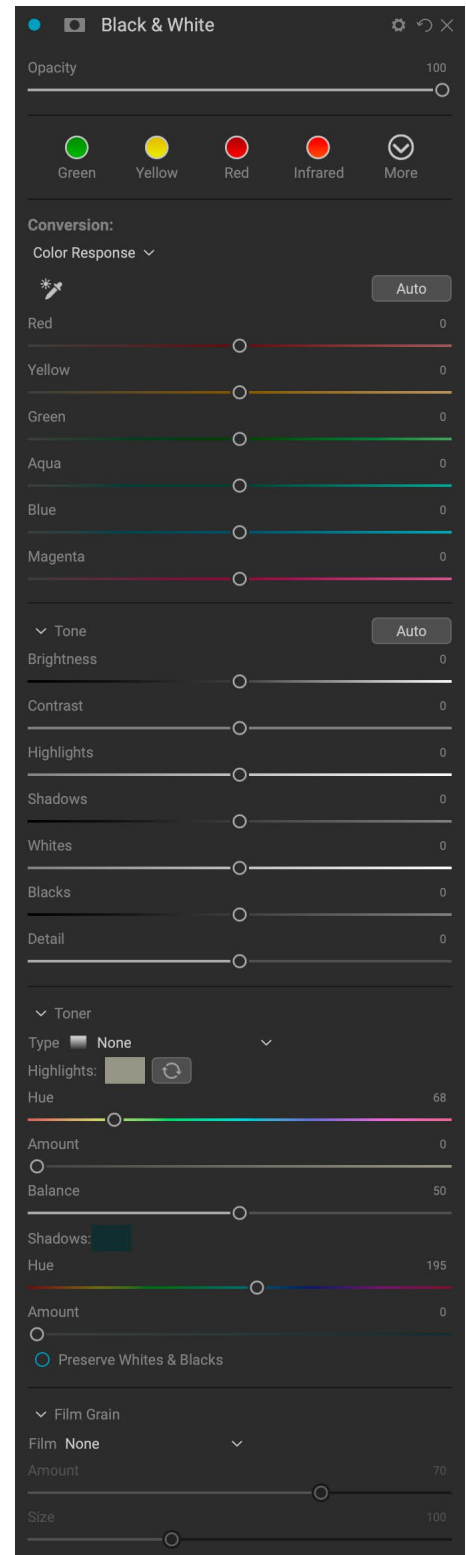
The styles at the top of the pane represent different filter types often applied to an image, while the Auto button selects the black and white points of your image automatically. To manipulate the tones manually, move the color range sliders to the right (increasing brightness) or the left (decreasing). Alternatively, you can choose the Channel Mixer option from the Conversion pop-up, and use the slider to choose a look that accentuates the color tones you are most interested in.

To change the tones directly inside a photo, choose the Color Response tool in the pane: click on it to select the tool, then click and drag in the image to increase or decrease the brightness of the selected color range.

Tone

The Tone section of the Black & White pane lets you adjust brightness, contrast, highlights and shadows, whites and blacks, and detail, directly within the filter pane.

- **Auto Button:** The auto button sets the white and black points automatically, adjusting all of the primary tone settings to balance the histogram.
- **Exposure:** Adjusting this slider to the right will lighten your image. Adjusting to the left will darken your image.
- **Contrast:** Increase or decrease the contrast.
- **Highlights:** Darkens the highlights, recovering detail.
- **Shadows:** Lightens the shadows, revealing details.
- **Whites:** Adjusts the white point, adding or removing contrast in the highlights.
- **Blacks:** Adjusts the black point, adding or removing contrast in the shadows.
- **Compression:** Compresses the tone to reveal highlight and shadow detail.
- **Detail:** Increases the local contrast in the image.



Toner

The Toner section of the filter is designed to approximate many traditional and popular darkroom-based paper toners, from sepia tones to platinum, selenium, coffee and more. You can choose from more than 20 toning options via the Type pop-up menu, and adjust the combination of paper (which is represented by the Highlights section of the pane) and silver (represented by the Shadows). To tune your options, you can adjust the Hue or Amount of each setting, and use the Swap tones icon (next to the Highlights color well) to swap the highlights and shadows colors. The Preserve Whites and Blacks button keeps the pure whites and pure blacks neutral, instead of taking on the color of the toner.

Film Grain

The last section of the Black & White pane is Film Grain, which, like the Toner section, is designed to add a classic film grain look to your photos. To add film grain, choose from the drop-down list of popular black and white films. The Amount slider controls the strength of the effect, while the Size slider adjusts the scale of the grain.

CURVES

The Curves pane is a powerful—and advanced—tool for adjusting contrast, tone and color in your image.

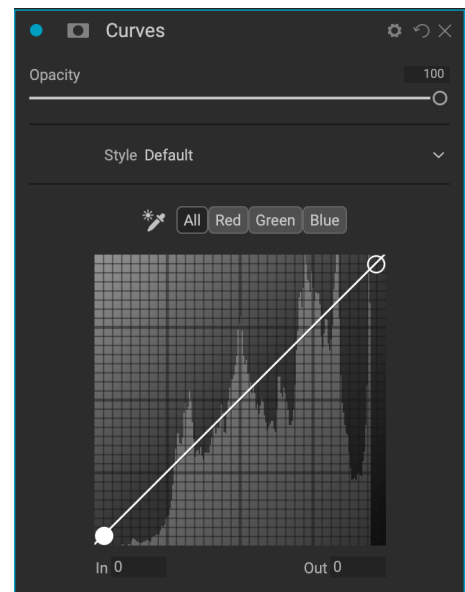
The main section of the pane displays the histogram of the current image in the background; the gradient behind the histogram is designed to give you a sense of how the tones will change as you adjust the curve.

The center line is a linear representation of the image's tonality, ranging from 0 to 255; the point at the bottom left represents the darkest tones in a photo (minimum of 0), while the point at the upper right represents the lightest tones in the photo (maximum of 255). By clicking along the line at the center of the pane and dragging it up or down you adjust specific tones by making them lighter (up) or darker (down).

By default, the pane shows the composite RGB channel, but you can view and adjust each channel separately by clicking on the appropriate tab (Red, Green, or Blue). When looking at the individual channels, the background gradient will indicate what color shifts will occur when you adjust the curve. For example, raising the points on the curve in the Red channel will move the data more towards red, while lowering the points on the curve will move the data more towards green.

Moving the line adjusts the tonality by adding control points along the line (turning the line into a 'curve,' hence the name):

- Inside the pane, clicking anywhere along the center line will add a point, and you can drag that point up or down to change the tones.
- You can also click on the Dropper tool to the left of the channel tabs, then click and drag inside the photo at a location where you would like to adjust the tonality. This adds a point at the precise tonal location on which you clicked.



You can add multiple control points to the curve, and readjust them at any time by clicking on the point in the pane. You can “slide” a point along the curve, or you can click and drag up or down. If you are familiar with numeric-based color values, you also click on a point and use the In or Out boxes to adjust the input or output values of the tones at that point.

To remove a point, right-click on it and choose Remove Control Point. Note that there is always at least one control point selected.

Working in the individual RGB channels alters the tonality of each specific channel, but the adjustments are similar. To reset any curve adjustments made in a channel (or in all channels), right-click in the grid, and choose Reset Channel (or Reset All) from the menu.

The Style pop-up for the Curves filter has preset options, including settings for color negatives, matte-style looks, and more. If, for example, you regularly apply a classic S-curve to your photos, you could set the curve the way you like it, and then choose Save New Style from the pop-up. If you apply a style and make adjustments to it that you would like to save, select Update Style with Current Settings from the menu.



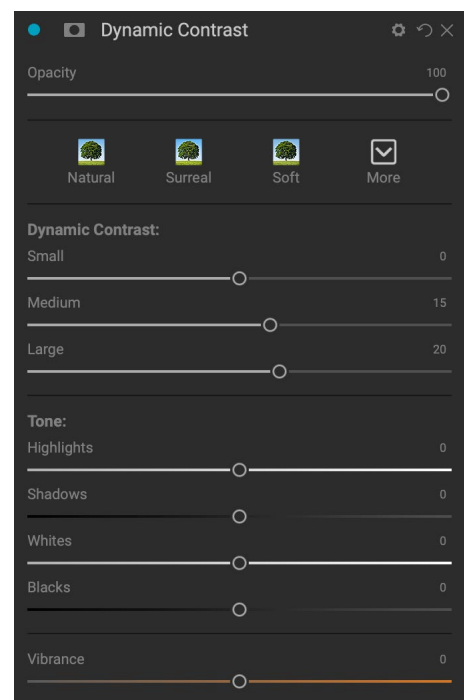
Right-clicking on a control point gives you the option of removing that point. You can also reset curve adjustments made to one or all of the channels.

DYNAMIC CONTRAST

Dynamic contrast adds clarity—also known as tonal contrast—to your image, making it pop. It can be a strong effect, so it is often combined with masks to help lessen the effect in certain areas of an image (clouds in a sky, for example, often look surreal with too much Dynamic Contrast applied to them).

The top portion of the pane adjusts the contrast in areas of small, medium and large detail; moving the slider to the left decreases the contrast, while moving the sliders to the right increases them.

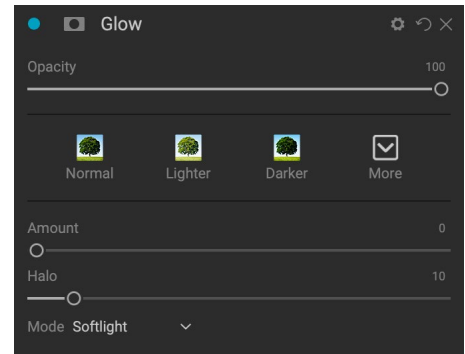
Because adjusting the contrast in extreme ways can affect an image’s tonal qualities, the bottom section of the pane lets you make adjustments to the highlights and shadows to recover detail, in the white and black areas, and increase vibrance.



GLOW

This pane adds a soft-focus glow to the image. Adjustable settings for the Glow pane include:

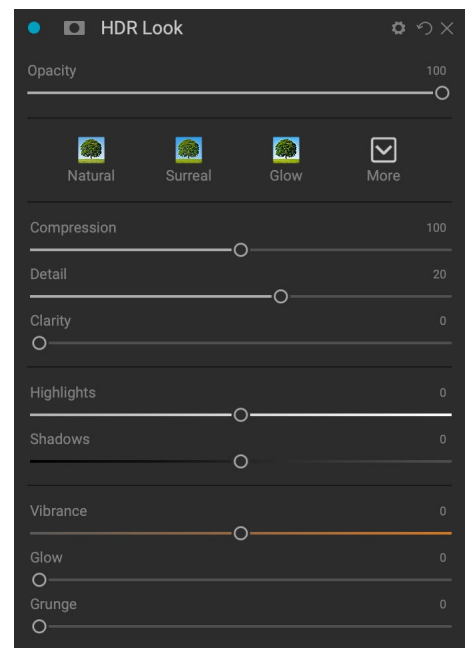
- **Amount:** Controls the overall glow strength.
- **Halo:** Sets the radius of the glow effect, creating a fuzziness to your image's edges.
- **Mode:** Lets you set the blending mode for the effect.



HDR LOOK

This filter recreates the HDR style of tone mapping, with accentuated edges and sharpening. Settings include:

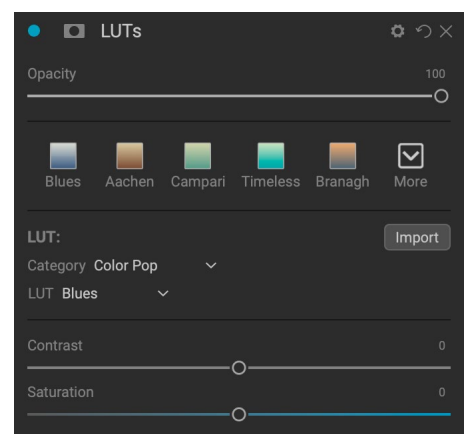
- **Compression:** Compresses the tone to reveal highlight and shadow detail.
- **Detail:** Increases the local contrast of details and edges.
- **Clarity:** Increases the global contrast.
- **Highlights:** Recovers detail in the highlights.
- **Shadows:** Recovers detail in the shadows.
- **Vibrance:** Adjusts the vibrance of muted colors.
- **Glow:** Adds a bright glow.
- **Grunge:** Adds a dark gritty look.



LUTS

The LUTs filter applies a color look-up table (LUT) to transform the underlying color of an image. LUTs were first used with video applications to provide color-grading effects to film, and they are increasingly popular in still photography. The Styles section has default effects you can apply, and you can also import your own LUTs, by clicking the Import button inside the filter. (HDR imports common LUT file formats, including .3DL and .CUBE file types.)

- **Category:** Lets you choose from one of the pre-installed LUT categories, or any imported categories.
- **LUT:** Displays the available LUTs within the chosen category.



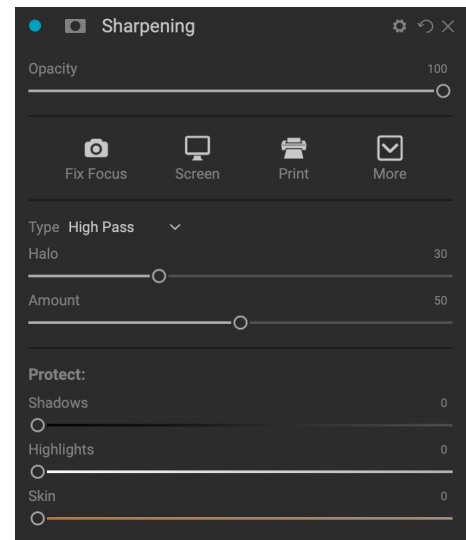
- **Contrast:** Lets you adjust the underlying contrast.
- **Saturation:** Adds or reduces saturation.

NOTE: See [page 9](#) for information on how to use the Extras Manager to import LUTs into HDR.

SHARPENING

This pane helps add sharpness to your photos, to compensate for a moving subject or a slightly out-of-focus camera, or for an illustrative effect. ON1 HDR 2023 offers three algorithms for sharpening, High-Pass, Progressive and Unsharp Mask. Which one you use depends upon the image or your personal preferences. The styles section and the More pop-up have a wide range of sharpening styles to help you get started.

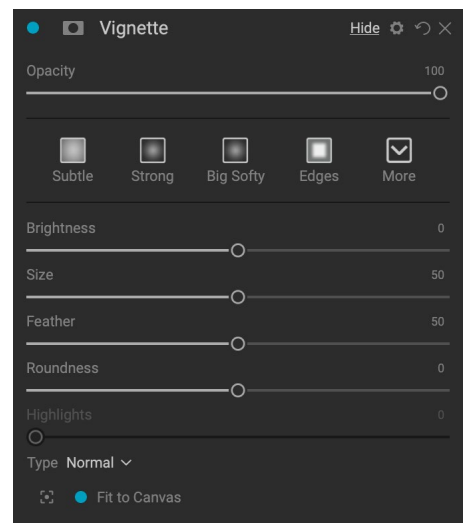
- **Type:** Chooses the sharpening method. Each sharpening method has its own set of sliders.
- **Amount (all types):** Controls the overall strength of the sharpening for each sharpening type.
- **Halo (Unsharp Mask, High Pass):** Sets the radius of the sharpening effect. Smaller amounts keep fine detail, while larger amounts can exaggerate edge detail.
- **Threshold (Unsharp Mask, Progressive):** Controls the sharpening effect based on contrast in your photo. Larger settings means that smoother areas do not get sharpened.
- **Detail (Progressive only):** Controls sharpening in small details.
- The **Protect** section protects highlight, and shadow areas and skin tones from having sharpening applied.



VIGNETTE

The Vignette pane creates flexible vignettes which focus a viewer's eye toward the center of the image by darkening the edges of the frame. The buttons at the top of the pane let you quickly apply a vignette and then customize the look with the advanced controls. Styles apply common vignette types.

- **Brightness:** Controls how light or dark the vignette is.
- **Size:** Controls the size of the vignette.
- **Feather:** Controls the hardness of the edge of the vignette.
- **Roundness:** Controls the shape of the vignette from square to round.
- **Type:** This drop-down menu lets you select a Normal,



Subtle, or Soft vignette effect. The Priority option will let you preserve highlights (using the Tone & Color pane in Develop) when applying the vignette.

The Center Tool at the bottom left of the pane lets you to select the center point of the vignette. Click on the tool icon to activate and then click on the area in the image you wish to make the center of your vignette.

PART 6: LOCAL ADJUSTMENTS

You can easily make local adjustments to portions of an image in ON1 HDR 2023. You can apply these adjustments using the Adjustment Brush or the Adjustable Gradient, or with the Super Select AI or AI Quick Mask tools. You can also use the Mask AI selection feature in the Masking Options area of each adjustment pane (see [page 54](#) for a discussion of Masking Control Options and the use of Mask AI to create automatic selections).

You can create as many local adjustments as you need on an image by clicking on the Add Adjustment button at the top of the Local Adjustments section. If you'd like to use the Mask AI feature, hold the mouse button down on the button, and choose the appropriate region for which you wish to apply a local adjustment. ON1 HDR will create the mask and open the new pane in the Local Adjustments stack.

Local adjustments can be used to apply a gradient filter to darken a sky, for example, or to add a more complicated vignette to an image. Local adjustments are in essence a mask that is applied to a portion of your image, and you can manipulate those masks in powerful ways with both the blending modes and the luminosity options in the Local tabs.

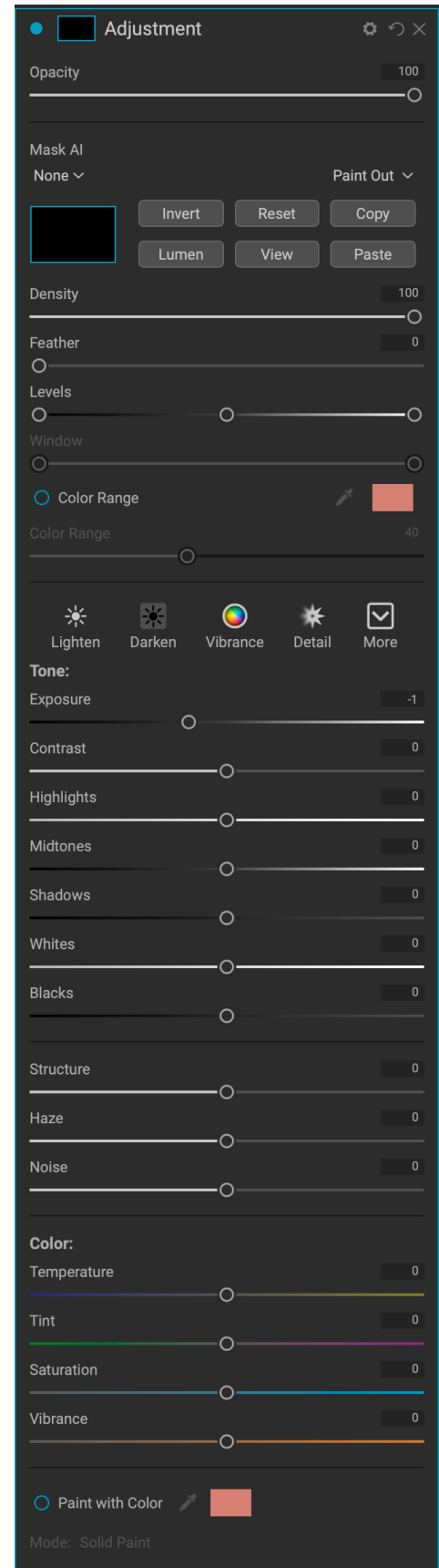
Operations you can perform with local adjustments include tone (exposure, contrast, highlights and shadows, detail), color (white balance, saturation and vibrance) and detail (structure and noise). Each local adjustment layer can have completely different settings and work on different parts of your image. You can also use local adjustments to paint with color over part of a photo, to perform specialized tasks such as skin retouching or to replace the color of an object.

Local adjustments are independent from the Develop and Effects tabs; you can create a local adjustment while working in Develop, switch to Effects, and when you click on the Local tab, your local adjustments remain intact.

The Local Adjustments tab

To create a local adjustment, click on the Local tab. If there are no local adjustment layers present, HDR will add one. If you want to add additional adjustment layers, click the Add Adjustment button.

If you wish to use Mask AI to create an adjustment for a specific region (or regions in a photo), click and hold on the

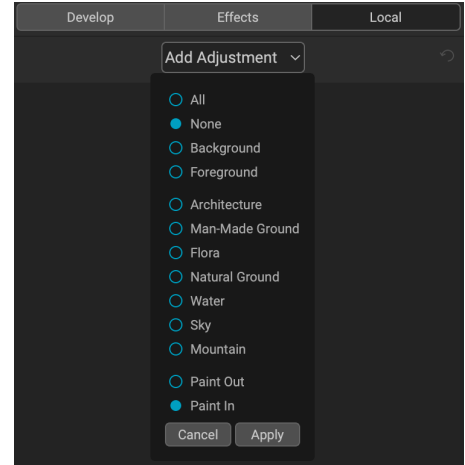


Add Adjustment button. This will display a list of regions in the photo, and you can select the appropriate regions directly from the pop-up menu.

The top of each adjustment layer includes the following options:

- **Opacity:** Sets the opacity of the adjustment.
- **Styles:** The pane has a number of canned styles for you to start with, including ones for lightening or darkening (dodging and burning), adding vibrance, fixing teeth or red eye, and many more. (You can also save your own styles via the More pop-up menu.)

The main section of the Local tab has all of the same options found in the Tone & Color pane in the Develop tab: Exposure, Contrast, Highlights, Shadows, Detail, and Color Temperature, Tint, Saturation and Vibrance. In addition to those settings, the local adjustment pane includes a Noise slider, designed to help reduce noise on a targeted level (most often seen in the shadows).



You can use the Mask AI feature to add a new local adjustment layer by clicking and holding on the Add Adjustment button at the top of the Local tab. The regions in the current photo will be labeled.

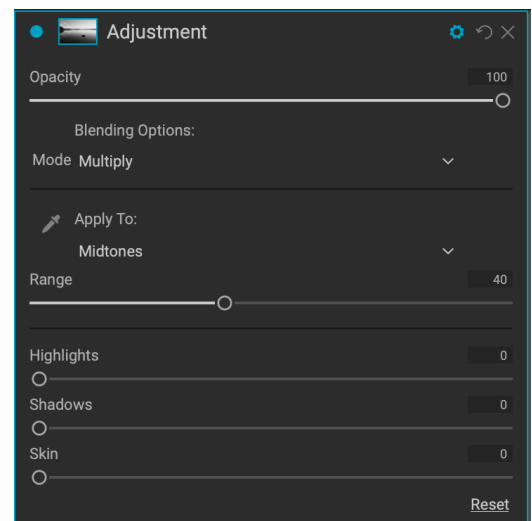
TIP: You can name each adjustment layer by double-clicking on the word 'Adjustment' in the pane. This can be helpful when you have a lot of adjustment layers and wish to remember which adjustment did what.

These controls work the same way inside the Local Adjustments panel. One difference is that, since a local adjustment is a layer that sits on top of your global adjustments, each adjustment has its own blending options. Blending modes determine how the selected layer blend with the items below it in the image stack.

Click on the Blending Options gear icon at the top of the Local tab to drop down the Blending Options. The blending option controls are:

- **Blending Options:** A pop-up list of blending modes. There are 24 common blending modes available in the list, including Normal, Lighten, Darken, Screen, Multiply, Soft Light, Hard Light, Overlay and Color.
- **Apply To:** This lets you apply the blending mode to a specific color or tonal range. The options are; All (the default), Highlights, Midtones, Shadows, Reds, Greens, Blues, Magentas, Cyans, Yellows, Flesh Colors, Vivid Colors and Neutrals. (You can also manually choose a color range by selecting the Dropper Tool in the pane and clicking on a color in your image.)

When you choose one of the options in this menu, the adjustment is only applied to that part of the image that is based on the lightness, hue, or saturation range specified. The Range slider



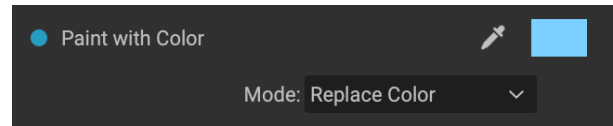
The Adjustment pane's Blending controls give you extensive options for applying local adjustments to targeted tonal and color ranges in an image.

expands or contracts the selected option, and the Highlights, Shadows, and Skin sliders protect those settings from your adjustments.

For more information about blending modes, see [page 84](#).

Painting with Color

The Paint with Color option at the bottom of the local adjustment panel lets you use the Local Adjustment brush to select a color and paint it into your image. It is designed for two situations: when you wish to apply softening (or evening out) to portions of an image by blending existing color, and to replace the color of an existing object.



The Paint with Color section has three options, Solid Paint, Replace Color, and Classic, and a color swatch for the chosen color. You can choose a color from your image by clicking on the eyedropper icon, or you can click on the swatch and choose a color from the system color picker.

Solid Paint will paint over anything you brush with the chosen color; think of it as painting with a Normal blending mode. Replace Color will replace the hue, but not the luminosity, of the color you are brushing over; it is essentially painting with a Color blend mode, in which whites are preserved.

The Solid Paint option is an ideal skin softening tool; use the eyedropper to select a middle tone section of skin, and, using a low opacity setting on your brush, you can paint over parts of the skin with the brush. This option is also useful when you are using custom brushes to add overlays to a photo (see [page 96](#)).

WORKING WITH LOCAL ADJUSTMENTS

When adding a local adjustment layer, click on the tool you wish to use in the Tool Options bar at the top of the window. The Adjustment Brush is perfect for working with specific subjects or areas in an image: a person or primary object that you wish to brighten, shadow areas that you wish to darken, and more. It works in the same manner as the regular Masking Brush: you set the paint mode (in or out), brush size, feather and opacity, and brush in the areas you wish to paint an effect in or out.

The Adjustable Gradient is designed to apply a gradient mask over a section of an image: most commonly to darken a sky, for example. Because the local adjustment tools are for working on a mask, you have all of the masking and blending options you have throughout ON1 HDR, and you can use one or both tools—in addition to the Refine, Chisel and Blur Mask tools—to refine your adjustment mask as desired.

To apply a standard gradient to a local adjustment, click on the tool, then click in the image roughly where you wish the effect to be. 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, increase or decrease the length of the gradient, or rotate it.

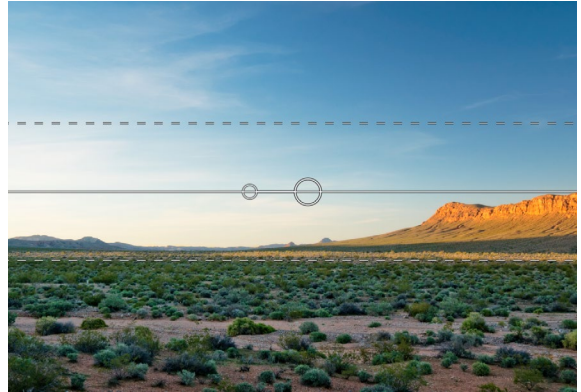
You can change the gradient shape via the Tool Options bar: in addition to the standard dark-to-light horizontal gradient, you can also create a circular gradient and a reflected gradient, which is like the horizontal gradient, but goes from black (no effect) at the outer edges to white (full effect)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

TIP: To see the mask created by the Adjustable Gradient, choose Show Mask from the View menu.

Manipulating a gradient mask

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

- To move a gradient, click on the big 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 (hardness) of the mask, click and drag along the dashed line.
- To rotate the mask, click the smaller circle near the gradient center and drag.

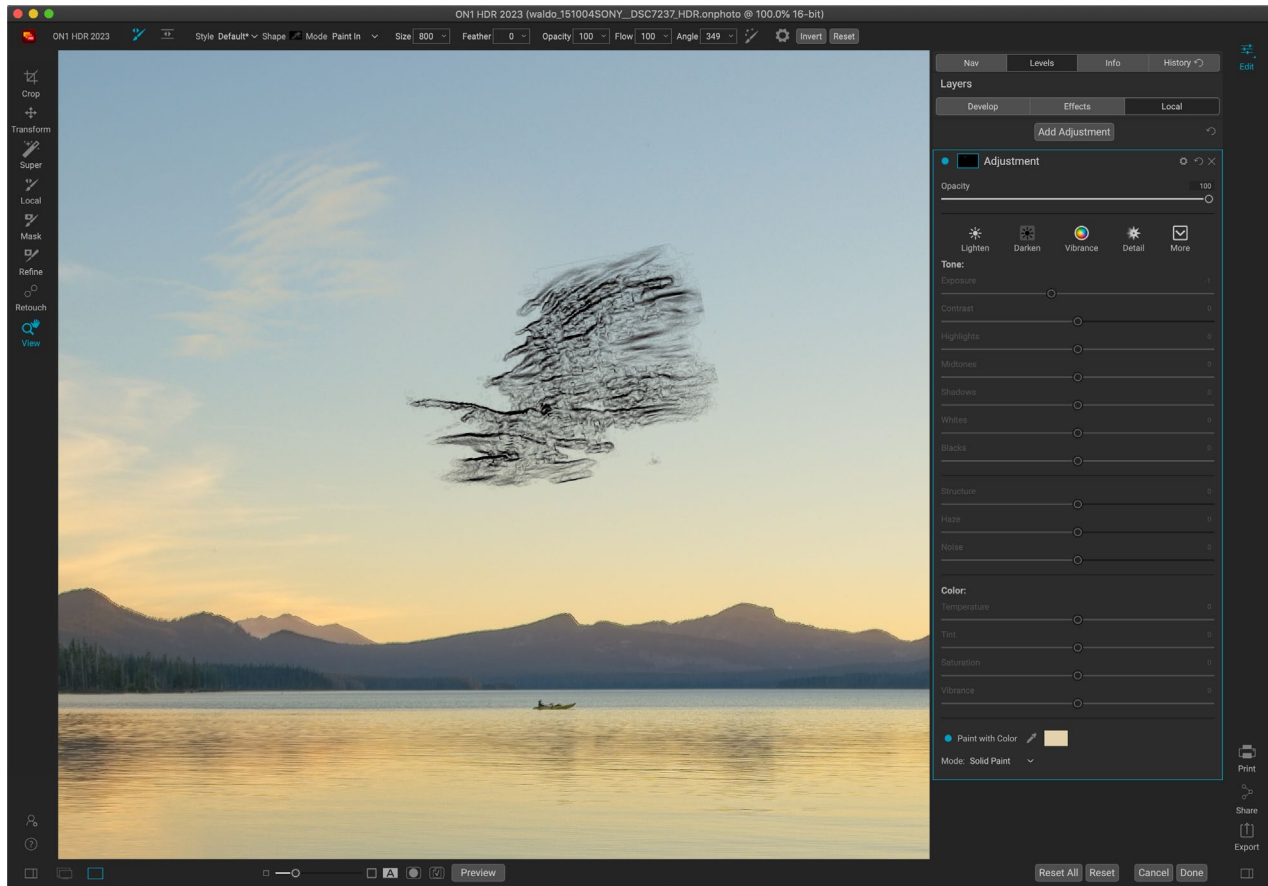


When working with local adjustment masks, all of the tools in the Refine group—the Refine Mask, and the Chisel and Blur tools—can be used to help give you create smoother and more realistic masks.

Other masking options

Every local adjustment has its own mask, and it uses the same masking options and controls found in throughout the Edit module. To access the mask, click on the mask icon in the title bar of the local adjustment layer. There you can copy and paste masks, create luminosity masks, and create masks based on color ranges. For specific details on working with these options, see [“Masking Basics” on page 52](#).

USING CUSTOM BRUSHES TO ADD OVERLAYS TO PHOTOS

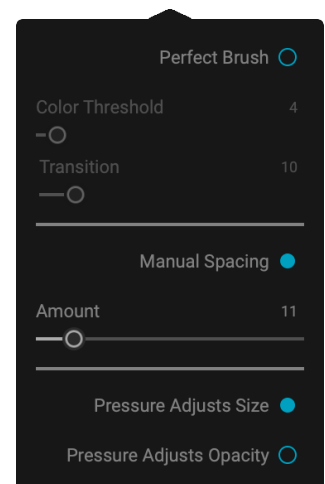


Using custom brushes, available via the Brush Shape pop-up in the Adjustment Brush's Tool Options bar, you can easily add realistic shapes as overlays to your photos, such as clouds, trees and more.

One specialized use for local adjustment layers and the Paint With Color's Solid Paint option is to add overlays with custom brush shapes. You can paint in stamps, watermarks, and other shapes to create specialized creations or enhanced photos. 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. ON1 HDR comes with a collection of custom brushes of all kinds, and you can import any black-and-white TIF file or Photoshop-compatible brush (.abr file) for use in the app, via the Extras Manager (see [“Extras” on page 9](#)).

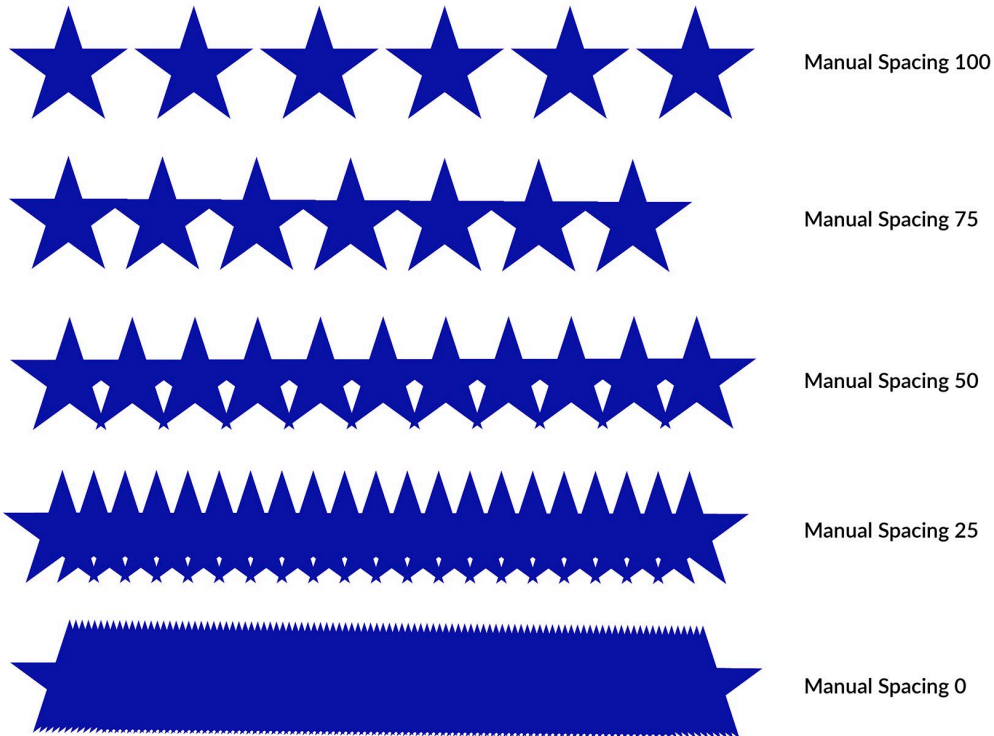
Creating basic overlays with a custom brush is easy:

1. Create a new local adjustments layer by clicking on the Local tab.
2. If the Adjustment Brush isn't selected in the Tool Options bar, select it, and choose a new brush from the Shape menu in the options bar.
3. Set the brush size and angle. In general, you'll want to keep the Opacity and Flow high, and the Feather low (or 0), but that will depend upon the brush and the application.
4. From the gear menu, turn the Manual Spacing option on. Depending upon the brush type and the application, you'll have to play with the Amount slider, but the general rule of thumb is, for stamped brushes, where you wish the shape to be applied singly, set the spacing low. If you wish to apply the brush multiple times with a



stroke—and have clear definition between the brush shapes—set the spacing higher (see the spacing chart below for an illustration of the different settings).

5. Turn the Paint With Color option on and set to Solid Paint. Choose a color for brush, and paint as desired on the image.

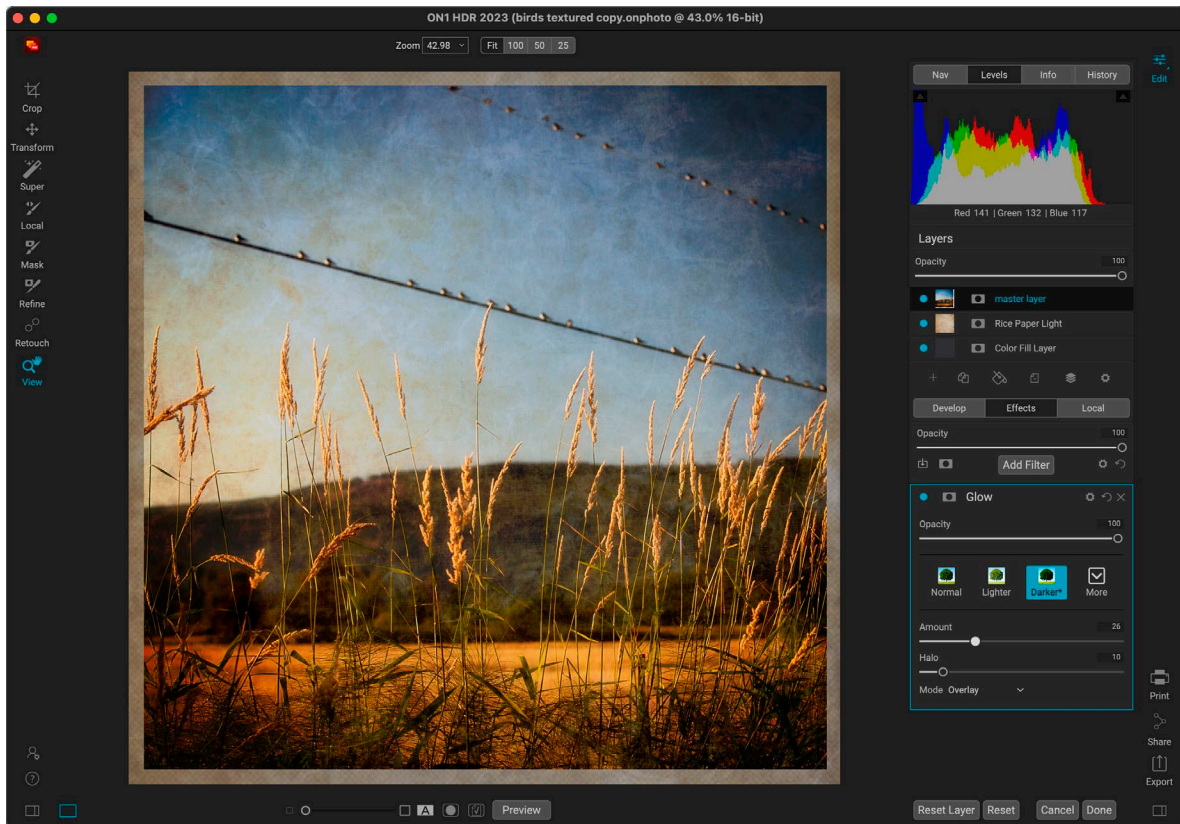


Tips for using custom brushes

- The best way to begin working with brush overlays is to practice. Use some of the default brushes, and play with them by adding them to a photo or blank canvas.
- Use the Brush Styles option (in the Tool Options bar) to save your favorite brushes and their optimal settings.
- The maximum brush size in ON1 HDR is 2500 pixels.
- If you're applying a brush as a single stamp here and there on a photo, start with a feather of 0, and Opacity and Flow set to 100. Once you've set your brush size and angle, click once on the image.

The Paint With Color option applies to all brush strokes made on that adjustment layer. You can easily change the color via the color patch in the panel. If you want to apply the same stamp with different colors, create a new adjustment layer for each color.

PART 7: COMBINING PHOTOS WITH LAYERS

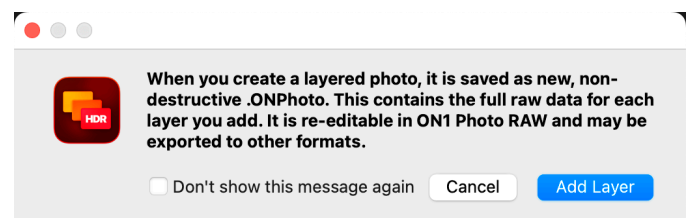


The Layers feature inside ON1 HDR 2023 is fully non-destructive. This means you can use all of the Edit module's tools, tabs and filters, along with layer-independent masking capabilities, and still preserve your original photos and can come back at any time to further enhance your creations.

The Layers functionality inside ON1 HDR 2023's Edit module lets you create quick composites, blend multiple images together, paint in new skies or backgrounds, 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, 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. But more than that, each layer has its own non-destructive settings—just like any photo in HDR, all the way back to the original raw data. That means you can use all of HDR's editing features—basic exposure changes, camera profiles, Effects filters and more—as part of a layered photo.

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



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. HDR supports 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.)

ADDING A NEW LAYER

The easiest way to add a new layer to an existing image is to choose Add Layer from File item in the Layer menu. This will open the Add Layer window, which will have two tabs in it: Extras and Folders. The Extras tab will display two folders, ON1 Extras and My Extras. The ON1 folder will include all of the Extras installed with your copy of HDR, including backgrounds, textures, borders, skies, and more. The My Extras folder will include any similar files you have added to HDR via the Extras Manager (as described on [page 9](#)).

If you wish to open a different file, click on the Browse button at the top of the Add Layer window, which will open your computer's file selection dialog box, where you can navigate to the specific file. Any file compatible with ON1 HDR 2020 can be opened and added as a layer.

NOTE: If the file you add is larger or smaller 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 proportionally. See [page 29](#) for specifics on using the Transform tool.

Opening a layered Photoshop file

ON1 HDR 2023 can open most layered Photoshop files in the Edit module. What happens depends upon the composition and type of layers in the document:

- If the layered document has basic Photoshop layers and masks, HDR will open the document inside Edit, with each layer and mask visible in the Layers pane.
- If the Photoshop file has specialty layers—smart objects, text layers, layer styles— HDR will flatten the visible layers and will open the file as a composite image, with a single layer present in the Layers pane.

In either case, HDR will convert the file to an .onphoto file, preserving your previous document.

Creating a Color Fill Layer

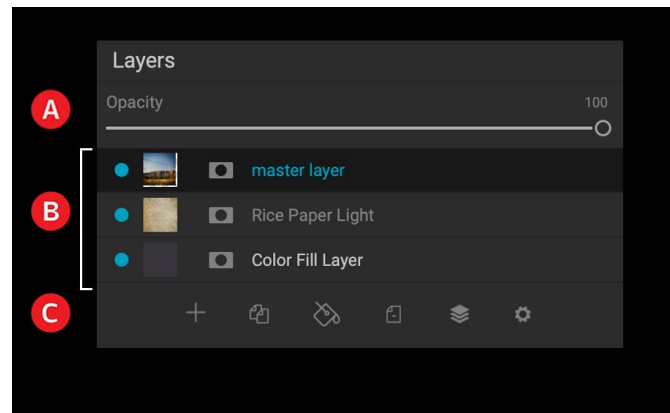
In addition to opening other document types, HDR can create a new layer filled with a solid color, which can be quite useful when working with sophisticated composites or blend modes. Choosing Add Color Fill Layer from the Layer menu (or clicking on the Color Fill icon in the Layers tool bar) will open the system color picker, where you can choose a color for your new layer.

You can change the color of any color fill layer by selecting it in the Layers pane and choosing Edit Color Fill from the Layers menu.

WORKING WITH THE LAYERS PANE

The Layers pane has three sections:

- A. **Layer Opacity:** Reflects the opacity of the currently selected layer.
- B. **Layers:** All of the layers in your document are listed here, with a thumbnail of the layer contents and the layer mask (if there is one); the currently selected layer has an colored outline around it (based on the Accent Color chosen in the System Preferences' General tab). You can rename a layer by double-clicking on the title.
- C. **Layer Tools:** The toolbar at the bottom of the Layers pane includes buttons for performing basic layer operations (described in more detail below).



The Layers pane in HDR. This photo has three active layers.

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 HDR 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, however, contains the basic commands you need when working with layers. From left, the icons represent:

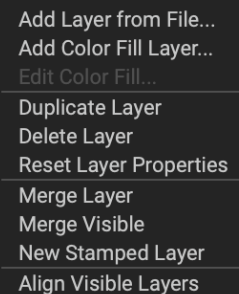


- **New Layer:** Adds a new layer, opening the Add Layer from File window.

- **Duplicate Layer:** Makes a duplicate layer, including any Edit module adjustments made in the original.
- **New Color Fill Layer:** Creates a new color fill layer.
- **Delete Layer:** Deletes the currently selected layer.
- **Merge Layer:** Merges the currently selected layer with the one directly beneath it in the Layers stack.
- **Blending Modes:** Lets you select a blending mode for the current layer. (See [page 84](#) for more about working with blend modes inside HDR.)

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 Edit module 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. See [page 102](#) for more information about this feature.



Right-clicking on a layer brings up a list of available Layers operations.

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. See “[Blending Modes](#)” on [page 84](#) for more detailed information on this topic.

Layer Masks

If you use any of the masking tools, a layer mask will be created automatically. Clicking on the layer's mask icon will display the standard HDR mask options, and you can use all of the Edit module's masking tools to create or modify layer masks. 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](#)” on [page 83](#) and “[Masking Tools](#),” starting on [page 35](#) for more on using HDR's masking tools.

USING THE TRANSFORM TOOL WITH LAYERS

Use the Transform tool (see [page 29](#)) 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 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.

NOTE: For detailed specifics on the Transform tool's options, see [page 29](#).

ALIGNING LAYERS

One of HDR's 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. HDR 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.

An example of HDR's layer alignment can be seen in the photos below, which are handheld shots taken two days apart from the same location. The top photo is the base layer, shown after alignment, but with the second layer hidden.

The bottom photo shows the aligned layers, with a gradient mask blending the top part of the base layer with the bottom part of the other photo. Despite the fact that the photos were shot days apart, HDR has aligned the photos perfectly.



The base aligned layer.



The final aligned photos, blended together with a gradient mask from top to bottom.

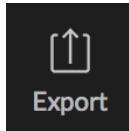
PART 8: OUTPUT AND SHARING

While building and finishing HDR photos is probably the most important task you'll do on a regular basis inside ON1 HDR 2023, 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, HDR has 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:

- **Export:** The power of ON1's patented Resize technology in an easy-to-use panel. Export your photos with flexibility 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 (MacOS only).

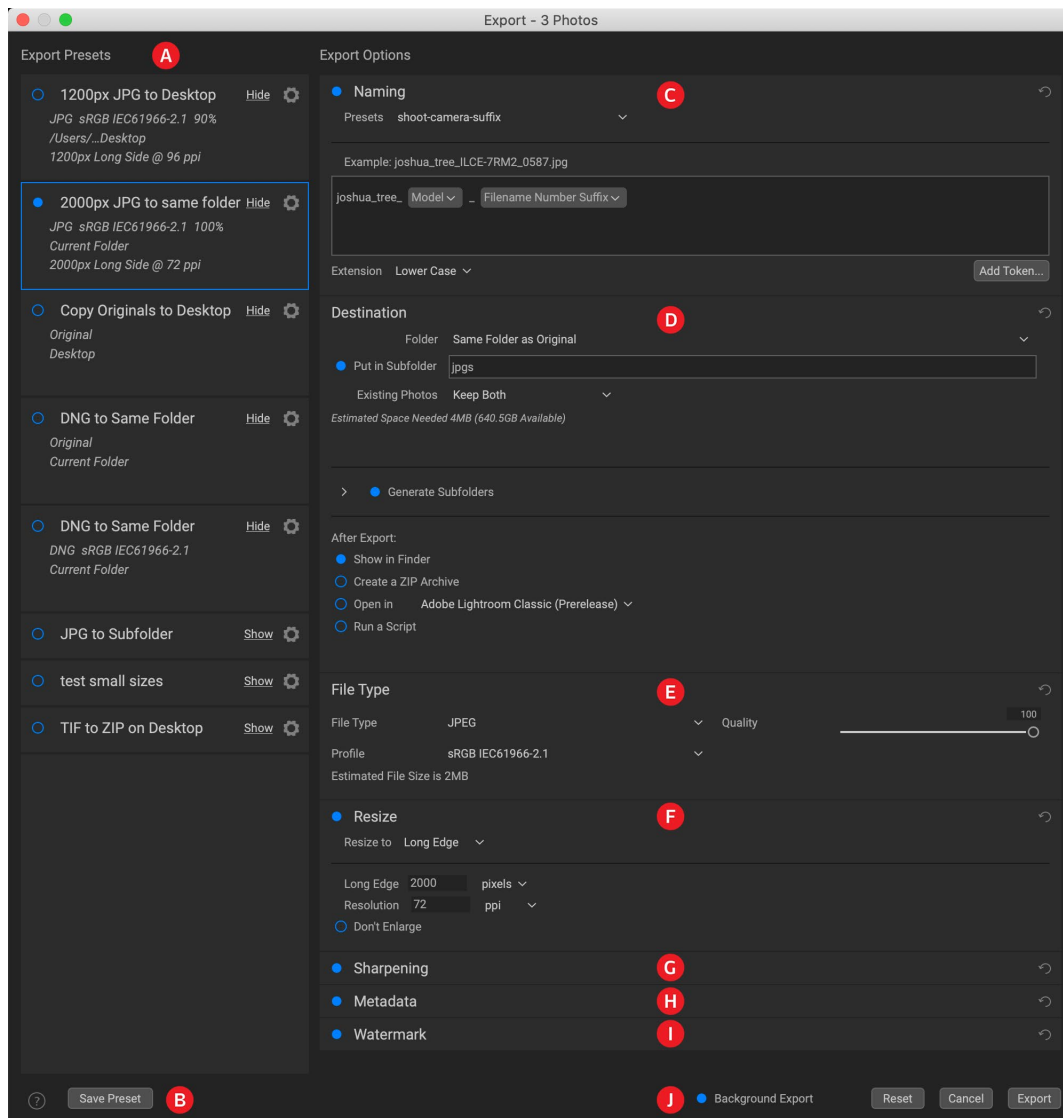
Export



Export is a special function that is available inside ON1 HDR 2023. The Export window gives you the power of ON1's patented Resize technology 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 HDR. 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:



A. **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.

B. **Save Preset:** Lets you save the current set of export options as a preset.

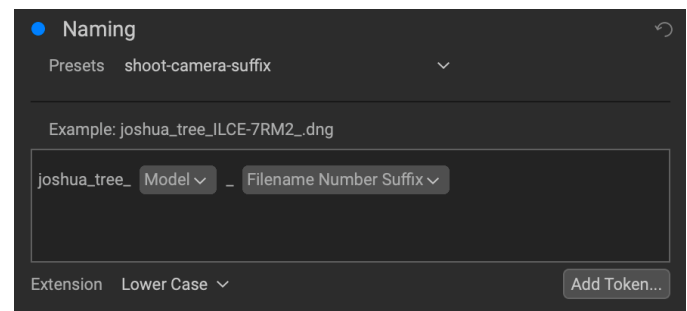
- C. **Naming:** Renames the exported file based on criteria added to the rename box in the panel.
- D. **Destination:** Lets you set the destination of the exported files. *(required)*
- E. **File Type:** Sets the file type for each exported file. *(required)*
- F. **Resize:** Adjusts the size for each image.
- G. **Sharpening:** Applies sharpening to the exported images.
- H. **Metadata:** Adds/removes metadata from the export.
- I. **Watermark:** Lets you add a text or graphic watermark to an exported image.
- J. **Export/Cancel:** Starts the exporting, or cancels it and returns you to HDR.

Export Options

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** is intended for batch processing of images. *(Not applicable when exporting from HDR, which processes a single image at a time.)*
- **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 token 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.

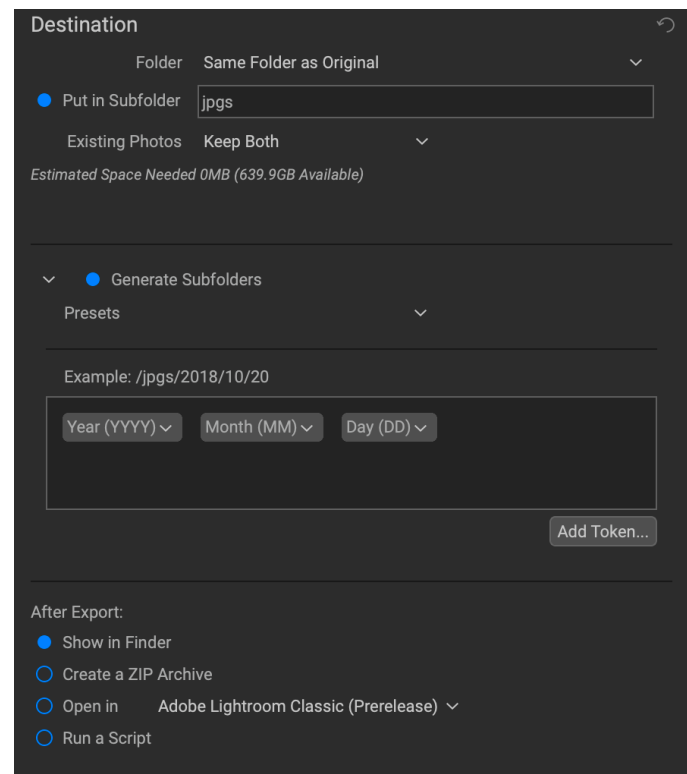
Because the Rename process is not undoable, make sure you use the Example field to check that your text and token combinations give you the filenames you expect for your batch process, and adjust as needed. When you're sure, click Apply, and HDR will rename all of the files.

NOTE: A complete list of the tokens used in the Rename window, with explanations, can be found starting on [page 112](#).

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:

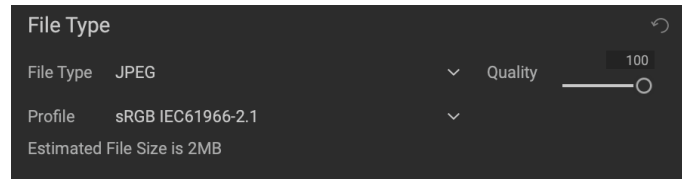
- The **Folder** pop-up menu lets you choose the same folder as the original images, another folder, or, can be set to ask for a destination every time, which can be helpful when you're using an export preset.
- Checking the **Put in Subfolder** option will export the images to the folder—or, create 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 HDR 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. HDR 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:

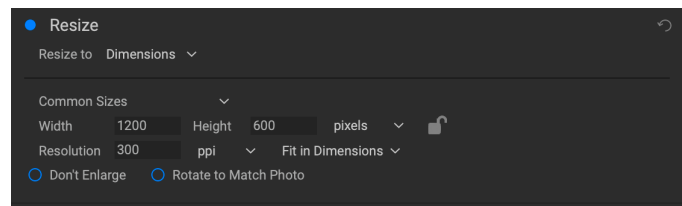


- **Original** includes options for embedding metadata and saving an ON1 sidecar file with the exported images.
- **JPEG** includes options for JPEG quality and for attaching a color profile.
- **Photoshop** includes options for attaching a color profile, bit depth, and whether to flatten any layers 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.

RESIZE

The Resize pane lets you adjust the finished dimensions of the exported photos, using the patented Genuine Fractals technology found in ON1 Resize. It has seven options for export: Dimensions, Long and Short Edge, Width and Height, Megapixels and Percentage. Each option has a different range of settings, and all have a setting for resolution (in pixels per inch, or ppi), as well as a Don't Enlarge option, which, when set, will not upscale a file past its native image dimensions (but will still export the file).



The Resize pane, with the Dimensions option open.

The **Dimensions** option is the most complex of the six Resize options, letting you set the exact pixel dimensions of the exported files, in terms of width and height. This option is best for when you are exporting single images, when all of your exported files have the same aspect ratio and orientation, or when you wish to fit the exported images to an exact size.

The Common Sizes pop-up menu at the top of the pane options lets you set the final dimensions to any of a broad array of common paper, photographic ratio, square and video formats. You can also create your own specific sizes for re-use via this menu.

Click the lock icon to resize the images proportionally as you enter either the width or the height, or, if you wish to fit the images to an exact width and height, click the lock icon to turn it off. If an exported image doesn't exactly fit the dimensions you set for Width and Height, Export will do one of two things, depending upon whether you have Fit in Dimensions or Fill Dimensions set in the pop-up to the right of the Resolution box.

- Fit in Dimensions will fit the exported file inside the boundaries of the width and height settings.
- Fill in Dimensions will zoom the exported image to completely fill the boundaries of the width and height settings, essentially cropping the exported image. If the image's aspect ratio is different from the width and height settings, the image will be filled from the center.

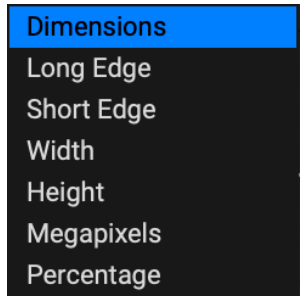
The Dimensions options include one more setting, Rotate to Match Photo, which, when checked, will rotate an exported photo to maximize its orientation. For example, if you exported a group of images to fit a landscape orientation (longer width than height), any image that was in portrait orientation (longer height than width) would be rotated during export.

The remaining options in the Resize pane include:

Long Edge and **Short Edge** are useful when you want to lock one edge to a specific length or width and don't care about the sizing of the other edge. Simply choose which option is the important one for your photos, enter the dimension, and Export will resize your images proportionally based on the chosen setting. When you're exporting a group of images with different orientations (landscape or portrait), these options will ensure that all images have the same long or short edge dimension.

Width and **Height** will resize all of the images proportionally to the width or height defined, regardless of orientation. Exporting photos with different orientation will result in the width or height of every image being the same, depending upon the setting chosen.

Megapixels will export images to a specific megapixel count, while **Percentage** will enlarge or reduce the size of the exported images. Percentages below 100 will reduce the image, while those above 100 will enlarge the image.

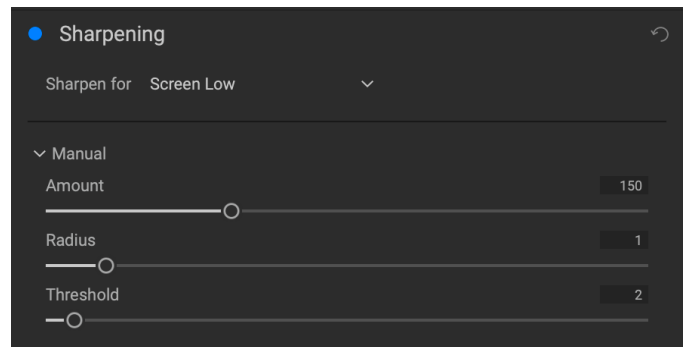


Resize has seven options for exporting images.

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.

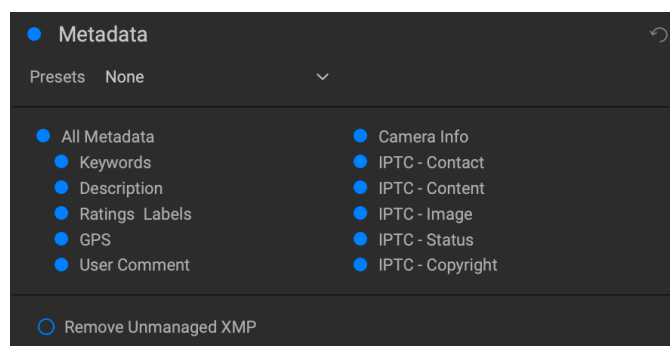
The Manual setting provides a bit more control over the output sharpening, letting you adjust the Amount (overall strength), Radius (detail) and Threshold (masks out areas that shouldn't be sharpened based on contrast).



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.

When checked, the Remove Unmanaged XMP button only exports metadata that ON1 recognizes as standard metadata fields; any 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.

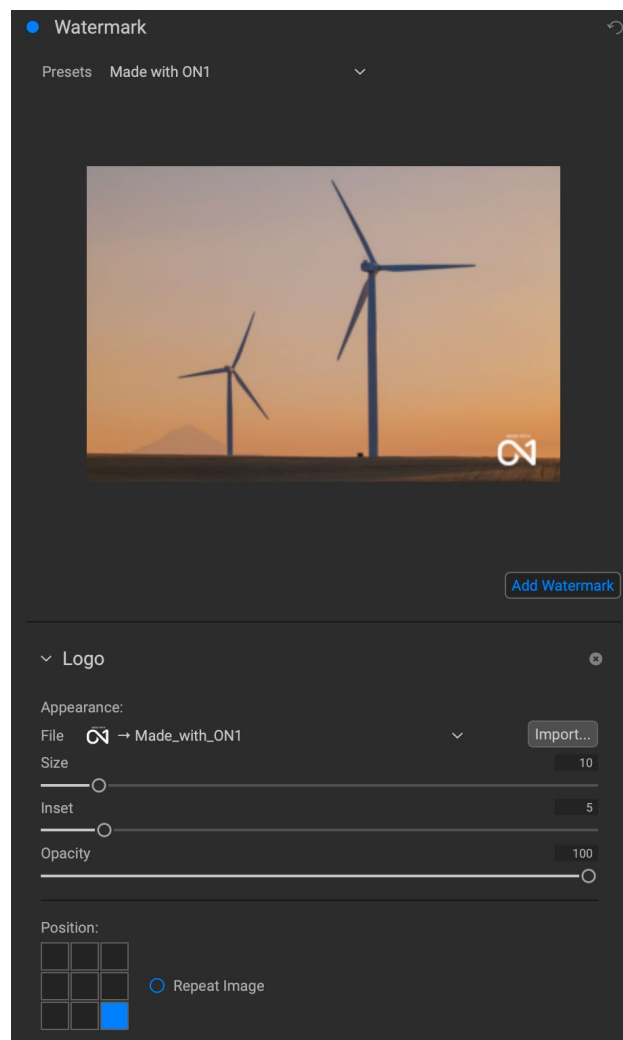
The Watermark pane also gives you a representation of your chosen watermark (on the first image in your export group), so you can adjust the parameters of the watermark precisely.

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 (see [page 9](#)), 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

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.

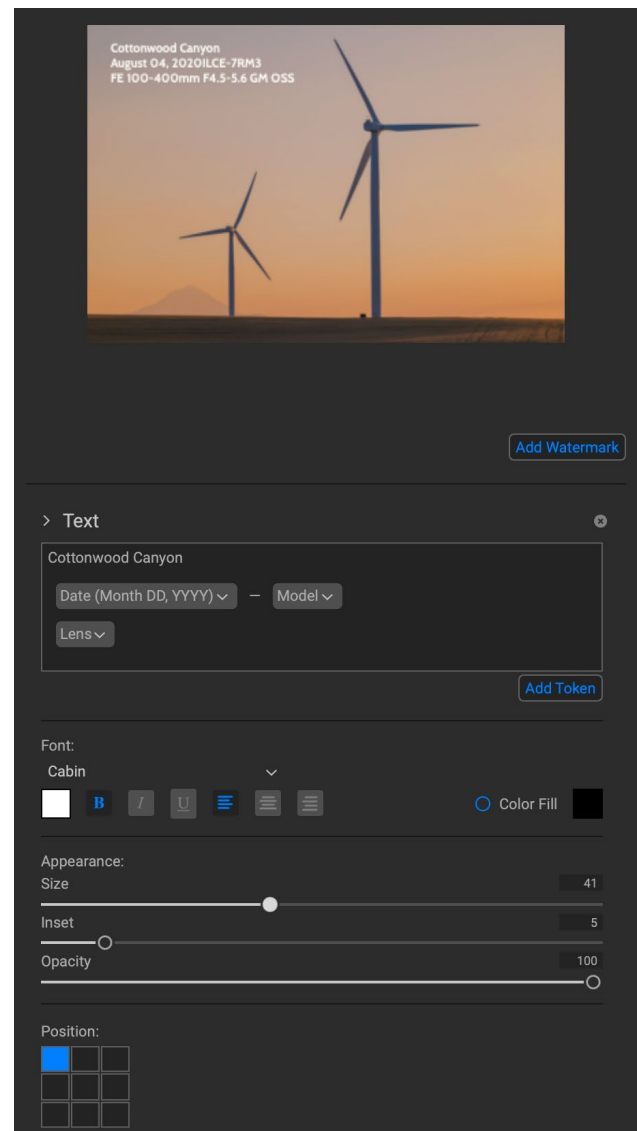
The text entry box can contain multiple lines of custom text, and has the same token-based naming options found in the Naming pane (discussed on [page 106](#)), which can be helpful when exporting informational slides or for other data-driven uses.

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 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.



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.

Exporting and Export Presets

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. HDR 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.

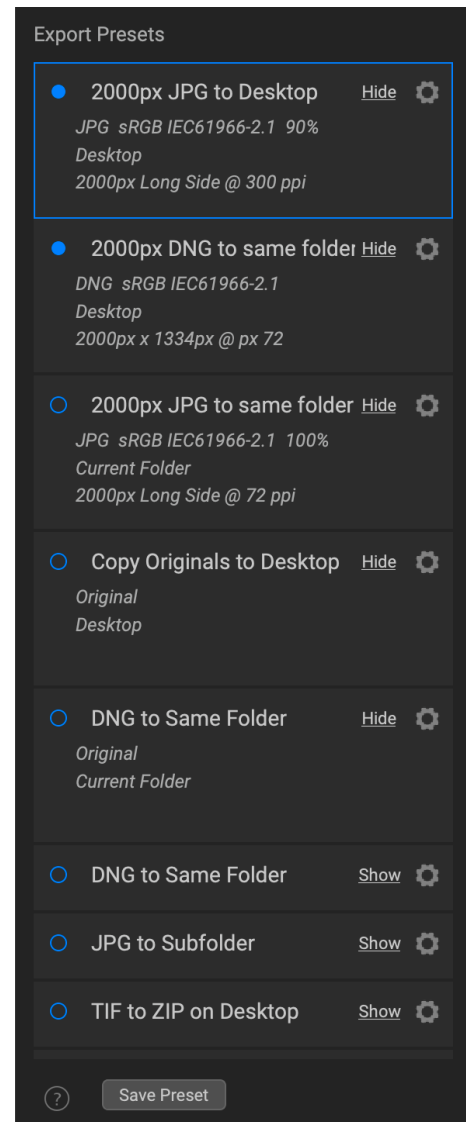
Once you have your settings the way you'd like, you can save them as a preset by clicking the Save Preset option in the Preset panel on the left. Then, when you click that item in the Preset panel, the Export Options will be set to the specifications of that preset.

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, HDR 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.

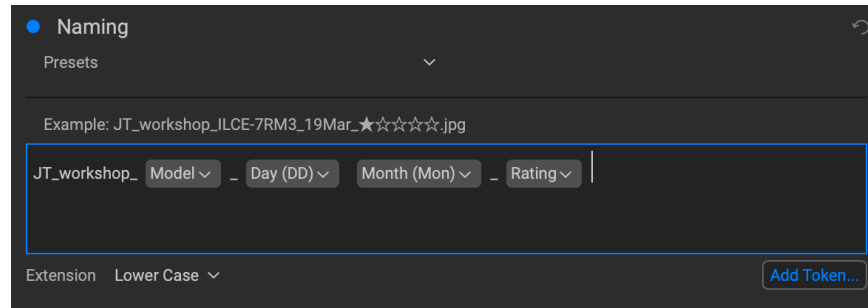


All presets include an informational view that lists the export file type, the destination folder, and resize information. If you don't wish to see that, click the Hide button to collapse the view to just the preset title.

About HDR's File-Naming Tokens

When using the Naming option in the Export window, HDR 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.



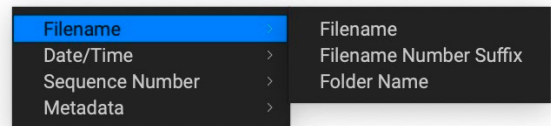
You can use a combination of tokens and custom text to rename files to exacting specifications, all drawn from file information, metadata and more.

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

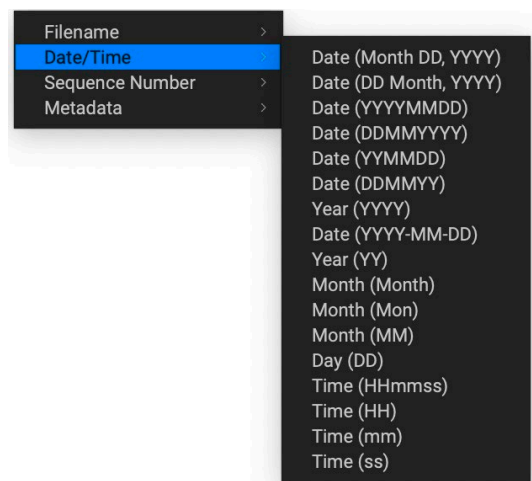
The Filename tokens use information from the filename or the enclosing folder that the file resides in. There are three options, Filename, which adds the current filename of the file being worked on; Filename Number Suffix, which takes the index (shot) number from the original raw file, if available;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

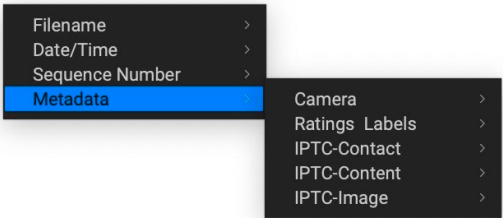


SEQUENCE NUMBER

The Sequence Number tokens come into play when exporting, importing or renaming a group of image files, and, as such is not applicable within Effects.

METADATA

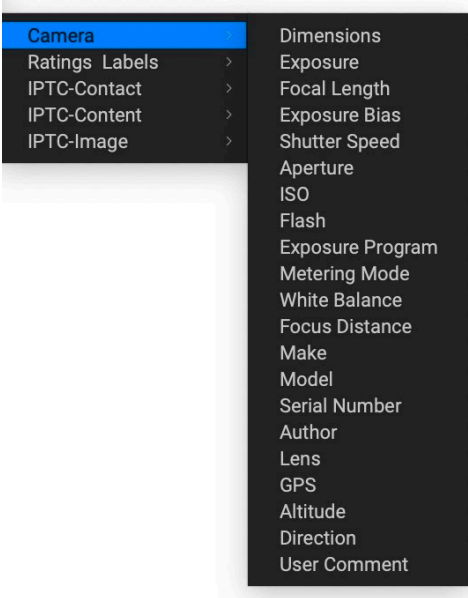
This submenu has five items, each with its own submenu. All of the items create the chosen token based on the embedded metadata for each image being renamed, imported or exported. The specific text pulled from the Camera and IPTC tokens will be visible in the Metadata pane's EXIF (for camera-specific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



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

Camera

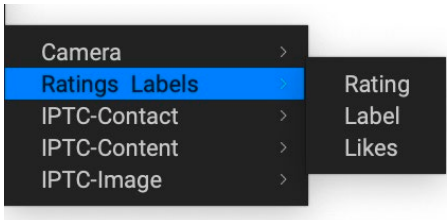
The Camera submenu includes 21 items, all of which are directly taken from an image's EXIF data. Not all cameras capture all of the items listed, but most of them save essential items like exposure information, focal length and more.



Ratings and Labels

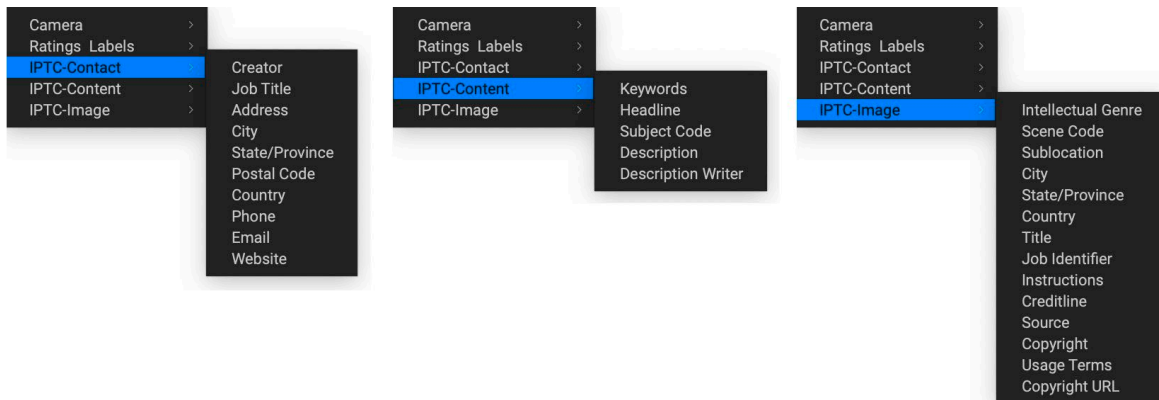
The three tokens in the Ratings and Labels submenu (shown below) pull information from any rating, label and like information stored with images opened in Effects.

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.



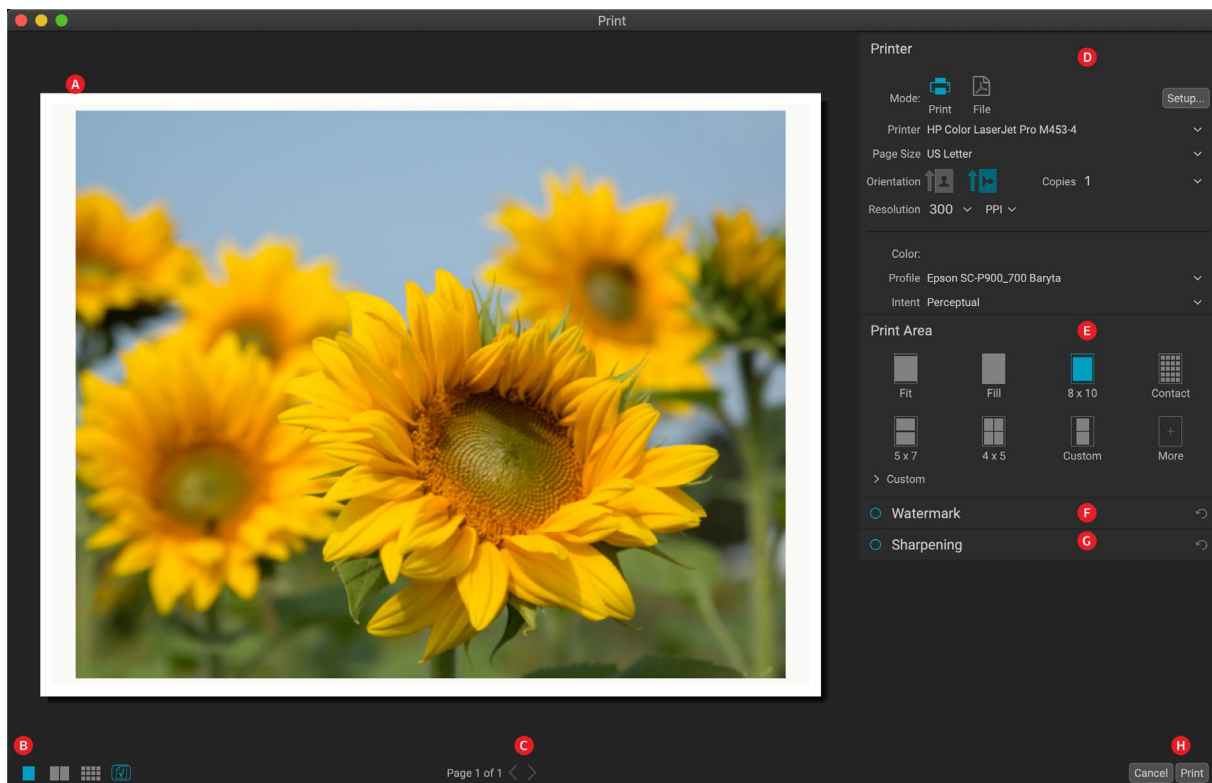
IPTC Metadata Tokens

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. You can use these tokens if you know that an imported file has stored IPTC Metadata information.



Printing

HDR 2023 has a flexible print engine that can print photos at any size. You can print photos individually; or multiple versions of a photo, package style, on a single piece of paper. You can even print when using HDR as a plugin from Lightroom.



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:

- A. **Preview:** Displays the photo or photos being printed.
- B. **View Selector:** The middle two icons are not applicable inside HDR; the icon on the far right turns soft proofing on and off.
- C. **Page view:** Displays the number of pages being printed. *(Not applicable in HDR 2023.)*
- D. **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.
- E. **Print Area pane:** Contains options for fitting and selecting the print image size.
- F. **Watermark pane:** For adding a watermark to printed photos.
- G. **Sharpening:** Options for sharpening during the print process.
- H. **Print/Cancel:** Print One (current image), Print All, or Cancel.

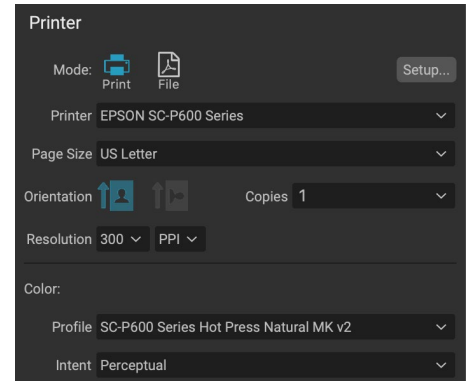
NOTE: The print engine in HDR 2023 is based upon the engine inside ON1 Photo RAW 2023, which has the capability to print multiple photos at a time. Because HDR can only edit a single photo at a time, some options, like contact sheets and some view settings, are not applicable in ON1 HDR.

The four panes in the Print window—Printer, Print Area, Watermark, and Sharpening—each deal with a specific printing-related task.

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. (HDR 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 HDR's Soft Proofing feature to look at out-of-gamut colors in your photos. See [“Soft Proofing” on page 63](#) for more.)

NOTE: HDR'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. HDR 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

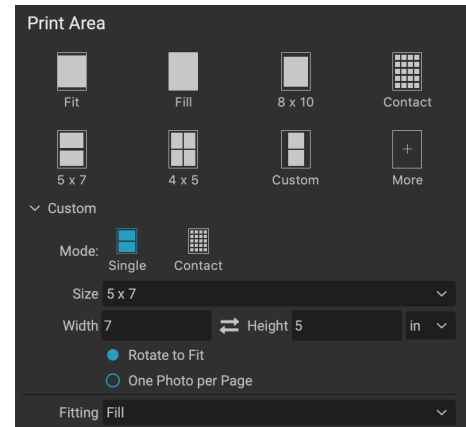
choose Print, HDR will create a PDF of the photo (or photos) and save it with the name and destination you specified earlier.

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 or package-style. (The contact sheet option, while present, is not applicable in HDR, as it is largely designed to gang-print a set of different photos.)

The top of the pane includes preset styles for either fitting the current photo inside the size of the print, or filling the entire size of the print. It also includes 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 copies of a single photo, HDR 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.



The Print Area pane is for setting the actual print size of the photo or photos you are printing.

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.

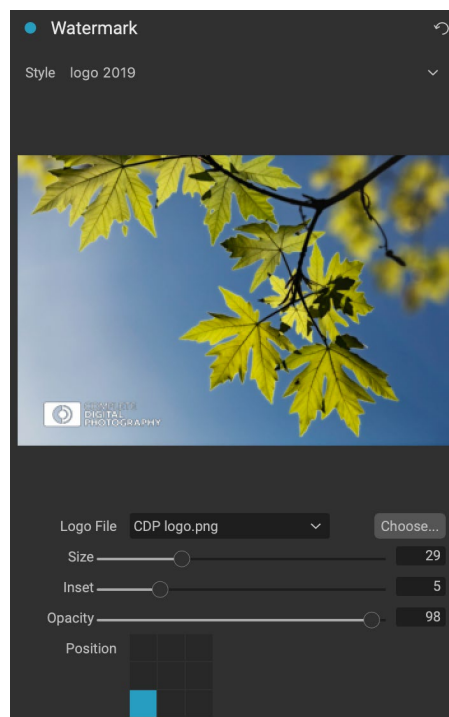
WATERMARK PANE

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.

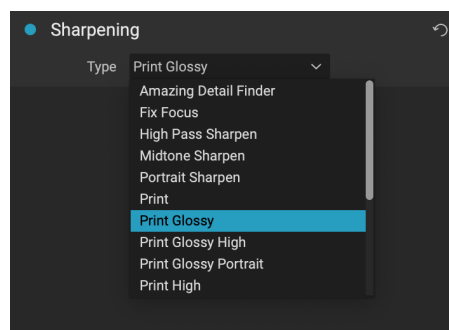
When working with watermarks, make sure your watermark file is sufficiently large for your usage. For example, if you want it to appear 2 inches wide on a 300-ppi image, your watermark needs to be at least 600 pixels wide. Otherwise, it could appear pixelated on the print.



SHARPENING PANE

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.

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.



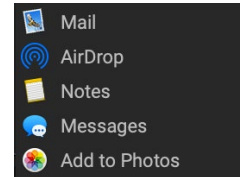
Use the Sharpening pane to add additional sharpening to your printed image.

Other Sharing Options (MacOS Only)



The MacOS version of ON1 HDR 2023 includes a number of photo-sharing options, which can be accessed from the Share pop-up menu in the lower right side of the HDR window. These options include:

- **Mail:** Creates a new email message in Apple Mail with the shared photo.
- **AirDrop:** Uses Apple's AirDrop networking feature to share with local MacOS or iOS devices.
- **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.
- **Messages:** Shares photo to Apple's Messages app.
- **Add to Photos:** Adds the photo to Apple's Photos app.



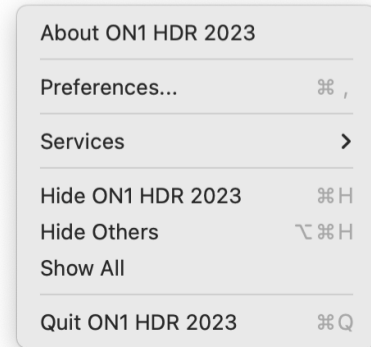
All of the sharing options perform the same operation: HDR exports a full-size JPEG of the selected photo and shares it with the selected target from the list.

PART 9:
ON1 HDR 2023 REFERENCE
MENUS AND PREFERENCES

Edit Menus

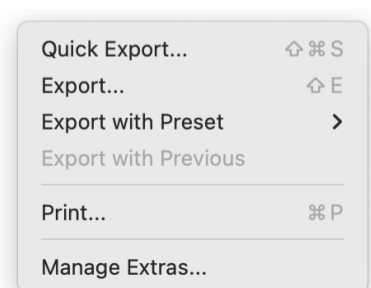
ON1 HDR (MacOS Only)

- **About ON1 HDR:** 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 HDR:** Quits ON1 HDR 2023.



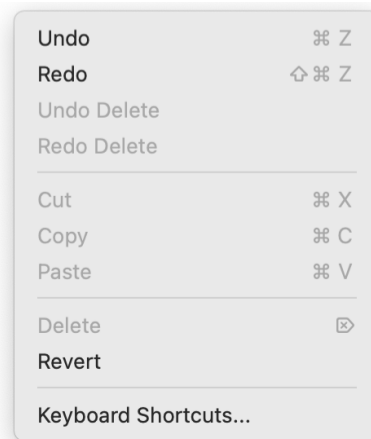
File Menu

- **Quick Export:** Saves the current image in Photoshop, TIFF, JPEG or PNG format.
- **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 selection with the last-used Export setting, bypassing the Export window.
- **Print:** Opens up the print dialog box.
- **Manage Extras:** Opens the Extras Manager window.



Edit Menu

- **Undo:** Removes the last file operation.
- **Redo:** Redoes the undo operation. This is only available if the last thing you did was an undo.
- **Undo Delete:** *[unused]*
- **Redo Delete:** *[unused]*
- **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:** *[unused]*
- **Revert:** Reverts to the original state of the current photo.
- **Keyboard Shortcuts:** Lets you modify the keyboard shortcuts used by ON1 HDR.
- **Preferences (Windows):** Opens the Preferences dialog.



Layer Menu

- **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.

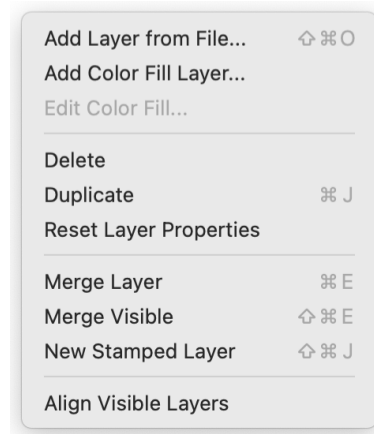
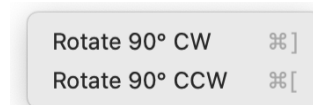


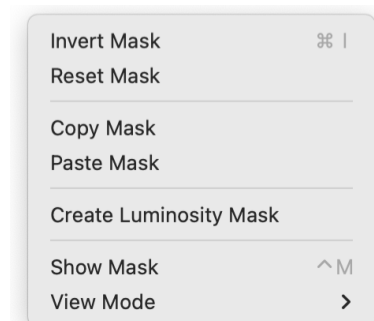
Photo Menu

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



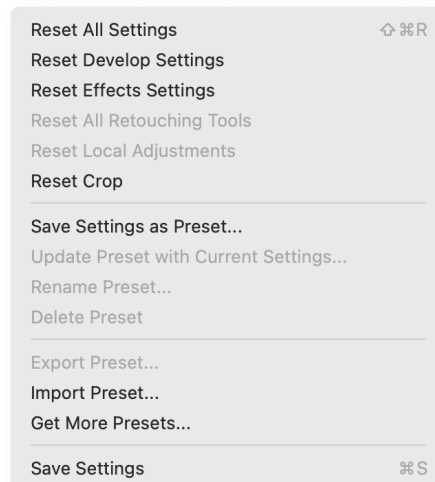
Mask Menu

- **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.
- **Show Mask:** Displays the current mask either as a red overlay or as grayscale.
- **View Mode:** Sets the Show Mask mode to either red overlay or grayscale, or to only show the overlay when you are brushing with a masking tool.



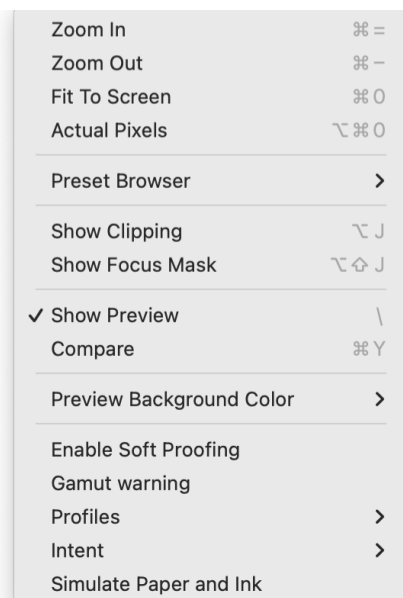
Settings Menu

- **Reset All Settings:** Resets all of the Edit module settings on a photo. *(Changes to Reset Layer when you have multiple layers in a document; this will reset all of the settings only on that layer.)*
- **Reset Develop Settings:** Resets settings applied in Develop.
- **Reset Effects Settings:** Resets settings applied in Effects.
- **Reset All Retouching Tools:** Resets retouching applied in Edit.
- **Reset Local Adjustments:** Resets any local adjustments.
- **Reset Crop:** Resets any cropping made to a photo.
- **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 case of a crash.



View Menu

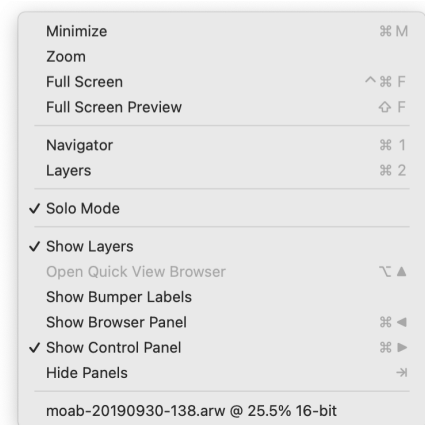
- **Zoom In:** Zooms the preview window in one increment. This will make the preview image larger.
- **Zoom Out:** Zooms the preview window out one increment. This will make the preview images smaller.
- **Fit to Screen:** This sets the preview image so that the entire image is on screen at once. Think 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 browser view to 1, 2 or 3 columns.
- **Show Clipping:** Shows the clipping overlay view, displaying the pure white or black pixels in the current image.
- **Show Focus Mask:** Displays a green overlay on those portions of the current image that are in focus.
- **Show Preview:** Toggle to enable or disable the preview.
- **Compare:** Displays an adjustable split-screen view of the current image, with the Before view on the left side of the preview area.



- **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, HDR will set the white point and black point of the display to account for that of the chosen profile.

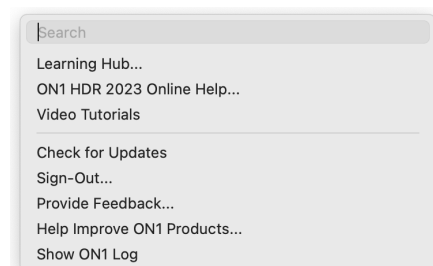
Window

- **Minimize:** Minimizes your screen.
- **Zoom:** Zooms your window to full-size.
- **Full Screen:** Toggles full-screen mode (hides menus).
- **Full Screen Preview:** Displays the current photo full-screen, without any additional interface elements.
- **Navigator:** Hides/shows Navigator, Loupe, Histogram, Info.
- **Layers:** Collapses the Layers pane.
- **Solo Mode:** Keeps only one pane open at a time.
- **Show Layers:** Completely hides/shows the Layers pane.
- **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.
- **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 inside ON1 HDR.
- **ON1 HDR 2023 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 HDR startup screens.
- **Check for Updates:** Checks the ON1 update server to see if you are running the current version. If there is an update, you will be notified/walked through the update process.
- **Sign-In/Sign-Out:** Uses your ON1 account login information to authenticate your copy of ON1 HDR 2023.
- **Provide Feedback:** Opens the default web browser and goes to the feedback page of the ON1 website.
- **About ON1 HDR (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 ON1 HDR 2023.

Preferences

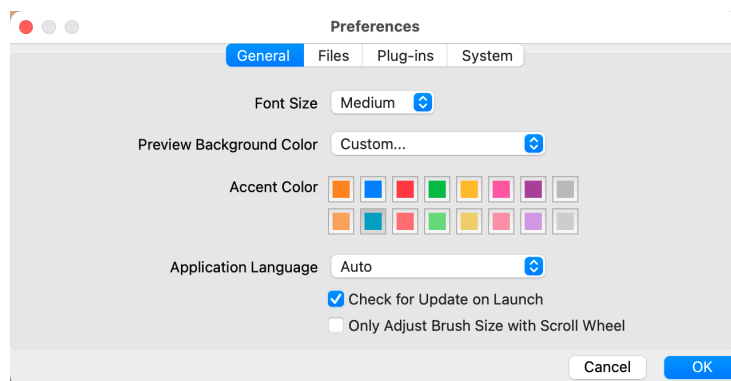
ON1 HDR has a number of system-wide settings that you can set via the Preferences window. To access Preferences, either click on the gear icon at the lower left side of the screen, or choose Preferences from the ON1 HDR 2023 menu (MacOS) or the Edit menu in Windows. The Preferences window has four tabs—General, Files, Plugins, System—and are described below.

GENERAL SETTINGS

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

Font Size

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



NOTE: When changing the font size, you must quit and restart HDR 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 (folders, tabs, selections) in the HDR interface.

Application Language

Lets you change the display language for ON1 HDR 2023. Auto will use your system's default language.

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.

Only Adjust Brush Size with Scroll Wheel

Turning on this option overrides Effects' 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).

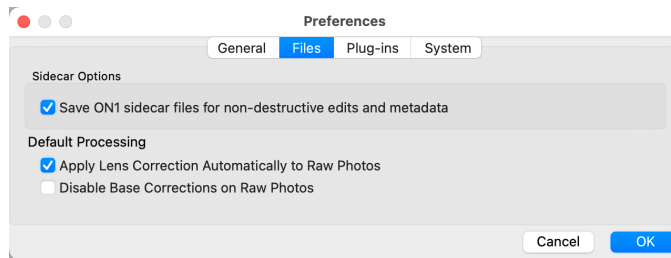
When not checked, Effects uses the scroll wheel to scroll, zoom, pan and adjust brush size and feathering, depending upon the modifier keys being pressed. See [page 14](#) for specifics on the default settings for scroll wheel options in Effects.

FILES

The Files tab has settings for saving sidecar files, as well as for procession options of raw photos opened in ON1 HDR.

Sidecar Options

Click this box if you wish ON1 HDR 2023 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.



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 ON1's basic raw-file correction settings off. This can be helpful for scientific/technical photography, time-lapse, and other specialized applications.

PLUG-INS

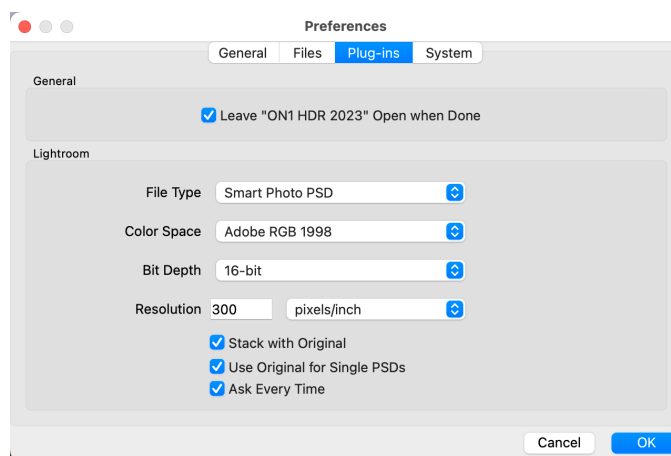
This tab is specific to using HDR as a plugin.

General

Checking the "Leave 'ON1 Effects 2023' open when done will keep the app open after you've edited an image via a plugin.

Lightroom

Lets you choose the file options for files opened via the Plug-in Extras menu:



- **File Type:** This determines what type of file will be created. The default is PSD, which does not support

re-editability. You can also select Smart Photo PSD, JPG or TIFF, if you prefer those formats. One other option, Same as Source, will edit the original file; if that file is a Smart Photo PSD, it will open in that format (see [page 8](#) for more on the Smart Photo format).

- **Color Space:** The color space menu determines which RGB working color space is used; Adobe RGB 1998, sRGB or ProPhoto RGB.
- **Bit Depth:** Sets the exported file's bit depth to either 8 or 16 bits per pixel.
- **Resolution:** Determines the resolution of the newly created file.
- **Stack with Original:** When enabled, the new image is stacked with the original image upon return to Lightroom from HDR.
- **Use Original for Single PSDs:** When enabled, if you select a single image in PSD format, the original file will be edited, rather than having a copy made.
- **Ask Every Time:** When checked, Lightroom will present these export copy options whenever you chose an item from the Plug-In Extras submenu. Turning this option off will bypass the file-export window inside Lightroom, using the options set in Plug-In Preferences window.

SYSTEM

The System tab sets performance-related characteristics of HDR 2023.

AI processor

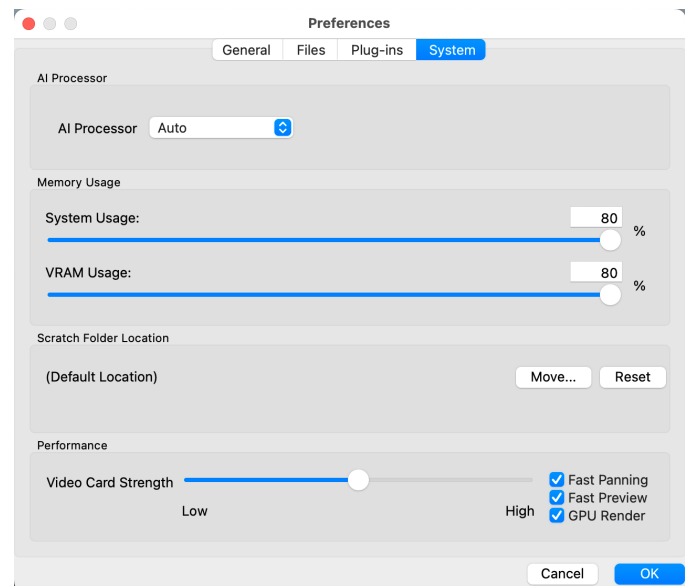
Sets the processing option for AI-based operations. By default, the option is set to Auto, which uses the best combination of system resources to process tasks. If you are noticing some performance issues with HDR, you can try setting the options to either your CPU or your graphics card.

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) that is used by the application. The maximum (default) is 80%.

Scratch Folder Location

This setting lets you move or reset your memory cache, which helps speed editing operations while you're running HDR. 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.



Performance

The Performance section is designed to help you optimize HDR for your specific setup. The adjustments you can make are as follows:

- **Video Card Strength** balances updating the preview of the image and the movement of brushes and gradient tool overlays. If your brush is sticking try turning it down. If you have a high-end video card try turning it up for faster preview updating.
- **Fast Panning** reduces the preview quality (makes it less sharp) while panning the photo to improve performance of panning.
- **Fast Preview** reduces the preview quality (makes it less sharp) while painting or making other adjustments to improve paintbrush performance. This is off if you have a high-end video card.
- **GPU Render** uses the GPU (video card) to render preset thumbnails, exporting, printing, sharing and caching. This can greatly improve performance. It is on by default for systems that support it. It may be disabled on lower-end GPUs.



ON1 HDR 2023 User Guide

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Revision 1.5, June 2023 (Version 17.5.0)

(Added new Refine Brush options; updated Curves filter in Effects; added mouse scroll wheel enhancements.)

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