ON1 Photo RAW 2018

User Guide

EDIT. CREATE. IMPRESS.

Contents

PART 1: ON1 PHOTO RAW 2018 OVERVIEW

ON1 Photo RAW 2018 is a complete photo editor that includes:

- A super-fast Browse module that lets you quickly import, cull, compare, tag and organize your photos.

- True non-destructive raw editing capabilities in the Develop module.

- A professional-grade Effects engine, where you can stack, mask and blend over 20 different filters.

- Industry-standard image enlargement—with full print capabilities—in the Resize module.

- Layers, which lets you composite and blend images in a fully layered workflow.

Flexible Workflow

ON1 Photo RAW 2018 incorporates a state-of-the-art raw processor, which lets you work in a fully non-destructive workflow: you can quickly import, sort and view raw photos in Browse, and edit them in either the Develop or Effects modules without having to worry about saving your edits. The next time you edit your photo, all of your settings will be remembered, and you can easily change any settings, add new ones, or start over from scratch, all without having to save additional versions of your photo. Photo RAW 2018 is even non-destructive when working with such non-raw formats as JPG, Photoshop (PSD), PNG and TIFF.

If you have an existing raw editing and workflow app such as Adobe's Photoshop, Lightroom Classic CC, Photoshop Elements or Apple Photos, ON1 Photo RAW 2018 can also work as a plug-in to these apps,

letting you perform advanced editing tasks on your photos while preserving your traditional workflow. And, with ON1's optional Smart Photo technology—available when using Photo RAW 2018 as a plug-in for Lightroom and Photoshop, or when working with photos in the Layers module—you can save your photo back to your primary app, and still be able to re-edit your photo in Photo RAW 2018 with its settings intact: reopening a Smart Photo inside Photo RAW 2018 will display the image exactly as you left it previously.

Using the Help System

Find and watch free video tutorials at the ON1 Photo RAW 2018 Product Training site, available at ON1. com. This is the best and quickest way to dig into the ON1 workflow and discover new techniques that will help you with your photo editing and organizing. There, you can search our Knowledge Base for frequently asked questions, common issues and more.

System Requirements

	MINIMUM	RECOMMENDED
OPERATING SYSTEM	Mac OS 10.10 through 10.13 Windows 7, Windows 8 or Windows 10 current releases, 64-bit only	Mac OS 10.12, 10.13 Windows 10 current releases, 64-bit only
PROCESSOR	Intel Core 2 Duo, Xeon or better processor	Intel Core i5, Xeon or better processor
RAM	4 GB (8 GB when used as a Photoshop plug-in)	16 GB RAM
HARD DRIVE	1.5 GB for installation	1.5 GB for installation Fast (7200 RPM) or SSD drives for optimal performance
DISPLAY	OpenGL 3.3 compatible video card with 512 MB video RAM,1280x720 resolution	OpenGL 4.2 compatible video card with 1 GB dedicated video RAM, 1920x1080 resolution
THIRD-PARTY APPS SUPPORTED (PLUG-IN)	Photoshop CS6, CC (all versions) Photoshop Elements 13, 14, 15, 2018 Photoshop Lightroom 5 and 6, Lightroom Classic CC (all versions) Apple Photos	
OTHER	Internet connection for activation, auto update checking, content downloads and tutorials.	Internet connection for activation, auto update checking, content downloads and tutorials. Wacom tablet for pressure-sensitive input Hardware display calibration tool

Installation

To install ON1 Photo RAW 2018, double-click the installer icon and allow the installer to guide you.

Be sure to close any supported host applications such as Adobe Photoshop, Elements or Lightroom, as well as any previous versions of ON1 products before installing or updating.

MAC OS

The application is installed in the ON1 Photo RAW 2018 folder in the Applications folder.

All plug-in files for supported host applications (such as Adobe Photoshop, Lightroom, or Photoshop Elements) found during the installation process will be installed automatically. You will see a summary of installed plug-ins at the end of installation.

If a previous version of ON1's Photo RAW, 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

The application is installed in the ON1 Photo RAW 2018 directory in the ON1 directory in the Program Files directory.

All plug-in files for supported host applications (such as Adobe Photoshop, Lightroom, Photoshop Elements) found during the installation process will be installed automatically. You will see a summary of installed plug-ins at the end of installation.

If a previous version of ON1's Photo RAW, 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\ on Windows.

Launching ON1 Photo RAW 2018

To launch Photo RAW 2018 as a standalone app, with access to all modules, follow these steps:

MAC OS

1. Open your Finder.
2. Navigate to the Applications folder.
3. Navigate to the ON1 Photo RAW 2018 folder.
4. Double-click on the ON1 Photo RAW 2018 application icon.

You can add ON1 Photo RAW 2018 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 7

1. Go to your Start Menu.

2. Select the ON1 group.

3. Select ON1 Photo RAW 2018.

4. If you selected the "Add Icon to Desktop" option during installation you can also access ON1 Photo RAW 2018 from there.

WINDOWS 8.1 AND WINDOWS 10

1. Open the Start screen by pressing the Window key.

2. Select ON1 Photo RAW 2018.

3. If you selected the "Add Icon to Desktop" option during installation you can also access ON1 Photo RAW 2018 from there.

To launch ON1 Photo RAW 2018 from an external application, such as Adobe Photoshop or Lightroom, see the sections below for complete instructions.

Licensing and Registration

When you first launch ON1 Photo RAW 2018, you will be presented with a window asking you to activate your software. In this window, you can either enter your ON1 account information (if you have purchased the app) or can start a free trial of the app.

IF YOU HAVE PURCHASED ON1 PHOTO RAW 2018:

Click on the "Owners Sign-in" button and fill in your ON1 account information (email and password) to register the app with us. (You should have set up an account when you purchased the software.) If the computer you are signing in with does not have access to the internet, you can manually register your software by clicking on the "No Internet connection" link in the license dialog.

When you first launch ON1 Photo, you can either sign in with your ON1 user ID (which you set up when you purchased the software, or you can click the orange button to start a free trial.

Your license lets you install ON1 Photo RAW 2018 on five computers. When you enter your ON1 account info, Photo RAW 2018 communicates with the ON1 activation server and registers your software for that computer.

If you wish to move your copy of ON1 Photo RAW 2018 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 Photo RAW 2018 and select Sign Out from the Help menu. This will turn off Photo RAW 2018 on the current machine, and you can install and sign in on another machine.

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

If you have issues related to installing or activating Photo RAW 2018, please contact ON1's customer support, which can be reached by clicking on the Support tab (https://on1help.zendesk.com/hc/en-us) on the main ON1 website.

TRIAL VERSION

ON1 Photo RAW 2018 can also operate as a fully featured trial version for 30 days from when you first launch it. This gives you time to evaluate the product and see if it fits your needs. If you have downloaded Photo RAW 2018 to try it out, simply click on the Trial button in the Activation window. Each time you launch ON1 Photo RAW 2018 during the trial period, you will see the window, which will tell you how many days remain in the trial.

You can purchase ON1 Photo RAW 2018 at any time from this window by clicking on the Purchase button. If you do that, just enter your ON1 account information the next time you launch the product and the activation window will no longer appear.

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 Photo RAW 2018. You can change your participation later, just click the Help menu, then Help Improve ON1, Inc. Products.

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

Uninstalling ON1 Photo RAW 2018

To uninstall ON1 Photo RAW 2018, follow these instructions:

First, deactivate your product: open ON1 Photo RAW 2018 and select Sign Out… from the Help menu. (This will allow you to transfer your license to another computer.)

MAC OS

1. Go to the Applications/ON1 Photo RAW 2018/Documentation folder.
2. Double-click on the Remove ON1 Photo RAW 2018 application.

WINDOWS

1. Go to Control Panels.
2. Under Programs select Uninstall a program.
3. In the list that comes up select ON1 Photo RAW 2018 and then click on the Uninstall button.

Working with Files

ON1 Photo RAW 2018 supports the opening and saving of the following file types, in RGB color mode, 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)

> **NOTE:** ON1 Photo RAW 2018 can also view most standard video formats inside the Browse module. While you cannot play or edit video from within Photo RAW, you can perform file management tasks and edit metadata. (Double-clicking on a video file in Photo RAW will launch the default video player for your computer.)

FILE ACCESS WHEN USING PHOTO RAW 2018 AS A STANDALONE APPLICATION (BROWSE)

When used as a standalone application with Browse as your starting module, ON1 Photo RAW 2018 uses your camera manufacturer's raw format as the default format when editing your photos. ON1 Photo RAW 2018's non-destructive editing capabilities let you view your raw files—or any other supported file type from the list above—in Browse, edit them in the Develop or Effects modules without having to create any intermediary files. There are no multiple versions of images cluttering up your directory; ON1 Photo RAW 2018 remembers the edits you've made to your photos in Develop and Effects and applies them non-destructively to your original.

This means is that there is no need to "open" the files to edit them in Develop or Effects; you just work with them as desired, and ON1 Photo RAW 2018 will remember your edits as you travel across the modules. You'll only need to save them in a different form when you wish to export or share them in non-raw formats, or when you wish to work with the Layers or Resize modules.

FILE ACCESS WHEN USING PHOTO RAW 2018 AS A STANDALONE APPLICATION (LAYERS)

When used as a standalone app with Layers as your default module, you lose the capability to work in a non-destructive editing environment, but you still get the benefits of the editing modules, as well as Layers' advanced layering and masking options. If you would like to preserve edits made in the Develop or Effects modules from within Layers, you can convert the image layer to a smart layer by right-clicking on the layer and choosing Convert to Smart Layer. (Smart layers are a layered version of Smart Photos—see below for more.)

For more on how to use this feature effectively, see the Layers section of this guide, starting on .

FILE ACCESS WHEN USING PHOTO RAW 2018 AS A PLUG-IN

If you use ON1 Photo RAW 2018 as a plug-in for another raw editor (Lightroom, for example), using Photoshop format (.PSD) files will maintain all the layers and layer masks you create in ON1 Photo RAW 2018 and are recommended as your main file format. Photoshop files may also be saved inside Photo RAW 2018 as a Smart Photo, which is an ON1-specific variant of the Photoshop format that allows you to re-edit your settings at a later date (see below). If your saved file will be larger than 2GB or 30,000 pixels on a side, your image will automatically be saved in the .PSB (or Large Document) format. This is a newer version of the PSD format and still maintains all your layers and masks.

SMART PHOTOS

A Smart Photo is a special ON1-specific version of the Photoshop (PSD) file format that saves your editing settings and masks from the Develop or Effects modules so you can go back and re-edit them later. Any settings you make, including masks and control points, are readjustable. Smart Photos are primarily used when you access ON1 Photo RAW 2018 from within Lightroom, or when you use Layers as your editing home. (Re-editability is available from within Photoshop when you use Photoshop's Smart Objects, as

detailed in the "Using Photo RAW 2018 with Adobe® Photoshop®" on page 11.)

For complete information on how to create Smart Photos, see the Lightroom and Layers sections of this user guide.

Similar to Smart Objects in Photoshop, Smart Photos have certain limitations. You cannot use any tool that will change the original pixels, size or proportions, such as the Crop or Transform tools. (This includes the retouching tools in Layers.) Smart Photo information is limited to the operations you can provide in the Develop and Effects modules.

> **NOTE:** Even though a Smart Photo is a variant of the Photoshop file format, Photoshop does not recognize the information ON1 Photo RAW 2018 uses to provide re-editing capability. If you open a Smart Photo inside Photoshop, you will be prompted to flatten the document. If you are sure you do not want to re-edit the photo inside Photo RAW 2018, click OK; otherwise, cancel and make a copy of your photo before opening it inside Photoshop.

Re-Editing a Smart Photo

There are two ways to open and re-edit a Smart Photo depending on your product configuration, but both methods require that you open the Smart Photo first in Layers:

- If you are working in Browse, you can tell if a PSD photo is a Smart Photo by the gear symbol in the lower right corner of the image's thumbnail. To re-edit it, click on the photo, then choose Edit in ON1 Layers from the Edit menu.

- If you are using Lightroom, to send a Smart Photo to ON1 Photo RAW 2018, Select ON1 Layers 2018 from the File > Plug-In Extras menu.
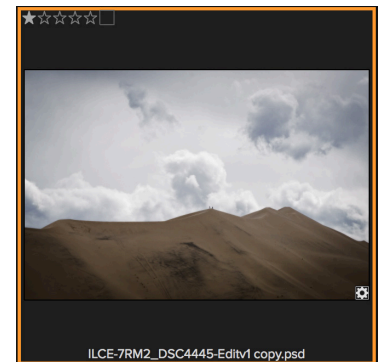
In Browse, you can tell if an image is a Smart Photo if it has a small gear icon in the lower right corner of the thumbnail.

Once you have the Smart Photo inside Layers, you will see the modules you worked in underneath the main photo layer, which is represented as a Smart Layer. Double-clicking on the module name will launch either Develop or Effects, letting you view the previous edit settings, and letting you reset or make changes to the photo. Clicking Done inside the module will return you to Layers, where you can make any other adjustments to the photo, then save it back to Lightroom.
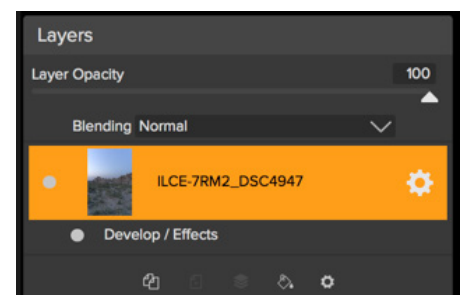
A Smart Photo opened in Layers has the modules used to edit the original file. Double-clicking on the module name (Effects, in this case) will launch that module and let you make any changes or additional edits.

ON1 Photo RAW 2018 Modules

ON1 Photo RAW 2018 has five modules: Browse, Develop, Effects, Resize and Layers. Each module focuses on one task, giving you access to just what you need to get that task done. Browse handles all file-management operations; Develop and Effects perform non-destructive pixel editing; Resize is used to enlarge images, largely for printing to large-format printers; and Layers is a complete, layered workflow tool for compositing images.

> **NOTE:** If you used an earlier version of ON1 Photo or Perfect Photo Suite, the Black & White and Portrait modules have been incorporated into Effects.)

STARTING MODULES IN STANDALONE MODE

When used as a standalone application, Browse is the default module at first launch, it is used to navigate your drives and cloud services to find images to begin working with. If you wish to use ON1 Photo RAW 2018 in a non-destructive workflow with your raw files, you should keep Browse as your default module.

If you prefer a layered workflow you can use the Layers module as the heart of your workflow; this is similar to using Adobe Photoshop. You can change the default startup module to Layers in ON1 Photo RAW 2018's Preferences.

THE MODULE SELECTOR

The Module Selector is on the right side of the screen, visible at all times. Depending upon which module you are working in, and where you started—in standalone mode, or when you're using ON1 Photo RAW 2018 as a plug-in—some or all of the modules might be disabled, depending upon where you start from:

- If you use Photo RAW 2018 as a standalone application, with either Browse or Layers, you can click on any module to go to that module.

- If you access Photo RAW 2018 as a Photoshop plug-in you see the Module Selector, but all of the modules will be disabled, with the exception of Develop and Effects: You can move freely between those modules.

- If you use Lightroom, which modules are visible depends upon the method in which you came from Lightroom. For more complete information, see the Working with Adobe Lightroom section on .

Using ON1 Photo RAW 2018 as a Raw Editor

ON1 Photo RAW 2018 can be used as a standalone application without the need of Photoshop, Lightroom or another editing application. Using it in this manner gives you access to all the modules and a complete raw-based workflow with non-destructive editing capabilities.

ON1 PHOTO RAW 2018 WORKFLOW, FROM BROWSE TO DEVELOP AND EFFECTS

When used as a standalone photo editor, ON1 Photo RAW 2018 offers true non-destructive raw editing capabilities. This means you can view your images in the Browse module, open a raw file in Develop or Effects and apply edits—including cropping, healing and local adjustments—and ON1 Photo RAW 2018 will always be working with your original file. At any point, you can go back to Develop or Effects and change any or all settings you have made.

If you wish to export your photo, share it with online services, or add it to a layered document for compositing and editing in the Layers module, ON1 Photo RAW 2018 will apply your changes to a copy of the raw file and let you save it in a number of popular file formats.

UNDERSTANDING THE RAW PIPELINE IN ON1 PHOTO RAW 2018

There are many editing operations you can make to a raw file with ON1 Photo RAW 2018, from broad global adjustments for exposure and color, to the application of effects, to cropping and retouching, and the addition of local adjustments to sections of a photo. Because there has to be some structure of how edits are applied to a raw file, it might be helpful to understand the order in which edits are applied to a raw file. Whenever you view an edited image in ON1 Photo RAW 2018, this is how the image 'stack' is ordered:

- The raw image is always at the bottom of the stack. This is your original, and you can always get back to that file.
- Since retouching—operations like removing dust spots, editing blemishes or skin imperfections—is often the first thing many photographers do to their images, ON1 Photo RAW 2018 applies any retouching first. This way, all subsequent edits will incorporate these changes.
- Following that, any cropping or transformations (rotating a photo, for example) are applied. Like everything else, these operations are re-editable.
- Next are settings applied in the Develop module. This includes the application of color profiles, global exposure, color correction, sharpening and noise reduction.
- Edits made in the Effects module are applied on top of the Develop settings.
- Any local adjustments made to an image are applied at the 'top' of the image-editing stack.

You do not have to edit your photos in this order; this is just the way in which Photo RAW 2018 applies the edits you make to an image. You might find a dust spot, for example, only after changing exposure settings in Develop or applying a filter in Effects. You can then use the Perfect Eraser to remove the spot and

continue with your editing, and Photo RAW 2018 will apply it at the proper place in the stack.

> **NOTE:** While editors like ON1 Photo RAW 2018 and Lightroom can open and edit raw files, they are not compatible with one another. Any edits made to a raw file in one program will not be visible in the other. For best practices, you should generally choose one program to be your organizational and raw editing tool. If you think you would like to switch your primary editing tool from Lightroom to ON1 Photo RAW, see "Moving Your Lightroom Catalog to ON1 Photo RAW" on page 14.

Using Photo RAW 2018 with Adobe® Photoshop®

When you edit an image sent from Photoshop to ON1 Photo RAW 2018, you are editing Photoshop's currently selected layer. By default, Photo RAW 2018 makes a copy of the layer, so your original layer is saved, unless it is a Smart Object (see below). If you'd like to change this preference, see the Plug-Ins section of the Preferences window.

ON1 Photo RAW 2018 is accessible from within Photoshop in two ways, from the File > Automate menu, and from the Filter > ON1 menu. From the Automate menu, you can access the Develop, Effects and Resize modules; from the Filter menu, you can access the Develop and Effects modules. (Browse, Layers and Export are not accessible from within Photoshop.)

There are two options for editing an image in ON1 Photo RAW 2018. Which method you choose depends upon whether you think you might wish to re-edit your image in ON1 Photo RAW 2018.

EDITING A PHOTO IN PHOTOSHOP WITHOUT PRESERVING CHANGES MADE IN ON1 PHOTO

To use ON1 Photo inside of Photoshop when you do not with so be able to re-edit your operations, just follow these steps:

1. Open the image you want to work on in Photoshop.
2. Select the layer you want to work on. Make a duplicate if you want to preserve the original layer (Layer > Duplicate).
3. From the Filter menu, select ON1 and then the module you would like to use.
4. When you're finished editing your photo, click the Done button in ON1 Photo RAW 2018. The edited version of the layer will replace your originally selected layer.

EDITING A PHOTO IN PHOTOSHOP TO PRESERVE CHANGES MADE IN ON1 PHOTO

To be able to re-edit your Photoshop images at a later point inside ON1 Photo RAW 2018, you will use Photoshop's Smart Object technology. To do this, follow these steps:

1. Open the image you want to work on in Photoshop.

2. Select the layer you want to work on.

3. Right-click on the layer and choose Convert to Smart Object.

4. From the Filter menu, select ON1 and then the module you would like to use.

5. When you're finished editing your photo, click the Done button in Photo RAW 2018.
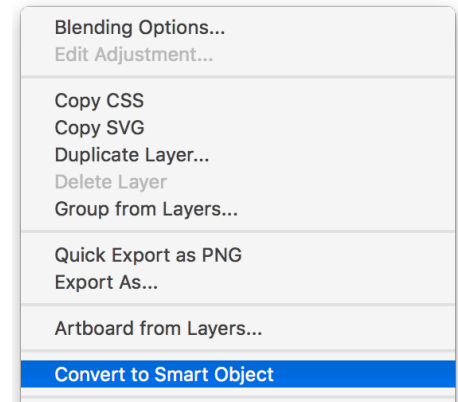
Right-clicking on a layer in Photoshop's Layers panel gives you the option to turn the layer into a Smart Object..

To re-edit your Smart Object layer again inside ON1 Photo RAW 2018, double-click on the ON1 module name in the edited Smart Object layer in Photoshop. ON1 Photo will then launch that module, and let you change your previous settings or make new ones.
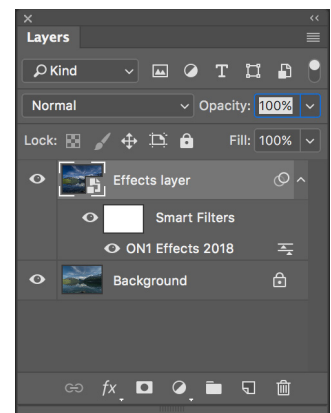
Using Photo RAW with Adobe® Lightroom® Classic
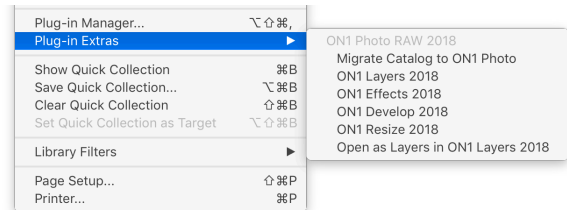
ON1 Photo RAW 2018 can be accessed from within Lightroom Classic CC, providing an integrated, round-trip workflow of your images. All of the modules, with the exception of Browse, are accessible from within Lightroom.

> **NOTE:** Lightroom is a raw editor similar to ON1 Photo RAW 2018; while both programs can open and edit raw files, they are not compatible with one another. Any edits made to a raw file in one program will not be visible in the other. For best practices, you should generally choose one program to be your organizational and raw editing tool. If you would like to use ON1 Photo as your primary raw editor, see "Moving Your Lightroom Catalog to ON1 Photo RAW" on page 14 for more information.

There are two primary ways to use ON1 Photo RAW 2018 with Lightroom, via the Plug-In Extras command in the File menu and the Edit In command in the Photo menu. Using the Photo > Edit In menu gives you quick access to the Develop or Effects and Resize modules, while File > Plug-In Extras gives you access to those three modules, plus Layers and Export.

USING 'PLUG-IN EXTRAS'

Accessing ON1 Photo RAW 2018 from the File >
Plug-in Extras menu is the preferred way to access the
app. It gives you access to all installed modules (except
Browse) and has the most flexibility in how the files are
handled. To edit an image in ON1 Photo RAW 2018,
select the image in Lightroom, go the File menu and
select the Plug-In Extras submenu, and choose the
module you would like to use. (If you use either Develop
or Effects, you can move between the modules directly inside ON1 Photo RAW 2018.)
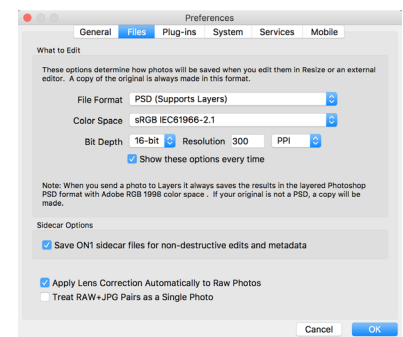
The Plug-In Extras submenu, is found in Lightroom's File menu.

File Creation Characteristics When Using Plug-In Extras

When you use ON1 Photo RAW 2018 through the Plug-In Extras menu
there are important file-handling options that are controlled in the ON1
Photo RAW 2018 Preferences dialog. These need to be configured in
advance based on your desired workflow. Once these are set, all images
sent to Photo RAW 2018 via the Plug-In Extras submenu will use these
characteristics:

- **Save Photoshop Files As**: Controls how Photoshop files opened
  from Lightroom are saved, as smart photos or regular PSDs.

- **File Type**: The file type drop-down menu determines what type
  of file will be created. The default is PSD, which maintains
  layers. You can also select JPG or TIFF, if you prefer those
  formats and are not concerned about maintaining layers.

*When sending a file from Lightroom to
Photo RAW via Lightroom's Plug-In Extras
menu, the edited file will be created
according to your settings in the Files
section of Photo RAW's Preferences
window.*

- **Color Space**: The color space drop-down menu determines what RGB working color space is
  used; Adobe RGB 1998, sRGB or ProPhoto RGB.

- **Bit Depth**: The bit-depth drop-down menu determines the bit depth, either 8-bit or 16-bit per
  pixel.

- **Resolution**: The resolution drop-down menu determines the resolution of the file.

Selecting Multiple Images (Layers module only)

If you wish to open multiple Lightroom photos as individual layers in a single canvas in the Layers module,
choose File > Plug-In Extras > Open as Layers in Layers. If you wish to open multiple photos as separate
files in the Layers module, choose File > Plug-In Extras > ON1 Layers. (For more information on these
options, see the Layers module section, starting on page 149.)

USING 'EDIT IN' FROM LIGHTROOM

For quick editing of photos in Develop, Effects or Resize, select your image in Lightroom, go to the Photo
menu and select the Edit In submenu and choose the module you wish to work in. If you choose either

Develop or Effects from the menu, you can move between those two modules directly inside ON1 Photo.

File Creation Characteristics When Using Edit In

When you use the Photo > Edit In submenu, Lightroom will ask you each time how you wish to edit the selected image. You have three editing options—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 is not available if the photo being sent to ON1 Photo is a raw file.

You can also can set the file type (TIFF, Photoshop or JPEG), the color space and bit depth for the resultant file. We suggest using the Photoshop format, which is required if you wish to create a Smart Photo for re-editing later.
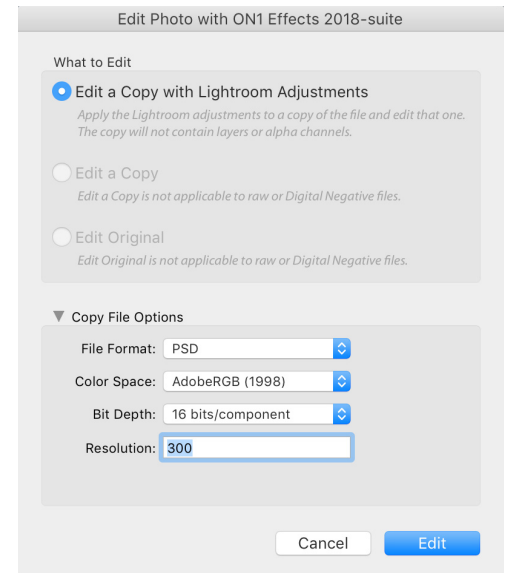
MOVING YOUR LIGHTROOM CATALOG TO ON1 PHOTO RAW

If you are a Lightroom user and you wish to make ON1 Photo RAW your primary editing application, you can use our Lightroom Migration tool to quickly transfer collections and metadata from your Lightroom catalog into Photo RAW. You can even—with a few caveats—transfer photos that have been edited in Lightroom so that they appear inside ON1 Photo.

This tool works very simply: it adds all of the top-level folders found in your Lightroom catalog and adds them as cataloged folders inside Photo RAW. Then it takes any collections you might have created, and adds them as Photo RAW albums. Note that Photo RAW can't duplicate the criteria for Lightroom's smart collections, so any smart collections are created as static albums, using the photos that the collection contained at the time of migration.
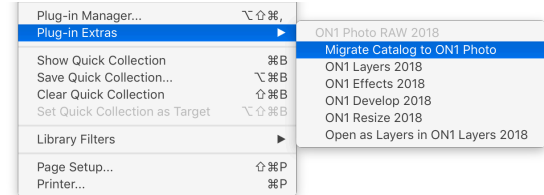
The Migrate Catalog option is accessed via the Plug-in Extras section of Lightroom's File menu.

To maintain versions of RAW photos that have been edited in Lightroom, you must create a copy of the original with the Lightroom edits applied to it. Exporting your photos from the catalog with edits applied separately is necessary if you want to see those edits reflected in ON1 Photo. ON1 Photo RAW uses an entirely different processing engine: while many of the adjustment types—like Exposure, or Clarity—might be similar in their naming and intent, the algorithms behind the adjustments are not, and there is no 1-to-1 correlation between the two apps.

> **NOTE:** The Lightroom migration tool does not move or change any of the photos in your Lightroom catalog. It is designed to point ON1 Photo RAW to the folders that contain your photos, and preserve metadata and collection information you might have added inside Lightroom.

The process to migrate your photos and collections begins inside Lightroom. To start, make sure you have opened the catalog you wish to migrate to ON1 Photo RAW. Next, choose Migrate catalog to ON1 Photo option from the File > Plug-in Extras menu inside Lightroom. The window that comes up has two primary options, Migrate Collections, and Create Copies of Photos with Lightroom Adjustments. If you choose the latter option, you will have the opportunity to specify the file format for the copies (JPEG, TIF, or Photoshop PSD), color space (Adobe RGB, ProPhoto RGB or sRGB), and the bit depth and resolution.

To start the migration, choose the options you wish to preserve and click on the Migrate button. Lightroom will then prepare the catalog, making sure that all the metadata is preserved with your photos, creating the copies (if desired) and hands the information off to ON1 Photo. Depending on the size of your catalog, and the number of copies created, the migration process can take a long time, but you can continue to work inside ON1 Photo or Lightroom.

Migrate to ON1 Photo

This tool will migrate all top-level folders in the Folders pane in Lightroom to Indexed Folders in Photo RAW. All photos in these folders will be indexed automatically. Any metadata changes made in Lightroom will be embedded in the original photos and will be added to ON1 Photo RAW as well. Below you can configure additional migration options.

Migration Options

☑ Migrate Collections

Any collections and their contents will be migrated. Smart Collections will not be migrated. Collection groups will not be maintained.

☑ Create copies of photos with Lightroom Adjustments

Any photos that have editing settings applied will have rendered copies made with the Lightroom settings applied. They will be stored in the same folder as the original.

Copy Options

File Format: Photoshop (Supports Layers)

Color Space: ProPhoto RGB

Bit Depth: 8-bit   Resolution: 300   pixels/inch

NOTE: The migration process can take a long time. You can continue to use Lightroom and ON1 Photo during the migration. This tool is intended for one-time migration of catalogs, not continual syncing of changes.

Learn More   Cancel   Migrate

NOTE: Choosing the Create Copies option will create a copy of all photos that have any adjustment made to them, whether it is major or minor. This includes such things as automatic lens profiling or default noise reduction, which some people use as an import preset when bringing photos into Lightroom. We recommend examining your catalog, and determining how you wish best to proceed with the migration. In some cases, it might be more advantageous to use Lightroom's export dialog to selectively export edited photos into a new folder, and add them to ON1 Photo RAW as a new cataloged folder—or however you might wish to organize them inside ON1 Photo.

Using ON1 Photo RAW 2018 with Apple® Photos

ON1 Photo RAW 2018 integrates tightly with Apple Photos (for Mac OS only) and provides a seamless experience for enhancing your images.

NOTE: The connection between ON1 Photo RAW 2018 and Apple Photos does not include Smart Photo capability; any edits made inside Develop or Effects are final, although you can reset your photo to its original state inside Apple Photos.

If you have Photos on your computer when you install ON1 Photo RAW 2018, the appropriate plug-in
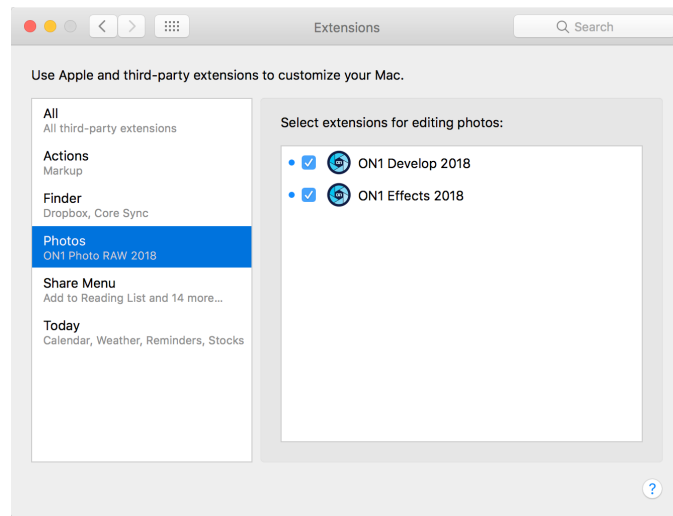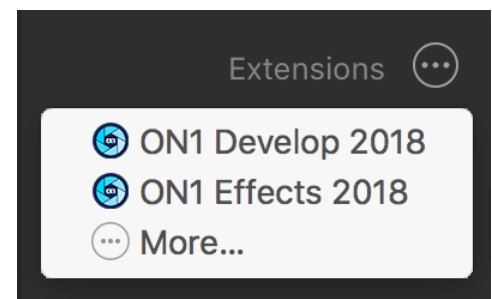
After installing ON1 Photo RAW 2018 on your Mac, you must turn the Photos extension on via Apple's Extensions System Preference.

will be installed, but you will need to manually activate it in order to use it. To do so, go to Apple's System Preferences and click on the Extensions icon. In the Extensions pane, click on Photos, then check the ON1 Develop 2018 and ON1 Effects 2018 boxes. This will let you send images from Apple Photos to Photo RAW 2018. (File Sharing must also be turned on in System Preferences for this to work.)

To edit an image in ON1 Photo RAW 2018 follow these steps:
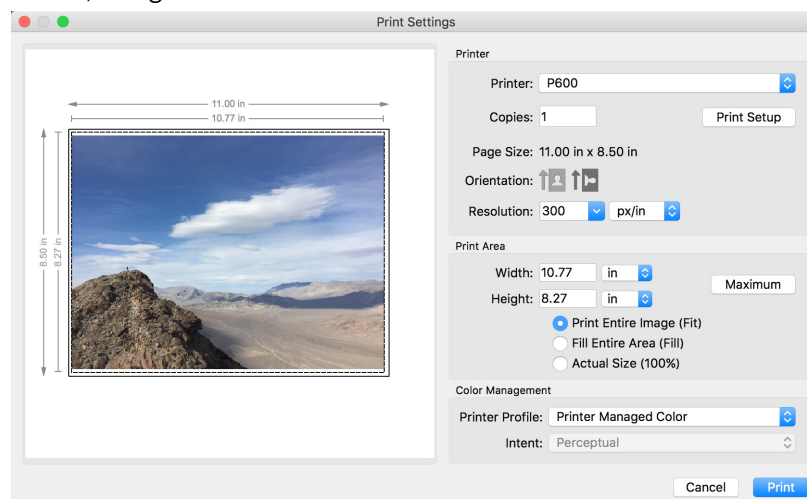
1. Select the image you wish to edit in Photos.
2. Click on the Edit button.
3. On the right side of the window, at the bottom of the editing controls, you'll see an Extensions pop-up. Click on that button, and choose the module you wish to edit.

After you have activated the ON1 Photo extension for Photos, click the pop-up menu next to the Extensions label when editing a photo and you'll see the options for sending your photo to either Develop or Effects.

Printing

ON1 Photo RAW 2018 has full printing capabilities built directly into the product, and you can print your photos from any module, using the Print command from the File menu.

To print an image, follow these steps:

1. Select Print from the File menu.

2. Select your printer from the Printer pop-up.

3. Press the Print Setup button to adjust printer specific options such as paper size and type and printer specific color management options.

4. Adjust the number of copies, orientation and output resolution.

5. In the Print Area section set the area to fit, fill or actual size. The preview on the left shows the paper size and margins as well as the print area and how the image will fit or fill the print area. (When using Fill Entire Area, you can move the photo around the print area box.)

6. Select the output Printer Profile and Rendering Intent to properly adjust the photos colors to your printer and paper combination. You may also select the Printer Managed Color option to let your printer driver manage the color instead.

> **TIP:** If you have already cropped and sized your image to your desired print area size, simply set the width and height to match in the Print Area section.

Extras

ON1 Photo RAW 2018 supports a number of additional file types that can be used in various modules. These files are called Extras, and the file types include:

- Presets for use with Develop and Effects.
- Paper (type and size) presets for use within Resize.
- Backgrounds that can be imported and used in Layers.
- Borders than can be imported and used in Layers and Effects.
- Textures that can be imported and used in Layers and Effects.
- Look-up tables (LUTs) for use with Effects' LUTs filter.

ON1 includes a number of extras in the product when you install Photo RAW, 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 in Browse and Layers, then follow these steps:

1. Select the type of extras you wish to import from the list of tabs at the top (Presets, Resize, Backgrounds, Borders, Textures, LUTs) 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 box 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 Photo RAW 2018. 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.
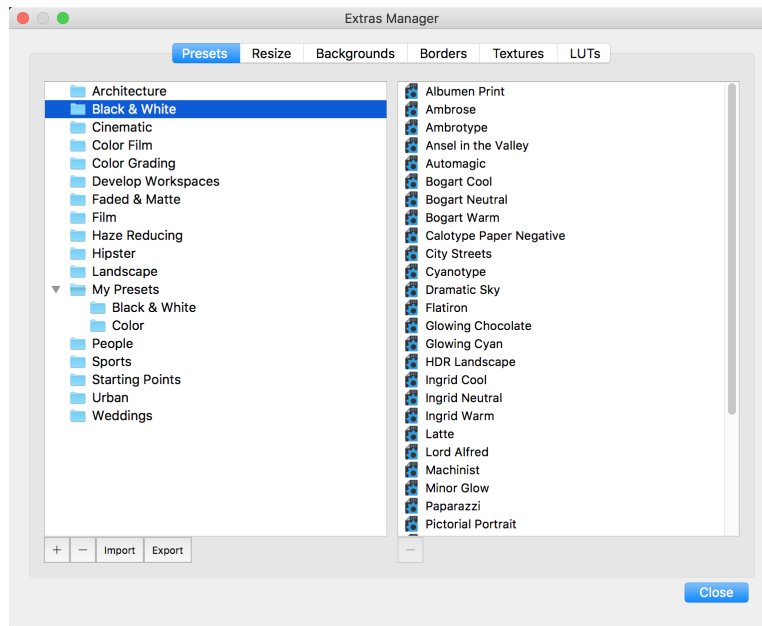
The Extras Manager lets you import presets, textures, backgrounds, borders, and look-up tables (LUTs) for use with the different modules in ON1 Photo RAW 2018.

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, Photo RAW 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. If you would like to export a single preset, click on the preset from the list on the right side of the window and click Export.

What Type of Images Can I Import as Extras?

Backgrounds and textures may be any image file that Photo RAW 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.

> **NOTE:** If you download an .ONPreset or .ONP file (for use with Develop or Effects), you can simply double-click on it to install it. For more information, see the Presets section of this guide, starting on page 85.

USING EXTRAS IN LAYERS

Click on the Extras tab of the left column mini-browser. You will see top-level folders for ON1 Extras and User Extras. Inside of these will be sub-folders for Backgrounds, Borders and Textures. You can double-click on an extra to add it to your current image, just use the "Add as a Layer" option when asked how you want to open the file.

When working with extras, you can perform the following:

- You can use the Transform tool to size and position the extra on your image.
- Use the Layers pane to change the order, opacity and blending mode.
- Use the Masking Brush and Masking Bug to selectively apply the extra.
- Use the Perfect Eraser to remove distractions from the extra if needed.
- If you save your file as a layered PSD file, you can always re-open the file again and have access to all of the layers and masks for further editing.

USING EXTRAS IN EFFECTS

You can access certain extras—borders and textures—inside of Effects. To use them follow these steps:

1. Open an image into Effects.
2. In the Filter Options pane, select either the Borders or Textures 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 Texture or Borders pop-up select a texture or border from the desired category.

> **NOTE:** More information on the Borders, Textures and LUTs filters can be found in the Effects section of this user guide, on page 103 (Borders), page 108 (LUTs) and page 111 (Textures).

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 can not be undone.

Preferences

ON1 Photo RAW 2018 has a number of system-wide settings that you can set via the Preferences window. To access Preferences, either click on the gear icon at the lower left side of the screen, or choose Preferences from the ON1 Photo RAW 2018 menu (Mac OS) or the Edit menu in Windows.

The Preferences window has six tabs: General, Files, Plug-Ins, System, Services, Photo Via. The settings in each tab are described below.
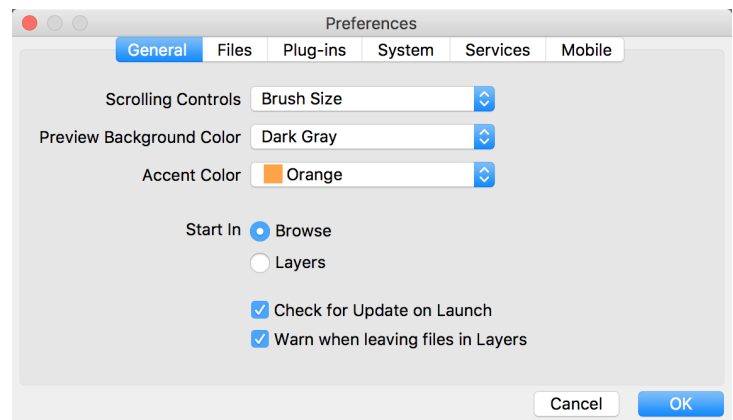
GENERAL SETTINGS

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

Scrolling Controls

Lets you select how the mouse scroll wheel or scrolling gesture works. The options are:

- **None**: Default.
- **Preview Zoom**: Adjusts the zoom of the preview window. Scrolling up increases the zoom, scrolling down decreases the zoom.
- **Preview Pan**: Pans the image, like using the pan tool or navigator. It is important that the panning is comfortable, not too fast or slow or jerky.
- **Brush Size**: Adjusts the size of the current tool if relevant, such as a brush tool.

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 Photo RAW interface.

Start In

Determines which module will open at launch. Browse is the default.

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.

Warn When Leaving Files in Layers

Enabled by default. If you have unsaved files open in Layers and want to close the program a warning dialog will appear with the options to Save & Close, Cancel or OK (close without saving).
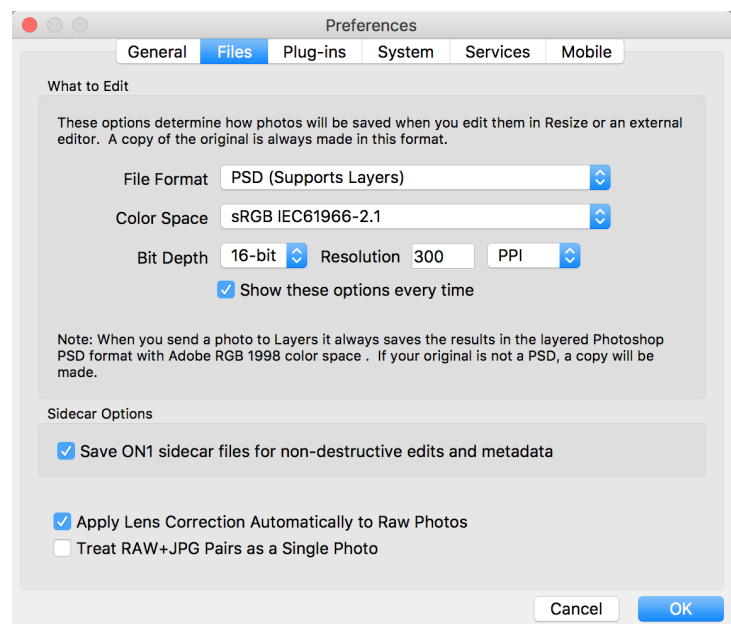
FILES

The Files tab is used to determine what file type ON1 Photo RAW will create when opening a file in Resize, as a plug-in from an external application, or when creating copies to send to an external editor from within Browse.

What to Edit

There are five options in the What to Edit section of the Files tab:

1. **File Format**: Sets the file type you wish to create: PSD, TIFF, or JPEG. If you wish to use a layered workflow, you must choose PSD.

2. **Color Space**: Sets the default color space when opening a copy of a file; the list includes Adobe RGB 1998, Apple RGB (Mac OS), sRGB, ProPhoto RGB, or ColorMatch RGB. (If you imported a profile for use in the General preferences, it will also be available here.)

3. **Bit Depth**: Sets the bit depth for the file when opening a copy of a file.

4. **Resolution**: Sets the resolution when opening a copy of a file.

5. **Show these options every time**: If you do not wish to use a predefined set of file characteristics for opening photos from Lightroom or Photoshop, click this box.

Sidecar Options

Click this box if you wish ON1 Photo RAW 2018 to create ON1-specific 'sidecar' files when you are editing images in Develop or Effects. 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.

Apply Lens Correction Automatically

With this option on, ON1 Photo RAW will use the lens correction automatically on any raw photo when you view it in Detail, Filmstrip or Compare modes.

Treat RAW+JPG Pairs as a Single Photo

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

PLUG-INS

The Plug-Ins tab is specific to using Photo RAW as a plug-in for Photoshop or Lightroom, and lets you set up conditions when opening files from these apps.

Smart Photos

- **Save PSD Files As**: When you send a PSD file to Photo RAW 2018 via Lightroom you can save the file as a Normal Photo or a Smart Photo, or have Photo RAW 2018 ask your preference every time you open a file from within Lightroom.
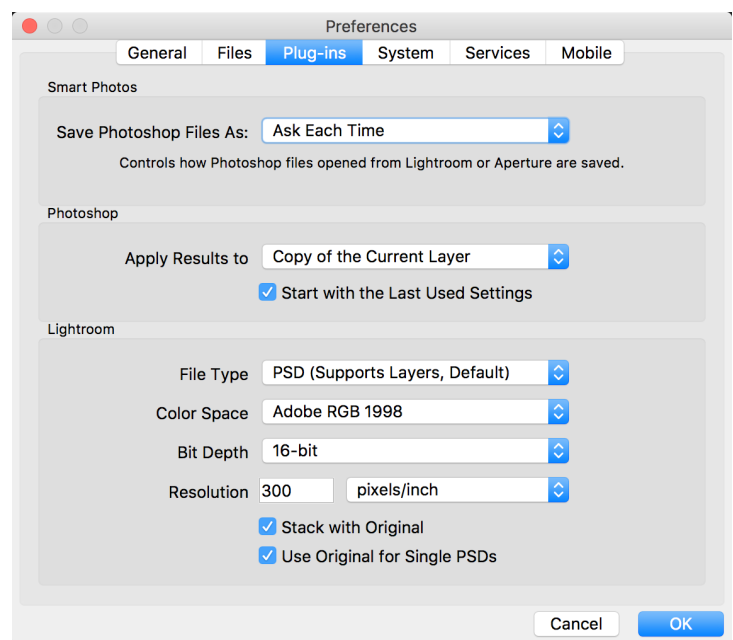
Photoshop

- **Apply Results to**: When editing in Photoshop you can choose to have your effect added to a copy of your current layer or to the current layer. You can also choose to start with the last used settings when launching ON1 Photo.

Lightroom

As shown in the Working with Lightroom section above, this preference lets you choose the specific options for files opened via the Plug-In Extras menu in Lightroom:
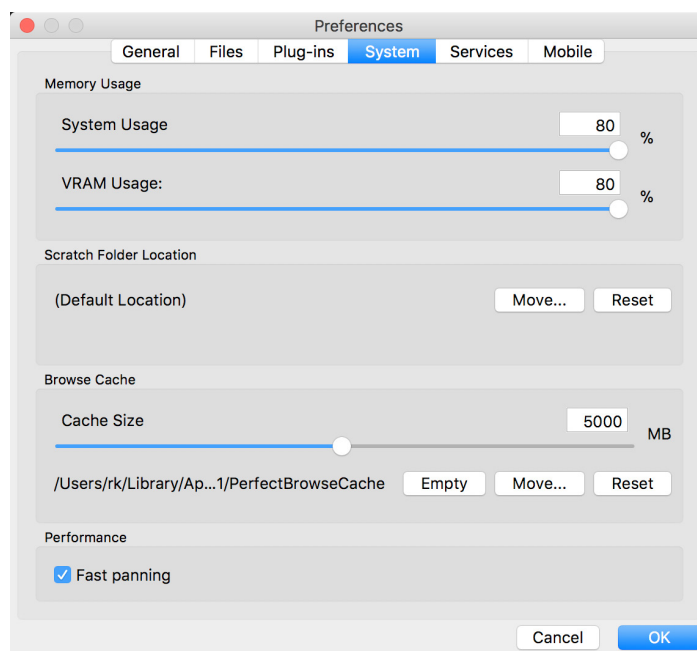
- **Save Photoshop Files As**: Controls how Photoshop files opened from Lightroom are saved, as smart photos or regular PSDs.
- **File Type**: The file type drop-down menu determines what type of file will be created. The default is PSD, which maintains layers. You can also select JPG or TIFF if you prefer those formats and are not concerned about maintaining layers. The last option is same as source, which maintains the file type of the original file, except for Lightroom raw files, which are saved as PSDs.
- **Color Space**: Sets the working color space; Adobe RGB, sRGB or ProPhoto RGB.
- **Bit Depth**: Sets the file bit depth, either 8-bit or 16-bit per pixel.
- **Resolution**: The resolution drop-down menu determines the resolution of the file.
- **Stack with Original**: When enabled, the new image is stacked with the original image.
- **Use Original for Single PSDs**: When enabled, if you select a single PSD file, it will be edited directly, rather than having a copy made.

SYSTEM

The System tab is where you change the performance-related characteristics of Photo RAW 2018.

Memory Usage

- **System Usage:** Specifies the amount of system memory (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 many editing operations while you're running ON1 Photo RAW 2018. This is helpful if your system drive has limited space and wish to use a different—or faster—external drive as a cache. This cache information is purged each time you quit the application.

Browse Cache

ON1 Photo RAW 2018 stores thumbnails previews on disk so that the next time you browse a folder it loads much faster. This setting lets you adjust the memory cache size or amount of information stored, empty the cache, move it to another location, or reset it if you are having issues with Browse.
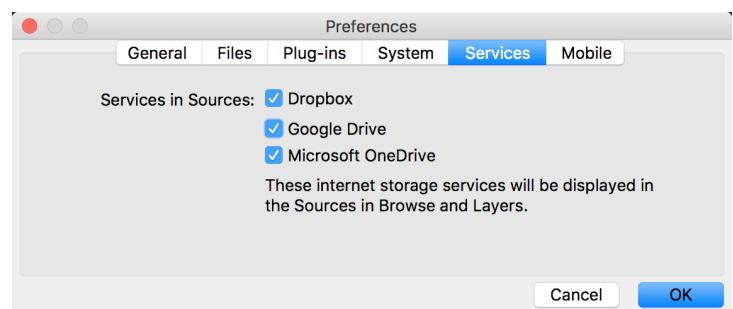
> **NOTE:** If you have a small solid-state drive as your boot volume, you should move your cache to another drive, since the Browse cache can take up a lot of space when you are using cataloged folders.

Performance (Fast panning)

Fast panning is available when you're viewing an image at 100% in Detail view, and is designed to give you better performance when using the Hand tool to pan around the image, With this setting on, as you pan, Photo RAW will display the image at a lower quality; as soon as you let go of the mouse, the app will then show the pixels at their highest quality.

SERVICES

This tab controls which online storage services are displayed in the Sources pane in Browse and Layers. Currently, ON1 Photo RAW 2018 supports Dropbox, Google Drive, and Microsoft OneDrive. Photo RAW 2018 will automatically add any of the services if finds them on your computer during the installation process, but if you add (or remove) any of these services later, use this tab to manage them.

ON1 PHOTO FOR MOBILE

ON1 Photo for Mobile uses your Dropbox or Google Drive account to publish photos from your computer to your iOS devices. (Published photos are visible via the ON1 Mobile app, which is available for free in the iOS App Store.) To configure ON1 Mobile on your computer, choose the service you wish to use—Dropbox or Google—and sign in via the button in this tab.

The image size option lets you choose standard or double-size versions of your synced photos.

Further information about ON1 Photo for Mobile is available starting on , and on the ON1 website.
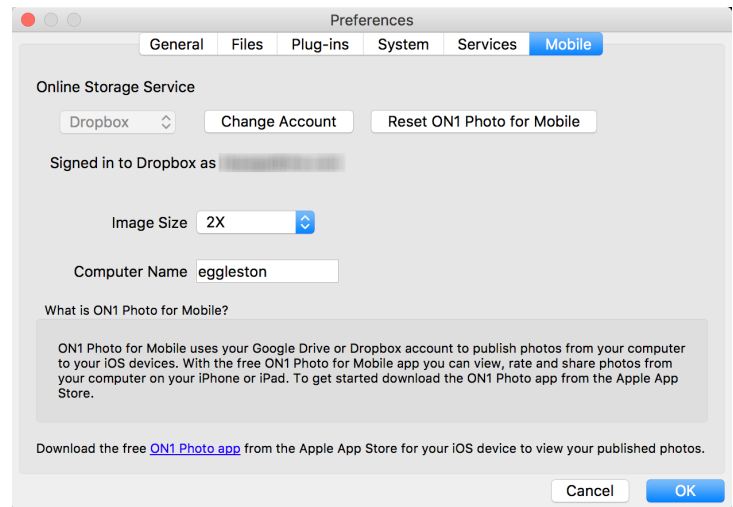
ON1 PHOTO RAW 2018 KEYBOARD SHORTCUTS

BASIC COMMANDS	MAC OS	WINDOWS
Cut	Command X	Control X
Copy	Command C	Control C
Paste	Command V	Control V
Undo	Command Z	Control Z
Redo	Command Shift Z	Control Shift Z
Print	Command P	Control P
Browse Folder	Command B	Control B
Select All	Command A	Control A
Select None	Command D	Control D
Deselect	/	/
Quick Export	Command Shift S	Control Shift S
Rotate 90° Clockwise	Command]	Control]
Rotate 90° Counter Clockwise	Command [	Control [
Search Text	Command F	Control F
Navigate Browser Selection	Arrow keys	Arrow keys

PANEL COMMANDS	MAC OS	WINDOWS
Show/Hide Browser (Left) Panel	Command Left Arrow	Control Left Arrow
Show/Hide Control (Right) Panel	Command Right Arrow	Control Right Arrow
Show/Hide All Panels	Tab	Tab
Show Navigator/Histogram/Info	Command 1	Control 1
Folders Pane	Command 2	Control 2
Albums Pane	Command 3	Control 3
Filters Pane	Command 4	Control 4
Recent Pane	Command 5	Control 5
Info Pane	Command 6	Control 6
Metadata Pane	Command 7	Control 7
Enable Filters	Command L	Control L

TOOL & EDITING COMMANDS

TOOL & EDITING COMMANDS	MAC OS	WINDOWS
Crop Tool	C	C
Local Adjustment Brush	K	K
Adjustable Gradient	Shift K	Shift K
Refine Brush	N	N
Perfect Eraser	Q	Q
Retouch Brush	R	R
Masking Brush	B	B
Masking Bug	M	M
Zoom Tool	Z	Z
Brush Size	] *(larger)*	] *(larger)*
	[*(smaller)*	[*(smaller)*
Brush Feather	Shift] *(softer)*	Shift] *(softer)*
	Shift [*(harder)*	Shift [*(harder)*
Brush Opacity	Option] *(higher)*	Option] *(higher)*
	Option [*(lower)*	Option [*(lower)*
	Option number keys 1-0 *(10% to 100%)*	Option number keys 1-0 *(10% to 100%)*
Toggle Perfect Brush	Command R	Control R
Toggle Tool Mode	X	X
Temporarily Select Hand Tool	Hold Spacebar	Hold Spacebar
Temporarily Toggle Tool Mode	Hold Option	Hold Control
Invert Mask	Command I	Control I
Show Mask	O	O
Show Mask	Control M	Control M
Show Clipping	Option J	Alt J
Temporarily Toggle Clipping View	J	J
Copy Settings	Command Shift C	Control Shift C
Paste Settings	Command Shift V	Control Shift V
Sync Settings	Command Option S	Control Option S
Reset All Settings	Command Shift R	Control Shift R

	Mac OS	Windows
Rate Photos (Browse)	Number keys 1-5 (1 to 5 stars)	Number keys 1-5 (1 to 5 stars)
	` (backquote key) no stars	` (backquote key) no stars
Set Color Labels (Browse)	Number keys 6-0 (red, yellow, green, blue, purple)	Number keys 6-0 (red, yellow, green, blue, purple)
Set Likes (Browse)	P (like)	P (like)
	U (clear like)	U (clear like)
	X (dislike)	X (dislike)
Delete Photo (Browse)	Delete	Delete

VIEW COMMANDS	MAC OS	WINDOWS
Toggle Preview	\	\
Zoom In	Command +	Control +
Zoom Out	Command –	Control –
View Actual Pixels	Command Option 0	Control Alt 0
Fit to Screen	Command 0	Control 0
Full Screen Mode	Command Control F	F11
Detail View	E	E
Filmstrip View	F	F
Grid View (Browse only)	G	G
Compare View (Browse only)	C	C
Increase Thumbnail Size	+	+
Decrease Thumbnail Size	-	-
Preview Area Compare	Command Y	Control Y
Show Quick View Browser	Option Up Arrow	Option Up Arrow
Go From Grid to Detail (Browse)	Spacebar	Spacebar
Go from Fit to 100% View	Spacebar	Spacebar

NOTE: A printable copy of common keyboard shortcuts for ON1 Photo RAW can be found on page 178

PART 2: ON1 BROWSE

ON1 Photo RAW 2018's Browse module is a powerful and incredibly fast photo browser and manager. It gives you one place to find, view and manage your images, no matter where they are located.

Browse is an ideal environment for performing quick sorts and edits after a shoot: You can import, then view, your photos immediately without having to wait for a long cataloging or preview-creation process. You can rate, add keywords and flags, even remove photos, all from within Browse.

But Browse also has a sophisticated indexing system built in, designed to let you get access to your favorite folders of images in a jiffy; just add a folder to the Cataloged Folder pane, and it will index your photos in the background wherever they reside, giving you increased search capabilities and even faster access to your most important photos.

Browse also lets you apply any ON1 Photo RAW 2018 editing presets from the Develop and Effects modules directly to an image or group of images; and you can copy edits made on one photo and paste them onto another photo or even a group of photos.

Some of Browse's key features:

- Find your photos fast, wherever they are: local drives, network drives, or online storage services (Dropbox, Google Drive, Microsoft OneDrive).
- Import your photos from your camera, memory card, phone or other device, quickly and easily.
- Catalog most-used folders of photos to get even faster access to your most important photos across multiple sources, while still preserving your folder hierarchies and locations.
- Multiple ways to view and cull images: Grid, Filmstrip, Detail and Compare views.
- Apply editing presets from Develop and Effects a single image or a group of images, or sync existing edits from one image to a group.
- Build panoramas and high dynamic range (HDR) images directly from within Browse.
- Connect your camera to your computer and capture images directly, with full manual camera support.
- Create quick albums from a selection of photos, or add simple and more-complicated smart albums across your entire library.
- Copy, move, delete and rename files.
- Sort, flag, rate or color code your images.
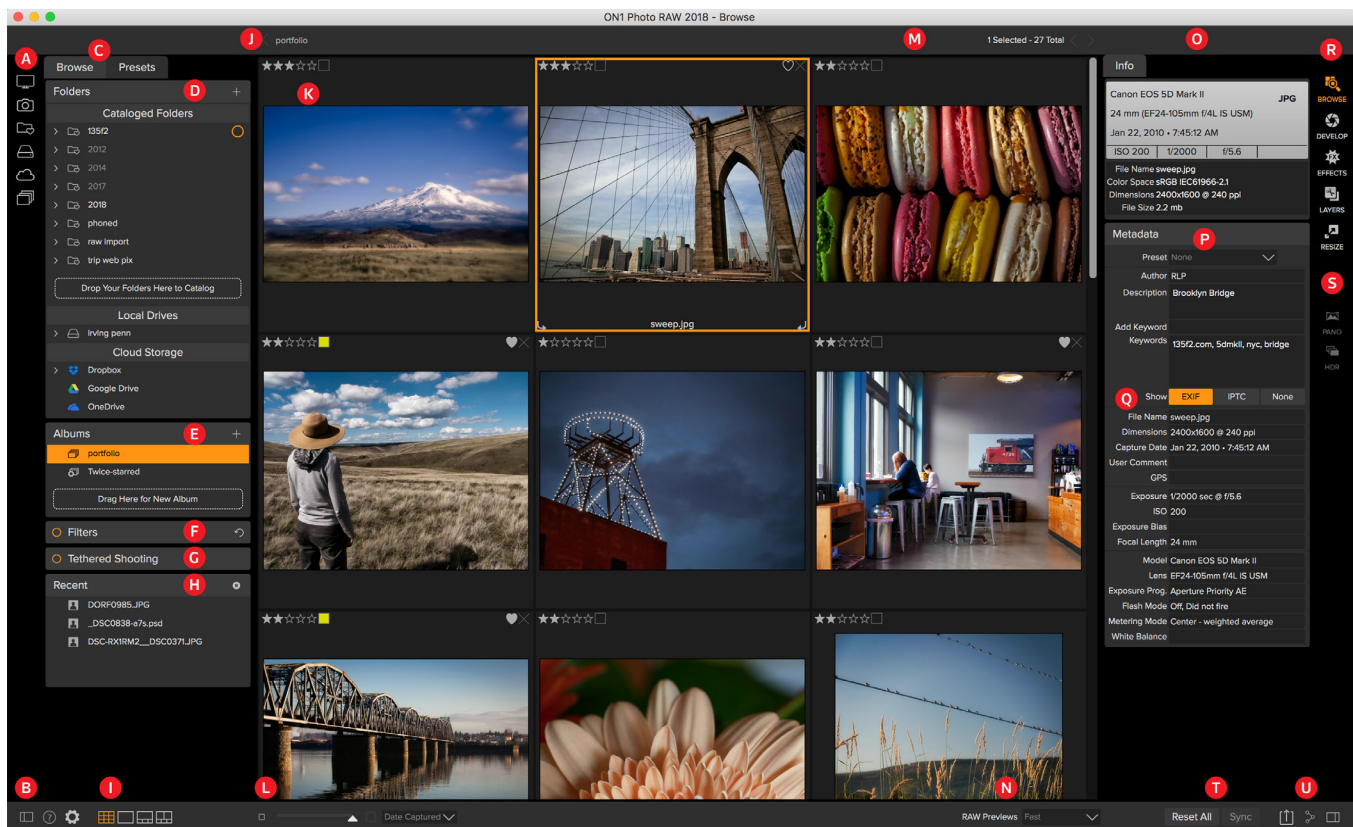
ON1 Browse Main Screen Overview

The Browse module has three main sections: the Browse/Presets panel on the left side of the screen, the Preview window in the center, and the Photo Info panel on the right side.

The main components of Browse module include:

A. **Short Cuts**: This palette contains shortcuts to your most common photo storage locations.

B. **Preferences/Help icons**: Accesses the ON1 Help menu or ON1 Photo RAW 2018 preferences.

C. **Browse/Presets Panels**: Switch between the Browse panel and Presets by clicking on the tab.

D. **Folders Pane**: Shows your cataloged folders, local disks and cloud sources.

E. **Albums Pane**: This pane allows you to create albums or collections of images. Albums can be grouped into subfolders for easy organization.

F. **Filters Pane**: This pane allows you to sort and search your images and your favorites.

G. **Tethered Shooting Pane:** This lets you connect your camera to your computer; you can capture images directly from the camera to ON1 Photo RAW.

H. **Recent Pane**: This keeps track of recently opened files and folders.

I. **View Selector**: Switches between Grid, Detail, Filmstrip and Compare views.

J. **Breadcrumbs**: This shows the path of the selected image or folder in the Preview area.

K. **Preview**: The window where you can view your images in thumbnail or detail view.

L. **Thumbnail Size/Sort Options**: The slider adjusts the thumbnail size, while the Sort By pop up adjusts sort order based on standard selection criteria, such as file name, date captured and more. (You can also create your own custom sort order.)

M. **Image Counter**: This will display the number of files and folders you are viewing.

N. **RAW Preview Mode:** Lets you set how you would like to view photos in Detail mode. Fast will use embedded previews from the photos, while Accurate will generate a color-balanced preview.

O. **Info Pane**: This section will give you detailed metadata about your image when available. (Also displays Navigator and Histogram panes when viewing in Filmstrip, Detail and Compare modes.)

P. **Metadata Pane**: This pane will show your metadata for your selected image.

Q. **EXIF/IPTC Info**: Displays additional detailed information about your selected file.

R. **Module Selector**: Use this to switch to other modules inside ON1 Photo RAW 2018.

S. **Panorama/HDR**: When multiple images are selected in Browse, use these buttons to create panoramas or high dynamic range (HDR) images.

T. **Reset All/Sync**: These buttons let you synchronize the edit settings of one image on another (or group). Reset All removes all edit adjustments made in Develop and Effects from the selected image or group of images.

U. **Export/Share**: Shortcuts for exporting (Resize) and sharing selected photos.

Browse and Presets Panels

On the left side of the screen are two panels, Browse and Presets; clicking on the tab at the top of the screen will make that panel visible. You can hide the left panel completely by clicking on the Show/Hide Panel icons at the bottom left and right sides of the panel. (You can also use the Tab key to show and hide both panels simultaneously.)

BROWSE PANEL

The Browse panel consists of four panes—Folders, Albums, Filters, and Recent—which perform or display file-related activities, and one pane, Tethered Shooting, which lets you capture images from your camera directly to your computer via a USB connection.

> **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.

FOLDERS

The Folders Pane is where you look for your photos. It contains a list of all disk drives, mounted drives, server shares, cloud storage services and mobile uploads on your computer. The Folders Pane has four components, Cataloged Folders, Local Drives, Cloud Storage and Mobile Uploads; clicking on an item in any of these sections will display the contents of that folder in the Preview area.

Cataloged Folders

A cataloged folder is a shortcut for your favorite or most-used folders of photos. A folder designated as cataloged is cached in the background to improve the speed of loading those folders (and subfolders) and their photos, making it ideal for portfolios, your best photos, or your primary library of photos.

Cataloged folders are also necessary for the following Browse features:

- For the creation of Smart Albums (see "Albums" on page 35);

- For syncing photos to iOS devices with ON1 Photo for Mobile (See page 56);

- When using the Filters feature to search for photos across multiple folders.
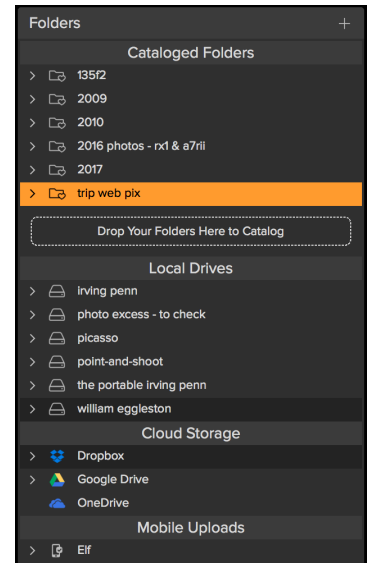
The Folders pane is broken into four categories: Cataloged Folders, Local Drives, Cloud Storage, and Mobile Uploads.

You can make any available folder a cataloged folder by clicking on the '+' button at the top of the Folders pane, or by dragging a folder from the Preview area onto the 'Drop...' button at the bottom of the Cataloged Folders section. The cataloging process is designed to work in the background, so it doesn't affect other work you do in any ON1 Photo RAW 2018 module. While the app is cataloging a folder, you'll see a progress circle next to the folder name; once the folder has been cataloged, the circle will disappear.

To remove a cataloged folder, right-click on the folder name in the pane and choose "Remove Cataloged Folder."

Local Drives

Browse automatically recognizes any disk (volume) inside or attached to your computer. This includes internal and external hard drives, optical drives, thumb drives, digital camera memory cards, digital cameras, any devices that support USB Mass Storage, and network-attached services (including mapped volumes on Windows).

Disks appear in the Folders pane under the Local Drives section with a hard drive icon next to them. Keep in mind that some disks, (like optical drives) are often read-only. You will be able to open a copy of a photo, but will be prompted to save the image to a new location.

Cloud Storage Services
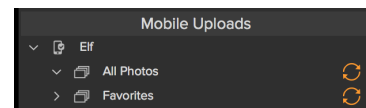
Browse supports several common cloud storage services including Dropbox, Google Drive, and Microsoft OneDrive. All of these services—when you have them installed on your computer and other devices—keep local copies of your images on your computer, and Browse finds and monitors these locations automatically. If you edit an image stored in one of these locations they are automatically updated to the cloud.

During the installation process, ON1 Photo RAW 2018 automatically looks for the default installation locations for these services. If you do not have one of these services installed, or you have it installed to a non-standard location you will be asked to install or locate the folder when you click on the source. You can hide services you don't use in the Preferences.

Mobile Uploads

If you use ON1 Mobile to synchronize photos from your phone with your computer, you will see a Mobile Uploads section at the bottom of the Folders pane, with the name of the device (or devices) listed. Clicking on the triangle will show you a list of the iOS albums shared; clicking on an album will display the synced photos. (For more about ON1 Mobile, see page 56.)

Navigating Sources

To view the contents of any folder in the Folders pane, click on the triangle next to the folder name. This will display the photos and subfolders within the selected folder inside the Preview area. To view the contents of a subfolder, either click on the subfolder inside the Folders pane, or double-click on it in the Preview area. (You can use the breadcrumbs bar at the top of the Preview area to navigate back to the top of your folder system.)

Using Short Cuts

The Short Cuts selector on the left side of the Browse panel is designed to take you to six specific locations and display their contents in the Preview window. From top to bottom, the icons represent your Desktop, your Pictures folder, cataloged folders, local drives, cloud sources, and albums. Clicking on one of the icons will change the view of the Preview window to the selected short cut.

Short cuts can be very useful when you have the Browse panel hidden to maximize viewing in the Preview window.

MANAGING FILES AND FOLDERS IN BROWSE

Deleting a folder

To delete a file or folder, click on it and press the Delete key or select 'Delete' from the right-click contextual menu. Then, confirm that you wish to move the file to the trash. If you have multiple files and or folders selected it will move them all to the trash. If you make a mistake you can use the Undo command, although some files or folders, like those on a network volume, must be deleted immediately and cannot be undone.

Renaming a file or folder

You can rename a file or folder by selecting it, then choosing 'Rename File' from the right-click contextual menu. This will display a simple window where you can type in a new name for your image.

If you select multiple files, choosing the Rename Files from the contextual menu will give you additional options for the batch creation of new filenames. There are four fields:

- **Current filename,** which will use the file's current name when renaming the file.

- **Text**, which lets you add any static text—a location, shoot name, etc.—to the filename.

- **Serial number**, which lets you sequence a group of images, starting with a specific number. You can use leading zeros to preserve filename sort order, and, you can start with any number.

- **Date**, will automatically grab the image's capture date and apply it to your new filename in any one of 12 different date formats.
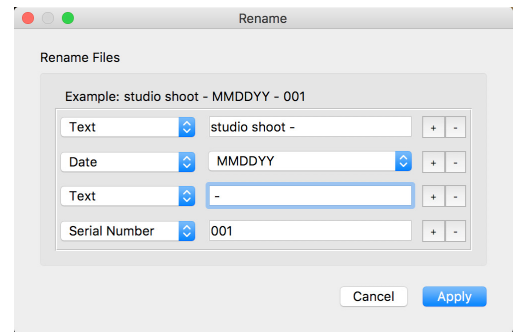
The Batch Rename dialog lets you create complex filenames for a group of selected images.

You can use any of the four fields, in any order and amount you wish; click on the '+' button to add a new field, and the '-' button to remove one. As you work on your naming, a sample filename is displayed at the top of the window.

Once you have your order set, click the Apply button to run the operation.

Creating a New Folder

You can create a new folder from the right-click contextual menu in the preview area or selecting Add Subfolder in the Edit menu. This will create a new folder inside the selected folder; if you have files selected in the preview area, you also will get the option to move or copy the selected images into the new folder.

Copying and Moving files and folders

You can copy and move files and folders in the ways you are accustomed to on your computer. You can select files and folders and use the Edit > Copy command to copy them to the clipboard and then Edit > Paste to paste them to new location, inside or outside of Browse. You can use this to copy a file or folder from one place to another or to attach an image to an email for example.

You can also use the familiar drag-and-drop functions to copy or move files and folders. Dragging and dropping a file or folder will move it if it is on the same drive or copy it to another drive. You can drag and drop in and out of Browse module.

> **NOTE:** Due to the non-destructive nature of ON1 Photo RAW 2018's workflow, copying a photo and pasting it outside of ON1 Photo RAW 2018 will paste the original file. If you have edited it in Develop or Effects and wish to incorporate those changes, use the Export or Quick Export commands to get a version of the photo with your edits.

Show in Finder/Show in Explorer

To view a file or folder in the Finder (Mac OS) or Explorer (Windows), right-click on an image or folder in the Preview area and choose Show in Finder or Show in Explorer from the pop-up menu.

ALBUMS

ON1 Photo RAW 2018's Albums feature lets you organize or keep track of photos on a project, event or even a broader category like a portfolio. Regular albums are created by selecting images manually and adding them to a new (or existing album) by dragging and dropping photos onto the pane. To create albums that populate automatically based on specific criteria—date, camera type, or more—use Smart Albums.

Creating an Album

The Albums pane lets you organize your photos into collections. You can create static albums of specific images, and smart albums that dynamically build collections based on select criteria. You can also nest albums together to help manage your collections.

Click the '+' icon in the pane and choose Create Album… from the pop-up menu. You can also create an album by selecting photos and dragging them into the designated area at the bottom of the Albums pane.)

Adding Photos to an Existing Album

There are multiple ways to add photos:

- Dragging and dropping a photo on the album name in the pane.
- Selecting a photo or group of photos, right-clicking on the current photo and choosing Add to Album from the pop-up menu.
- Choosing Album > Add to Album and picking the destination album from the menu.
- You can also copy a photo and paste it into an album: click on a photo, choose Edit > Copy, then click on the album in the Albums pane, and choose Edit > Paste.

Creating a Smart Album

Click the '+' icon and choose Create Smart Album. The Smart Album window opens, letting you choose the criteria for your album, including:

- **Ratings & Labels**: Set the criteria for the album with like and dislike, star ratings and/or color labels.
- **Date Range**: Choose a time period for the album's contents.
- **Search**: Create a custom search query based on metadata.

You can edit the Smart Album later by right-clicking on the Smart Album in the pane and choosing Edit.
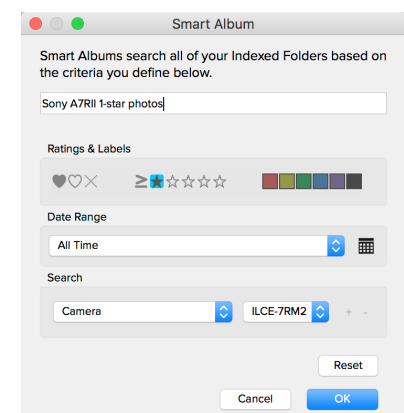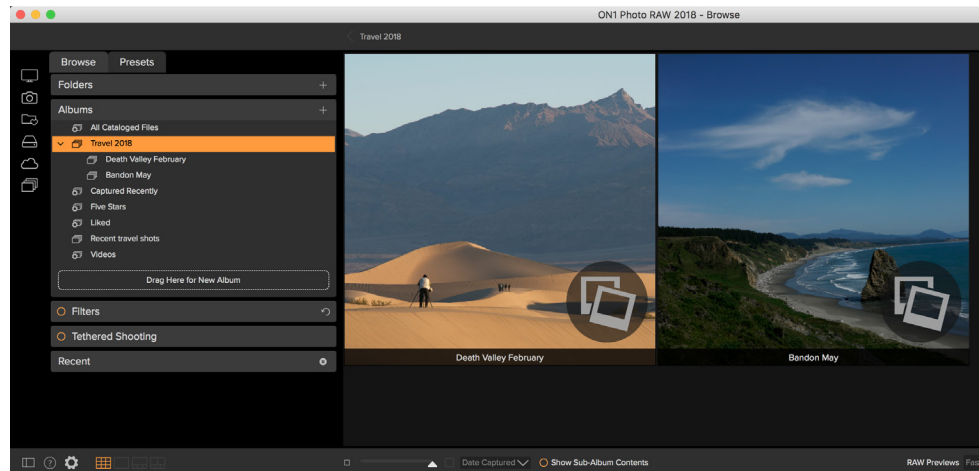
Delete an Album

To delete any album or smart album, right-click on the album name and choose Delete.

Nesting Albums

To create a set of nested albums, first create a blank album by clicking on the + icon in the Albums pane. You can easily add sub-albums to that new master album set by dragging and dropping the desired albums onto the new one in the Albums pane. When you click on the master album, Browse will display the albums that are part

When you click on a nested album set, Browse displays the sub-albums. Double-clicking on a sub-album will open that album. If you wish to view all of the images in a nested album set, click the Show Sub-album Contents button at the bottom of the Browse window.

of that collection in the Preview area in a folder-style view. Double-clicking on an album icon will display the contents of that album. To view all the images in a master album set, click on the "Show Sub-Album Contents" button at the bottom of the Browse window.

To move a sub-album from a master album to the top Albums level, drag-and-drop it out of the master, or right-click on the sub-album name and choose Move to Top.

FILTERS

The Filters pane allows you to find just the photos you want in your current folder or album. It will search for any photos that match the criteria you set, and has two modes: Simple and Advanced. In Simple mode, photos must match ALL of the set criteria to be found. The
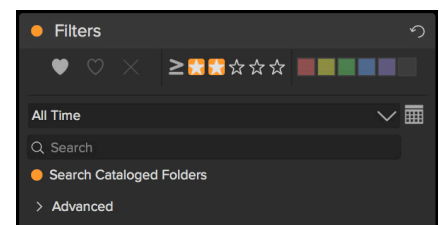
Advanced option lets you choose photos based on either any or all criteria, and can filter based on nearly every possible metadata type or textual information associated with a photo. To use the Filter pane in either mode, follow these steps:
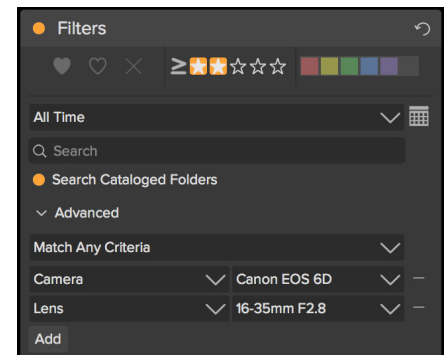
1. Make sure you have the folder of images you wish to filter selected in the Folders pane.
2. Click the Filters check mark to turn filtering on.
3. Set your filter criteria.

You can filter your photos in the Simple mode using the following options:

- **Liked (represented by a heart filled in), disliked (X) or not set (empty heart).** Click on the icon to turn that setting on.
- **Star ratings from zero to five**. Click on the greater than or equal symbol to the left of the stars to get a pop-up menu that lets you set the filter to show the exact number of stars, greater than or equal to the number of stars, or less than or equal the number of stars.
- **Color labels**.
- **Date range:** There are several preset relative date ranges or you can set your own defined date range by clicking on the pull-down menu.
- **Text search**: You can type into the search field to find images that contain the text in the filename, metadata, keywords or description.
- **Search Cataloged Folders**: This setting will apply the filter to all of your cataloged folders.

To filter with additional options, click on the Advanced triangle. There, you can add multiple conditions to search upon, and you can set those options to filter on any or all of the criteria selected. Create an advanced filter by performing the following steps:

The Advanced options in the Filters pane let you choose multiple criteria from nearly every type of metadata stored with a photo.

1. Choose either Match All Criteria or Match Any Criteria from the pop-up menu directly under the Advanced tab.
2. By default, the pop-up underneath the Match menu is set to Everything, with an empty text box to the right of the option. If you would like to narrow the filter to more precise metadata, click on the pop-up menu and choose one of the advanced options from the list. These options range from camera metadata (Camera, Lens, Focal Length, Aperture, Shutter Speed, and ISO), to descriptive metadata (Keyword, Author, Description); to image-specific information (File Path, File Type, Orientation, Height in Pixels, Width in Pixels); to object type (Version, Original, Video). One other filter, Time of Day, lets you select images based on the time they were taken; you can choose Morning, Afternoon, Evening, or Night.
3. Once you've selected a filter, click on field to the right of the filter and enter (or select) the information upon which you wish to filter. Many of the advanced filtering options have pre-populated data taken from indexed metadata in your library, while others let you enter text into the selection field. t (The Everything filter looks for text in all of the metadata associated with your photos.)
4. To choose additional filtering options, click on the Add button at the bottom of the Filter pane, and choose another criterion from the pop-up.

TETHERED SHOOTING

The Tethered Shooting pane lets you remotely control a camera connected to your computer via USB, and capture images from the camera to your computer. Tethered shooting is used for shooting and saving images in a studio setting, displaying your images immediately on your computer's display. It is an excellent way to make adjustments to lighting and composition in the studio.

To get started with tethered shooting, connect your camera to your computer with the appropriate USB cable (your camera's manual should have information on the cable required, if the camera didn't come with one). Turn the camera on, then, in the Tethered Shooting pane, turn the pane on by clicking the button to the left of the pane's name.
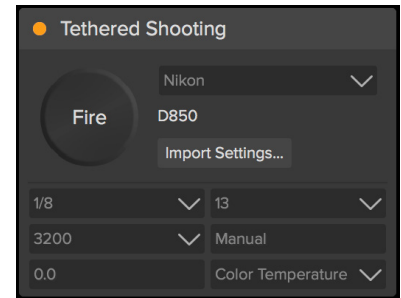
Photo RAW will search for a connected camera and, if found, it will open the Import window. In the panel on the right of that window, you can choose a number of options for saving your tethered shots, including file name and location, metadata, any Develop or Effects settings, and time adjustments. The file naming portion of the Import Settings window is based upon the Batch Rename feature, described above on page 33. (See "Importing Photos into Browse" on page 46 for an explanation of different panes in the Import window.)

> **NOTE:** ON1 Photo RAW 2018's Tethered Shooting feature currently supports most Canon and Nikon digital SLR cameras. Check ON1's support website (https://on1help.zendesk.com/) for additional camera models.

Once you have chosen your tethered import settings, click the Start Shooting button at the bottom right of the Import window, which will close the window. The Tethered Shooting pane will now have the model of your camera selected, with the current shot settings in the table at the bottom of the pane. The settings are, from left to right and top to bottom, shutter speed, aperture, ISO, camera shooting mode (Manual, Aperture/Shutter Priority), exposure compensation, and white balance. Any setting that has a drop-down will let you change that setting.

Clicking the Fire button in the pane will take a shot with the current camera settings, and will save it to the location you chose in the Import Settings window. If you're in Grid View, the image will appear at the beginning of the end of the thumbnail grid, depending upon how your sort order is set up. If you're in Detail or Filmstrip view, the tethered image will appear in the Preview area.
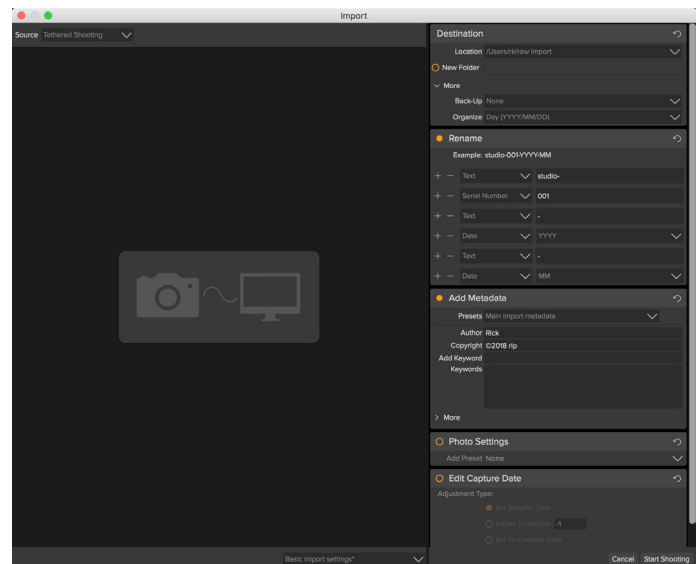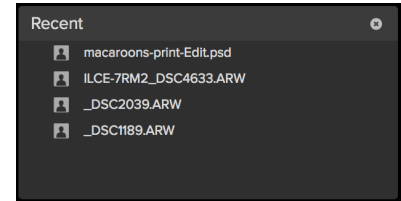
When you turn the Tethered Shooting pane on—or click on the Import Settings button in the pane—you'll see the Import window, where you can set the location to save tethered shots, rename them, add metadata and more.

When you are finished with a shoot, turn the Tethered Shooting pane off by clicking the button next to the pane's title, turn your camera off, and disconnect it from your computer.

RECENT

The Recent pane keeps track of recently opened files or manually browsed folders. Files are listed in order of last opened. You can access your most recent files in this pane by clicking on the one you want and it will appear in your main preview window. The Recent pane only shows files you have opened from within ON1 Photo RAW 2018, not files you have opened from Lightroom, Photoshop, Elements or Apple Photos.

You can clear the recent file list by pressing the 'x' icon in the title bar.

PREVIEW AREA

The Preview window is the largest part of the Browse workspace. Here, you can view folders of images in either thumbnail or detail view, based on the folders, albums or filters you have chosen via the Browse panel. There are four main views in the Preview window:

- **Grid**, which displays a grid of thumbnails of your images. This view also displays folders, letting you go up and down a folder hierarchy quickly.

- **Detail**, which you get by double-clicking on a thumbnail. You can view this image in either 'fit to window' view, or can zoom in to see more detail.

- **Filmstrip**, which displays a strip of images from a folder or album at the bottom of the screen. The currently selected image displays in the preview area above the strip; use the arrow keys to move through the folder, or click on an image in the filmstrip to view it in the preview area.

- **Compare**, which lets you view a group of photos in separate panes inside the preview area. You can zoom in on one or all of the selection, and lock the panning so that, as you move around one photo, the others move with it. Using Compare, you can quickly find the best images in a sequence, whether it be for composition, sharpness, facial expressions or more.

You can change the viewing mode between Grid, Filmstrip, Compare and Detail views by clicking on the view selector at the bottom of the window, or by using the keyboard shortcuts (G, F, C and E, respectively).

Fast Preview mode

Sometimes, when you get back to your computer after a shoot, you want to be able to go through a large number of photos quickly, looking for your best shots. ON1 Photo RAW's Fast Preview mode lets you do just that. Simply choose Fast from the RAW Previews pop-up at the bottom of the Browse window, and you can jump from photo to photo quickly with minimal lag between shots.

If you are more concerned about color accuracy than speedy previews, select Accurate from the RAW Previews pop-up. ON1 Photo RAW will generate a full-resolution preview of your photo, using the photo's embedded color profile. This will take a few seconds, depending upon the size of the raw file you're working with, but you will get a better sense of the actual color in the photo.
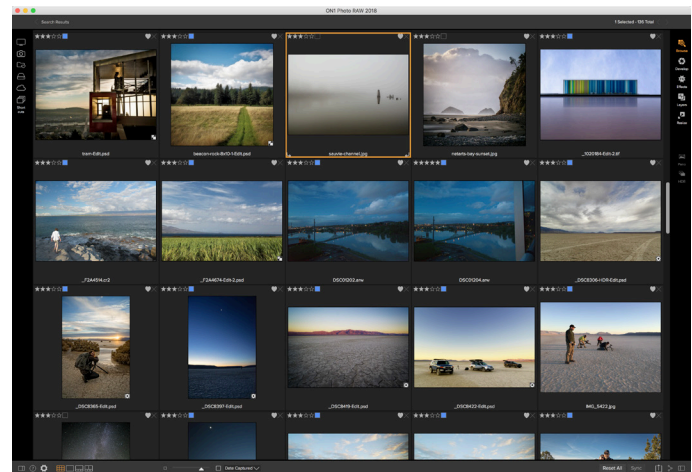
Persistent Thumbnail Cache

When you go through a folder of photos, Browse caches thumbnails and preview images as well as extracted metadata. This will make it faster the second time a user browses a folder. It also stores user-added or adjusted metadata such as ratings, labels, keywords, captions, rotation and GPS data, among others. (You can adjust the size of the cache and change the storage location of the cache in the Performance tab in ON1 Photo RAW 2018's Preferences window.)

WORKING IN GRID VIEW

Grid view displays thumbnails of folders and images you have selected using the Folder or Albums panes. There are many operations you can perform from inside Grid view, including:

Grid view (with side panels hidden).

- Use the breadcrumbs to navigate (the '<' button goes up one folder).

- Select your image while in Grid view and open the photo in one of the editing modules.

- Adjust the size of the thumbnails using the slider at the bottom of the screen or use "-/+" keys on your keyboard.

- Check Show Sub-Folder Contents when you want to view all folders (this only works when you are viewing cataloged folders).

Sorting photos in Grid view

When working in Grid view, you can sort the thumbnails in a number of different ways by choosing the Sort By pop-up at the bottom of the window. The sorting options include: date captured or modified; color label; file name, type, or size; and rating.

You can also create a custom sort order by dragging thumbnails inside the grid window; click and drag the thumbnail so that the outline sits between two other images, then let go.

Once you change the order of images this way, the Sort pop-up will change to Custom, and Photo RAW will remember the sort order for that folder until you change it. (Custom sorting also works—and the custom order remembered—when you're viewing albums.)

To reorder an image in Grid view, drag it between the two images where you want the image to be placed.

At the bottom of the Sort pop-up are settings for sorting the view in ascending or descending order;

selecting one of the options will rearrange the view accordingly. If you have a custom sort order, choosing these options will change the view in the opposite order.

WORKING IN DETAIL VIEW

In Detail View you get a full-screen version of your photo. When you go to Detail View, your images will be displayed in Fit mode, showing the entire image. You can click on the image to zoom in to 100%. This is useful for judging small details and sharpness. Single-clicking on a image that is magnified will return back to Fit mode. You can click and drag a magnified image to look around. Your zoom mode is maintained as you move from image to image so you can compare the same spot in several frames.

In the Navigator pane you can reposition the preview and change the magnification amount. (You can also view and adjust the rating and flag labels for the current image.)

In Detail view, you can zoom to 100% to check small details and sharpness in a photo, view its histogram, and even apply a preset, all without having to leave Browse.

When working in Detail view, you can move to the next image by using the arrow keys on your keyboard.

WORKING IN FILMSTRIP VIEW

Filmstrip view is much like Detail view, presenting a large version of your currently selected image in the preview area (with all the viewing controls that are available in Detail view), and displaying other photos from the current folder in a strip of thumbnails at the bottom of the screen. The photos are sorted by the current sort order, which can be change via the Sort pop-up above the strip.

The current image is represented by a blue rectangle in the filmstrip, and you can use the arrow keys to move from photo to photo, or you can scroll with your mouse and click on a photo to display it in the preview. (You can also rate and flag images inside this view.)

Filmstrip view is similar to Detail view, but displays a strip of photos from the current folder (or album). You can easily move to another photo by using the right and left arrow keys, or by scrolling and clicking with your mouse.

NOTE: Filmstrip view is also available inside the Develop and Effects modules, and you can apply rating/flagging options in those modules as well.

WORKING IN COMPARE VIEW

Compare mode is designed for those times when you shoot a sequence of photos of the same type of scene—from a portrait session, at a wedding, from a landscape series, for example—and wish to narrow that group down to find your best ones. With Compare, you can select a group of photos, view them side by side to check composition, zoom in on all of them simultaneously to check focus or facial expression, and rate your favorites and remove the rejects.

To use Compare mode, you can choose one of two methods:

Compare mode displays selected photos as panes inside the preview area. The photo highlighted with a blue box is the current selection. Clicking in that pane will zoom the photo; if the Lock pan/zoom box is checked (above the filmstrip), then all of the compared photos will zoom with it.
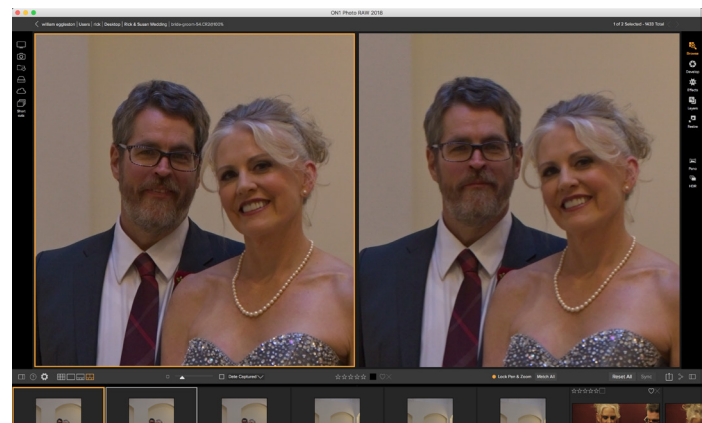
- Select a group of images you wish to compare in either Grid or Filmstrip view. To select a group of contiguous photos (ones next to each other in order), simply click on the first one you wish to compare, then hold down the Shift key and click on the last photo. If you want to add noncontiguous photos, click on the first photo, then use the Command (Mac) or Control (Windows) key and click on each subsequent photo you wish to compare. When you have your selected photos, press the C key, or click on the Compare icon in the View Selector at the bottom left of the Browse window.

- You can also select photos directly in Compare mode: press the C key or click on the Compare icon in the View Selector at the bottom left of the Browse window. In the strip at the bottom of the window, you can select the photos in the same manner as the first option, by clicking on the first photo in a sequence, and Shift-clicking on the last, or by using the Command (Mac) or Control (Windows) key to select noncontiguous photos from a group.

When you enter Compare, you will see your selected photos in a grid in the Preview area, fit to show the entire photo. The currently selected photo will have a blue box around it, while the other items in the selection will have a light gray box around them. You can switch the primary selection by using the arrow keys on your keyboard, or by clicking inside the pane you wish to make primary.

Zooming into a photo, and panning to the common areas of concern, you can easily determine which photo is sharp enough for your needs. You can then rate the selection, tag it as a favorite, or open it up in Develop or Effects for editing.

If you click once inside the current selection, the photo will zoom in to show greater detail; if you click and hold the mouse button down, you can pan across or down your photo, so you can check for things like detail, sharpness or facial expressions. (Clicking a second time inside the pane will reduce the photo to fit all of it in the pane.)

To see the detail across the group of selected photos, click on the Lock pan/zoom dot above the filmstrip. Now, when you click on an area inside the primary photo, all of the photos will zoom simultaneously to the same location of your click. And, if you click and drag inside the primary photo, all of the selected photos will pan along with the primary. To pan one photo—which can be useful if the field of view was different than the rest—click on that photo to make it the primary selection, then hold down the Shift key and click and drag inside that pane. If you do this and wish to get back to the original zoom position, click on the Sync button next to the Lock pan/zoom setting, and it will reset the zoom view to the same place in each compared photo.

Use the spacebar if at you want to zoom between fit and 100% on the selected photo in the grid. Toggling the spacebar between views does not "lock" and will not sync with other photos even if Lock is turned on.

If you wish to remove a photo from the group, select it (by clicking on it or by pressing the left or right arrow keys) and press the / (slash) key on your keyboard. The photo will be removed from the Compare window, and the remaining photos will resize to best fill the available space in the window. (You can also add additional photos to the Compare window by using the selection techniques mentioned above.)

When using Compare, you can rate or flag a photo, apply a preset and add other metadata. These functions will only be applied to the primary selected photo (outlined in blue). There are two exceptions to this:

- Using the Sync settings button on the far right side of the Browse window, underneath the Info pane. Clicking on that will sync all of the Develop and Effects settings between the primary selection and all of the items being compared.
- Using the Create Album or Add to Album commands from the Albums menu: this adds all of the currently selected photos to either the new album (when you check the Add Selected Items button) or to the chosen album. This feature can be helpful when you have a group of images that you would like to keep for a client or to further segment a series.

The Photo Panel

The panel on the right side of the screen contains information relative to the currently selected image in the Preview area.

INFO PANE (ALL VIEWS)

The Info Pane displays common metadata for the currently selected image in a large, easy-to-read format. This metadata includes:

- Camera make and model
- Lens focal length
- Capture date and time
- File type
- GPS
- ISO
- Shutter speed
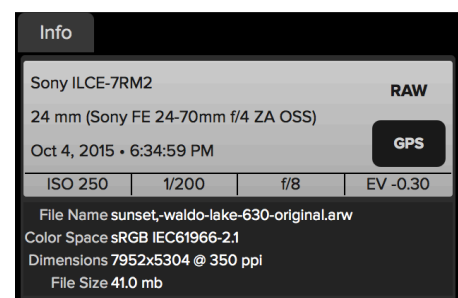
- Aperture

- Exposure compensation

- Filename

- Color space

- Image dimensions and resolution

- File size

If any of the metadata fields are unavailable they will be left blank.

GPS Metadata

If your image has GPS metadata embedded in it, the GPS button will appear in the Info pane. Clicking on this button will open your default web browser to Google Maps to the location where the image was taken.

THE NAVIGATOR PANE (DETAIL AND FILMSTRIP VIEWS ONLY)

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.
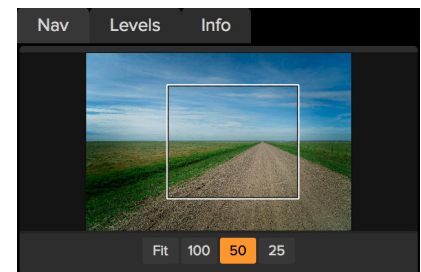
THE LEVELS PANE (DETAIL AND FILMSTRIP VIEWS ONLY)

This gives you a color chart of the shadow, midtone and highlight areas based on an image's 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. (Clipping can be turned on or off permanently by pressing Alt (Windows) or Option (Mac) and the J key.) The clipping view is useful when you are making adjustments to the brightness and contrast of your image.
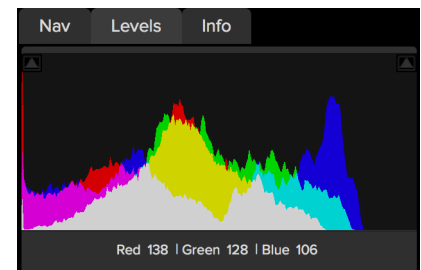
The Levels pane also displays the RGB values under the cursor at the bottom of the pane.

METADATA PANE

The Metadata pane provides more complete metadata than the Info pane about a photo, and lets you add your own metadata elements, such as copyright and contact information, keywords and photo descriptions. You can also view the complete EXIF data embedded in a photo by your camera, and add (or modify) comments and GPS coordinates to an image or group of images. ON1 Photo RAW 2018 also supports the industry-standard IPTC metadata standard, which offers much more detailed metadata information and is used by journalists and stock photographers to catalog and tag photos.

To go back and forth between the EXIF and IPTC fields in the Metadata pane, just click on the label in the pane. You can change the metadata in multiple images at the same time by selecting them all, then changing one or multiple fields in the pane.

Metadata templates

With ON1 Photo RAW, you can create metadata templates that apply common information to your images, data such as copyright, author, contact information, website and more. These preset templates can be accessed in the Metadata pane, as well as via the Import feature (see).

Saving a metadata template is easy: you can either go to an image that has the basic metadata items you wish to use, or you can select an image without metadata and add your common items to the Metadata pane. Once you have the metadata set, click on the Preset drop-down menu at the top of the pane and choose Save New Preset. The Save Preset dialog will appear on-screen, and you can choose which metadata fields you wish to save as part of the template. For example, while you might wish to save the copyright and contact information as part of your preset, you might not want to apply keyword, GPS or description data to a group of images.

You can update a metadata template by selecting the preset in the pane, then changing the appropriate fields as desired, and then choosing Update Preset with Current Settings from the Preset drop-down. To delete a metadata preset, first choose the preset from the drop-down menu, then choose Delete Preset from the menu.

Embedding Metadata

Metadata you add in Browse is stored in industry-standard XMP sidecar files for raw files. This facilitates the transfer of metadata to any application that supports XMP. When you edit an image, create a copy of an image for editing or use the 'Send to' command, the metadata is embedded into the file automatically (with the exception of raw files). You can manually embed your metadata into images using the Embed
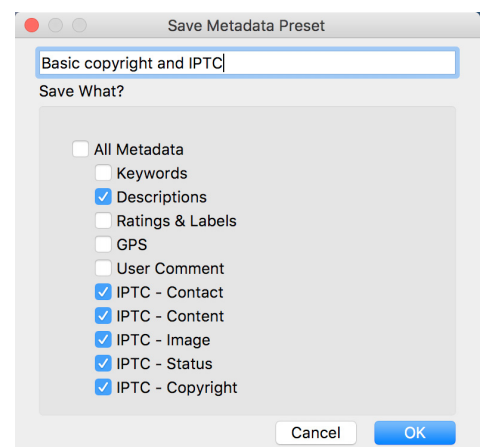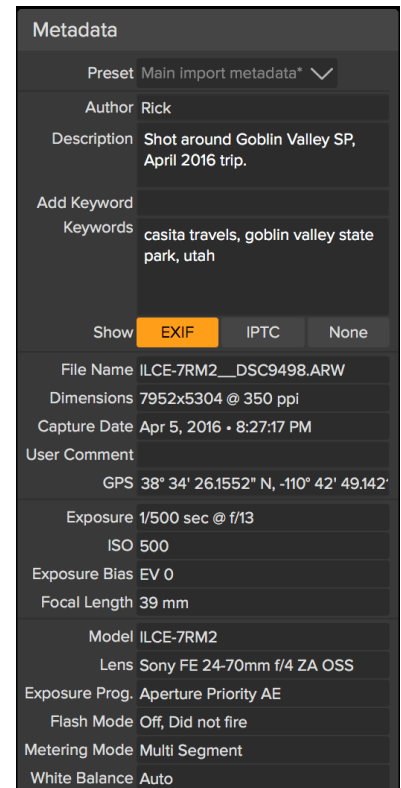
The Save Metadata Preset dialog lets you choose which metadata fields get saved to a preset from the currently selected image.

Metadata command from the Photos menu. This will open each image you have selected, update the metadata and re-save it. This is supported for TIF, PSD, PSB and JPG files; raw and PNG files do not support direct embedding of metadata.

Reading Metadata

Sometimes, when you've been sharing raw images across machines or with others, the metadata information might get 'lost,' or is different than your original metadata. In these instances, choose Read Metadata from the Photo menu, which will grab the metadata from the file or the XMP file (for raw files).

Importing Photos into Browse
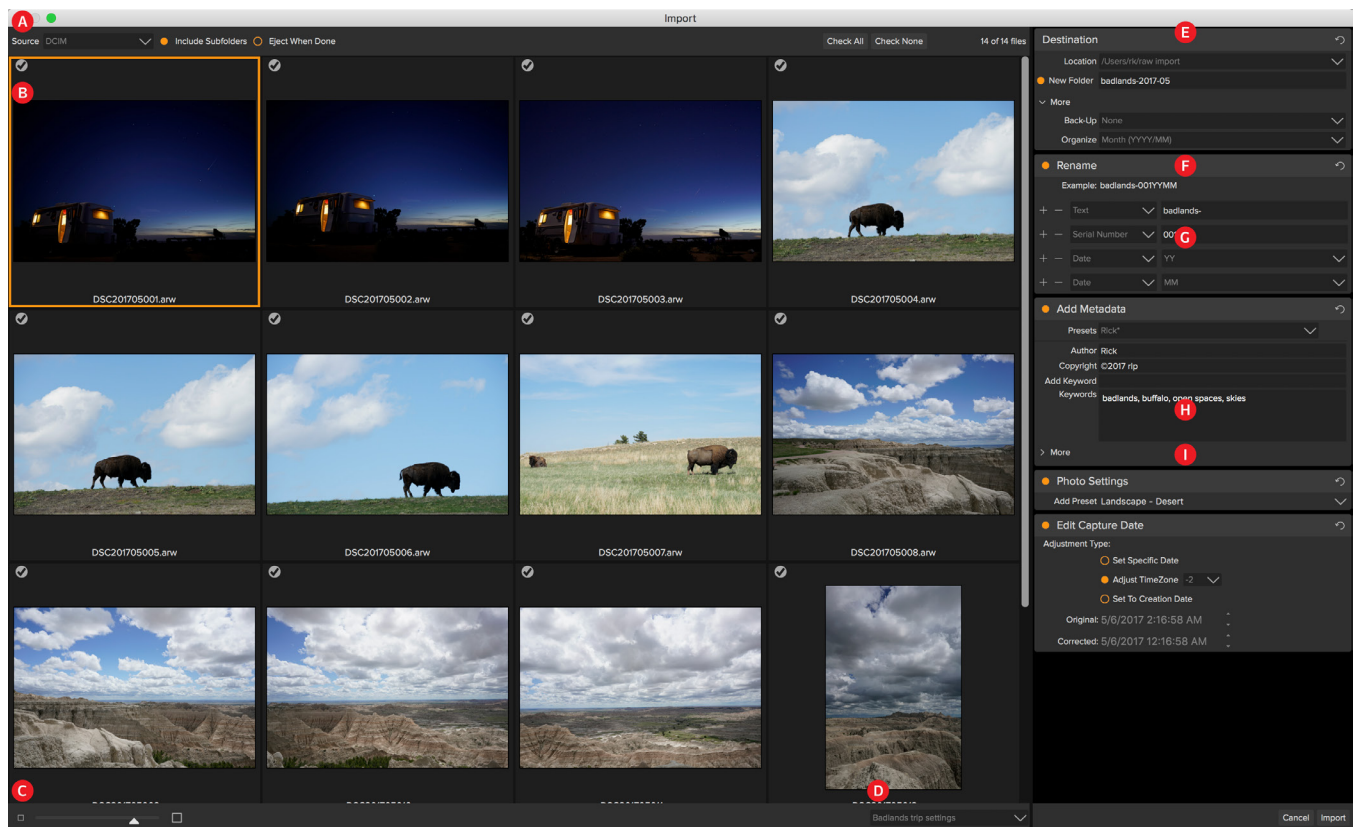
ON1 Photo RAW's Import function lets you quickly grab photos directly from your camera, memory card, phone, tablet, or other source location (like a portable hard drive loaded with images from the field).

To import photos, connect your camera, card or other device and choose Import from Browse's File menu. The Import window opens, with the following options:

A. **Import Options Bar:** Lets you choose the source (camera, memory card, or other device), if Photo RAW should search through subfolders on the source, and whether to eject the device after importing. You can also choose options for selecting all photos or none of them.

B. **Preview window:** Displays the images to be imported. By default, all photos are included for import; click the check mark in the upper left corner of any image to remove it from the import process.

C. **Thumbnail size:** Adjusts the size of the thumbnails in the preview area.

D. **Preset selector:** Applies an import preset—which can include any of the settings from the import panel on the right—to the currently selected images.

E. **Destination:** This pane sets the location of the imported images, backup location—if you wish to have a copy of your photos saved as a backup to another location—and the organization of imported files (into a single folder, or into folders organized by month or by month and day).

F. **Rename:** This pane lets you rename the imported files, with options for custom text, serialization, and by date. (This pane uses the same fields found in the Rename Files dialog; see "Renaming a file or folder" on page 33 for more.)

G. **Add Metadata:** Lets you add assorted metadata to the imported images, ranging from keywords, copyright information and more. To access the complete IPTC metadata fields, click the More drop-down; you can also add GPS coordinates and a description via this section of the pane. You can use existing metadata presets (or create your own in this window) to apply consistent metadata across multiple imports; simply enter the data you wish to include and choose Save New Preset from the Preset menu in the pane. (See "Metadata templates" on page 45 for more on metadata presets.)

H. **Photo Settings:** This pane lets you apply any Develop or Effects presets to the imported images. (These settings are not permanent; you can adjust or reset the adjustments via the Settings menu. See "All about presets" on page 86 for more.)

I. **Edit Capture Date:** Use this pane when you wish to change the capture date of imported images. The Adjust Time Zone setting can be helpful if you forget to change your camera's clock when you travel across multiple time zones.

Once you have adjusted your import settings and selected the images for import, click on the Import button to perform the operation. While your photos are being imported, you'll see a progress bar displayed in the lower right side of the Browse window. If your import location is a cataloged folder, the new images will be indexed automatically in the background.

While Photo RAW is importing images from a camera or card, you'll see a progress indicator at the bottom right side of the Browse window.
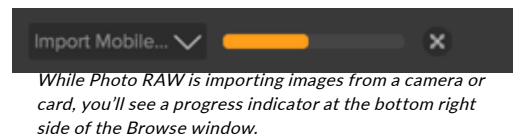
Photo RAW makes it easy to save often-used import settings—things like copyright information and other metadata, file-naming conventions, import locations and more—as a preset. To save an import preset, adjust the information and settings in any of the panes on the right of the Import window, then choose Save New Preset from the pop-up menu. Thereafter, when you choose the preset from the pop-up, it will apply your saved settings. If you wish to change a setting for an existing preset, select the preset, make your changes in the panels and choose Update Existing Preset from the preset selector's pop-up menu.

> **NOTE:** Import presets are different from the metadata preset templates in the Metadata pane, in that they can use all of the panes inside the Import window. An import preset can include metadata presets; simply choose the metadata template you wish to have as part of the import preset before you save it.

Photo RAW remembers the last-used import preset when you choose Import from the File menu.
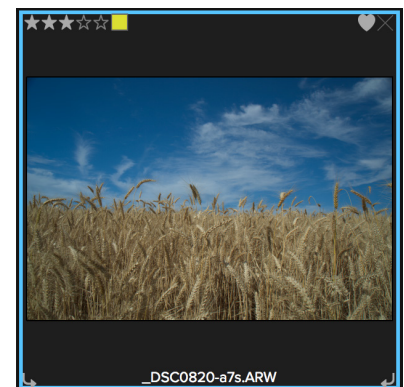
Editing Photos in Browse

While most of ON1 Photo RAW 2018's image-editing power is found within the Develop and Effects modules, you can perform many editing tasks on photos inside Browse. This includes changing metadata, labels and ratings, but you can also apply presets to an image or group of images, and can even copy Develop/Effects settings from one photo and paste them onto other photos directly within Browse.

RATINGS, LABELS AND LIKES

Using a standard rating and label system, it is easy to sort and cull your favorites from the throw-away shots. Browse offers three ways, aside from keywords and subfolders, to mark and group similar images. All of these methods may be set several ways: from the Photo menu, the right-click contextual menu, clicking the badges on the image thumbnail or in the footer of Image view. There are also keyboard shortcuts associated with each classification option.

- **Star ratings**: Set from zero to five stars. Photographers often use five stars for their favorite images and one star for images they don't want to keep, but you can use this system in whatever way works best for you. You can adjust the rating using the 1 through 5 keys on the keyboard. You can also clear the stars on any image with the ` (backquote or grave) key.

An example of a photo in Thumbnail view with a ratings, color and favorite attached.

- **Color labels**: There are five color labels as well. Color labels are a great way to mark sub-sets of images for special handling. You can set the color ratings by pressing the following keys: 6 (red), 7 (yellow), 8 (blue), 9 (green), 0 (purple).

- **Likes**: A common need for photographers is to mark their favorite images and the ones they want to delete. This is best accomplished with the Like classification. There are three options: Like (icon with a filled-in heart), Dislike ('X' icon) and Not Set (empty heart). By default, images are in the Not Set category until you change them. You can set your Liked images with the P keyboard shortcut, Dislikes with the X key, and clear settings with the U key.

Both star ratings and color labels are industry standards. When you use these tools, the settings are stored in the metadata and will be available in other photo editors and managers, like Lightroom. (Likes are proprietary and will only appear in ON1 Photo RAW 2018.)

Use Auto Advance when culling your photos

ON1 Photo RAW's Auto Advance feature was designed to help you rank a group of images quickly: with Auto Advance turned on, when you apply a rating, color label or flag to an current image, Photo RAW will make the change and automatically move to the next image.

Auto Advance can be turned on or off via the Photo menu.
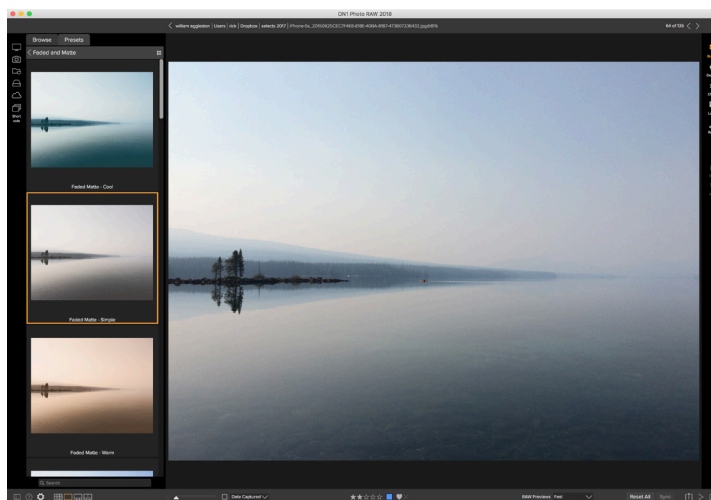
APPLYING DEVELOP AND EFFECTS PRESETS IN BROWSE

ON1 Photo RAW 2018 has a preset system that lets you save your complete editing settings from the Develop and Effects modules. These presets are always available in Browse, so you can apply your favorite presets quickly and easily to a photo or a group of photos.

To apply a preset to an image, click on the Presets panel. There you will see any built-in presets supplied by ON1, as well as any presets you might have created or installed yourself. The panel is divided into categories, like Architecture, Landscape, Portraits, and more. Clicking on a category name will open it and display any presets within that category, each with a tiny thumbnail showing your selected image with that preset applied to it.

If you'd like to see a larger representation of what your selected photo will look like, click on the Quick View Browser icon in the preset category's title bar. That will display an overlay over the entire Photo 2018 interface with all of the presets in that category.

You can easily add a preset to any photo (or group of photos) in Browse, in any Preview mode (Grid, Detail, Filmstrip or Compare). Just click on the Presets tab, navigate to the category you wish to use, and click on the preset thumbnail to apply. If you don't like the look, you can Undo, or choose another preset.
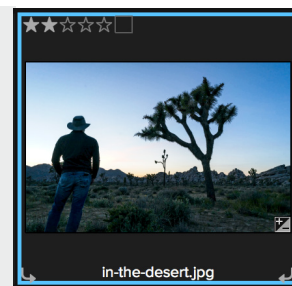
To apply a preset to a photo, simply click on the preset in either the Category preset browser or in Quick View Browser mode. Presets applied in Browse are not cumulative; after you've applied one preset, clicking on another preset will remove the previous one and apply the new one. (If you have applied edits in either Develop or Effects, those modules' settings will be erased if the preset has settings in those modules.)

Because ON1 Photo RAW 2018 is non-destructive, going to either the Develop or Effects modules will display all of the settings applied by the preset. Once in those modules, you can adjust the settings, switch to another preset, or make any other editing changes.

To remove a preset from a photo, click on the photo and choose Reset All Settings from the Settings menu. You can also remove individual settings made in either the Develop or Effects modules, if you prefer.

(For more detailed information about how to create and edit presets, see .)

> **NOTE:** If a photo has had a preset applied in Browse, or has otherwise been edited in one of ON1 Photo's other modules, you will see a small badge with a '+/-' icon in the lower-right corner of the thumbnail. These badges are visible in the Grid, Filmstrip and Compare views. (See the image on the right for detail.)
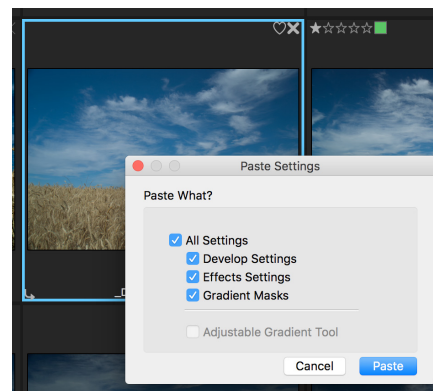
COPYING SETTINGS AND SYNCHRONIZING EDITS

In addition to applying presets, you can copy all of the existing edits made in one photo and paste them directly onto other images in the Browse module. This includes most things you can apply in Develop or Effects, with the exception of retouching, brush masks, and cropping.

To copy the edit settings for an image, click on the edited file and choose Settings > Copy Settings. To apply that setting to another image, click on the new image and choose Settings > Paste Settings. A window will appear, giving you the option of applying all of the edits on the original photo, or you can select which module's edits—with gradient masks or gradient tools, if used—you wish to paste into the new photo. (You can also select a group of photos and paste the edit settings onto the group.)

The flexibility of the Paste Settings is useful, especially if you wish to selectively apply settings to an image or group of images. However, if you want quickly to apply all of an image's edits—with applied gradient masks or other tool-based edits as well—you can use the Sync command to synchronize the settings from a source image to another image or group of images.

The Paste Settings dialog box lets you selectively paste editing from Develop and Effects sessions, as well as gradient masks and adjustable gradients.

To do this, select the edited image that you want to use as your source. Then, holding down the Shift key (if you are selecting an image or group that is contiguous with the source) or the Command (Mac) or Control (Windows) key and click on the image(s) that you wish to apply the source file's edits. Your selection should have the source image highlighted in blue, and the target images highlighted in gray. If that is correct, simply click on the Sync button at the bottom right of the Preview area, or choose Sync Settings from the Settings menu.

RESETTING EDITS IN BROWSE

Any edits you have made with ON1 Photo RAW 2018 can be completely reset from within the Browse module. This includes photos you might have pasted or synchronized settings onto inside Browse, or edits made within the Develop and Effects modules.

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

- **Reset All Settings**: This removes all the applied settings you made to a photo in the Develop/ Effects modules. (This is the only setting that removes local adjustments made to a photo.)
- **Reset Develop Settings**: Removes only the settings applied in the Develop module.
- **Reset Effects Settings**: Removes only the settings applied in the Effects module.
- **Reset All Retouching Tools**: Resets any retouching applied in either the Develop or Effects modules.

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

CREATING PANORAMAS

ON1 Photo RAW 2018 lets you quickly stitch multiple images together to create a panorama, directly from within the Browse module.
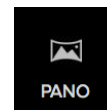
Panoramas are composite photos created from multiple individual frames of a scene. While they're often thought of as wide, narrow images, panoramas can be horizontal or vertical, wide or compact, and they give you a much higher quality final image, with added detail and a greater point of view. You can create a panorama in Photo RAW with as few as two images or more than 25.

To create a panorama with Photo RAW, go to Grid or Filmstrip view in Browse and select the images you wish to use for your merger, then click the Panorama icon on the right side of the screen.

ON1 Photo RAW's Create Panorama window displays the projected panorama, and includes options for the type of merger, cropping options, file size and adding panorama-specific metadata. You can also specify which Photo RAW module in which you wish to open the finished panorama.

Photo RAW will then display the Create Panorama window, which has two components: the Preview area, which displays the merged panorama, and the Options panel, which lets you adjust the type (spherical or collage) and the edges of your panorama; choose an output size (either 100% or 50% of the stitched file dimensions); choose a module to open the panorama after merging, and add panoramic metadata.

With most landscape-oriented panoramas, you will want to use Auto or Spherical projection type, which merges the photos as if they were mapped on the inside of a sphere. The Collage projection type lays merged photos out flat (as opposed to mapping on a curved surface), and is often called "scrapbook style."

There are three cropping options available in the Edges pop-up menu: None, Crop and Warp to Fill.

- **None** will merge the panorama without cropping the finished image.
- **Crop** trims the edges of your panorama to fit the best rectangular crop.
- **Warp to Fill** uses ON1's content-aware fill technology to stretch the edges of your scene to fill as much of the entire frame as it can, giving you bigger cropped area.

Remember that no content-aware technology is perfect: If you use Warp to Fill option, make sure to check the edges of the frame after the panorama is built, making sure that there aren't any smudged areas or bad fills. (It often works best on scenes with skies and large vistas, and less so on scenes with lots of detail at the edges.)

These panoramas demonstrate the three different edge options available via the Create Panorama feature. The top panorama was set to None, the middle to Crop, and the bottom the Warp to Fill. Because the scene included skies and grasslands at the edges, the Warp to Fill was able to add enough pixels to fill out the edges of the panoramic frame.

The Open In section of the Options Bar lets you choose what to do when your panorama has been built. You can stay in Browse, or open your finished panorama in either the Develop or Effects modules.

The Add Panoramic Metadata option, when checked, will take advantage of the exploration features found in panorama-aware websites—like Facebook and Google—and apps, letting users click and spin around your panorama in real time.

When you click Save, Photo RAW will build your pano, blending the exposures as necessary, saving the resultant file as a PSD (or whatever file type you specified in the External Editor Preferences pane), and then opening it in the module of your choice (as determined by the Open In menu in the Options bar.)

Tips for creating great panoramas

Creating panoramas can be a lot of fun, and can capture the grand vistas in a way that a single capture cannot. There are certain best practices that will help ensure you can create a great panorama:

- Use a tripod, and ensure that it—and your camera—are level throughout the entire arc of your scene.

- Lock your metering and your focus before you shoot: use the same aperture, shutter speed and ISO for all of the shots in your panorama.

- Overlap each shot by 50 percent, to give you plenty of data for which to build your final panorama.

- Once you've got your images in Photo RAW, perform basic edits on them in Develop and turn Lens Correction on. (Save styling for after your panorama has been merged.)

CREATING HDR IMAGES WITH PHOTO RAW

In addition to panoramas, ON1 Photo RAW 2018 has a second photo-merge feature: high dynamic range (HDR) photo creation. This feature lets you 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.
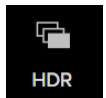
To create an HDR image, go to the Grid or Filmstrip view in Browse and select the set of images that you wish to blend. Then click the HDR button underneath the module picker (or choose Create HDR from the File menu). You will then see the Create HDR window, which has the following options:

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. The **Tone & Color pane** from Develop and the **HDR Look** pane from Effects are present to help you tune your image.

E. **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, Photo RAW 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. Natural and Surreal use those styles from the HDR Look pane, and the Natural Auto and Surreal Auto options also add the Auto 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.

> **NOTE:** For a more detailed discussion of the different options and settings in the two editing panes, see "Tone & Color" on page 71, and °.

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.

The Align button in the Options bar is on by default, which means that, during the HDR generation process, Photo RAW 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,

A Create HDR preview image with the Show Ghosting option turned on.

or when you don't want Photo RAW to align the images (star photography, for example). With the Align feature off, Photo RAW will use the selected base image for the HDR process.

The Open In section of the Options Bar lets you choose what to do when your merged HDR file has been built. You can stay in Browse, or open your finished panorama in either the Develop or Effects modules.

Once you have your settings adjusted to the way you'd like them, you can click Save and Photo RAW will build your HDR, saving it in a custom format and opening it in the module of your choice. The beauty of Photo RAW's HDR engine is that any of the edits you make to your image in the Create HDR window are reflected in the Tone & Color pane in Develop and the HDR Look pane in Effects. Because ON1 Photo RAW is non-destructive, you can re-edit your HDR to fit your wishes. If you decide that you wish to use a different HDR Look style, or want to add additional effects to your photo, you simply open the image in the appropriate module and edit.

SEND TO

ON1 Browse lets you send images you are viewing to other applications for editing. This is done via the Send to option, which is available from the right-click contextual menu or the Edit menu. ON1 Browse automatically detects the following common photo managers or editors and lists the latest installed version:

- Adobe Photoshop
- Adobe Photoshop Lightroom
- Adobe Photoshop Elements

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

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

When you send an image to another application, you will be presented with the Edit in dialog box from ON1 Photo RAW 2018. There you'll have the option to send either the edited photo or the original, unedited image. If you choose to send a copy, you'll have options for choosing the file type, color space, bit depth and resolution. If you use the same set of options every time, you can check the "Don't ask me again" box in the window, and you won't be prompted again. (To change this setting, go to the File pane in Photo 2018's Preferences.)

VERSIONS

ON1 Photo RAW's Versions feature lets you create a 'virtual' copy of an image, which is editable inside Develop or Effects separately from the original file, but without requiring the creation of an actual copy of the image. This lets you easily try different preset treatments, crops, and retouching operations on a copy of the same image without having to lose any work—or see your disk space increase.

Creating a version is easy: in any of Browse's view modes, choosing Create Version from the Settings menu

(or choosing Command-' or Control-') will create a new version of the currently selected (or viewed) photo. A copy of the image will be created next to the existing one in your library, with a 'v1' added to the filename. (Additional versions will be numbered sequentially.)

A version acts like any other image inside Photo RAW. You can open it in Develop or Effects and crop or make any adjustments with all of Photo RAW's tools and filters; you can edit its metadata; and you can even

A version of an original image will have 'v1' appended to it in Browse view, as well as a small version 'flag' in the lower right corner of the thumbnail.

export it or use it in Resize or Layers (although Photo RAW does create a rendered file in these instances).

ON1 Photo for Mobile

If you use either the Dropbox or Google Drive cloud service, you can sync selections of your photos between ON1 Photo RAW 2018 and an iPhone or iPad with our iOS companion app, ON1 Photo for Mobile. You can organize a portfolio of your images for viewing on your iPhone or iPad, and can rate your images and have the ratings reapplied to the library on your computer. ON1 Photo also lets you automatically save photos from your iPhone or iPad camera roll directly to your computer.

To get started, click Configure Mobile from the Mobile menu in Browse, which opens the ON1 Mobile Preferences window (shown on the right). If you already use Dropbox or Google Drive, choose the appropriate service, sign in, and give your computer a name. (If you do not have an existing account, Dropbox and Google offer free storage plans with 2GB and 15GB of data, respectively.)
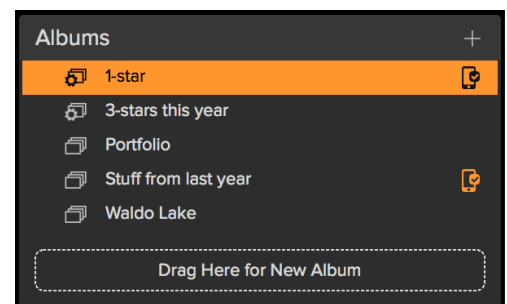
PUBLISHING PHOTOS FROM PHOTO RAW TO MOBILE

On your Mac or Windows computer, inside ON1 Photo RAW:

- Create an album or smart album
- Right-click on the album name in the Album pane and choose Publish to ON1 Mobile. (You can also right-click on any cataloged folder and choose Publish to ON1 Mobile.)

In the background, ON1 Photo RAW will upload JPG versions of the published photos to your chosen service. While the upload (or download sync) process is in progress, you'll see a small circle icon next to the folder or album name in the Browse panel. When the upload is complete, the icon will change to a

When you've successfully published an album or cataloged folder to ON1 Mobile, you'll see a phone icon next to the album name.
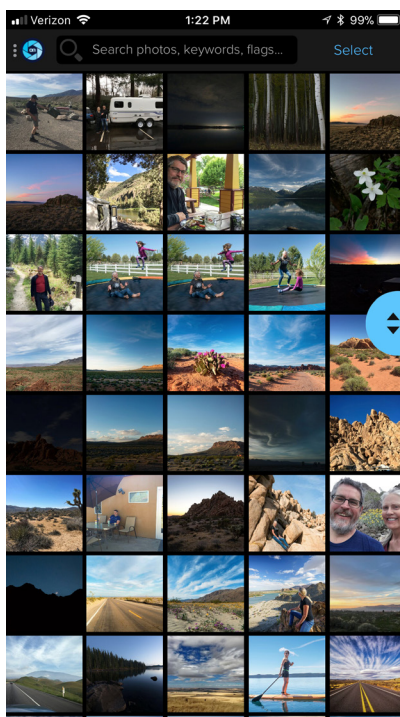
phone with a checkmark over it. (The published albums or folders are also displayed at the bottom of the Mobile menu in Browse.)

After ON1 Photo for Mobile is set up on both your computer and your iPhone or iPad, any changes you make to ratings or flags on your iOS device will be updated in those photos the next time you launch ON1 Photo RAW.

To remove a published album or folder from ON1 Photo for Mobile, right-click on the album or folder you wish to remove, and choose Unpublish from Mobile from the pop-up menu. To remove all of your published photos, choose Configure Mobile from the Mobile menu. In the Preferences window, click on the Reset ON1 Photo for Mobile button. This will remove all of the photos from your service and the associated database files that are linked to them. This will not affect any of the photos on your computer.

USING ON1 PHOTO ON YOUR IPHONE OR IPAD

ON1 Mobile's default grid view displays all of the photos you've shared from your computer.

To use ON1 Photo for Mobile, you must first install the app on your iOS device:

- Open the App Store
- Search for "ON1 Photo"
- Click on the Get button, then choose Install
- Sign in using the same credentials you supplied with the Desktop configuration (Google Drive or Dropbox)
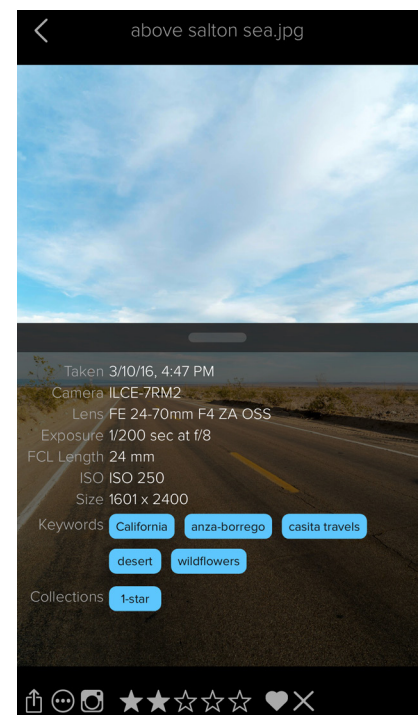
Once your published photos have been uploaded, and you have signed into ON1 Photo on your iPhone or iPad, you will see a grid of your published photos. Clicking on one of the photos in the grid will display that photo full-screen; you can use standard iOS swipe, tap and pinch gestures to move between photos, zoom in and return to the grid.

If you scroll through the grid, a slider will appear on the right side of the screen. Clicking on that slider and dragging up or down will scroll faster through your library. As you drag, a label will appear to the left of the slider, with the date of the photos in that group.

In detail view, you can see any ratings information you have applied to the photo, and any changes you make here will be synced back to your photo the next time that you launch ON1 Photo RAW.

You can also use the standard iOS Share options by clicking one of the buttons on the bottom left side of the screen, and can share a photo directly to Instagram by clicking on the Instagram icon at the bottom of the screen as well.

Tapping on a photo in Grid view will display the photo full-screen. You can slide the bottom pane up to see the photo's metadata, and tapping on keywords or collection names will display photos in your catalog that match those conditions.

When viewing a photo, if you swipe up from the bottom of the ON1 Photo screen, you will see additional metadata associated with your photo, including date taken, camera info, and the keywords or collections (albums) that the photo is part of. Clicking on a keyword or collection name will filter all of the photos in the current image group to just those with that selection.

By default, ON1 Photo for Mobile displays all of the photos you have published via ON1 Photo RAW; to view the individual folders or albums, click on the ON1 logo to display the Settings panel of the app. There, you can view specific folders or albums (called collections inside ON1 Photo for Mobile) by selecting the appropriate item in the list. (The grid will then include the album or folder name at the top of the screen.)

SHARING CAMERA ROLL PHOTOS WITH ON1 PHOTO FOR MOBILE

You can set ON1 Photo for Mobile to automatically capture new photos shot with your camera, as well as specific albums.

To set this up, click on the ON1 icon at the top left of the ON1 Photo screen. This will open a drawer with two options, Folders and Settings; click on the Settings icon to display the basic settings for the app.

Next, tap on the Mobile Uploads section of the drawer, which will display a list of all the albums you have set up on your phone. If you want to have all of your photos synced, tap on the All Photos album.

If you want to just share specific albums— which can

To share your phone's camera roll pictures, first click on the ON1 icon at the top of the screen, and click on the Settings icon. Then, click on Selected Albums. In that screen, you can choose to add all your photos to ON1 Mobile, or you can choose different albums to sync. The next time that you launch ON1 Photo RAW 2018 on your computer, your phone photos will appear in the Mobile Downloads section Browse's Folders panel.

be helpful if you don't want to have every photo automatically synced—tap on the album (or albums) you wish to share.

Once you set the albums you wish to sync, ON1 Photo for Mobile will grab and sync the last 20 photos from your camera roll, and whenever you launch the app, it will copy those albums' photos into your ON1 Photo library and sync them with your cloud service. If you would like ON1 Photo to update its library in the background, go to the iOS Settings app and tap on the Privacy setting, then choose Location Services. Scroll down until you find ON1 Photo and tap it. Choose Always from the options and close the Settings app.

To use background processing to upload photos from ON1 Photo for Mobile to your desktop, choose Always from the Location Services tab in the iOS Settings app.

For more on ON1 Photo for Mobile, click on the Help Desk item in ON1 Photo's Settings panel; that will take you to the ON1 website, where you can view frequently asked questions about ON1 Photo for Mobile.

Browse menus

ON1 Photo RAW (Mac OS Only)

- **About ON1 Photo**: Opens the about box, displays your version number. (This is in the Help menu on Windows)
- **Preferences**: Opens the preferences dialog. (In the Edit menu on Windows)
- **Quit ON1 Photo RAW**: Quits ON1 Photo RAW 2018.

File Menu
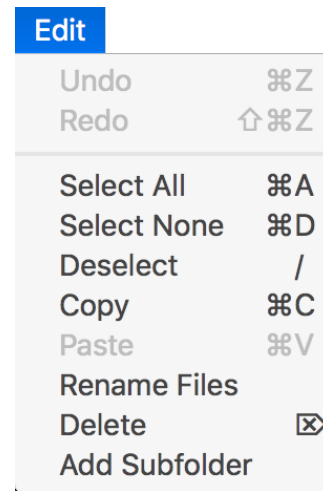
- **Browse Folder**: Opens the browse dialog where you can select which folder you would like to browse.
- **Browse Home**: Navigates to your home Pictures folder.
- **Browse Desktop**: Navigates to your desktop.
- **Import:** Opens the Import window.
- **Add Cataloged Folder**: Lets you choose a folder to add to the Cataloged Folders section of the Folders pane.
- **Remove Cataloged Folder**: Removes the selected folder from the Cataloged Folders pane.
- **Manage Extras**: Opens the Extras Manager where you can import and manage extras like Borders, Backgrounds, Textures and Presets.
- **Quick Export**: Saves the current image in Photoshop, TIFF, JPEG or PNG format.
- **Edit in (list)**: Launches the selected module with the currently selected image.
- **Send to (list)**: Sends your image to the selected application in the list.
- **Group RAW Plus JPG**: Stacks RAW and JPG pairs together, reducing clutter.
- **Merge to Panorama**: Takes the selected images and opens the Create Panorama window.
- **Create HDR**: Takes the selected images and opens the Create HDR window.
- **Export**: Opens the export side panel.
- **Print**: Opens up the print dialog box.

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.
- **Select All**: Selects all the images in the current folder.
- **Select None**: Deselects all the images in the current folder.
- **Deselect**: Deselects the current item.
- **Copy**: Copies the currently selected items.
- **Paste**: Pastes the items in the clipboard to the current location.
- **Rename Files**: Renames the selected file or folder.
- **Delete**: Moves the selected files and/or folders to the trash.
- **Add Subfolder**: Adds a new empty subfolder inside the current selected folder.

Album Menu

- **Create Album**: Creates a new Album.
- **Create Smart Album**: Creates a new Smart Album.
- **Rename Album**: Renames selected Album.
- **Delete Album**: Deletes selected Album.
- **Add to Album**: Add selected photos to available Albums.
- **Remove from album**: Removes selected photo(s) from Album.

Photo Menu

- **Color**: Sets the color rating of a photo (None, Red, Yellow, Green, Red, Purple)

- **Rating**: Sets star rating (0 to 5 stars)

- **Like**: Sets a photo to Like, Reject or Not Set

- **Auto Advance**: When checked, any color, rating or like setting applied to a photo will save it for that photo, then move on to the following photo.

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

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

- **Edit Capture Date**: Let's you adjust the date captured metadata, including a setting to take account for time zone changes.

- **Embed Metadata**: Stores adjusted metadata to a selected file. (Only applicable to certain file formats.)

- **Read Metadata from Photo**: Reads the embedded metadata from a raw file, overwriting any data that might be in the XMP sidecar files. (Useful for times when the metadata appears out of sync with different apps.)

- **Save Metadata Preset**: Lets you save some or all of the current image's metadata fields as a preset.

- **Delete Metadata Preset**: Lets you delete a saved metadata preset.

- **Refresh Preview**: Rebuilds the preview of the selected images. (Helpful if there are issues that are causing an image to display incorrectly.)

Photo	
Color	▶
Rating	▶
Like	▶
Auto Advance	
Rotate 90 Degrees CW	⌘]
Rotate 90 Degrees CCW	⌘[
Edit Capture Date...	
Embed Metadata	
Read Metadata from Photo	
Save Metadata Preset...	
Delete Metadata Preset...	
Refresh Preview	

Settings Menu

- **Reset All Settings**: Resets all the applied settings on a photo.

- **Reset Develop Settings**: Resets only the settings applied in the Develop module.

- **Reset Effects Settings**: Resets only the settings applied in the Effects module.

- **Reset All Retouching Tools:** Resets any retouching applied in the Develop or Effects modules.

- **Reset Local Adjustments:** Removes all local adjustments made to a photo.

- **Reset Crop:** Resets the current image's crop to its original state.

- **Copy Settings**: Copies all of the settings (Develop, Effects, retouching) applied to a photo.

- **Paste Settings**: Pastes the copied settings (with options)

- **Sync Settings:** Applies all of the settings from the primarily selected image (represented by the superselection) to the rest of the images in a selection.

- **Create Version**: Makes a virtual copy of a photo, without duplicating the file on your hard drive.

- **Save Settings as Preset**: Saves the editing settings of the selected photo as a preset.

- **Update Preset with Current Settings**: If an image with a preset has had some settings changed, this lets you update the preset with the new settings.

- **Rename Preset**: Renames a preset.

- **Delete Preset**: Deletes a preset.

- **Export Preset**: Exports a preset as an ON1 preset file.

- **Import Preset**: Imports ON1 preset files.

- **Get More Presets**: Goes to ON1.com's Photo Presets page.

Settings	
Reset All Settings	⇧⌘R
Reset Develop Settings	
Reset Effects Settings	
Reset All Retouching Tools	
Reset Local Adjustments	
Reset Crop	
Copy Settings	⇧⌘C
Paste Settings...	⇧⌘V
Sync Settings	⌥⌘S
Create Version	⌘'
Save Settings as Preset...	
Update Preset with Current Settings...	
Rename Preset...	
Delete Preset	
Export Preset...	
Import Preset...	
Get More Presets...	

View Menu

- **Bigger Thumbnails**: Increases the size of the thumbnails in Grid view.

- **Smaller Thumbnails**: Decreases the size of thumbnails.

- **Zoom In:** Zooms into your image in Detail, Filmstrip or Compare view, displaying more detail.

- **Zoom Out:** Zooms out, fitting more of your image in the window.

- **Fit to Screen:** Resizes your image on-screen, to fit it entirely in the preview window.

- **Actual Pixels:** Zooms in to the 100% view of your image.

- **Square Thumbnails**: Changes your thumbs to square.

- **Always Show Filename**: Keeps the filename label turned on in the thumbnails while in Grid view.

- **Enable Filters**: Enables/Disables filter pane.

- **Search Text:** Places the cursor in the Filters search box.

- **Filter by Label**: Filters images by color.

- **Filter by Rating**: Filters images by star rating.

- **Filter by Likes**: Filters images by likes/dislikes.

- **Reset Filters**: Resets your filters.

- **Sort**: Sort by filename, date, rating, label and more.

- **Sort Subfolders at the Top:** When sorting, puts subfolders at the top of the grid.

- **Show Clipping:** Displays the clipping overlay view, displaying the pure white or black pixels in the current image.

- **View Mode**: Select from Thumbnail (grid), Photo (detail), Filmstrip or Compare views.

- **Preview Background Color**: Change the preview background color.

- **Preset Browser Mode**: Sets the Preset panel browser view to 1, 2 or 3 columns.

Mobile

- **Configure Mobile:** Sets up ON1 Photo for Mobile sharing services via the Mobile Preferences window.
- **Pause/Resume Publishing:** Lets you pause and restart the publishing of photos to ON1 Mobile service.

Window Menu

- **Minimize**: Minimizes ON1 Photo RAW 2018.
- **Zoom**: Zooms your window.
- **Full Screen Mode:** Enters or exits full-screen mode.
- **Folders**: Opens and hides the folders pane.
- **Albums**: Opens and hides the album pane.
- **Filters**: Opens and hides the filters pane.
- **Tethered Shooting**: Opens and hides the filters pane.
- **Recent**: Opens and hides the recent pane.
- **Info**: Open and hides the info pane.
- **Metadata**: Open and hides the metadata pane.
- **Show Browse Panel**: Hides/reveals the Browse Panel.
- **Show Photo Panel**: Hides/reveals the Photo Panel.
- **Hide Panels**: Hides/reveals both left and right panels.

Help

- **Search**: Searches the menu options (Mac OS only).

- **ON1 Photo RAW 2018 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.

- **Welcome to ON1 Photo RAW 2018**: Displays the Welcome window.

- **Check for Updates**: Checks with the ON1 update server to see if you are running the current version.

- **Sign-In/Sign-Out**: Uses your ON1 account login information to authenticate (or deauthorize) your copy of ON1 Photo RAW 2018

- **Provide Feedback**: Opens the default browser and navigates to the feedback page of the ON1 website.

- **About ON1 Photo RAW (Windows only)**: Opens the about box with the version number and license code 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 Photo RAW 2018.

Help

Search

ON1 Photo RAW 2018 Online Help...
Video Tutorials
Welcome to ON1 Photo RAW 2018

Check for Updates
Sign-Out...
Provide Feedback...
Help Improve ON1 Products...
Show ON1 Log

PART 3: ON1 DEVELOP

The core of ON1 Photo RAW 2018's photo-editing power is found in the twin modules of Develop and Effects. These modules share many common filters and tools, and were designed to let you work seamlessly on all of your pixel-editing tasks, from making basic tonal changes to your photos, to more complicated effects-based adjustments with masks and selections.

Develop is the module for performing basic global editing operations—adjusting tone and color, removing noise, sharpening and more. It is the perfect place to begin editing your photos, especially if you are using ON1 Photo RAW 2018 as a standalone editor.

Effects (discussed in Part 4, starting on page 92) has some of the same adjustment types as Develop, but it has more filters, sophisticated masking tools for applying effects to specific areas of your images, and a full range of blend modes to adjust your photos exactly as you like.

Develop and Effects also share a Local Adjustment panel that lets you apply basic edits to parts of your photos, with either a gradient mask or a local adjustment brush. These adjustments include settings like exposure, highlights and shadows, contrast, detail, and more.

Switching between Develop and Effects is as simple as clicking on the appropriate module in the Module Selector. While you work on an image, all of your settings in each module are saved while you edit. If you use Photo RAW 2018 as your Raw editor of choice (in conjunction with Browse) all edits you make to an image are preserved non-destructively, and you can go back to any image at any time and make changes or corrections to it.

> **NOTE:** If you use an external editor, like Lightroom Classic CC or Adobe Photoshop, as your primary Raw editor, you can use Smart Photos (via Lightroom) or Smart Objects (in Photoshop) to preserve edits made in ON1 Photo RAW 2018. See "File access when using Photo RAW 2018 as a plug-in" on page 7 of this guide for a description of the editing process with these apps.

To help you save time and create the looks that you love best, ON1 Photo RAW 2018 also includes a robust preset system that lets you save settings made in either or both of the editing modules—along with local adjustments and masks—for applying to other photos. Editing presets can be applied in Develop or Effects, as well as in Browse, and, like all other elements of Photo RAW 2018, are re-editable. (Presets are discussed in detail, starting on page 85.)

In addition to creating and using presets, you can copy and paste the Develop and Effects settings from one file to another, or alternatively, synchronize the edits on one photo to a group of photos. These operations can all be performed in any of the editing modules, as well as in Browse, adding to ON1 Photo RAW 2018's extreme flexibility. (For more on working with Develop and Effects presets inside the Browse module, see "Applying Develop and Effects Presets in Browse" on page 49.)

ON1 Develop Main Screen Overview

ON1 Develop provides you with an easy-to-use work space for editing your photos. Below is an overview of the main sections.

The main window sections of ON1 Develop:

- A. **Tool well**: Tools for working within Develop
- B. **Preferences/Help**: Shortcuts to app preferences and help.
- C. **Preset panel**: List of all installed presets (by category) for use in Develop and Effects
- D. **Search**: Searches presets (by name).
- E. **Preview Window options**: Switches between Detail and Filmstrip views.
- F. **Tool Options bar**: Options and settings for currently selected tool.
- G. **Preview Window**: Displays the current photo in detail view.
- H. **Preview option toggles**: Magnification slider for current image, compare (before/after) mode, show/hide mask, turn soft proofing and preview on or off.
- I. **Photo Information pane**: Navigator, levels (histogram) and general photo information.
- J. **Settings/Local Adjustments panes**: Clicking tab switches between local and global adjustment panes.

K. **Develop Settings pane**: Where tone, color, sharpening, and associated Develop settings reside.

L. **Reset bar**: Reset all (Develop and Effects settings), Reset (Develop-only settings), Sync settings with previously edited photo (when in Filmstrip view)

M. **Module selector**: Switches between modules (if you are editing a photo as a plug-in, some modules might be disabled).

N. **Export/Share**: Shortcuts for exporting and sharing selected photos.

Tools

There are seven tools available to you when you're working in ON1 Develop (shown right):

1. **Crop Tool**: Trim the and resize the image to your desired size.

2. **Adjustment Brush:** Paints local adjustments in or out.

3. **Adjustable Gradient**: Applies a selective gradient in local adjustment mode.

4. **Perfect Eraser**: Removes distractions like signs and power lines.

5. **Retouch Brush**: Removes blemishes like dust spots and acne.

6. **Clone Stamp:** Paints over an area from a sample of another area.

7. **Zoom Tool**: Adjusts the magnification of the image in the Preview area.

To access a tool, simply click on the tool. 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.

Navigating the Preview Window

ON1 Photo RAW 2018 provides several ways to navigate and view your image in the Preview window:

- By default, your image is presented in Fit view, which displays your entire 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 also viewable in the tool options bar when the Zoom tool is selected.)

- 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.

Navigator, Histogram and Info Panes

At the top of the control panel on the right of the main window are the Navigator, Histogram, and Info panes. It contains three useful tools for inspecting and viewing details of your image.

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.

THE LEVELS PANE

This gives you a color chart of the shadow, midtone and highlight areas based on the image RGB values. 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.

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 currently selected image in a large, easy-to-read format. This metadata includes camera make and model; lens focal length; capture date and time; file type; GPS location data; ISO setting; shutter speed; aperture; and exposure compensation.
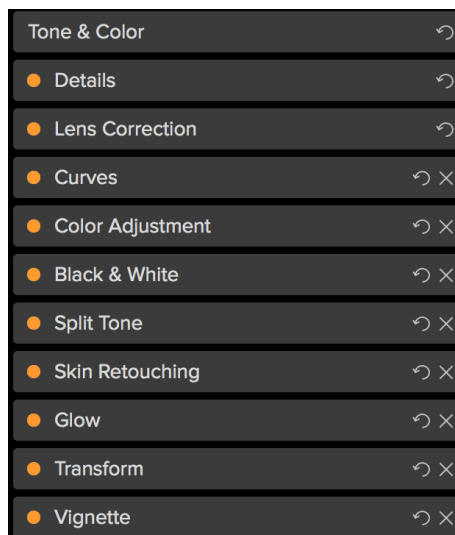
The Info pane also displays file-specific date, including name, color space, image dimensions and resolution. If any of the metadata fields are unavailable they will be left blank.

Develop Adjustment Panes
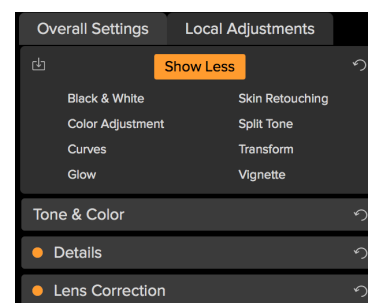
To edit your images, the Develop module has 11 adjustment panes found in the Overall Settings panel. Unlike the Effects module, which lets you stack filters in any order, the Develop module's adjustments are applied in the following order:

1. Tone & Color
2. Details
3. Lens Correction
4. Curves
5. Color Adjustment
6. Black & White
7. Split Tone
8. Skin Retouching
9. Glow
10. Transform
11. Vignette

WORKING WITH PANES

By default, the Tone & Color pane is at the top of the stack, followed by the Details and Lens Correction panes. These three 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. To use a pane, simply click on the Show More button above the Tone & Color pane, and click the adjustment you would like to add. 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. 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—designated by the circular arrow icon at the top of each pane—will reset that pane's settings to their default.
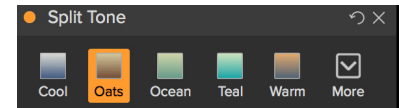
To turn on an additional adjustment type, click the Show More button above the Tone and Color pane. The drawer will slide down, letting you add any (or all) of the eight types. (If the adjustment has been added, it will have a checkmark next to its name.)

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 Settings panel when you have a lot of open panes, go to the Window menu and choose Solo Mode. 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.

Styles

Most of the panes in Develop 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.

Default styles for the Split Tone pane.

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.
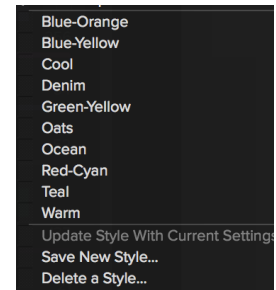
The More styles pop-up, with saved user style (top).

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 Photo RAW's built-in profiles: ON1 Standard (the default), ON1 Landscape, ON1 Portrait, ON1 Vivid and ON1 Neutral. In addition, if your camera has its own embedded profiles, you will see those profiles underneath the top section.

Photo RAW'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:

- **Auto Button**: The auto button adjusts 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 in your image.
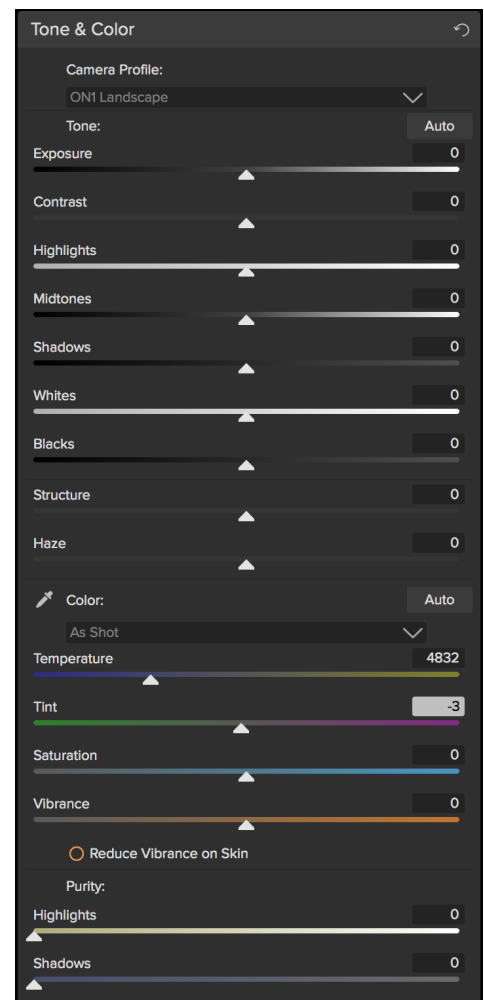
- **Highlights**: Darkens the highlights, recovering detail.

- **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.

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.

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.

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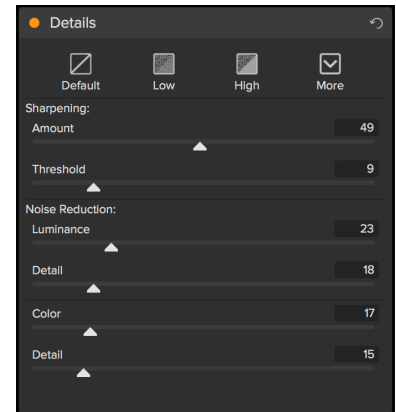
> **NOTE:** When you are adjusting the sharpening or the noise in a photo, it is best to be working at 100% view. To do this, you can click on the 100 button in the Navigator pane, choose View Actual Pixels from the View menu, or press Command-Option-0 (Mac) or Control-Alt-0 (Windows) on your keyboard.

The Noise Reduction section reduces luminance and color noise, while maintaining image detail. By default, ON1 Photo 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:
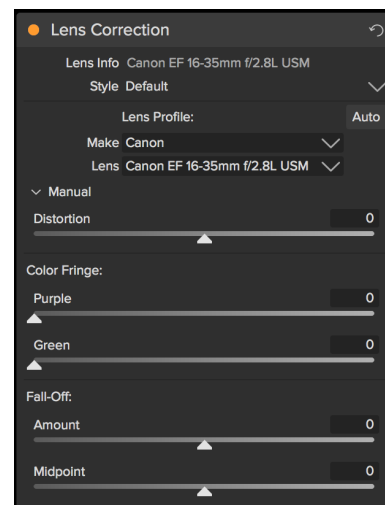
- **Luminance**: Adjusts the overall strength of the noise reduction applied to the luminance or detail of the image. Hold down the Alt/Option key to see just the luminance while adjusting this slider.

- **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.

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 and noise reduction in the Effects and Resize modules.

LENS CORRECTION

The Lens Correction pane detects the lens used in a photo (from its metadata), and searches ON1 Photo's internal lens database for an appropriate profile. If found, the profile will be applied automatically, reducing distortion, chromatic aberration and peripheral fall-off.

> **NOTE:** Lens profiles can only be applied to Raw format photos that are opened via Browse. If you use Photo RAW as a plug-in, lens profiles will not have any effect on your photo, although adjustments made in the Manual section will get applied to your final photo.

If we don't have a built-in profile for your lens—or you wish to apply further correction to a photo—you can make manual adjustments by clicking on the Manual triangle. There, you can adjust either pincushion (where lines in a photo curve inward) or barrel (lines curve outward) distortion by moving the slider to the right or the left. The Manual section also can help remove any purple or green color fringing that might occur along edges, and can reduce the light fall-off (vignetting) that can occur at the outer edges of a lens.

The ON1 website has information on updated lens profiles, here: http://bit.ly/on1profiles

> **TIP:** If you have a lens that isn't in the profile database, open a typical photo shot with that lens, and adjust the Manual settings in the Lens Correction pane to fix any lens abnormalities. You can then save these settings as a style by clicking on the Style pop-up and choosing Save New Style. When you open any additional photos shot with that lens, choose that Style from the Style pop-up.

CURVES

The Curves pane is a powerful, advanced tool for adjusting contrast and color in your image. The buttons at the top of the pane let you adjust the composite RGB channel, or you can adjust the individual Red, Green or Blue channels independently.

In the main part of the pane, the left side of the X-axis represents the dark tones in your image, while the right side represents the light tones. By clicking on the line at the center of the pane and dragging it up or down, you adjust those specific tones making them lighter or darker. (It is often helpful to keep an eye on the Histogram when making adjustments with Curves.)
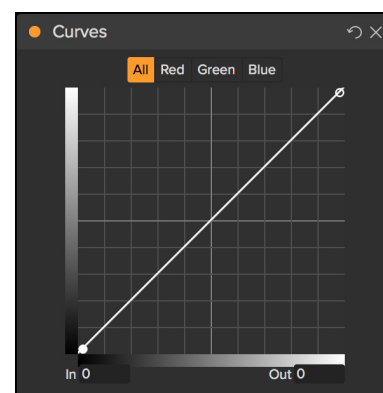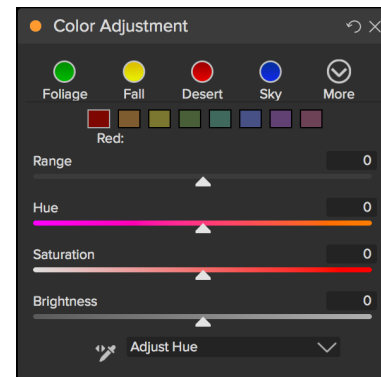
COLOR ADJUSTMENT

This pane lets you adjust specific ranges of color in your photos. The styles at the top of the pane are designed to help enhance specific scene types (Foliage, Fall, Desert, Sky).

In the pane underneath are color swatches for eight colors: red, orange, yellow, green, aqua, blue, purple and magenta. Clicking on one of the colors will let you adjust the hue, saturation and brightness of the selected color range. Other settings in the pane include:

- **Range**: This slider lets you narrow or widen the range of the selected color.
- **Hue**: Changes the hue for the selected color range.
- **Saturation**: Adjusts the saturation of the selected color range.
- **Brightness**: Adjusts the brightness of the selected color range.

You can also use the pane's Targeted Dropper tool to click on a section of your photo and adjust the hue, saturation or brightness dynamically. To do this, click on the tool and choose which parameter you would like to adjust. Then click in your image on a color you would like to adjust and drag the cursor to the left or right to decrease or increase the effect.

BLACK & WHITE

This pane is used to turn a color image into a monochromatic image. The styles at the top of the pane represent different filter types often applied to an image, while the Auto button selects optimal mix of the Color Response sliders.

To manipulate the tones manually, move the color range sliders to the right (increasing brightness) or the left (decreasing).

To change the tones directly inside a photo, choose the Color Response tool. It works like the Targeted Dropper in the Color Adjustment 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.

To add film grain to your photo, 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.
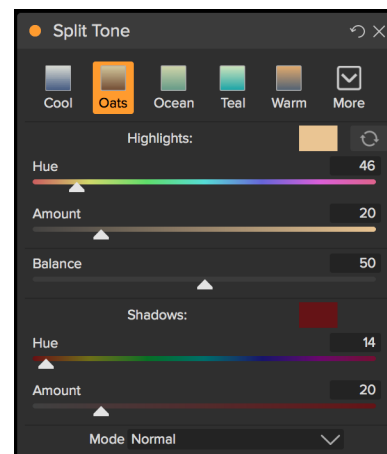
> **NOTE:** The Black & White filter in ON1 Effects has more options for toning, tuning and creating a monochrome image; it also supports the full masking capabilities of the Effects module.

SPLIT TONE

This filter applies a duotone-style effect by using a gradient map that tints the dark and light portions of the image in different hues. This can be used to age an image and give it an antique or vintage look, as well as for cinematic, color-grading looks. The styles section has a selection of popular split-tone effects, and you can create your own by manipulating the sliders to choose a map for the highlight and shadow colors.

To use the pane, you can use the Hue slider in each of the sections to choose the colors you want for highlights and shadows. The Amount slider controls the strength of the color, and Balance sets the balance between the shadow and highlight colors, letting you make one of the colors more dominant.

The Mode pop-up sets the blending mode for the split tone. The options you can choose from are Normal (no blending), Color, Lighten, Darken, Multiply or Screen.

SKIN RETOUCHING

The Skin Retouching pane is used to reduce blemishes, smooth skin and reduce shine on skin. The styles at the top of the pane represent a range of adjustments, from subtle to strong, and the More pop-up menu has a number of additional styles to choose from. Other settings include:
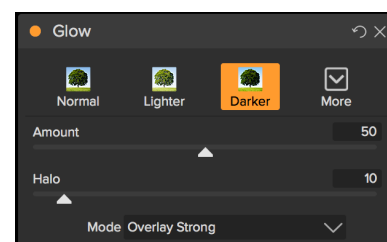
- **Blemishes**: Adjusts the strength of acne, pores and fine lines.
- **Smoothing**: Adjusts the strength of smoothing similar to makeup foundation.
- **Shine**: Reduces the amount of the skin shine.
- **Evenness**: Adjusts how consistent the skin color is across the entire face. Good for correcting highlights that may be too yellow, green shadows, or for reducing redness in noses and ears.
- **Skin Color**: Use the Color Dropper icon to select the skin color. Click the icon to activate it and single click again on the color of the skin in the image.
- **Color Well**: This will display the color you have chosen with the Color Dropper. Clicking on the well will let you choose a different color to represent the skin.
- **Range**: Adjusts the precision of the color selected.

GLOW

This pane adds a soft-focus glow to the image. The styles section and the More pop-up include a number of different glow types. Adjustable settings for the Glow pane include:

- **Amount**: Controls the overall glow strength.

- **Halo**: Sets glow radius, adding fuzziness to an image's edges.
- **Mode**: Lets you set the blending mode for the glow effect.

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.

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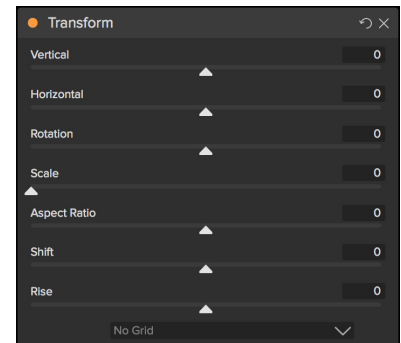
The Grid pop-up menu at the bottom of the Transform pane lets you displays a grid overlay while you are adjusting the pane's sliders. The default for the pane is No Grid, but you can also choose between 10% (large), 5% (medium) or 1% (fine) grid settings.

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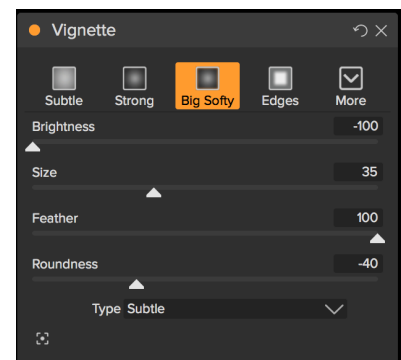
The Center Tool at the pane's bottom left lets you to select the center point of the vignette. Click on the tool icon to activate and then click on the area in the image you wish to make the center of your vignette.

Develop and Effects shared tools

CROP TOOL

This tool lets you crop your image, and is fully non-destructive inside Develop and Effects when you are using ON1 Photo RAW 2018 as a standalone app.

> **NOTE:** The Crop tool is disabled when you use Photo RAW 2018 as a plug-in; you should use the host application to crop your photos. Also, when used inside Layers or Resize, the Crop tool is destructive.

The Crop interface, with the Crop Preset pop-up open.

To crop an image, select the Crop tool from the tool well. If desired, 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. Adjust the corner handles of the crop tool 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 Tool Options Bar:
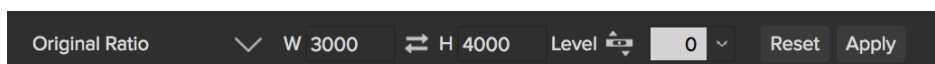
- **Preset pop-up**: Lets you choose from Freeform or constrained preset ratios
- **Width**: Sets the width of the crop box.
- **Swap Dimensions**: Swaps the width and height. Handy for rotating the crop box.
- **Height**: Sets the height of the crop box.

- **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.

- **Reset**: Resets the crop area to the size of your original photo.

- **Apply**: Applies the crop.

ADJUSTMENT BRUSH / ADJUSTABLE GRADIENT TOOLS

For information on the Adjustment Brush and Adjustable Gradient tools, see the Local Adjustments section on "Local Adjustments" on page 81.

PERFECT ERASER

The Perfect Eraser can be used to remove distracting elements and blemishes from your image. It uses a content-aware algorithm that replaces the pixels with a natural-looking result within the boundaries that are painted.

Using the tool is easy: click on it in the tool well, and paint over the area you wish to remove. Make sure you cover the entire area. A red overlay appears where you paint. If the first attempt does not give you a perfect result, simply paint over it again and it will improve with each pass. You can also fine tune the area after applying the Perfect Eraser by using the Retouch Brush (see below).

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 Wacom pressure-sensitive tablet, select the Pressure Adjusts Size button in the Options bar.

RETOUCH BRUSH

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

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

Retouch Brush Options Bar:

- **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 Wacom pressure sensitive tablet, you can adjust the size of the brush according to the pressure. Click on the button to activate the Wacom sensitivity controls.

CLONE STAMP

Use the Clone Stamp tool for replacing an area of the image with a sample area from a different part of the image. Hold down the Option (Mac) or Alt key (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 Bar:

- **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 Wacom pressure sensitive tablet, you can adjust the size of the brush according to the pressure. Click the button to activate.

ZOOM TOOL

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

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.

Local Adjustments

In addition to the primary adjustment panes, you can make local adjustments to portions of an image in ON1 Photo RAW 2018. You can apply these adjustments using either the Adjustment Brush or the Adjustable Gradient, and you can create as many local adjustments as you need on an image (by clicking on the Add Layer button at the top of the Local Adjustments section).

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 Adjustment panes.

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 adjustment pane 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 do specialized tasks such as skin retouching or to replace the color of an object.

Local adjustments are shared between the Develop and Effects modules; you can create a local adjustment while working in Develop, switch to Effects, and when you click on the Local Adjustments panel, your settings will be intact.
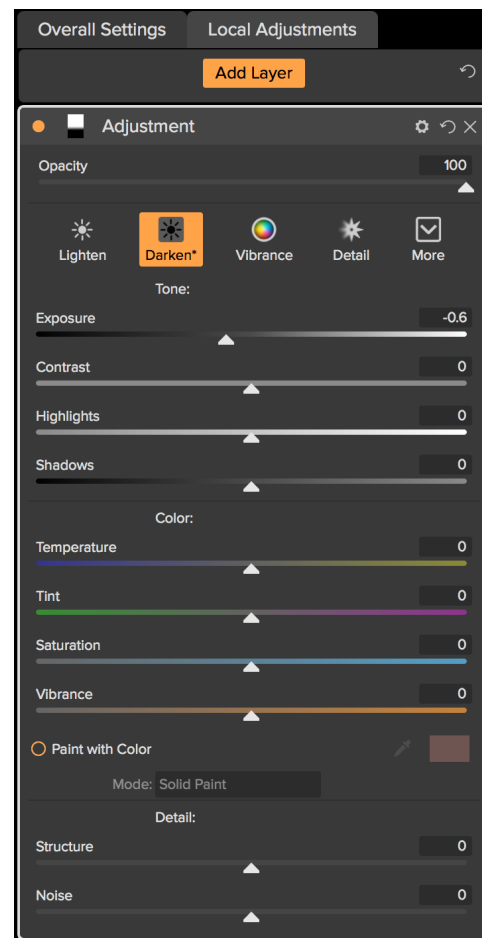
Adjustment panes let you adjust basic tone and color settings on the parts of the image you choose. You can also set the opacity of the adjustment, as well as apply masks (via the mask icon, top) and advanced blending options (accessed via the gear menu).

ADJUSTMENT PANE

Local adjustments are controlled from the Adjustment pane. To create one, click on the Local Adjustments tab and choose Add Layer. This creates a new Adjustment pane. This pane includes the following options:
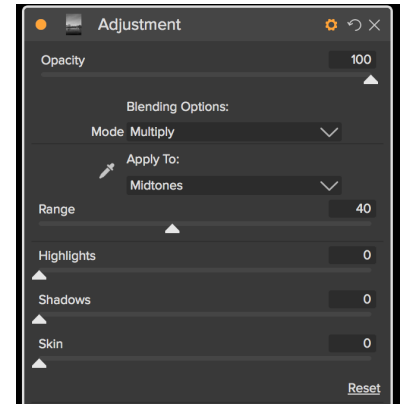
- **Opacity**: Sets the opacity of the adjustment. Since local adjustments are at the top of the image stack, this lets you tune an adjustment after you've applied other edits to a photo. (See "Understanding the Raw pipeline in ON1 Photo RAW 2018" on page 10 for more.)

- **Styles**: The pane has a number of canned styles for you to start with, including ones for lightening or darkening, 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 Adjustment pane has a subset of options found in the Tone & Color pane in the Overall Settings panel: Exposure, Contrast, Highlights, Shadows, Detail, and Color Temperature, Tint, Saturation and Vibrance. These controls work the same way inside the Local Adjustments panel. One difference is that, since a local adjustment is actually a layer that sits on top of your global adjustments, ON1 Photo RAW 2018 provides you with a number of blending options for each adjustment. 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 Adjustment pane 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 expands or contracts the selected option, and the Highlights, Shadows, and Skin sliders protect those settings from your adjustments.

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

About blending modes

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 Photo RAW 2018, 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.

ON1 PHOTO'S BLEND MODES

LOCAL ADJUSTMENT TOOLS

There are two tools specifically designed to create local adjustments, the Adjustment Brush and the Adjustable Gradient:

Adjustment Brush

The Adjustment Brush 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 the icon in the 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 of 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.

Perfect Brush options

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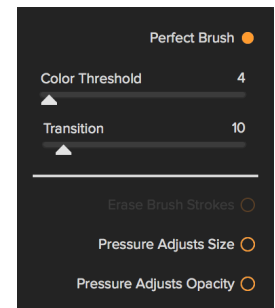
TIP: You can turn the Perfect Brush on and off using the Command-R keyboard shortcut (Control-R on Windows). You can also temporarily lock the color to remove by holding down the Control key (Windows) or the Command key (Mac). This is useful when brushing through areas with a lot of openings like tree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

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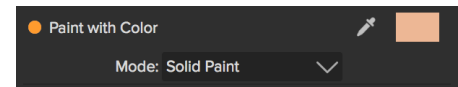
The Paint with Color section has two options, Solid Paint and Replace Color, and a color swatch for the chosen color. You can choose a color from your image by clicking on the eyedropper icon, or you can click on the swatch and choose a color from the system color picker.

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.

ADJUSTABLE GRADIENT TOOL
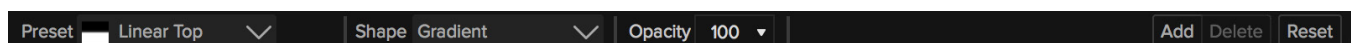
The Gradient Adjustment tool is very similar to the Masking Bug found in Effects. It lets you create a linear or radial gradient mask across part of your image, The gradient mask goes from dark to light in tone, applying more of the adjustment where the gradient is lighter, and less of the adjustment 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.

> **TIP:** To see the mask created by the Gradient Adjustment tool, choose Show Mask from the View menu. You can choose a red overlay, which presents the mask over your image, or grayscale, which shows the mask as black to white tones. These views can be helpful in understanding how these gradients work.

Adjustable Gradient Tool Options Bar:
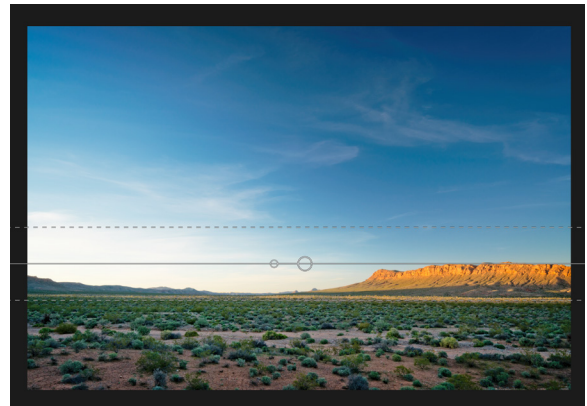
- **Preset**: The preset pop-up includes several common ways to use the Gradient Adjustment tool (top down, bottom up, left and right, and circular vignettes), and changes the current bug (if there is one) to match the preset.

- **Shape**: The shape pop-up controls the shape of the bug. In addition to the 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 Linear 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.

NOTE: For information on how to manipulate the masks generated by the linear gradient tool or the adjustment brush, see "Filter Masks" on page 96.

Presets

Presets are a fast and easy way to get consistent results when editing a group of images, as well as help you hone your own photographic look. Presets are stored "recipes" that include a set of Develop and/or Effects adjustments, and can easily be applied to one or 100 images with ease, in the Browse, Develop or Effects modules.

ON1 Photo RAW 2018 comes with more than 200 built-in presets, in more than a dozen categories, ranging from landscapes to portraits, color grading, film looks and much more. You can also create your own presets, or import presets from other ON1 users and photographers.

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 do not store crop settings, retouching information, or masks created with brush tools. Masks created with Effects' Masking Bug, or with the Adjustable Gradient Tool in the Local Adjustments panel, can be stored in a preset, however.
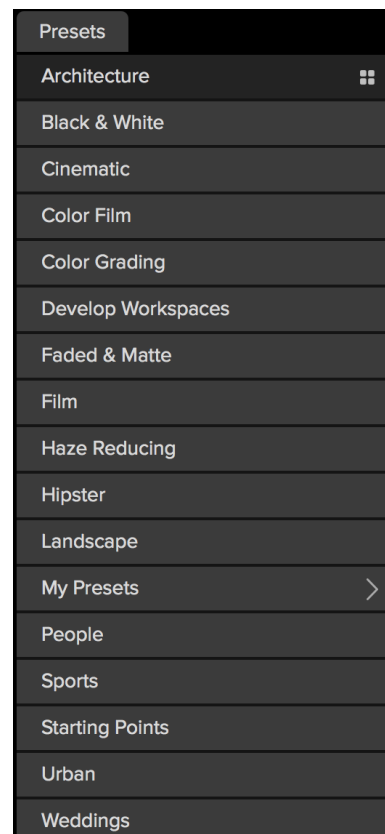
USING A PRESET

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, each 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.

If you'd like to see a larger representation of what your selected photo will look like with a category's presets, click on the Quick View Browser icon in the category's title bar. That will display a window over the entire Photo RAW 2018 interface 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, simply click on the preset in either the Category mini-browser or in Quick View mode. Presets are not cumulative; after you've applied one preset, clicking on another preset will remove the previous one and apply the new one.

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

The Landscape category, set to 1-column preview. To apply a preset, just click on it in this view.

The Preset panel, in its default (closed) view. As you hover over a category, the Quick View Browser icon appears on the left side of the category's name. Clicking on that icon will open a full-screen window showing your photo with that category's presets applied to it. Note that you can also create subcategories of presets. (See "Extras" on page 17 for more.)
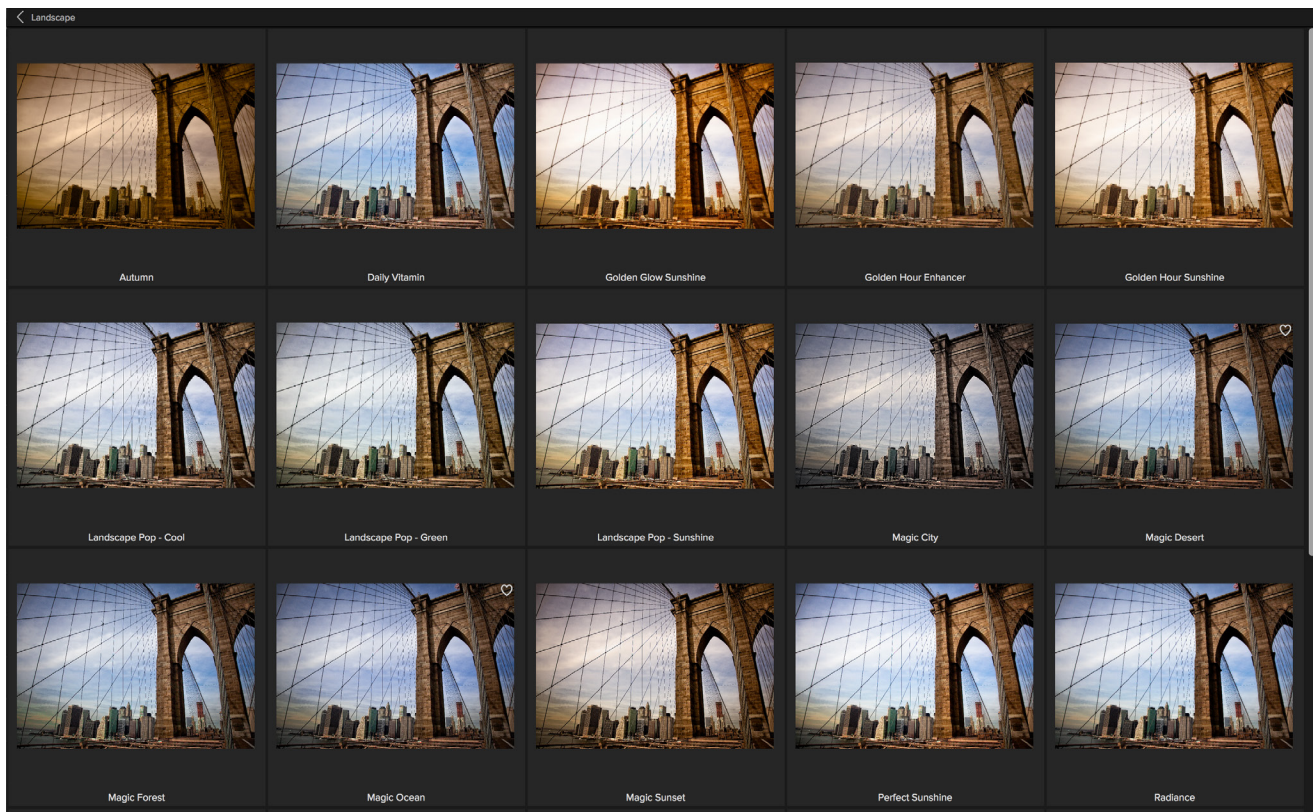
Clicking on the Quick View Browser icon in the Panels pane (or choosing Open Quick View Browser from the Window menu) will open a full-screen representation of that category's presets, giving you a larger representation of how that preset will look when applied to your image.

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.)

> **TIP:** If you hover over a preset's thumbnail in the browser, you'll see a heart icon. Clicking this will add that style to your Favorites, which resides at the top of the Presets panel. To remove a favorite, click again on the heart icon.

INSERTING PRESETS (EFFECTS MODULE ONLY)

When you click on a preset, ON1 Photo's default behavior is to remove any existing presets (and adjustments) and apply the newly chosen preset to your photo. Sometimes, however, you would like to add a filter or a complex mask to a photo in Effects, and wish to add a preset on top of your adjustments. To do this, open the Presets pane, and right-click Insert preset. This will add the preset's filters above the currently selected filter panel in Effects and preserve the filters added in Effects, as well as any edits you made in the Develop or Local Adjustment modes.
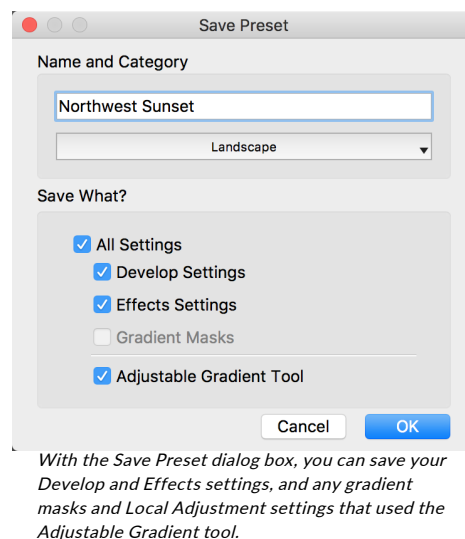
> **NOTE:** Inserting a preset will only add Effects filters to your currently edited photo. Develop adjustments and local adjustment layers will not be added.

SAVING PRESETS

Once you have a group of edited settings that you wish to save, go to the Settings menu and select Save Preset. The New 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.

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.)

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

With the Save Preset dialog box, you can save your Develop and Effects settings, and any gradient masks and Local Adjustment settings that used the Adjustable Gradient tool.

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 & Sharing 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 Photo RAW 2018 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.

Deleting presets

To remove a preset if you no longer want to have access to it, follow these steps:

1. Select the preset you wish to remove in the Preset panel.
2. Select Delete Preset from the Settings menu.

(You can delete any preset, including the presets that came pre-installed with ON1 Photo. 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:

- To remove a category—and its presets—from the Presets panel, choose Delete Category from the pop-up. (You can restore all of the hidden preset categories in the General tab of the Preferences window.)

Right-click on a category to see the category management pop-up menu.

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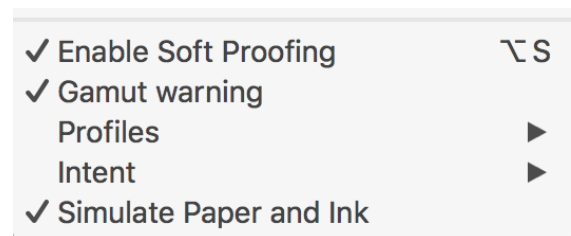
> **TIP:** Many preset management options can also be performed by clicking on a preset in the Preset panel and right-clicking on the preset. This is helpful if you want to update, export or rename a preset without applying it to an image in Develop or Effects.

Nesting presets

To help manage large groups of presets, Photo RAW's Extras Manager lets you nest preset categories. See "Extras" on page 17 for details on how to create and manage preset category subfolders.

SOFT PROOFING

ON1 Photo RAW's soft proofing feature—available when working in Develop or Effects—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.

Photo RAW's soft proofing options are found at the bottom of the View menu

Normally, when you're viewing an image in Photo RAW, 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 center of the main Photo RAW window. The background of the main preview window will change to approximate the color of the paper you're profiling.

Additional soft proofing options are available underneath the Enable Soft Proofing command 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.

- **Intent:** Photo RAW 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 Photo RAW 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.

These three screen shots show the results of soft proofing options, as viewed in the Develop 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 Exhibition Fiber Paper. The bottom image has the Gamut warning turned on; out of gamut colors are highlighted by the bright red overlay.

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

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

Develop and Effects adjustments. Photo RAW's Versions feature can be extremely helpful when you're tweaking settings to get a print just right (see page 55 for more on working with Versions).

DEVELOP MENUS

[The menus for Develop and Effects are identical, and can be found in the "Develop & Effects Menus" on page 120]

PART 4: ON1 EFFECTS

If Develop is the base from which you start editing your photos, Effects is the finishing school. With more than 20 filters that can be stacked in any order, with extensive blending and masking options, Effects lets you create stunning, pro-level photos with ease. And, since it is built upon ON1 Photo RAW 2018's non-destructive editing engine, you can go from Browse to Develop to Effects and back again, preserving your edits, masks and more without having to worry about saving multiple versions of your files.

> **NOTE:** If you use an external editor such as Lightroom or Adobe Photoshop as your primary Raw editor, you can use Smart Photos (via Lightroom) or Smart Objects (in Photoshop) to preserve edits made in ON1 Photo RAW 2018. See "File access when using Photo RAW 2018 as a plug-in" on page 7 of this guide for a description of the editing process with these apps.

While Develop and Effects share some tools and even some adjustment types, 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:
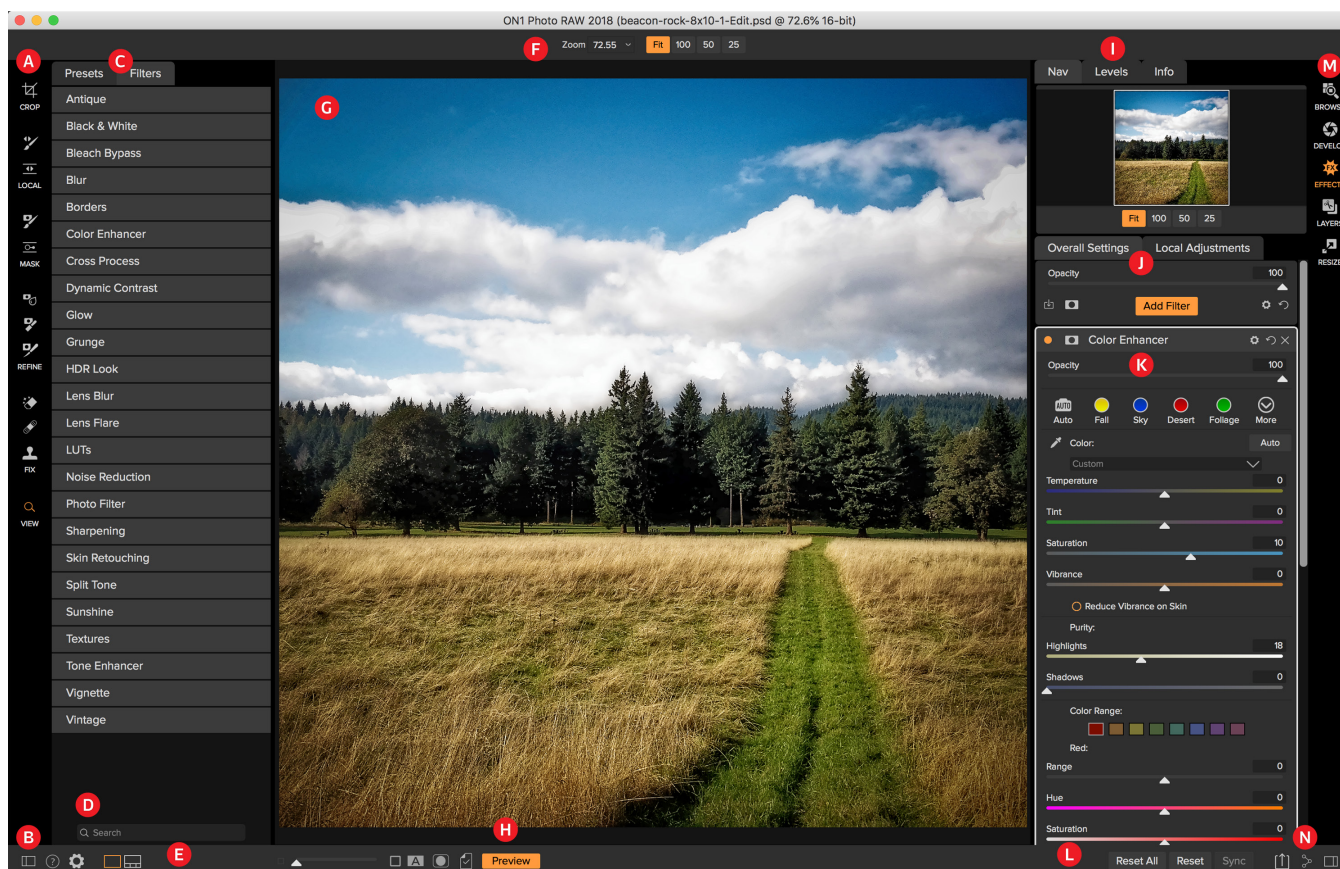
- You can add filters in any order (even multiple instances of the same filter).
- Move filters up and down in the stack.
- Add blending options to all or some of the filters and set the opacity of each filter individually.
- Create complex masks for each filter you add, letting you selectively apply a filter to specific portions of an image. (Effects includes more tools for creating masks and selections than Develop.)

Because Effects and Develop are so tightly integrated with one another, you can move back and forth between the two modules without any worries—edits you make in one module are preserved in the other. Presets can be saved (and applied) using any edits you make in either or both modules, and can include gradient and adjustable gradient masks. (See page 85 for more on presets.)

Effects also shares the Local Adjustments panel with Develop; any local adjustments made while you were working in Develop will be visible and available inside Effects, and vice versa. (See Page 57 for information on how to use local adjustments.)

In addition to creating and using presets, you can copy and paste the Develop and Effects settings from one file to another, or alternatively, synchronize the edits on one photo to a group of photos. These operations can all be performed in any of the editing modules, as well as in Browse, adding to ON1 Photo RAW 2018's extreme flexibility.

Lastly, when using the Filmstrip view inside Effects (or Develop), you can rate, flag and rotate the current image, similar to the way it works in the Browse module. See "Working in Filmstrip View" on page 41 for more.

ON1 Effects Main Screen Overview

A. **Tool Well:** tools for working within Effects

B. **Preferences/Help:** Shortcuts to app preferences and help.

C. **Presets/Filters Panels:** Switch between list of presets (by category) or list of all filters available inside Effects. Clicking on an item in the list applies that preset or filter style to your image.

D. **Search:** Searches presets or filter styles (by name).

E. **Preview Window Options:** Switch between detail view or filmstrip view; magnification slider adjusts zoom for current image.

F. **Tool Options Bar:** Options and settings for currently selected tool.

G. **Preview Window:** Displays the current photo in detail view.

H. **Preview Option Toggle:** Compare (before/after) mode, show/hide mask, turn preview on or off.

I. **Photo Information Pane:** navigator, levels (histogram) and general photo information

J. **Overall Settings/Local Adjustments:** switch between filter stack and local adjustment panes.

K. **Filter Stack**: Where you add filters to apply to your photo. Click the Add Filter button at the top of the stack to add filters.

L. **Reset Bar:** Reset all (Develop and Effects settings), Reset (Effects-only settings), sync settings with previously edited photo (only in Filmstrip view)

M. **Module Selector:** Switches between modules.

N. **Export/Share:** Shortcuts for exporting and sharing selected photos.

Tools

Effects has 12 tools available for you when you are working on a photo:

1. **Crop Tool:** Trims an image to your desired size or ratio.
2. **Adjustment Brush:** Paints in or out local adjustments.
3. **Adjustable Gradient:** Applies a selective gradient in local adjustment mode.
4. **Masking Brush:** Mask large similar areas quickly. (Includes Perfect Brush option.)
5. **Masking Bug:** Applies a selective gradient as a mask in any filter (or to the entire stack).
6. **Blur Tool:** Blurs the edges of a masked area to help it blend more naturally.
7. **Chisel Tool:** Removes fringes from the edge of a mask.
8. **Refine Brush:** Lets you refine an existing mask's edges, to help mask difficult areas, such as hair.
9. **Perfect Eraser:** Removes distractions like signs and power lines.
10. **Retouch Brush:** Removes blemishes like dust spots and acne. (Includes Perfect Brush option.)
11. **Clone Stamp:** Paints over an area from a sample of another area.
12. **Zoom Tool:** Adjusts the magnification of the image in the Preview area.

To access a tool, simply click on the tool. 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.

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 basic panes inside Develop. Each filter is like a movable, editable layer over the base image you are working on. You can use Effects' 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.

The Effects module has 24 filter types, found in the Overall Settings panel (they are also accessible via the Filters pane on the left side of the window). Unlike Develop, 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 a filter differently in parts of the image.)
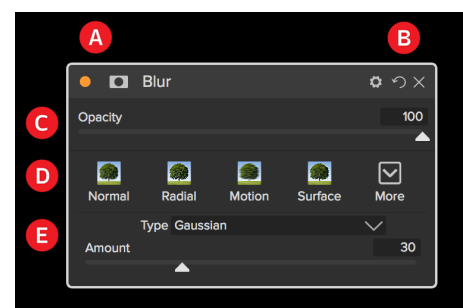
Contents of a filter pane (Blur filter shown):

A. *Button (left) turns filter on or off.*
   Show/Hide Mask (right)
B. *Show blending mode options (left).*
   Reset filter settings (middle).
   Delete filter from the stack (right).
C. *Sets opacity of the filter.*
D. *Styles pane for t filter presets.*
E. *Settings area for adjusting a filter's settings (dependent upon the filter chosen).*

APPLYING FILTERS WITH THE FILTER BROWSER
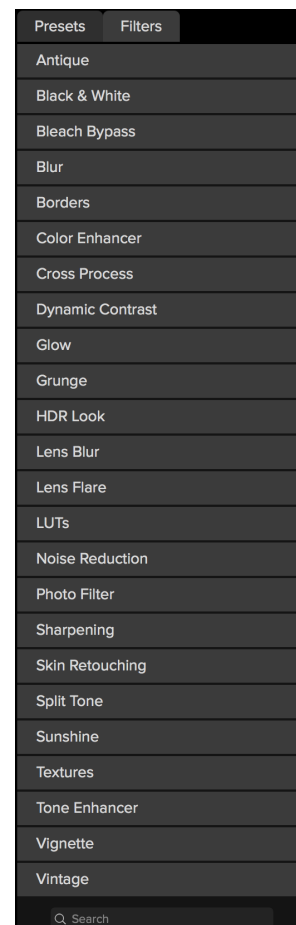
Much like the Presets panel found in the Browse, Develop and Effects modules, Effects has a Filter panel that lets you browse all of the filters inside Effects, and display previews of those filters with the available styles for that filter. To choose the Filters panel, click on the Filters tab. A list 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 in the Overall Settings panel, then choose a filter from the list.

> **TIP:** If you hover over a filter style's thumbnail in the browser, you'll see a heart icon. Clicking the icon will fill the heart in and 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.

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 over the entire Photo 2018 interface with all of the presets in that category. (Press the Escape key to close the Quick View Browser.)

> **TIP:** 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 apply a filter style to a photo, simply click on the style in either the Filter Browser or in the Quick View Browser.

Presets	Filters
Antique	
Black & White	
Bleach Bypass	
Blur	
Borders	
Color Enhancer	
Cross Process	
Dynamic Contrast	
Glow	
Grunge	
HDR Look	
Lens Blur	
Lens Flare	
LUTs	
Noise Reduction	
Photo Filter	
Sharpening	
Skin Retouching	
Split Tone	
Sunshine	
Textures	
Tone Enhancer	
Vignette	
Vintage	
Q Search	

The Filter Browser has a list of all the filters available in Effects. Clicking on a filter will display thumbnails of the filter's styles using your image.

SEARCHING FOR FILTER STYLES INSIDE THE FILTER BROWSER

To search for styles inside the Filter Browser, type in the name you're looking for in the search field. The search results appear in a new sub-folder called search results, which will be selected automatically.

WORKING WITH FILTER PANES

By default, the filter stack is empty, although, if you have applied a preset in Browse or Develop that uses filters from Effects, you will see those filters in the stack. To add a filter, simply click on the Add Filter
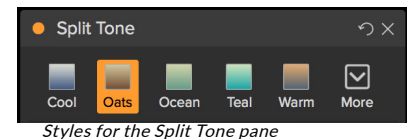
button at the top of the stack, and click the filter pane you would like to add to the stack. Clicking on the button in the top left corner of the pane will turn that effect on or off, which can be helpful if you want to see the effect in the context of other edits you have made. If you don't like the effect, click on the trash can icon in the pane's title bar to get rid of it. The Reset button at the bottom of each pane will reset that pane's settings to their default.

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 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.

STYLES

Most of the panes in Effects 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.

Styles for the Split Tone pane

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 right-click on the More pop-up and choose Update Style with Current Settings from the menu.

> **NOTE:** It can be easy to confuse presets and filters, but filters are individual adjustments (as are the adjustment pane options inside Develop). Presets are a composite of all saved adjustments (and some masks) made across both the Develop and Effects modules. For more, see page 85.

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) 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.

Effects has two options for viewing the contents of a mask: either as a red overlay on top of your image (the default), or you can choose to see only 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. (Photo RAW will remember the previous settings.)

The Mask section of any effect or local adjustment has the following contents, as shown below (using the Tone Enhancer effect 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. Sets the overall opacity of the mask.

C. Larger display of the current mask, with buttons to invert, reset, copy, paste, and view/hide the mask contents. The Lumen button creates a luminosity mask of the image.

D. Density adjusts the overall mask density from black (100) to white (0). Feather blurs the mask.

E. The Levels and Window settings let you adjust the black and white points of the mask, fine tuning them in different ways.

F. 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.
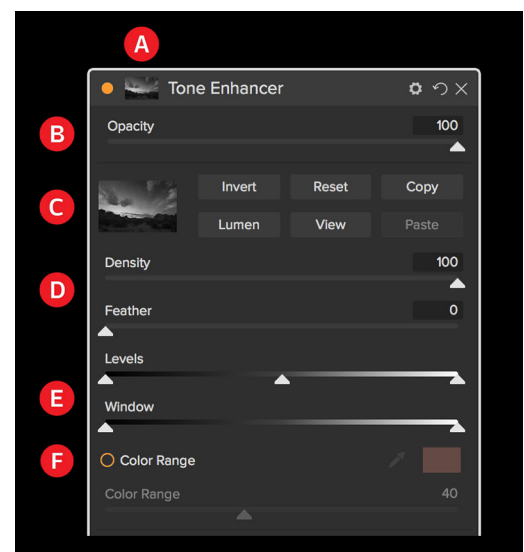
Overview of the Mask Options section of a filter pane. (Also applicable to Local Adjustments.)

Luminosity Masks

A luminosity mask is a specialized mask type you can create inside ON1 Photo RAW's Effects and Local Adjustments. 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.

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. If you view the mask, you will see that it looks like a black-and-white version of your 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 help achieve this much quicker than you could with the Masking Brush.

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.

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 will be selected, higher numbers mean that more.

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 and modify 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 with the Masking Brush or Masking Bug. A luminosity mask always overrides the current mask, however, so you should start there.
- Use the Feather slider to blur a mask to smooth transitions between masked and unmasked sections.
- Lowering the Density slider can help intensify an effect after you've created a mask. Think of it like a 'reverse fade'; at the default setting of 100, all of your mask is viewable, and at 0, the mask is entirely white.
- Because it can sometimes be helpful to use the same mask on different filters, 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.

DELETING A FILTER

You remove a filter by selecting it and pressing the trash 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.
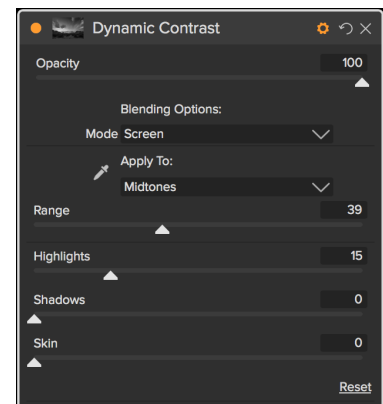
For example, if you add a Black & White filter to an image, but would like a faded, muted color effect, simply reduce the opacity of that filter. The more you reduce the opacity, the less effect the Black & White will have.

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 Photo RAW 2018'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.

Clicking the gear icon in a filter's title bar will open the Blending Options section of the pane.

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.
- **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.

> **NOTE:** For more information on blending modes, how to use them, and links to online resources, see "About blending modes" on page 85.

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 Overall Settings panel, controls the strength of the composite filter stack against the original image—if you haven't performed any Develop operations on it—or against the image as it was edited inside Develop.

The Master Blend Mode options can be accessed via the gear icon at the top of the Overall Settings panel. It has the same controls as the blending options in the individual filter panes, and, like Master Opacity, what it blends the filter stack with depends upon what edits you have made on your image in Develop.

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

Filter Types

Effects has 24 filter types available for you to use inside ON1 Photo RAW 2018. 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.

> **NOTE:** A few of the filters in Effects—Black & White, Noise Reduction, Sharpening, Split Tone, Glow, Color Response—are based upon the same algorithms as the adjustment panes inside Develop. If you apply an adjustment pane in Develop, and then add the same filter in Effects, you are in effect adding the filter a second time, at a different place in the image pipeline. While there are times when you might wish to do this, you can sometimes exaggerate an effect in a way that might not be beneficial to your image.

ANTIQUE

The Antique filter gives your image an aged look; unlike the Vintage filter, this filter focuses more on a monochromatic or hand colored look.

- **Color**: Displays a list of color options that are similar in tone to the Split Tone filter, providing a duotone-style effect.

- **Brightness**: Adjusts the overall brightness of the image.

- **Fade:** Adds a white fill to the image, giving the illusion of a faded photograph.

- **Saturation**: Adjusts the color saturation. Moving the slider to the left decreases the saturation; moving it to the right increases it.

- **Film Grain**: Amount controls the strength and size dictates how large the grain appears.
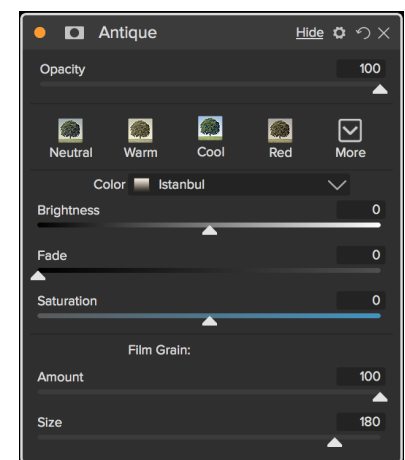
BLACK & WHITE

This pane is used to turn a color image into a monochromatic image, and, while it shares some of the same settings as the Black & White pane in Develop, you'll find additional toning features in Effects.

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 is similar to the one in the Tone & Color pane in Develop: you can adjust brightness, contrast, highlights and shadows, whites and blacks, and detail directly within the filter pane.

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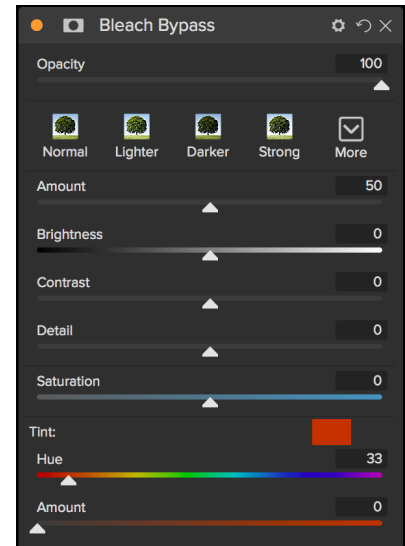
The last section of the Black & White pane is Film Grain, which, like the Toner section, is designed to add a classic film grain look to your photos. To add film grain, choose from the drop-down list of popular black and white films. The Amount slider controls the strength of the effect, while the Size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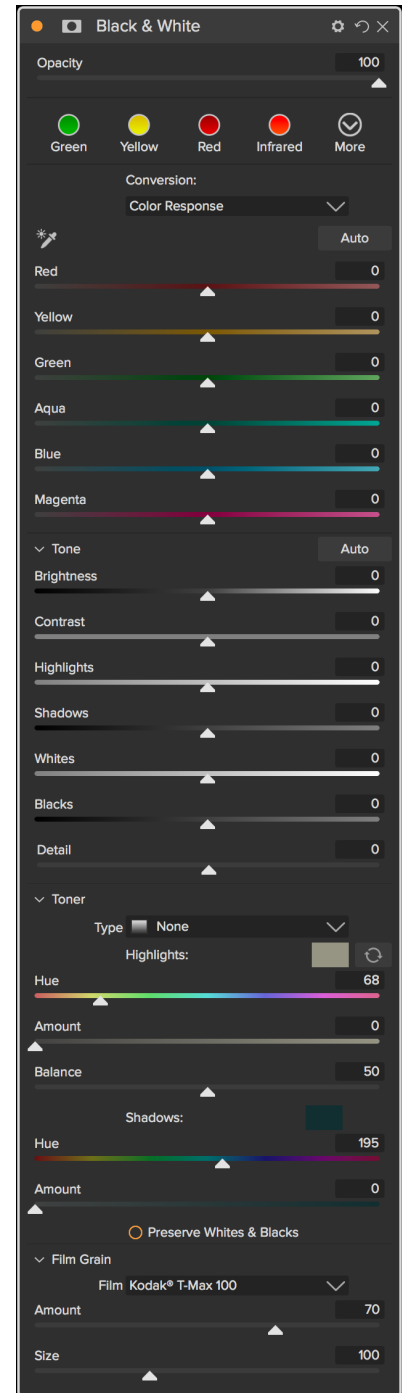
BLEACH BYPASS

This filter is based upon an old color film processing technique where the bleaching step was skipped. It reduces the saturation and increases the contrast.
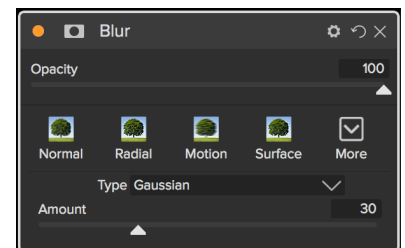
- **Amount**: Controls the strength or amount of the bleach bypass appearance.
- **Brightness**: Adjusts the overall brightness of the image.
- **Contrast**: Increases or decreases the global contrast.
- **Detail**: Enhances the details by increasing the micro contrast.
- **Saturation**: Adjusts the underlying saturation.
- **Tint**: Choose a new color by clicking in the color icon or by using the Hue slider.
- **Amount**: Adjusts the strength of the tint.

BLUR

The blur filter contains five options for adding blur to your images: Gaussian, Motion, Radial, Surface and Box. Each blur has its own look:

- **Gaussian**: This is a simple Gaussian blur applied to your image. It has one slider, Amount, which controls the strength of the blur by adjusting the radius.
- **Motion**: A motion blur adds the appearance of movement.
  - The Amount slider controls the strength of the blur, and Distance controls the blur relative to area between the subject and camera. Angle sets the angle of the blur, while the Smoothing slider softens the lines created by the motion.
- **Radial**: These blurs are circular, zooming out from a central point.
  - Amount controls the strength of the blur. Quality controls how noisy the blur is, with 1 being grainy and 100 smooth. Smoothing softens the lines created by the motion.
  - The Radial blur type includes a center spot selector at the bottom of the pane. Click on the icon, then click on the part of the image you want to make the center of the blur.
- **Surface**: These blurs tend to maintain edges but add blur to the details. This blur type can give you a "simplified" effect. The Amount slider controls the strength of the blur, while Threshold sets how similar colors are grouped.
- **Box**: A Box blur is similar in concept to a Gaussian blur, but it bases the blur on contrasting edges. Box blurs tend to retain edges a bit more clearly than Gaussian blurs.

NOTE: Do not use the Opacity slider when trying to reduce the strength of a blur; use the amount sliders instead.

BORDERS

ON1 Photo RAW 2018 has a large collection of pre-made borders and edges that you can add to your photos. These borders range from classic film borders to viewfinders to artistic effects to emulsion transfers and many more.

The Borders filter also has an extensive set of controls for manipulating the size, color, and blending mode of the borders you choose.

You can also import your own borders, either directly into the Borders filter pane, or via the Extras Manager (available in Browse). Border files need to be a standard PNG file type with a large central transparent area

The Category and Border pop-ups at the top of the pane are used to select the border category and the specific borders within each category. There are 8 built-in categories, sorted by type. Any user-imported borders will also appear in this list.

Once you have chosen a border to add, you can adjust its blending mode and opacity, and, if the border has color, you can adjust its hue, saturation and brightness. Alternatively, if the border is black or white, you can colorize it.

The Transform section at the bottom of the Borders pane lets you scale the border up or down in size, to help you get the look you're after, and the Fit Image slider adjusts the size of the image under the border.

You can rotate or flip the currently selected border by clicking the buttons at the bottom of the screen.
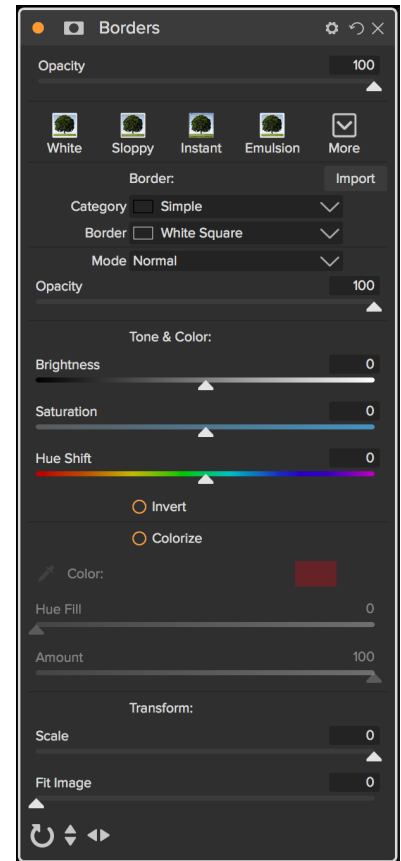
> **NOTE:** See "Extras" on page 17 for how to use the Extras Manager to import borders and textures (and other extras), along with additional information for preparing files for the Borders and Textures filters.

COLOR ENHANCER
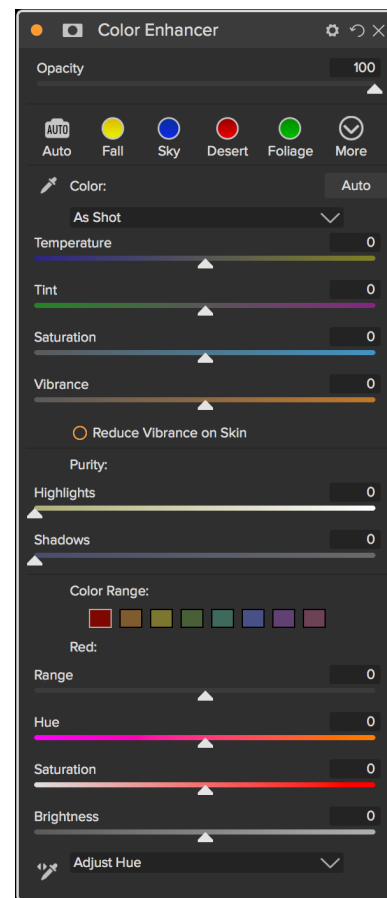
The Color Enhancer is designed to give you complete control over color manipulation in your image, whether it is on a globally across your entire image, or by adjusting different color ranges. (It is a combination of the Color section of the Tone & Color pane and the Color Adjustment pane in Develop.)

The styles at the top of the pane are designed to help enhance specific scene types (Foliage, Fall, Desert, Sky). To adjust global color in an image, work in the Color section of the top half of the filter pane; to work with individual color ranges, use the Color Range section at the bottom of the pane.

Color

The Color sliders in the top half of the pane control Temperature, Tint and Vibrance. They are used to remove a color cast and enhance the color of the image. The settings in this section of the Color Enhancer 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. The sliders will automatically adjust according to the sample you have selected.

- **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).

- **Tint**: Shifts the color either green or magenta.

- **Saturation**: Increases or decreases the saturation of your image.

- **Vibrance**: Increases or 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.

Color Range

In the Color Range section of the pane are swatches for eight colors: red, orange, yellow, green, aqua, blue, purple and magenta. Clicking on one of the colors will let you adjust the hue, saturation and brightness of the selected color range. Other settings in the pane include:

- **Range**: This slider lets you narrow or widen the range of the selected color.
- **Hue**: Changes the hue for the selected color range.
- **Saturation**: Adjusts the saturation of the selected color range.
- **Brightness**: Adjusts the brightness of the selected color range.

You can also use the pane's Targeted Dropper tool to click on a section of your photo and adjust the hue, saturation or brightness dynamically. To do this, click on the tool and choose which parameter you would like to adjust. Then click in your image on a color you would like to adjust and drag the cursor to the left or right to decrease or increase the effect.

CROSS PROCESS

This filter simulates the effect of processing film deliberately with the incorrect chemistry. It creates unnatural colors and high contrast.

- **Color**: A drop-down list of cross-processing types (Blue, Green, Yellow, with Strong options).
- **Amount**: Controls the overall strength of the filter.
- **Brightness**: Adjusts the overall brightness.
- **Contrast**: Adjusts the overall contrast.
- **Saturation**: Adjusts the underlining saturation.
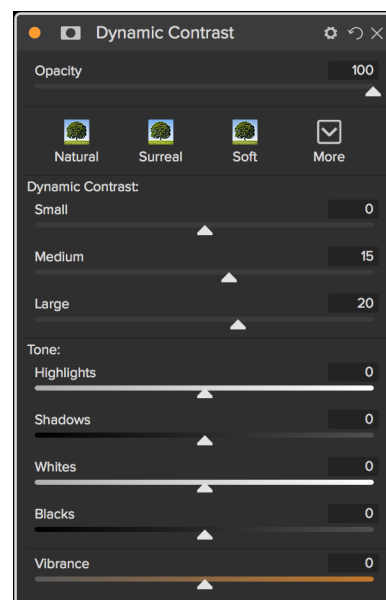
DYNAMIC CONTRAST

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.
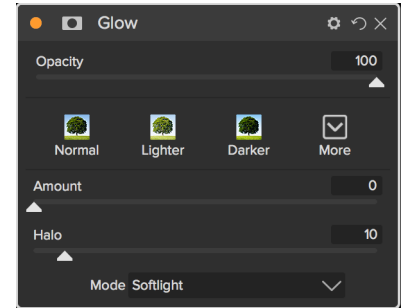
GLOW

This pane adds a soft-focus glow to the image. The styles section and the More pop-up include a number of different glow types. Adjustable settings for the Glow pane include:
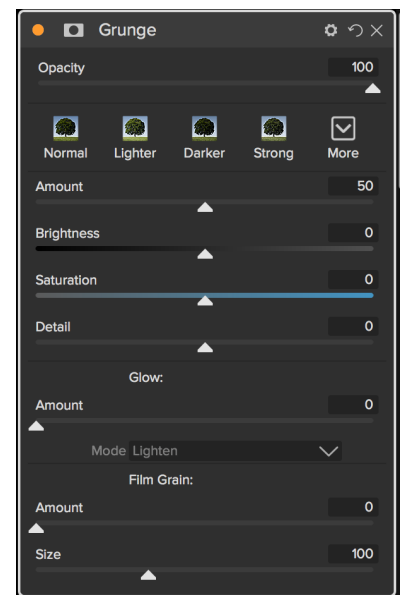
- **Amount**: Controls the overall glow strength.
- **Halo**: Sets the radius of the glow effect, creating a fuzziness to your image's edges.
- **Mode**: Lets you set the blending mode for the glow effect.

GRUNGE

This filter is used to add a dirty or grungy look to your image. Settings in this pane include:

- **Amount**: Adjusts the overall strength of the grunge.
- **Brightness**: Adjusts the overall brightness of the image.
- **Saturation**: Adjusts the underlying saturation.
- **Detail**: Adjusts the amount of detail.
- **Glow Amount**: Adds a glow to the grunge.
- **Mode**: Lets you choose the blending mode for the glow effect.
- **Film Grain Amount**: Adds film grain to the image.
- **Film Grain Size**: Controls the grain size.

HDR LOOK

This filter recreates the HDR style of tone mapping, with accentuated edges and sharpening. This one, like dynamic contrast, often benefit from masking or blend modes. Settings for this filter include:
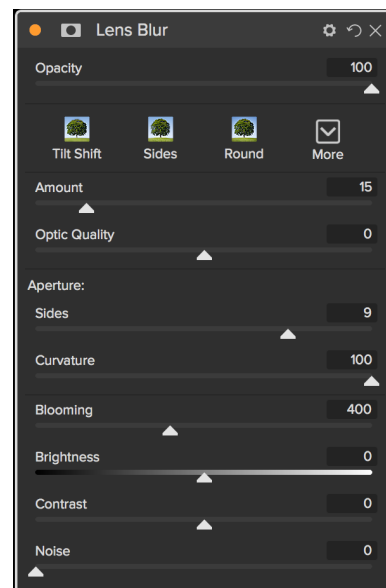
- **Compression**: Compresses the tone to reveal highlight and shadow detail.
- **Detail**: Increases the local contrast of details and edges.
- **Clarity**: Increases the global contrast.
- **Highlights**: Recovers detail in the highlights.
- **Shadows**: Recovers detail in the shadows.
- **Vibrance**: Adjusts the vibrance of muted colors.
- **Glow**: Adds a bright glow.
- **Grunge**: Adds a dark gritty look.
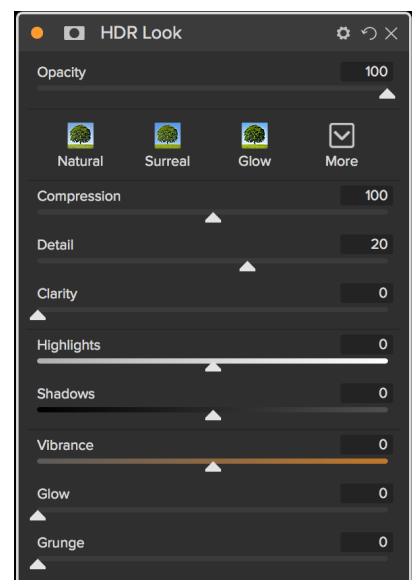
LENS BLUR

This filter creates a blur, based on a camera lens such as a tilt-shift or a shallow depth of field look. You can use the Masking Bug gradient tool to adjust the amount of blur through your image, or brush in or out the effect where you want it. The filters settings include:
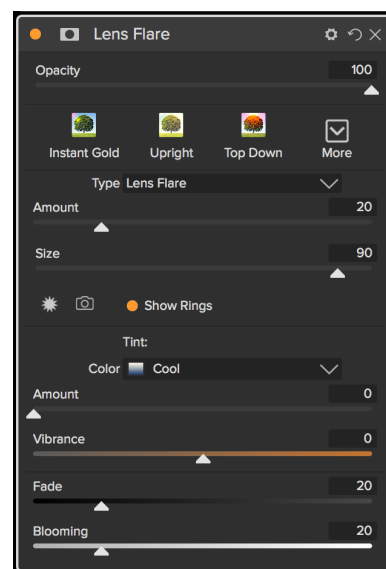
- **Amount**: Adjusts the overall strength of the blur.
- **Optic Quality**: Controls the aperture shape in the inner and outer feather.
- **Sides**: Sets the number of blades in the lens aperture, which changes the shape of the bokeh.
- **Curvature**: Sets the curvature of the aperture blades.
- **Blooming**: Adjusts the highlight bokeh.
- **Brightness**: Controls the overall brightness of the blur.
- **Contrast**: Controls the contrast of the blurred areas.
- **Noise**: Adds simulated film grain to the blurred areas.

LENS FLARE

The Lens Flare filter is used to create or enhance images shot into the sun. It reduces contrast, shifts color and renders a realistic lens flare.

- **Type**: Sets the style, either lens flare or sun spot.
- **Amount**: Adjusts the overall strength of the effect.
- **Size**: Controls the size of the effect.
- **Light Source Tool**: Click and drag with this tool to set the location of the light source. This can be off the image canvas, to give the effect of light coming in from outside the camera point of view.
- **Camera Position Tool**: Click and drag with this tool to set the location of the camera. This changes the shape of the lens flare. This can also be off the canvas.
- **Show Rings**: Shows or hides round aperture shaped artifacts in the lens flare.
- **Color**: Select a vintage color look.
- **Amount**: Control the amount of the vintage color look.
- **Vibrance**: Add vibrance to the underlying image.
- **Fade**: Decreases the shadow density by brightening the shadows. Adds a matte or faded look to your image.
- **Blooming**: Adjusts the highlight bokeh.

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 (and other) effects to film, and they are increasingly popular in still photography. The Styles section has a few default effects you can apply, and you can also import your own LUTs, by clicking the Import button inside the filter. (Photo RAW can import common LUT file formats, including .3DL and .CUBE file types.)

- **Category:** This pop-up menu lets you choose from one of the pre-installed LUT categories, or any categories you have imported into Photo RAW.

- **LUT:** Displays the available LUTs within the chosen category.

- **Contrast:** Lets you adjust the underlying contrast.

- **Saturation:** Adds or reduces saturation.
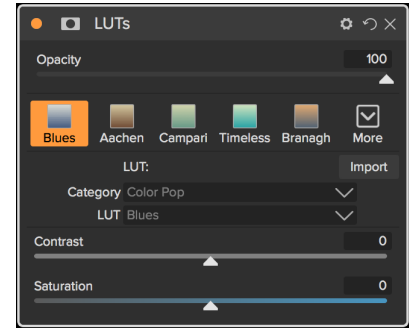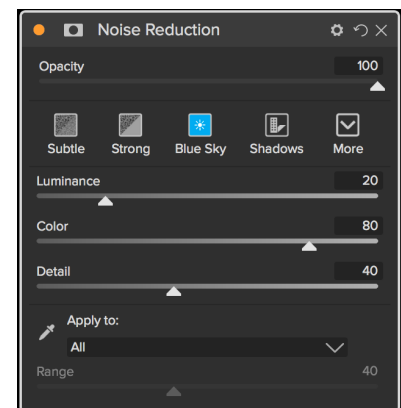
> **NOTE:** See "Extras" on page 17 for how to use the Extras Manager to import LUTs into Photo RAW.

NOISE REDUCTION

Use this pane to reduce luminance and color noise, while maintaining image detail. The styles section includes a number of different noise reduction options, based on the type of image you're working on.

- **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 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.

- **Apply to**: Allows you to limit the noise reduction to just a portion of the image based on color or brightness values. Options include highlights, shadows and midtones, as well as color ranges. To set a custom color range, click the Dropper icon and click on a color area that has the noise you wish to remove. Use the Range slider to adjust the range or fuzziness of the color range to apply the noise reduction to.
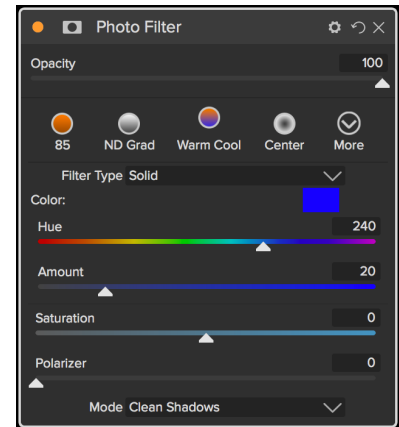
PHOTO FILTER

This filter recreates traditional, solid color lens filters used for warming and cooling effects, as well as gradient, bi-color and center-spot filters. You choose the filter type from the pop-up menu at the top of the pane, then adjust the settings to your liking. Each type offers different options for selecting a filter color (or colors, in the case of the Bi-Color type), adding saturation or polarization, and more.

The Solid option includes a section for choosing the single color you wish the filter to be, and an Amount slider for how strong you want the effect. The Polarizer slider adds a polarization effect, which can sometimes help clear haze or enhance the blues and greens in an image.

The Bi-Color and Graduated filter options let you choose filter color (or colors), feather for the filter transition, and a direction for the effect.

The Center type works much like the Graduated option, with the difference being that the filter radiates from the center of your image, and you can choose the center to be either clear or colored.

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 Photo RAW 2018 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—using all three methods—to help you get started.
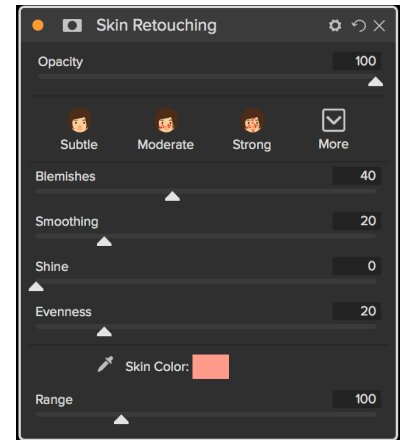
- **Type**: Chooses the sharpening method. Each sharpening method has its own set of sliders.

- **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.
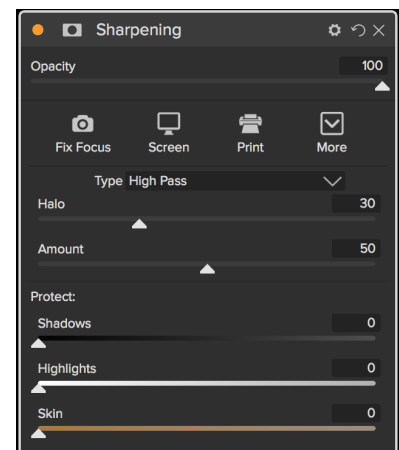
SKIN RETOUCHING

The Skin Retouching pane is used to reduce blemishes, smooth skin and reduce shine on skin. The styles at the top of the pane represent a range of adjustments, from subtle to strong, and the More pop-up menu has a number of additional styles for you to choose from, depending upon your image. Other settings include:

- **Blemishes**: Adjusts the strength of acne, pores and fine lines.
- **Smoothing**: Adjusts the strength of smoothing similar to makeup foundation.
- **Shine**: Adjusts the strength of the skin shine.
- **Evenness**: Adjusts how consistent the skin color is across the entire face. It is great for correcting highlights that may be too yellow, shadows that may be too green or reducing redness in noses and ears.
- **Skin Color**: Use the Color Dropper icon to select the skin color. Click the icon to activate it and single click again on the color of the skin in the image.
- **Color Well**: This will display the color you have chosen with the Color Dropper. Clicking on the well will let you choose a different color to represent the skin.
- **Range**: Adjusts the precision of the color selected.

SPLIT TONE

This filter applies a duotone-style effect by using a gradient map that tints the dark and light portions of the image in different hues. This can be used to age an image and give it an antique or vintage look. The styles section has a selection of popular split-tone effects, and you can create your own by manipulating the sliders to choose a map for the highlight and shadow colors.

To use the pane, you can use the Hue slider in each of the sections to choose the colors you want for highlights and shadows. The Amount slider controls the strength of the color, and Balance sets the balance between the shadow and highlight colors, letting you make one of the colors more dominant.

The Mode pop-up sets the blending mode for the split tone. The options you can choose from are Normal (no blending), Color, Lighten, Darken, Multiply or Screen.

SUNSHINE

This filter increases the appearance of sunshine. It makes a flat cloudy day more vivid. The controls are fairly straightforward, including adjustments for the strength (Amount), warmth and saturation. You can use the Glow slider to add a bright glow to your image.
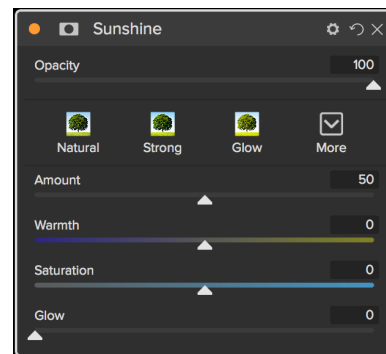
TEXTURES

The Textures filter places a texture over the image to add a stylized look and is similar to the Borders filter in scope and functionality. ON1 Photo RAW 2018 comes with an extensive set of textures that you can add to your photos, ranging from fabric, metal, stone, text and more. You can also import your own textures directly into the Borders filter pane, or via the Extras Manager (available in Browse). Texture files can be almost any image format (JPEG, TIFF, Raw or Photoshop).

When loading a texture file, it will be rotated automatically to match the orientation of your image. You can override this with the rotate and flip tools, and use the Transform option to scale the texture's size over your image.

The Textures pane has Category and Texture pop-ups at the top of the pane, used to help you narrow your texture search. There are nine texture categories, sorted by type, and any user-imported textures will also appear in this list.

Once you have chosen a texture, you can adjust its blending mode and opacity, and, if the texture has color, you can adjust its hue, saturation and brightness. Alternatively, if the texture is black or white, you can colorize it by clicking on the Colorize button in the bottom half of the pane.
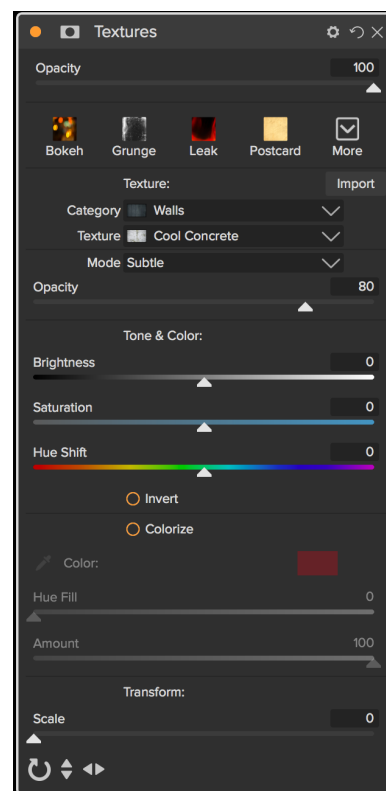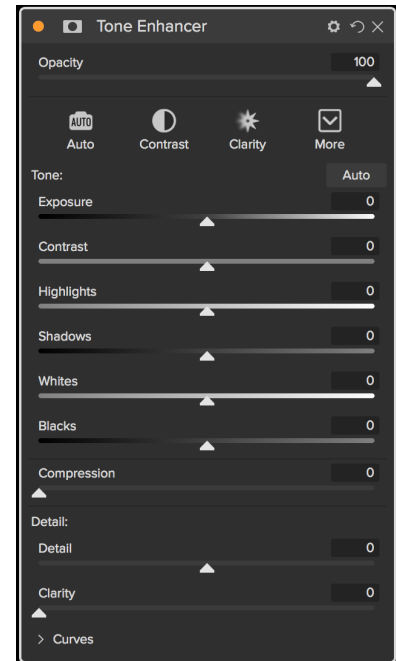
The Transform section at the bottom of the pane lets you scale the texture up or down in size. You can also rotate or flip the texture by clicking the buttons at the bottom of the screen, which can be helpful to achieve the look you desire.

> **NOTE:** See the "Extras" on page 17 for how to use the Extras Manager to import textures (and other extras), along with additional information for preparing files for Borders and Textures.

TONE ENHANCER

The Tone Enhancer controls the brightness and contrast, or tone, of the image and lets you recover detail in the highlights and shadows, and adjust the white or black point. It offers similar controls to the Tone section of Develop's Tone & Color pane, and also includes a curves dialog if you wish to fine tune your image in that manner.
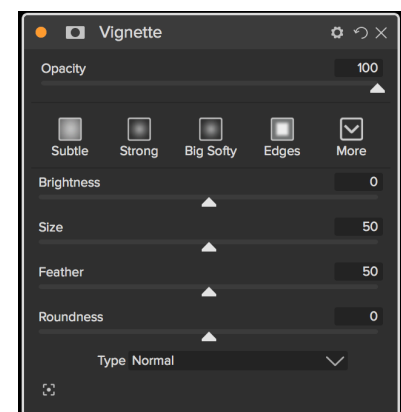
- **Auto Button**: The auto button sets the white and black points automatically, adjusting all of the primary tone settings to balance the histogram.

- **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 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.

- **Compression**: Compresses the tone to reveal highlight and shadow detail.

- **Detail**: Increases the local contrast in the image.

- **Clarity**: Enhances large edges to add clarity.

- **Curves**: The curves dialog is a powerful, advanced tool for adjusting contrast and color. (See the section on Curves in the Develop section, on page 74, for more on adjust the curves.)

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 Center Tool at the bottom 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.

VINTAGE

The Vintage filter is for adding an aged, vintage look reminiscent of films and papers from the mid-to-late 20th Century.

- **Color**: A drop-down menu of various color styles to apply to your image.
- **Amount**: Controls the overall strength of the filter.
- **Saturation**: Adjusts the saturation of the original image.
- **Film Grain Amount**: Adds film grain to the image.
- **Film Grain Size**: Controls the grain size.
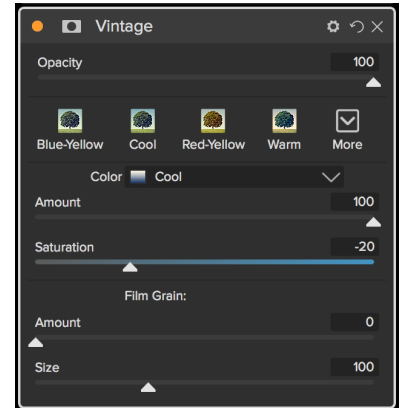
Effects-specific Tools

Effects and Develop share five tools between them: the Crop tool, the Perfect Eraser, Retouch Brush, the Clone Stamp and the Zoom Tool. The Crop tool remembers any crop you made in the Develop module, so if you are editing an image and want to reset the crop, simply click on the Crop tool in Effects and you will see your existing crop.

> **NOTE:** To see the options for all of these shared tools, as well as the Local Adjustment tools, please see "Develop and Effects shared tools" on page 78.
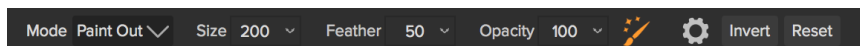
The unique tools inside Effects are related to the creation and refinement of masks. The Masking Brush lets you brush a mask in or out on a filter's mask layer, and lets you use ON1's Perfect Brush technology to create very precise masks. The Masking Bug is very much like the Adjustable Gradient tool in the Local Adjustments panel, providing three types of gradient masks to apply selectively to your images. And lastly, the Refine Brush helps improve the transition between the edge of your masks and the unmasked areas, giving you more realistic looking masks. The operation of these tools is described below.

MASKING BRUSH

The Masking Brush is one of two tools in Effects for masking filters. 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

Mode Paint Out ∨   Size 200 ∨   Feather 50 ∨   Opacity 100 ∨   Invert   Reset

- **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 (alt) key temporarily.

> **NOTE:** If you would like to invert the mask (turn it from black to white), in order to paint a filter's effect into your image, select the Masking Brush tool, then choose Invert Mask from the Mask menu.

- **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. You can control the size of the brush several ways:

- Use the Size pop-up in the Tool Options bar.

- Use the left and right bracket keys: ' **[** ' and ' **]** ' .

- Use your mouse's scroll wheel (this option can be set in ON1 Photo RAW 2018's Preferences window).

- Use your Wacom pressure-sensitive tablet.

- **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 OS) 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 Wacom 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.

- **Perfect Brush**: 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—by clicking on the Perfect Brush icon in the Tool 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.

Perfect Brush options

  - Further settings for the Perfect Brush can be found by clicking on the gear icon in the Tool Options bar. There, you can set the following 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.

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

Wacom Support

ON1 Photo supports pressure-sensitive tablets from Wacom with the Masking 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 sizer and opacity by clicking the appropriate buttons in the drop-down menu.
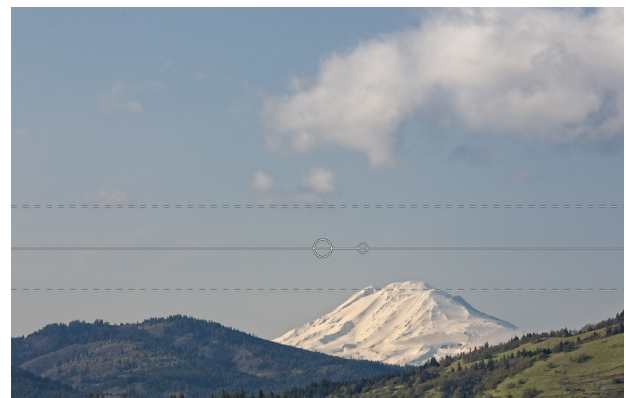
MASKING BUG

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.

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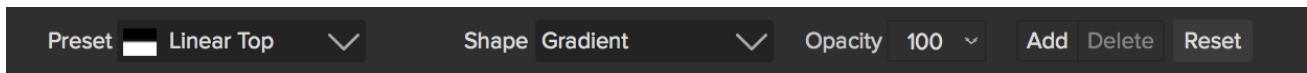
You can change the gradient shape via the Tool Options bar: in addition to the standard dark-to-light horizontal gradient, you can also create a circular gradient and a reflected gradient, which is like the horizontal gradient, but goes from black (no effect) at the outer edges to white (full effect)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

In this image, a Dynamic Contrast filter has been applied, with a Masking Bug added, to keep the filter's effect out of the clouds.

> **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.

Masking Bug Tool Options Bar:

Preset Linear Top ⌄   **Shape** Gradient ⌄   **Opacity** 100 ⌄   **Add** Delete **Reset**

- **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 Linear 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.

Working with Multiple Masking Bugs

You can have up to six Masking Bugs per layer. Each bug is re-editable when you're using ON1 Photo RAW 2018 as a standalone app, or when you use Smart Filters (Photoshop) or Smart Photos (Lightroom).

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 over-ride and paint areas back in hidden by the Masking Bugs.

BLUR MASK TOOL

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 ⌄   Size 250 ⌄   Amount 30 ⌄
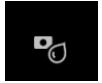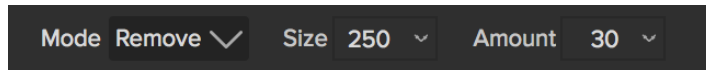
- **Mode**: Remove/Add/Normal lets you adjust exactly what part of the mask edge to blur. Remove blurs and lightens the mask, Add blurs and darkens the mask, and Normal blurs both light and darks.
- **Size**: Adjusts the size of the blur tool. Feel free to use a large size to make brushing fast. The size of the brush does not affect the blur amount.
- **Amount**: Controls the amount of blur. Use the lowest amount needed to maintain as much detail as possible.

> **TIP:** Double-click on the blur tool icon to apply the blur to the entire mask.

CHISEL MASK TOOL

The Chisel tool 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.
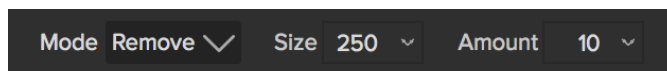
Chisel Mask Tool Options

Mode Remove ⌄   Size 250 ⌄   Amount 10 ⌄

- **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 brush stroke.

> **TIP:** Double-click on the chisel tool icon to apply the chisel to the entire mask.
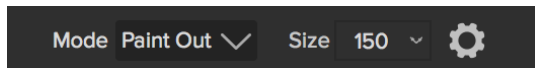
REFINE BRUSH

This tool cleans up intricate areas and the borders along a mask, and is helpful for cleaning up a mask created with the Masking Brush. For example, when you wish to apply an effect to a subject, and there are areas such as hair, or tree branches that are difficult to remove with the Masking Brush.

To use the Refine Brush, you select the tool and paint along the edges where you would like the mask to be refined. The brush strokes are displayed as a red overlay, and when you let up off the mouse button, ON1 Photo RAW 2018 will work to make making the mask edge more defined, improving the overall mask.

Refine Brush Tool Options

- **Mode**: Controls the refinement mode, either Paint Out, which always refines to remove from the mask, Paint In, which always refines to add to the mask, or Auto, which does both at the same time. Paint Out is recommended in most cases.

- **Size**: This slider 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.

- **Pressure Adjusts Size (gear icon)**: If you have a Wacom tablet you can control the size of the brush with pressure when this setting is turned on.

Develop & Effects Menus

ON1 Photo RAW (Mac OS Only)

- **About ON1 Photo RAW**: Opens the About box and displays your version number. (This is in the Help menu on Windows)
- **Preferences:** Opens the preferences dialog. (In the Edit menu on Windows)
- **Quit ON1 Photo RAW**: Quits ON1 Photo RAW 2018.

File Menu

- **Quick Export**: Saves the current image in Photoshop, TIFF, JPEG or PNG format.
- **Export**: Opens the export side panel.
- **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.
- **Cut**: Cuts the currently selected item.
- **Copy**: Copies the currently selected item.
- **Paste**: Pastes (copies) the items in the clipboard to the current location.
- **Delete:** Deletes the current image (Filmstrip mode only).
- **Preferences (Windows):** Opens the Preferences dialog.

Photo Menu

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

Settings Menu

- **Reset All Settings**: Resets all the applied settings on a photo.

- **Reset Develop Settings**: Resets only the settings applied in the Develop module.

- **Reset Effects Settings**: Resets only the settings applied in the Effects module.

- **Reset All Retouching Tools**: Resets any retouching applied in the Develop or Effects modules.

- **Copy Settings**: Copies all of the settings (Develop, Effects, retouching) applied to a photo.

- **Paste Settings**: Pastes the copied settings (with options)

- **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 the ON1 website's Photo Presets page.

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.

- **Browser Mode**: Sets the Preset panel browser view to 1, 2 or 3 columns.

- **Show Clipping**: Shows the clipping overlay view, displaying the pure white or black pixels in the current image.

- **Show Preview**: Toggle to enable or disable the preview.

- **Compare**: Displays a split-screen view of the current image, with the Before view on the left side of the preview area.

- **View Mode**: Toggles between Filmstrip and Detail view.

- **Preview Background Color**: Lets you set the background color options.

- **Enables Soft Proofing**: Turns on soft proofing for the current image.

- **Gamut warning**: Displays colors that the printer can't reproduce with a red overlay.

- **Profiles**: Displays a list of installed printer and display profiles; choosing a profile will apply soft proofing for that profile's paper type.

- **Intent**: Lets you switch between perceptual or relative rendering intent for the current image.

- **Simulate Paper and Ink**: When turned on, Photo RAW will set the white point and black point of the display to account for that of the chosen profile.
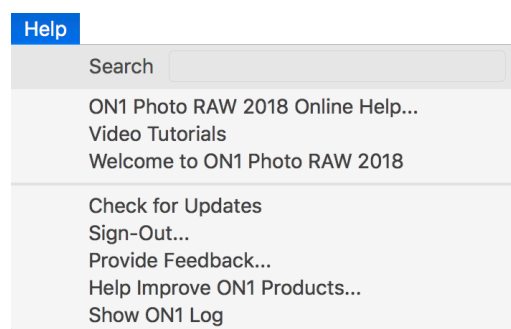
Window

- **Minimize**: Minimizes your screen.

- **Zoom**: Zooms your window to full-size.

- **Full Screen**: Toggles full-screen mode (hides menus).

- **Navigator**: Hides or shows the Navigator, Loupe, Histogram and Info pane.

- **Solo Mode**: Keeps only one pane open at a time.

- **Open Quick View Browser**: Opens the Quick View Browser overlay for the selected preset category.

- **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 (Mac OS only).

- **ON1 Develop 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.

- **Welcome to ON1 Photo RAW 2018**: Displays the Welcome window.

- **Check for Updates**: Checks with the ON1 update server to see if you are running the current version. If there is a newer version, you will be notified and be walked through the update process.

- **Sign-In/Sign-Out**: Uses your ON1 account login information to authenticate your copy of ON1 Photo RAW 2018.

- **Provide Feedback**: Opens the default web browser and goes to the feedback page of the ON1 website.

- **About ON1 Develop (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 Photo RAW 2018.

PART 5: ON1 RESIZE

ON1 Resize lets you get the highest quality photo enlargements, using the patented, industry-standard Genuine Fractals algorithms to enlarge photos without the loss of sharpness or detail. It includes the following features:

- Complete control over adjustment size and resolution
- Crop and level
- Sharpening
- Multiple resize algorithms let you get the highest quality results with any subject matter
- Add film grain
- Crop to common preset sizes for different paper and screen sizes
- Add gallery wrap wings for printing on canvas
- Divide an image into tiles for printing mosaics or murals
- Crop, resize, and print all in one place without having to create a new file
- Hundreds of presets to create the desired size print and adjust options for your printer and paper combination

When Should I Use ON1 Resize?

ON1 Resize should be used as one of the last steps in your workflow before printing. The power of ON1 Resize is in the concept of resolution on demand. You can work with a modest size file, which makes your editing faster and takes less hard drive space and memory. Then when you are ready to output your file, you resize it with ON1 Resize to the desired size and sharpen it for output. This means you don't have to keep multiple versions of a file at different print sizes; you just create what you need on-the-fly. ON1 Resize also supports layered Photoshop files so you can maintain all your layers in the entire process.

> **NOTE:** A much fuller discussion of resolution and print size can be found in the "How Big Can I Print?" and "How Much Resolution Do I Need?" sections at the end of this chapter, starting on .

ON1 Resize Main Screen Overview

ON1 Resize provides you with an easy-to-use work area for editing your photos. Below is an overview of the main sections, including:

A. **Presets:** This panel is located on the left side of the window and is where you view a Library of presets.

B. **Tool Well:** This is where the tools are located.

C. **Settings/Help:** This is where you can access preferences and help.

D. **Search:** This is where you can search for presets.

E. **Preview Window:** This is the main section where you preview and work on images.

F. **Navigator/Loupe/Levels/Info Pane:** This pane gives you access to each of the four areas.

G. **Pixel Dimensions:** This is where you can view the pixel dimensions of your image.

H. **Document Size:** This is where you access your document size.

I. **Control Panes:** You can access settings, sharpening, film grain, tiling and gallery wrap from these panes.

J. **Export/Share Buttons:** This is where you can export or share your image.

K. **Cancel/Done:** Buttons to save and/or close your image.

Navigating the Preview

The Preview Window above is the main section where you preview and work on images. Resize includes two tools for navigating this window, the Zoom and Hand tools.

HAND TOOL

The Hand tool is used to position the image within the Preview window, whenever the preview zoom is larger than the viewable area.

To pan (scroll) in the Preview window:

- Select the Hand Tool and drag the image until you locate the area you wish to view.
- With any other tool selected, hold down the spacebar while you drag the image in the window.
- Double-click the Hand tool in the Tool well to set the image to a magnification that fits completely in the current window size.

ZOOM TOOL

The Zoom tool changes 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.
- Click and drag in the Preview window to draw a rectangular, the screen fills with the area within the rectangle when you release the mouse.
- Hold the Option key (Mac) or Alt key (Win) and click to zoom out.
- Double-click the Zoom tool in the Toolbar to set the image to 1:1 or 100% magnification, showing every pixel. This is best when examining small details.

NAVIGATOR, LOUPE, LEVELS AND INFO

At the top of the control panel on the right of the main window are the Navigator, Loupe, Levels, and Info panes. These four panes can be useful for inspecting and viewing details in your image.

The Navigator pane

The Navigator Pane

This gives you a birds-eye 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 white region.

At the bottom of the Navigator pane are several Zoom presets. Click on a Zoom preset to activate.

- FIT: Zooms to fit the current canvas size.
- 100: Zooms to 100% or actual pixels.
- 50: Zooms to 50%
- 25: Zooms to 25%

The Loupe Pane

This gives you a magnified view of the section of the preview under the cursor. This allows you to view the quality of your results while maintaining a complete view of your image.

At the bottom of the Loupe Pane is a sliding for adjusting the zoom level.

The Levels Pane

This gives you a color chart of the shadow, mid-tone and highlight areas based on the image RGB values (often called 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. The areas of your image 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.

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

The Info Pane

The info pane will display important metadata about your file including:

- Camera type
- File type
- Focal length and lens information
- Date and time captured
- Exposure information
- ISO
- Shutter Speed

- Aperture

- Exposure Value

- Filename

- Color Space

- Dimensions

- File Size

If your camera allows for GPS the GPS button will be viewable and you can click on it to get the GPS coordinates for where the image was taken. This feature only works if you have GPS enabled on your camera or mobile device. Otherwise you will not see the GPS button.

CROP TOOL

The Crop tool is used to crop and resize the entire image. Unlike the non-destructive Crop tool in Develop and Effects, Resize's Crop tool removes any pixels outside a crop box and changes the canvas size at the same time.

To crop the image, select the Crop Tool from the tool well. Then adjust the corner handles of the crop tool overlay. 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 Tool Options Bar or press enter.

Crop Overlay

Working with the Crop Tool Overlay
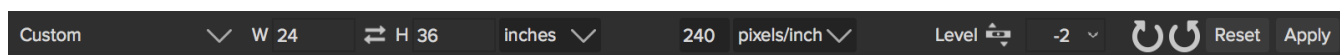
- **Moving the Image**: To move the image inside the crop box, simply click and drag inside the box. You can also nudge the image using the arrow keys on your keyboard.

- **Resizing a Crop Box**: To resize the Crop Box, click and drag on any of the resize 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 proportions of the box are maintained. To rotate the crop box, move outside a corner until the tool changes to rotate. You can also set the aspect ratio or size of the crop box in the Tool Options bar.

NOTE: The Crop tool is not available when using a Smart Photo, or when you are using ON1 Photo RAW 2018 as a plug-in from Photoshop, Lightroom or Apple Photos.

Crop Tool Options Bar

| Custom | ∨ | W 24 | ⇄ | H 36 | inches ∨ | 240 | pixels/inch ∨ | Level ⟷ | -2 ∨ | ↺↻ | Reset | Apply |
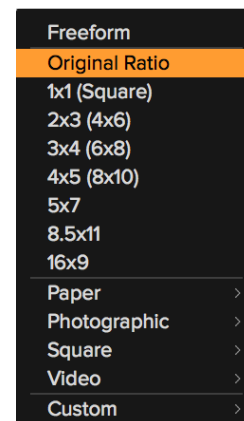
- **Preset pop-up**: Pop-up controls the crop tool mode as well as aspect ratio and document size presets.

- **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.

- **Units**: Determines the unit of measure: Pixels, inches, centimeters, etc.

- **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.

- **Rotate**: Rotates the image 90 degrees.

- **Cancel**: Resets the crop tool.

- **Apply**: Applies the crop and resizes your photo.

Crop Tool Modes

The Crop Tool works in three modes, which are all accessible via the Preset pop-up in the Tool Options bar:

- **Freeform**: In this mode you can adjust the crop box any way you like. The image will not be resized. Any area outside the crop box will be trimmed off. Use this mode if you just want to change the shape or recompose your image for general use.

- **Aspect Ratio**: You can lock the crop box to an aspect ratio. This makes sure the crop box shape doesn't change, just the size. Use this option to trim existing pixels while maintaining a ratio without resizing the image.

- **Document Size Presets**: Document Size Presets allow you to crop and resize your image at the same time. If you know your intent is to print the image at a certain size you can crop and resize the image at the same time. Many common sizes are included plus you can create your own.

Crop Tool modes, accessed via the Presets pop-up in the Tool Options bar.

Leveling the Image

The Crop Tool has a special Leveling Tool for automatically rotating your image to be level. To access it, first select the Crop tool, then perform the following:
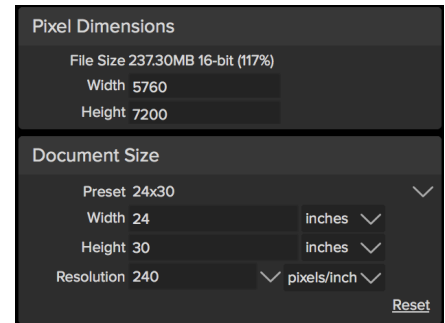
- Select the Leveling Tool from the Crop Tool Options Bar. Your cursor will change to the Leveling Tool.

- Click and drag a line across your image that should be level, either horizontally or vertically. When you release the mouse the image will be rotated automatically to the correct angle.

ADJUSTING THE IMAGE SIZE

In ON1 Resize, you can adjust your image size using either the Document Size pane or the Crop Tool Options Bar. The information in these areas are interrelated and locked together. Adjusting the values in either pane will lead to changes in the other pane.

The Document Size pane displays the current desired Document Size, or the original size if you have not adjusted anything. Type into the Width or Height fields to change the Document Size.

The Width and Height fields are locked together to maintain the photo proportions. Changing the width will change the height proportionally. Resize does not support non-proportional scaling. If you would like to change the proportions of the image, use the Crop tool.

> **NOTE:** If you need to stretch a photo non-proportionally, use the Transform pane in Develop. (See page 77.)

The Document Size Presets make it easy to crop and resize your photo at the same time. Simply select one to set the width and height automatically. This also selects the Crop Tool so you can adjust the document size to fit your photo. You also control your resolution, known as pixels per inch or dots per inch. This is important to adjust based on your output device.
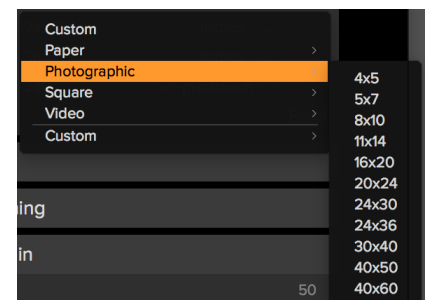
The Pixel Dimensions pane displays the image size in pixels, the file size, bit-depth and scaling factor.

Using Document Size Presets

Document size presets allows you to crop and resize your image simultaneously. Often, when you are using ON1 Resize it is to create a file for print output at a known common size. In these cases, using a Document Size Preset can be the fastest way to set your Document Size and crop your image to the needed proportions.

Follow these instructions to use a Document Size Preset:

1. Select your desired size from the Document Size preset pull-down in the Document Size pane, or Crop Tool Options Bar. You will see that the Document Size fields will be completed automatically for you and that a crop box is drawn on your image matching the proportions of the document size preset that you selected.

2. If needed, select the rotate crop box to rotate your crop box to the proper orientation. It will automatically rotate to match the orientation of your image, but if you want to crop differently you may need to rotate it.

3. You can use the Crop tool to reposition and change the size of the crop box so that it contains the image area that you want. Note that the crop box proportions and Document Size are locked so that you will always have the finished document size that you requested.

4. Adjust your resolution to what is needed for your output device. If you are unsure what to select, use the resolution drop-down menu for common settings.

Resize comes with many commonly used print, paper and video document size presets but you can also create your own:

- Select your image and launch Resize.
- From the Document Size Preset pull-down, select Custom > Manage Custom Sizes.
- Click on the Add button.
- Double-click on the highlighted untitled name and name your preset.
- Double-click on the width and height and fill in the proper values.
- Click on the units and select the proper unit.
- Click on the OK button.

> **TIP:** If you select the incorrect Document Size Preset you can change it by selecting a different one. If you do not wish to use a Document Size Preset after you have selected one you can press the Reset button in the Document Size pane or the Cancel button in the Crop Tool Options Bar.

> **TIP:** The lock crop option locks the proportions and document size settings for the given crop. This is enabled by default when you use a Document Size Preset.

SETTINGS PANE

The Settings pane contains the controls for selecting the resizing method, or algorithm and its settings. Every image is different and selecting the correct settings here can improve the quality of the results. To help you get started, try one of the presets in the Image Type drop-down menu. This pop-up contains presets that adjust the settings for Amount and Threshold automatically.

Method

The Method drop-down selects the method, or algorithm, used to resize the image. The options are:

- **Genuine Fractals:** This is the classic, patented, fractal-based algorithm that has made Perfect Resize the standard for over a decade.
- **ON1 Resize Portrait:** This is a new variation on the Genuine Fractals algorithm designed for portrait images. It is slightly softer and does a better job representing skin and hair textures.
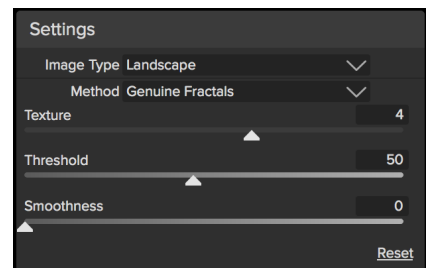
Texture Controls

When you select the Genuine Fractals method there are several other controls—Texture, Threshold, and Smoothness—that tune the resizing algorithm based on the image. These all have to deal with the texture of the image. If you were to analyze an image from a detail perspective you could break it into three categories: Edges, Continuous Tone and Textures.

Edges are the sharp details that define the edges of the subject in your image. It's paramount that these be maintained in order for your enlargement to maintain quality. Continuous tone areas—like skin or skies—are mostly solid or graduated color. These resize easily as there is little detail in these areas.

Texture, in Resize's nomenclature, are the areas that fall between these two. They are areas that still contain detail but are not sharp edges. These are things like the surface of rocks, tree bark, fabric, animal fur, etc. The amount of detail in these texture areas can have a large impact on the perceived sharpness and quality of an image.

With ON1 Resize you can control the key algorithm variables that effect these areas. And, you can use presets for different image types and subject matters that help you get the best results in reproducing these textured areas.

Here's how to think of the sliders in the Settings pane, as you adjust the look of an image:

- **Texture**: This controls the amount of detail in flat, non-edge areas of an image. If your image contains lots of small detail that does not have defined edges (many organic patterns like leaves, rock, bark; or man-made patterns like fabric) it may be good to increase the amount to a setting of 4 or 5. Settings beyond 5 will often introduce a bumpy noise pattern which is undesirable unless your original image was from scanned film. Settings lower than the default 3 are useful for images with large areas of continuous tone that have no appreciable detail (sand, snow, sky) but have hard edged foreground subjects such as landscape images, architecture or portraiture.

- **Threshold**: This controls the amount of hard edge detail that is enhanced. The default setting is 25. Decreasing the threshold will focus the algorithms on edge information. This may be useful for portraiture or for reducing noise in your image. Settings higher than 25 will increase the amount of small detail in flatter areas of the image. Settings as high as 100 are useful for highly detailed images (hair or feathers). Higher threshold settings will also make ON1 Resize process faster. A good way to start adjusting these controls is by setting the threshold to 100 and then move the Amount up until the image is too noisy (bumpy) and then reduce the threshold to smooth out the noise in continuous tone areas. For detailed images with no little or no continuous tone, you might try the amount at 4 and the threshold at 100. For portrait images or images with JPG artifacts you should try an amount of 2-3 and threshold of 25 or lower.

- **Smoothness**: The smoothness slider is used to reduce artifacts along hard curved edges. Use the lowest setting needed.

> **TIP:** Always make sure your zoom is set to 100% or 1:1 when adjusting the controls in the Texture Control Pane.

SHARPENING PANE

The Sharpening pane contains the controls to add additional sharpness to your image.

ON1 Resize features three sharpening methods:

- **Unsharp Mask**: Good for general sharpening. Similar to Photoshop's Unsharp Mask function. Resize's sharpening is different in that it is only applied to the luminance of the image, to prevent color artifacts.

- **High Pass**: High Pass sharpening is helpful when the original image is not sharp.

- **Progressive**: Similar to Unsharp Mask, except it sharpens different amounts depending on the size of the details in the image. Small details are enhanced more than large ones.
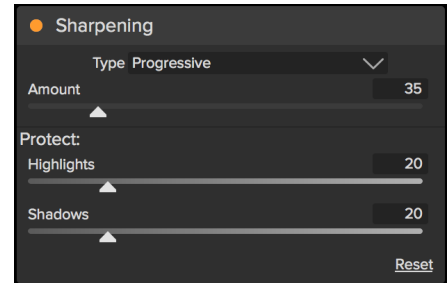
Using the Sharpening controls can save you the workflow step of adding additional Sharpening before printing and can help compensate for loss of sharpness due to dot gain from your printer. Sharpening should only be applied at the end of your workflow just before printing. If you plan to do additional retouching or compositing work after resizing your image, you should disable the Sharpening controls.
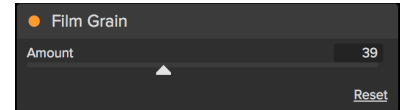
To sharpen your image for output, use these steps after you have adjusted the Document Size pane controls:

1. Zoom in on your image to 1:1. You can do this easily by using the 1:1 Zoom preset located in the Navigator pane.

2. Enable the Sharpening controls by toggling the on/off control in the Sharpening pane title bar.

3. Select the sharpening method that will provide the best results for your image. You may need to experiment to determine this.

4. Adjust the amount slider to determine the amount of sharpening desired.

5. Use the Highlight and Shadow sliders to limit the sharpening from being applied to the darkest and lightest areas of the image which can prevent sharpening of noise.

FILM GRAIN PANE

The Film Grain setting controls the amount of simulated Film Grain (noise) to your image. Adding a modest amount of grain can make your image appear sharper visually and can help hide imperfections (such as JPG artifacts).

Adding film grain can be especially useful for monochrome images, and should be added just before printing. If you need to do other retouching or compositing work in Photoshop or Layers after resizing your image, you should disable the Film Grain controls in Resize.

To add Film Grain to your image follow these steps:
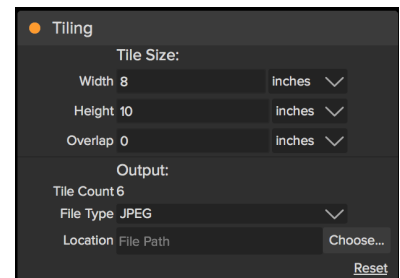
1. Zoom in on your image to 1:1. You can do this easily by using the 1:1 Zoom preset located in the Navigator pane.
2. Enable the Film Grain controls by toggling the on/off control in the Film Grain pane title bar.
3. Adjust the slider up or down until the desired amount of Film Grain is added.

You can preview just the effect of the Film Grain by toggling the on/off control in the pane's title bar.

TILING PANE

The tiling feature in Resize divides an enlargement into smaller pieces so that the image can be printed on a smaller printer.

For example, you might want to create a mural that is 8 feet tall by 12 feet wide, but your printer can only print 24-inch wide strips. With the tiling feature you could automatically create four separate files that are 24 inches wide and 8 feet tall, to create your mural in sections.

With the tiling feature all you do is specify the size of paper you have to print on and if you would like the pages to overlap. Then ON1 Resize will resize your image and section it down into the individual tiles.

To use the Tiling pane, follow these instructions:

1. Turn Tiling on by toggling the on/off switch in the pane header.
2. Set the Width and Height fields to the size and orientation of paper that you wish to print on, or you can select the number of rows and columns instead.
3. Set the Overlap size. The overlap makes each tile overlap so you can tape multiple panels together and corrects for printer margins if you are not printing borderless.

The Tiling Preview Overlay.

4. Set the file type for the newly created files for each tile.

5. Set the destination folder for the new files. Each file will be named with the original filename and the tile indicated in the filename.

The preview will show cyan guide lines for each tile that will be created. The bottom of the Tiling pane will tell you how many tiles will be created.

GALLERY WRAP

The Gallery Wrap feature is designed to help you print on canvas. When making enlargements for canvas it is common to wrap a portion of the image around wooden stretcher bars. These can be several inches thick and are used for mounting the canvas. These are commonly called gallery wraps. However, if the photographer had important detail near the edges of the image they may be lost in the wrapping process. The Gallery Wrap feature in ON1 Resize automatically creates extended margins by reflecting or stretching the areas near the edge of the image

allowing the photographer to create a gallery wrap without having to sacrifice any of the original image. The Gallery Wrap feature allows you to select the thickness of the canvas mounting bars and offers a variety of techniques for creating additional margins.
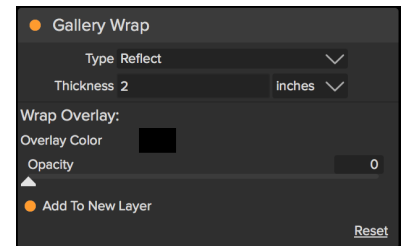
To use the Gallery Wrap feature follow these instructions:

1. Turn on the Gallery Wrap feature by toggling the on/off switch in the pane header.

2. Set the Thickness control to the amount of margins you would like to add. A good rule of thumb is the thickness of the stretcher bars, plus half an inch.

3. Select the Type you would like to use.

4. If you wish to add a color overlay to the gallery wrap wings set the color and opacity.

The Gallery Wrap overlay shows you what your wrap will look like with the chosen settings. Here, the Reflect Type option is chosen.

The Gallery Wrap feature has several settings for adding margins and adjusting the look of the wrap. The Type pop-up has four options:

- **Reflect**: Copies an area equal to the thickness setting around your image, then flips each side and adds it as the margins. This is a good general purpose technique.

- **Reflect Soft**: Does the same as the Reflect method but softens the added margins.

- **Stretch**: The Stretch method takes a small area around the edge of the image and stretches it to add the margins.

- **Stretch Soft**: Does the same as stretch, but softens the added margins.

The Thickness slider controls how thick your canvas stretcher bars are. Two inches generally works well for most gallery wraps.

You can darken the wrap or add a solid color to the wrap area with the Overlay Color and Opacity sliders. (The Opacity's default is 0, which means that there is no color overlay added.)

The Add to New Layer option places the wrap wings on their own layer, rather then merging them with the image. This only applies when working via Layers or Photoshop in a layered workflow.

PRESETS

Resize has a preset system built into it, much like the one used by Develop and Effects, but which is designed to help you get very specific crops for a wide range of paper and printer types. These include settings for photo lab print sizes, and many Epson, Canon and HP large-format printers, with Matte, Resin Coated, and Canvas types.
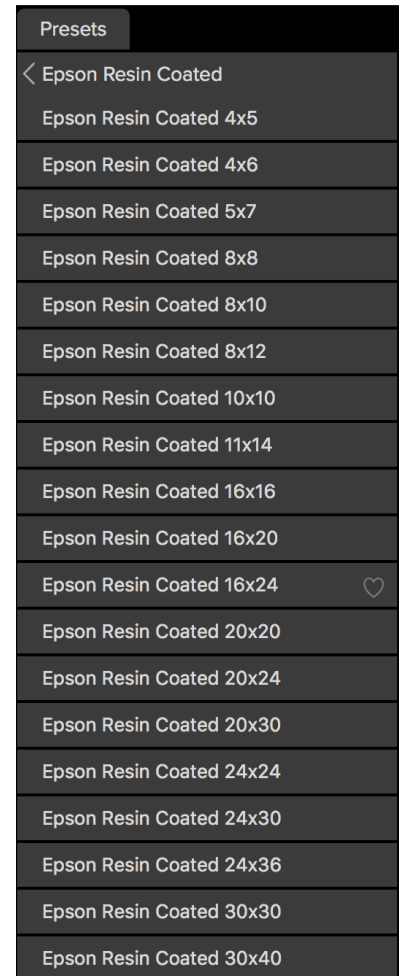
In addition to being able to set document size and settings, and settings in any of the other panes, Resize presets always contain a Crop adjustment. What that means is that any time you apply a preset, Resize selects the Crop tool and places the crop overlay on top of your file. There, you can move the overlay to the appropriate crop area (or resize the crop) for your photo.

To apply a preset, choose the category you would like to use from the Presets panel. The category will expand to a list of the available presets for that group. Then, just click on the preset you want to apply.

Saving a Preset

Once you have your settings that you wish to save, go to the Preset menu and select Save Preset, and choose a category you would like to save it in. If you have applied a preset to an image and make adjustments to any of the settings in the left panel, you can update that preset with the new setting by choosing Update Preset with Current Settings from the Preset menu.

To delete a preset, right-click on the preset in the Presets Browser and choose Delete Preset.

Presets
‹ Epson Resin Coated
Epson Resin Coated 4x5
Epson Resin Coated 4x6
Epson Resin Coated 5x7
Epson Resin Coated 8x8
Epson Resin Coated 8x10
Epson Resin Coated 8x12
Epson Resin Coated 10x10
Epson Resin Coated 11x14
Epson Resin Coated 16x16
Epson Resin Coated 16x20
Epson Resin Coated 16x24 ♡
Epson Resin Coated 20x20
Epson Resin Coated 20x24
Epson Resin Coated 20x30
Epson Resin Coated 24x24
Epson Resin Coated 24x30
Epson Resin Coated 24x36
Epson Resin Coated 30x30
Epson Resin Coated 30x40

> **NOTE:** You can also import and delete Resize presets from within the Extras Manager. See "Extras" on page 17 for more.

UNDERSTANDING RESIZE: HOW BIG CAN I PRINT?

People often ask how large a print can be made with ON1 Resize. If your original image is sharp, has good details and little noise, you could go as large as 1000% of the original size. 1000% is ten times the size of the original file. For example, an original file that is 8" x 10" could be resized to 80"x100". Viewing distance

plays a big part of this. Standard viewing distances are two-times the diagonal of a print. For example, for an 8"x10" it would be about two feet away. An 80"x100" would be about 21 feet. That seems like a lot but that image is almost 7'x9'. Keep in mind that many photographers scrutinize their images closer than standard viewing distances.

Images are perceived in color, tonality and sharpness. Other interpolation techniques maintain color and tonality but sacrifice sharpness by "inflating" the image uniformly. The image still looks familiar but will not be crisp. Depending on the amount of interpolation, this can be severe and noticeable even at standard viewing distances. ON1 Resize maintains the color, tonality, and sharpness of an image at all sizes. It will always look the same when viewed at the proper distances.

It is unrealistic to assume that the fidelity when viewed at 100% will be the same for an 8×10 and an 80×100 created by ON1 Resize. ON1 Resize will maintain the edges which perceptually make the image sharp, but it cannot create detail where there was none in the past. When the shutter is pressed, a finite amount of detail is captured. A good way to think about this is to look at an insect on a leaf. If you look at it with a magnifying glass, you will see more detail than you did than when looking at it with the naked eye. Now if you take a digital photograph of that same insect and look at it in the computer and zoom in past 100% you do not see any more detail. The information you see is limited by what the camera captured. ON1 Resize works the same way, it cannot create new detail but instead takes the finite amount of detail available and increase it in size.

ON1 Resize isn't magic. We have all watched CSI, where they take a security photo and enlarge the reflection in the victim's eye to see the killer, with results that look amazing. This is science fiction. You cannot create detail where there was none before. But if your original file has good detail and little noise, you will be able to make very good looking enlargements from your files. This is what ON1 Resize does better than any other software.

HOW MUCH RESOLUTION DO I NEED?

To answer this, you need to know two things:

1. The size of the print you need to make.
2. The resolution that your printer needs for best results.

The size of the print is as large you would like. This may be limited by the size of your printer. Resolution is the density of the pixels for a given distance, usually measured in pixels or dots per inch. Most modern inkjet printers print anywhere from 1200 to 4800 dots per inch (what the printer manufacturers really mean is 1200-4800 droplets of ink per inch). Inkjet printers use many tiny round droplets of 4-12 ink colors to reproduce one square pixel in your image that could be one of any millions of colors. A common mistake is to set the resolution of the file to the resolution of the printer. In all but a few special printers this will lead to huge files that will not print well, if at all. The secret is that the human eye cannot see more than 250-300 pixels per inch. So the ideal resolution for your files should be close to this. Once you know the print size and resolution, it is easy to use ON1 Resize to resize your file to the desired output. Simply input the resolution and then either the print width or height. You'll see that the corresponding dimension is automatically filled in by ON1 Resize based on the proportions of your image.

Keep the proportions in mind because the proportions of film, digital camera sensors and paper can all be different. For example, most digital camera sensors are proportioned so that the height is two-thirds the width or 1:1.5; While the most common paper size, in the US, is the letter which is 8.5×11 inches or about

1:1.25. These kind of proportion mis-matches are common and require that the original image be cropped to fit the proportions of the paper size. If your image cannot be cropped without ruining the composition then you will need to adjust your print size to a longer dimension.

Resizing an image larger than the original size requires new pixels to be created. This process is called interpolation or resampling. There are many mathematical ways, called algorithms, to do this. The most common method used by many pixel editing applications is called bicubic interpolation. Bicubic along with its newer variants bicubic smoother and bicubic sharper work by averaging a small group of neighboring pixels to determine the color value of the new pixels to be added. While this technique is fast, it does not distinguish edges so there is a uniform loss of sharpness and detail across the image.

Resize's patented scaling algorithm is fundamentally different from bicubic or other interpolation methods. While other methods sample nearby pixels and decide new pixel values one by one, ON1 Resize uses a sampling technique called Fractal Scaling. Fractal Scaling samples nearby "blocks," square groups of pixels, and varying sizes, compares them to smaller versions of the original image and mosaics these patches together to create a larger version of the original. By doing this repeatedly, often the characteristics of the image like edges, smooth areas, and textures are reinforced for each larger version. Noise is de-emphasized and sharp details are maintained. All this number crunching may take a bit longer than the single pass interpolation methods like bicubic, but good things come to those who wait and the reward is far superior results.

Resize Menus

ON1 Photo RAW (Mac OS Only)

- **About ON1 Photo RAW**: Opens the About box and displays your version number. (This is in the Help menu on Windows)
- **Preferences:** Opens the preferences dialog. (In the Edit menu on Windows)
- **Quit ON1 Photo RAW**: Quits ON1 Photo RAW 2018.

File Menu

- **Done**: Saves the current image and returns to Browse (or external source).
- **Cancel**: Cancels any Resize operations and returns to Browse (or external source).
- **Export:** Calls up the Export pane.
- **Print**: Opens up the print dialog box.

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.
- **Cut**: Cuts the currently selected item.
- **Copy**: Copies the currently selected item.
- **Paste**: Pastes (copies) the items in the clipboard to the current location.
- **Reset All:** Resets all of the settings.
- **Preferences (Windows):** Opens the Preferences dialog.

Preset Menu

- **Save Preset**: Saves the current Resize settings as a preset.
- **Delete Preset**: Deletes the currently selected preset.
- **Edit Preset**: Lets you rename a preset, choose a different category for it, and add metadata information (creator, description).
- **Update Preset with Current Settings**: If an image with a

preset applied has had some settings changed, this lets you update the preset to reflect those new settings.

- **Import Preset**: Imports ON1 Resize preset (.ONResize) files.

- **Show Presets**: Opens the Presets folder on your computer.

- **Manage Extras**: Opens the Extras Manager window.

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.

- **Show Clipping**: Shows the clipping overlay view, displaying the pure white or black pixels in the current image.

- **Preview Background Color**: Lets you set the background color options.

Window

- **Minimize**: Minimizes your screen.
- **Zoom**: Zooms your window to full-size (doesn't hide menu bar).
- **Full Screen**: Toggles to and from full-screen mode (hides menu bar).
- **Navigator/Loupe/Histogram**: Hides or shows the Navigator, Loupe, Histogram (Levels) and Info pane.
- **Pixel Dimensions**: Opens or closes the Pixel Dimensions pane.
- **Document Size**: Opens or closes the Document Size pane.
- **Settings**: Opens or closes the Settings pane.

- **Sharpening**: Opens or closes the Sharpening pane.

- **Film Grain**: Opens or closes the Film Grain pane.

- **Tiling**: Opens or closes the Tiling pane.

- **Gallery Wrap:** Opens or closes the Gallery Wrap pane.

- **Solo Mode:** When enabled, this feature keeps only one control pane open at a time.

- **Show Control Panel**: Hides or 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 (Mac OS only).

- **ON1 Photo RAW 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.

- **Welcome to ON1 Photo RAW**: Displays the Welcome window.

- **Check for Updates**: Checks with the ON1 update server to see if you are running the current version. If there is a newer version, you will be notified and be walked through the update process.

- **Sign-In**: Uses your ON1 account login information to authenticate your copy of ON1 Photo RAW 2018. (Sign-out will remove an existing authentication.)

- **Provide Feedback**: Opens the default web browser and navigates to the feedback page of the ON1 website.

- **About ON1 Photo RAW (Windows Only)**: Opens the about box with the version number and license code 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 Photo RAW 2018.

Resize Keyboard Shortcuts

ACTION	MAC OS	WINDOWS
Print	Command P	Control P
Undo	Command Z	Control Z
Redo	Command Shift Z	Control Shift Z
Cut	Command X	Control X
Copy	Command C	Control C
Paste	Command V	Control V
Save Preset	Command Shift S	Control Shift S
Open Selected Category	Right Arrow	Right Arrow
Close Selected Category	Left Arrow	Left Arrow
Zoom In	Command +	Control +
Zoom Out	Command –	Control-
Fit to Screen	Command 0	Command 0
Actual Pixels	Command Option 0	Control Alt 0
Show Clipping	Option J	Alt J
Navigator/Loupe/Histogram (Levels)	Command 1	Control 1
Pixel Dimensions	Command 2	Control 2
Document Size	Command 3	Control 3
Settings	Command 4	Control 4
Sharpening	Command 5	Control 5
Film Grain	Command 6	Control 6
Tiling	Command 7	Control 7
Gallery Wrap	Command 8	Control 8
Show Browser Panel	Command Left Arrow	Control Left Arrow
Show Control Panel	Command Right Arrow	Control Right Arrow
Full Screen Mode	Command Control F	F11
Hand Tool	H	H
Zoom Tool	Z	Z
Crop Tool	C	C

Temporarily Select Hand tool	Hold Spacebar	Hold Spacebar
Rotate Crop Clockwise	Option Right Arrow	Alt Right Arrow
Rotate Crop Counter Clockwise	Option Left Arrow	Alt Left Arrow
Slow Nudge (selection)	Arrow keys	Arrow keys
Fast Nudge (selection)	Shift Arrow keys	Shift Arrow keys

NOTE: A printable copy of common keyboard shortcuts for ON1 Photo RAW can be found on .

PART 6: ON1 EXPORT

Export is a special panel that is available throughout ON1 Photo RAW 2018. It the engine for the export process, whether you're exporting final files from within Browse, Develop or Effects, or from within Resize. The Export pane gives you much of the power of Resize in a quick and easy to use panel, letting you export your photos with incredible flexibility, ease and control.

The Export pane is always available, from any module, as long as you have a photo selected (you can also batch export files selected as a group in Browse).

To open the panel, click on the Export icon in the lower right corner of the main Photo RAW window, or can choose Export from the File menu. Once selected, the Export panel opens on the right side of the Photo RAW window, letting you select a group of options as you prepare to export a photo. By default, the panel includes three panes, which are fairly straightforward in their operation: File Type, Location, and Rename. These are the minimum options needed to export a file, but you can also add the following panes to the panel, expanding your export controls: Photo Size, Watermark, Sharpening, Tiling and Gallery Wrap.

FILE TYPE
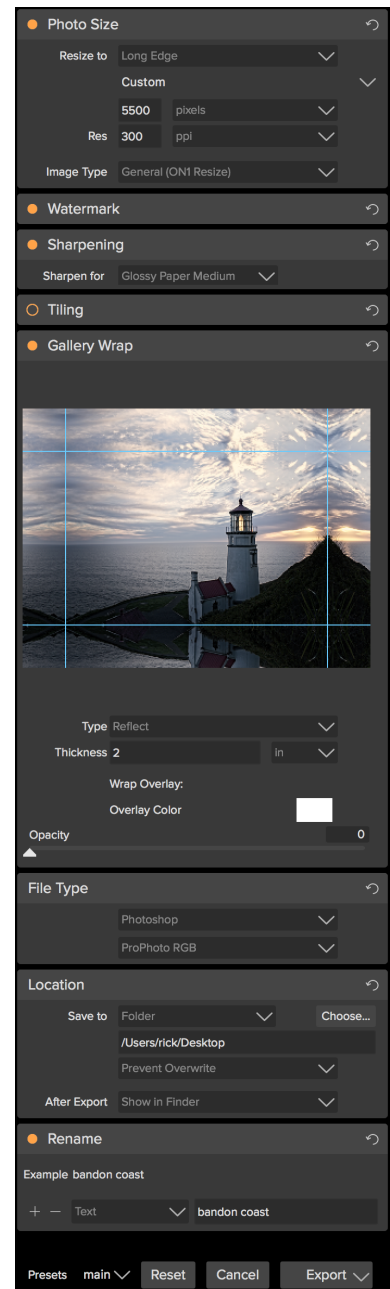
The File Type lets you choose what format you want your photo to be exported as, along with a color profile that you wish to assign to the exported file. The type options are Photoshop, Photoshop Large Document, JPEG, TIFF, and PNG.

Saving as JPEG lets you choose a Quality setting, with 100 being the highest.

LOCATION

Click the Choose button to select a location, or click on the Save To pop-up for more options, including:

- **Current Folder** will write the file to the same location as the original file.
- **Folder** lets you choose a location by pressing the Choose button
- **Round Trip** (this option is only available exporting through Adobe Lightroom) saves the file over the original and uses the same format, bit-depth, color space and name.

The Export panel lets you make simple exports, just by choosing an export file type, a location and a name, but you can also perform enlargements (using Resize's Genuine Fractals engine), add gallery wraps and watermarks, tiling and more.

With regard to the other options in this pane, If Prevent Overwrite is selected the word 'copy' will be added to the file(s); otherwise it will overwrite your original image if the destination is set to Current Location. You can also have Photo RAW open the folder you exported your image to by choosing the Show in Finder (Mac OS) or Show in Explorer (Windows) option from the After Export menu.
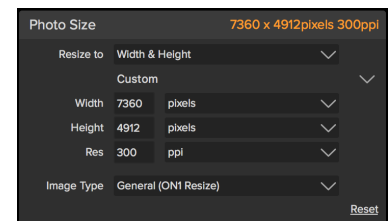
RENAME

This option may be used to rename the file name. The options include: Current Name, Text, Date and Number. The field to the right allows you to enter a custom name. The plus and minus icons will allow you to add or remove naming elements. Current Name will use the source name without the file extension. Text is used for assigning a custom text string. Date lets you add today's date in any one of 12 standard formats. Number creates an automatically incremented number, starting with the number input in the field. Reset will clear all current settings.

PHOTO SIZE

The Photo Size pane displays the original image size when you first open it. You can simply type into the Width or Height fields to change the document size, or you can choose from a variety of preset sizes—including standard photo paper sizes—by clicking on the pop-up menu underneath the Resize To pop-up.

NOTE: Export does not offer any options for cropping, and if you choose an aspect ratio that is different from that of your photo, on export, your photo w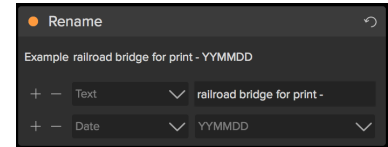ill be cropped from the center point out to meet the new ratio. If you wish to crop to a different ratio, it is better to use Resize.

Keep in mind that the Width and Height fields are locked together to maintain the photos proportions. Changing the width will change the height proportionally. Export does not support non-proportional scaling. If you would like to change the proportions of the image it requires cropping.

The Long Edge and Short Edge options in the Photo Size pane 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 photo, enter the dimensions, and Export will resize your photo accordingly.

The units of measurement can be switched by clicking the down arrow. You also control your resolution in pixels per inch. Use this setting to optimize for your output device.

The Photo Size Presets make it easy to set the width/height of your image in a preset size. Use the drop down menu to select a preset size or choose custom to create your own.

The Image Type drop down provides a few options for resizing:

- **General (ON1 Resize)** uses the ON1 Resize algorithm also known as Genuine Fractals: This is the classic, patented, fractal-based algorithm that has made Perfect Resize the standard for over a decade.
- **Low-Res JPG** is best for enlarging low resolution JPGs (this setting use the bicubic algorithm method).
- **Portrait** works well for resizing portraits protects skin tones from artifacts (uses bicubic algorithm method).
- **Landscape** is great for Landscape photos (uses ON1 Resize algorithm).
- **High Detail** is great for images with many small items (uses ON1 Resize algorithm).

WATERMARK

The Watermark module allows you to add an overlay to the image, 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.
- **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.
- **Opacity**: This sets the opacity of the watermark.
- **Location**: This grid sets the location of the watermark. Click on the square of the location you desire.

> **TIP:** 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. 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.

SHARPENING

The Sharpening pane adds additional sharpness to your image, and are designed to be general options for screen or print work. Using these controls can save you the workflow step of adding additional sharpening before printing and can help compensate for loss of sharpness due to dot gain from your printer. Sharpening should only be applied at the end of your workflow, just before printing. If you plan to do additional retouching or compositing work after resizing your image, you should disable the sharpening controls.

TILING

The tiling feature in Export divides an enlargement into smaller pieces so that the image can be printed on a smaller printer.

For example, you might want to create a mural that is 8 feet tall by 12 feet wide, but your printer can only print 24-inch wide strips. With the tiling feature you could automatically create four separate files that are 24 inches wide and 8 feet tall, to create your mural in sections.

With the tiling feature all you do is specify the size of paper you have to print on and if you would like the pages to overlap. Then Export will resize your image and section it down into the individual tiles.

To use the Tiling pane, follow these instructions:

1. Set the Width/Height fields to the size and orientation of paper you wish to print on, or select the number of rows and columns instead.
2. Set the Overlap size. The overlap makes each tile overlap so you can tape multiple panels together and corrects for printer margins if you are not printing borderless.

The preview will show cyan guide lines for each tile that will be created.

GALLERY WRAP

The Gallery Wrap feature is designed to help you print on canvas. When making enlargements for canvas it is common to wrap a portion of the image around wooden stretcher bars. These are used for mounting the canvas. These are commonly called gallery wraps. However, if the photo has important detail near the edges of the image they may be lost in the wrapping process. The Gallery Wrap feature in ON1 Resize automatically creates extended margins by reflecting or stretching the areas near the edge of the image allowing the photographer to create a gallery wrap without having to sacrifice any of the original image. The Gallery Wrap feature allows you to select the thickness of the canvas mounting bars and offers a variety of techniques for creating additional margins.

To use the Gallery Wrap feature follow these instructions:

1. Set the Thickness control to the amount of margins you would like to add. A good rule of thumb is the thickness of the stretcher bars, plus half an inch.
2. Select the Type you would like to use.
3. If you wish to add an overlay to the wrap wings, set the color and opacity.

The Gallery Wrap feature has several settings for adding margins and adjusting the look of the wrap. The Type pop-up has four options:

- **Reflect**: Copies an area equal to the thickness setting around your image, then flips each side and adds it as the margins. This is a good general purpose technique.
- **Reflect Soft**: Does the same as the Reflect method but softens the added margins.
- **Stretch**: The Stretch method takes a small area around the edge of the image and stretches it to add the margins.
- **Stretch Soft**: Does the same as stretch, but softens the added margins.

The Thickness slider controls how thick your canvas stretcher bars are. Two inches generally works well for most gallery wraps.

You can also darken the wrap or add a solid color to the wrap area with the Overlay Color add Opacity sliders.

EXPORT PRESETS
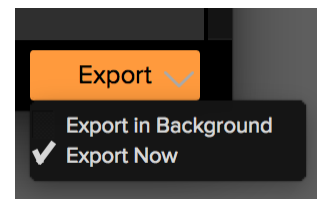
Presets remember all of the settings and details selected in the Export window pane. To save a group of settings as a preset, click the Save Preset button at the bottom of the panel. Give the preset a name, and it will appear in the Presets pop-up at the top of the Export panel.

> **NOTE:** Unlike presets in other parts of ON1 Photo RAW 2018, you can't export or import presets from the Export panel.

EXPORTING OPTIONS

When your export settings have been set, you have two options for exporting your photos, accessible via a pop-up in the Export button at the bottom of the pane:
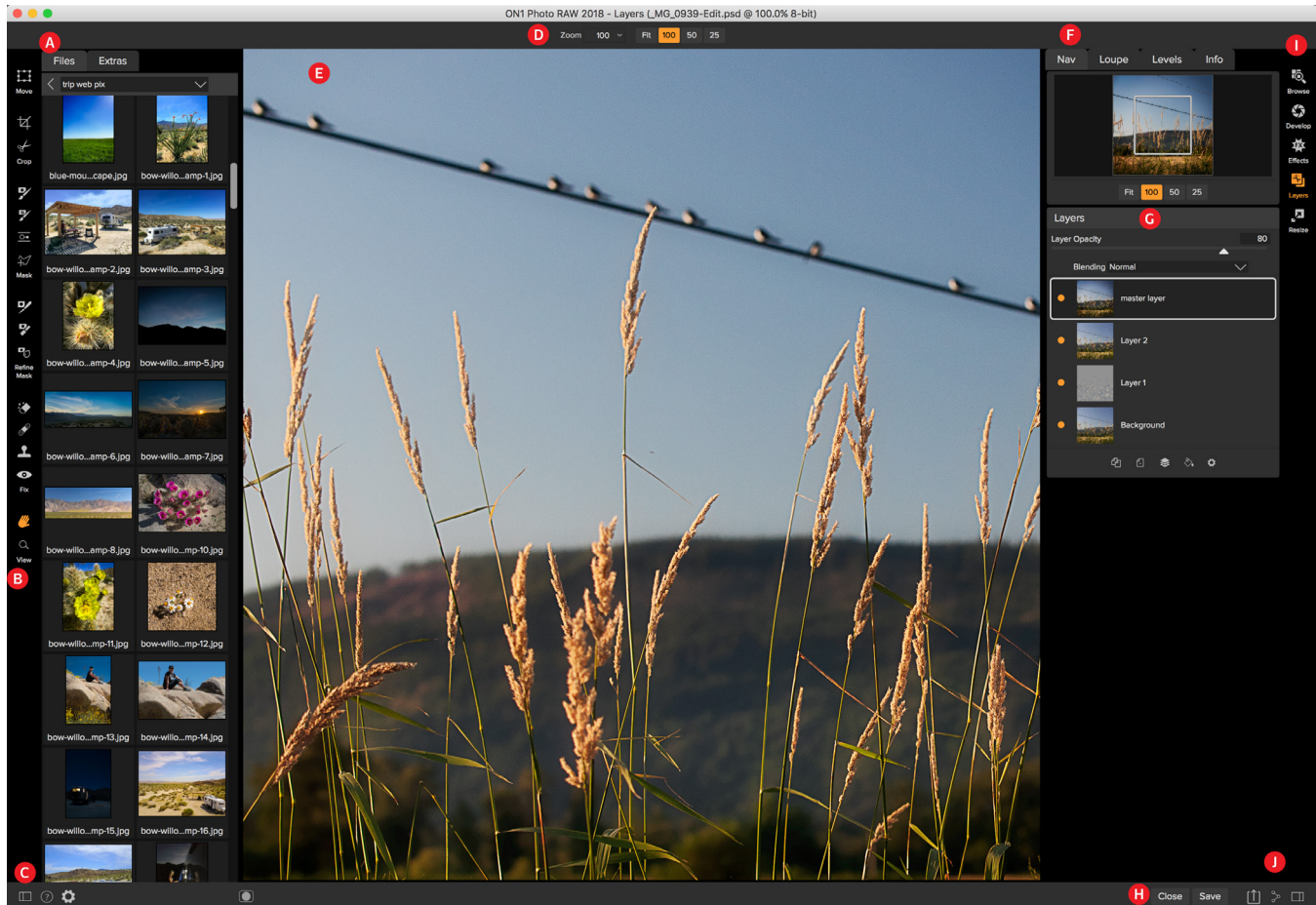
- **Export in the Background:** If you wish to keep working inside ON1 Photo RAW during the export process, choose this option. It will take more time, since not all of the app's processing power will be dedicated to the export operation.
- **Export Now:** Choose this if you wish the export process to happen more quickly. You won't be able to work inside Photo RAW until the exporting is done.

To get the options, press and hold your mouse button over the down arrow in the Export button at the bottom of the pane, then make your selection. If you just click the button without holding, the default is Export Now, although Photo RAW will remember your last setting if you change it.

PART 7: ON1 LAYERS

Layers provides you with an easy-to-use workspace for editing your photos using a full-featured layered workflow. Because it is designed to be a compositing tool, it is important to note that Layers generally is a destructive environment, unlike the Browse-Develop-Effects workflow. You can use Layers' Smart Layers feature to re-edit a layer in Develop or Effects, however.

ON1 Layers Main Screen Overview

Layers has a built-in file browser, a robust set of selection and transformation tools, all in a layered environment. The Browser panel is on the left side, the Preview window in the center, and the Layers panel on the right.

A. **Browser Section:** This where you browse and select your images to open.

B. **Tool Well:** This is where the tools are located.

C. **Preferences/Help:** Accesses ON1 Help menu or ON1 Photo RAW 2018 Preferences.

D. **Tool Options Bar:** This strip above the preview window contains the options for the selected tool.

E. **Preview Window:** This is the main section where you preview and work on images.

F. **Navigator, Loupe, Levels (Histogram) and Info Pane.**

G. **Layers Pane:** This is where you control the layer order and apply blending modes.

H. **Close & Save Buttons:** This is one way to save or close the current image.

I.   **Module Selector:** Switches between ON1 Photo RAW 2018's modules.

J.   **Export/Sharing:** Opens the Export panel/shows photo sharing options.

Layers Tools

There are 16 different tools in the Layers tool well.

1. **Move Tool**: Moves and changes the size and rotation of your layer.
2. **Crop Tool**: Crops your image.
3. **Trim Tool**: Trims a single layer.
4. **Mask Brush**: Masks areas using brush strokes to expose underlying layers.
5. **Quick Mask**: Masks out large similar areas quickly.
6. **Masking Bug**: Masks areas using gradients to expose underlying layers.
7. **Line Mask**: This tool is for creating linear masks.
8. **Refine Brush:** Refines the mask to cleanly mask difficult areas like hair.
9. **Chisel Mask**: Moves the edge of the mask slightly to remove fringes.
10. **Blur Mask**: Softens the mask slightly to blend more naturally.
11. **Perfect Eraser**: Removes unwanted objects with this content-aware brush.
12. **Retouch**: Removes small imperfections.
13. **Clone Stamp**: Paints over an area from a sample of another area.
14. **Red Eye**: Reduces red eye.
15. **Hand Tool**: Repositions your image within the preview window.
16. **Zoom Tool**: Changes the magnification in the preview window.

Navigating the Preview

The Preview Window above is the main section where you preview and work on images. Resize includes two tools for navigating this window, the Zoom and Hand tools.

HAND TOOL

The Hand tool is used to position the image within the Preview window, whenever the preview zoom is larger than the viewable area.

To pan (scroll) in the Preview window:

1. Select the Hand Tool and drag the image until you locate the area you wish to view.

2. With any other tool selected, hold down the spacebar while you drag the image in the window.

3. Double-click the Hand tool in the tool well to set the image to a magnification that fits completely in the current window size.

ZOOM TOOL

The Zoom tool changes the magnification of the image in the Preview window.

With the Zoom tool selected:

- Click in the Preview window to zoom in, centering at the location clicked.

- Click and drag in the Preview window to draw a rectangular, the screen fills with the area within the rectangle when you release the mouse.

- Hold the Option key (Mac) or Alt key (Win) and click to zoom out.

- Double-click the Zoom tool in the Toolbar to set the image to 1:1 or 100% magnification, showing every pixel. This is best when examining small details.

NAVIGATOR, LOUPE, LEVELS AND INFO

At the top of the control panel on the right of the main window are the Navigator, Loupe, Histogram, and Info panes. These four panes can be useful for inspecting and viewing details in your image.

The Navigator Pane

This gives you a birds-eye 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 white region.

At the bottom of the Navigator pane are several Zoom presets. Click on a Zoom preset to activate.

- Fit: Zooms to fit the current canvas size.

- 100: Zooms to 100% or actual pixels.

- 50: Zooms to 50%

- 25: Zooms to 25%

The Loupe Pane

This gives you a magnified view of the section of the preview under the

cursor. This allows you to view the quality of your results while maintaining a complete view of your image.

At the bottom of the Loupe Pane is a sliding for adjusting the zoom level.

The Levels Pane

This gives you a color chart—also known as a histogram—of the shadow, mid-tone and highlight areas based on the image RGB values. 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. The areas of your image 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.

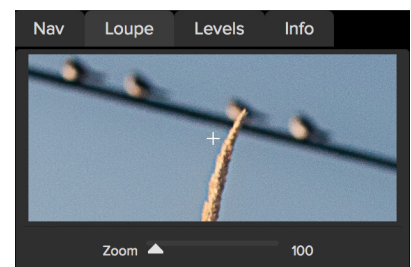The Histogram pane also displays the RGB values under the cursor at the bottom of the pane.

The Info Pane

The info pane will display important metadata about your file including:

- **Camera type**
- **File type**
- **Focal length and lens information**
- **Date and time captured**
- **Exposure information**
- **ISO**
- **Shutter Speed**
- **Aperture**
- **Exposure Value**
- **Filename**
- **Color Space**
- **Dimensions**
- **File Size and Bit Depth**
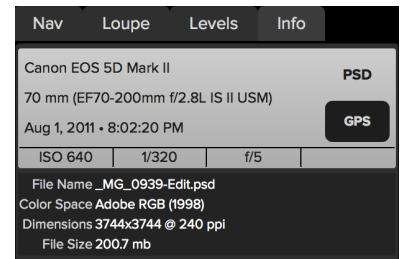
If your camera allows for GPS the GPS button will be viewable and you can click on it to get the GPS coordinates for where the image was taken. This feature only works if you have GPS enabled on your camera or mobile device. Otherwise you will not see the GPS button.

Using the File Browser

Built into Layers is a file browser, located in the left panel. You can use it to browse your images as well as content you download from the ON1 website. Below is a description of the controls in the file browser.

LAYERS BROWSER PANEL OVERVIEW

A. **Browser Tabs**: This switches between the Files tab and the Extras tab. The Extras tab displays the included backgrounds, borders and textures.

B. **Folder Tree**: This drop-down menu displays the folder path of the folder you are browsing. You can use this to quickly navigate up the folder tree. The current selected root folder is displayed here as well.

C. **Image Thumbnails**: Images are displayed as thumbnails and will have the filename and extension listed below it.

Browsing a Folder

You can select which folder to browse by selecting a folder in the drop down menu under Files. The last folder you browsed will be remembered and displayed automatically.

Navigating the Browser

The Browser Panel.

To open a sub-folder, click on it. To close it, click on it again. Only one top-level folder can be open at a time.

Double-clicking on a folder sets it to the root folder and its name will appear in the folder tree drop-down.

The selected item, either a folder or file, will have a blue box around it.
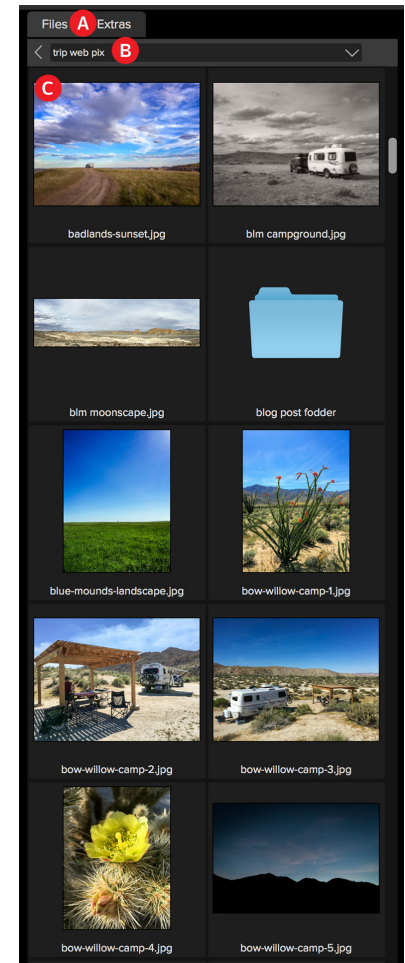
You can use the up and down arrow keys to change your selection in the browser.

You can open or close folders using the Command (Mac OS) or Control (Windows) up and down arrows.

You can select multiple files by holding down the Shift key.

Opening Files from the Browser

You can open an image in the browser by double-clicking it. If you already have an image open you will be prompted to either merge the selected file as a new layer or to open it as a new file. If you have multiple images selected, you can open them as layers using the Open Selected from Browser command in the File menu.

Resizing and Closing the Browser

The browser can be resized by dragging the right side margin of the browser.

The browser can be closed or reopened by clicking on the arrows in the bottom corners or using the cmd (control on Windows) left and right arrow keys. You can also change the browser view by using the View > Browser, and choosing one, two or three column thumbnail views.

Extras Tab

The Extras tab displays add-on content including backgrounds, borders and textures.

When you download content packs from the ON1 website they are automatically installed in the Extras tab.

CREATING A NEW FILE AND ADDING LAYERS

You can create a new file in several ways.
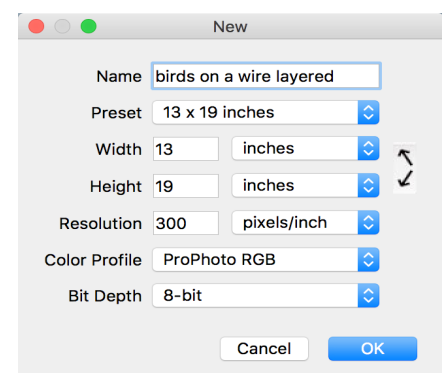
- Merge one or more images together using the Add Layer from File command.
- Merge one or more images together using the Lightroom or Aperture plug-ins or external editor option.
- Dragging one or more images onto the ON1 Photo RAW 2018 application icon in the dock (Mac OS) or task bar (Windows).
- Create a new, empty file from the File > New menu. The New Image dialog is presented, see the image to the right. From the New Image dialog, you have the following options:

When creating a new file, you have the following options to choose from:

- **Name**: The name of the image.
- **Preset**: Lists a range of preset image dimensions for common print sizes.
- **Width**: Sets the width, in inches, cm or pixels.
- **Height**: Sets the height, in inches, cm or pixels.
- **Swap Dimensions button**: Pressing this button will swap the current width and height.
- **Resolution**: Sets the resolution in pixels/inch (or cm).
- **Color Space**: Sets the RGB color space (ICC profile) of the image. (The default is set based in Preferences.)
- **Bit Depth**: Sets the bit depth, 8-bit or 16-bit.

Adding Layers from Files

You may add images (flat or layered) as layers into an open file by:

- Using the Add Layer from File command from the File menu.
- Opening a file from the Browser or the Browse module and choosing the Add as a layer option.

Working with Tabs

Each photo you open in Layers is contained in its own tab. The tabs for each photo appears at the top of the interface. Close a tab by clicking on the "X" icon.

To combine two tabs in to one, Choose Layer > Copy Layer in the first tab. Click to switch to the second tab and choose Layer > Paste Layer. Then close the first tab.

CANVAS SIZE

The canvas size, or image size is the aperture through which you view the layers. An image may have layers that are larger than the canvas size and are partially hidden by the canvas size aperture.

- When creating a new empty file from the File > New dialog, an arbitrary size is set by you. When creating a new image, you have the option to set the resolution.
- When creating a new PSD file by merging other files together using the Add Layer from File command, the source image that has the largest pixel dimensions will become the bottom most layer and will set the canvas size. The canvas size is adjustable by the user.
- When opening an existing PSD file, the canvas size is already set. The canvas size is adjustable by the user by accessing the Canvas Size dialog from the Edit menu.

Layer image data outside the canvas area is maintained.

Adjusting the Canvas Size

In the top section, current size, displays the current canvas size and is non-editable. Below the Current Size is the New Size section. It displays the current width and height and is editable.

The canvas size dialog does not interpolate (resize all the layers at the same time). This is the same as the image size dialog box in Photoshop when the resize image option is disabled.

There is a lock proportions toggle that locks the width and height proportions together. Adjusting the width will change the height proportionally. This option is on by default.

The Set To pop-up sets the size to the current layer, all layers or custom.

If you select the current layer option, the width and height are set to the size of the currently selected layer(s). If the user selects all layers, the width and height are set to the union of all the layers, making all the pixels on all layers visible in the canvas.
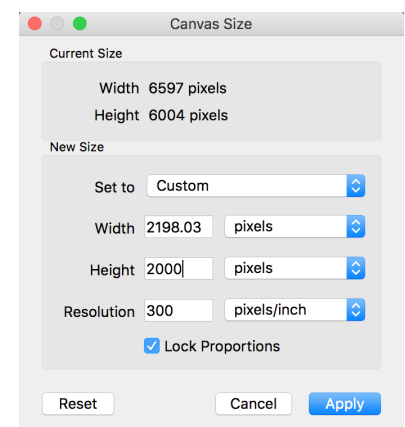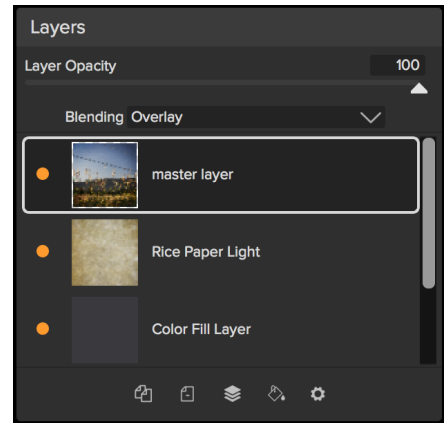
THE LAYERS PANE

Layers are in the Layers pane, along with controls to adjust them.

Layer Visibility

You may change the visibility of a layer (hide it) by clicking the button to the left of the layer thumbnail, which hides the layer (without deleting it). You can hide all layers except the current layer by holding the Option (Mac OS) or Alt (Windows) key when clicking on the button. This is useful for viewing the bottom-most layer, which in some cases is the original image. This can act like a before and after preview.

Changing the Layer Order

You may change the order of layers by dragging and dropping layers into the order you prefer. You may select multiple layers at the same time by holding down the Command (Mac OS) or Control (Windows) key while clicking.

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. When merging files together the layer name is the name of the source image. This is a useful verification of the source image.

Deleting a Layer

You may delete a layer by selecting the layer, then pressing the Delete button . You may also use the Delete key on your keyboard or right click on the layer and choose Delete from the pop-up menu.

Duplicating a Layer

You may duplicate or copy the current layer by pressing the Copy button . You may also use the Command-J (Mac OS) or Control-J (Windows) keyboard shortcut or right click on layer>delete.

Merging Layers

You may merge layers by selecting them and then pressing the Merge button . You may also use the Command-E (Mac OS) or Control-E (Windows) keyboard shortcut or right-click on the layers and choose Merge Layers from the pop-up menu.

The photo above uses multiple Smart Layers and blending modes to achieve a re-editable effect (in this case an Orton-style effect).

Creating Color Fill Layers

Color Fill Layers are new layers filled with a solid color. They are useful for altering the color and tone of the image. To create a Color Fill Layer, press the Paint Bucket icon at the bottom of the Layer stack, or right-click on a layer and choose New Color Fill Layer from the pop-up menu.

Convert to a Smart Layer

You can convert any layer into a Smart Layer, making the photo a Smart Photo. This allows you to re-edit any settings you add to a layer in modules like Effects.

> **NOTE:** For more about Smart Photos and Smart Layers, and their uses and limitations, see "Smart Photos" on page 7.

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 by combining either a copy of the underlying layer or a Color Fill Layer.

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.

Layer Masks

If you use any of the masking tools, a layer mask will be created automatically. A layer mask appears as white thumbnail next to the layer icon. There is no need to select the layer mask to work on it, invert it or reset it. Think of it as always selected with the layer. You can also copy and paste Layer Masks from the Layers menu or by dragging and dropping them from layer to layer.

USING COLOR FILL LAYERS
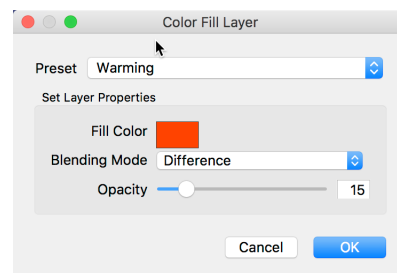
Color Fill Layers provide fast, re-editable ways to alter the brightness, contrast and color of your image. They leverage the power of layers, blending modes and opacity. Color Fill Layers are simply layers filled with a solid color. However by changing the color, blending mode and opacity along with ON1 Layer's masking tools you can do the following:

- Create a burn or dodge layer to selectively lighten or darken the image.
- Convert the image to black and white.
- Tint the image any color.
- Add a vignette.
- Simulate photographic filters like warming and cooling.
- Create darkroom looks like sepia toner.

Creating Color Fill Layer

To create a Color Fill layer, press the Fill (Paint Bucket) button in the Layers pane. The Color Fill Layer dialog will appear. With this dialog you can select a preset or manually adjust the color, blending mode and opacity of the Color Fill layer:

- **Preset**: This pop-up list contains presets for many common filter effects. Select a preset from the menu to preview it on your image.
- **Fill Color**: This displays the current color. You may press the color box to open a color picker dialog. Selecting new colors in the color well will be previewed in real-time on the image.
- **Blending Mode**: This option sets the blending mode for the layer. You can always change this later from the Layers pane.
- **Opacity**: This slider sets the opacity for the layer. You can think of this as a strength slider for the effect. You can always change this later from the Layers pane.

Editing a Color Fill Layer

You can edit Color Fill layer by using the Edit Color Fill Layer option from the Layers menu. It will reopen the Color Fill Layer dialog where you can adjust the settings. Color Fill layers work similar to a regular layer. You can move, resize, rotate, trim, delete and duplicate them.

Masking a Color Fill Layer

You can mask, or selectively apply a Color Fill layer using any of the masking tools in Layers, similar to any other layer. To learn how to mask a layer, see the Masking Layers section.

TRANSFORM TOOL

Use the Transform Tool at the top of the tool well to manipulate layers. A layer may be repositioned, sized or rotated using the Transform Tool. When the Transform Tool is 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
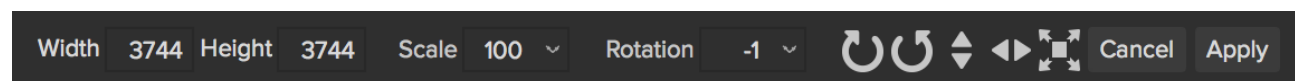
To reposition a layer, simply click and drag inside the transform box. You can also use the keyboard arrow keys to nudge a layer one pixel in any direction.

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 (Mac OS X) 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 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 Inspector.

Transform Tool 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.

The Transform tool can resize, reposition, and move a layer's contents. This image has both a color fill and a texture layer underneath the photo, and you can use the rotation tools in the Options Bar to change the direction of the underlying texture.

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.

CROP TOOL

This tool is used to crop and resize the entire image. The crop tool removes any pixels outside a crop box and changes the canvas size at the same time.

To crop the image, select the Crop Tool from the tool well. Then adjust the corner handles of the crop tool overlay. 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 Tool 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 resize 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 proportions of the box are maintained. To rotate the crop box, move outside a corner until the tool changes to rotate. You can also set the aspect ratio or size of the crop box in the tool options bar.

> **NOTE:** The Crop tool is not available when using a Smart Photo or a layered file with Smart Layers.
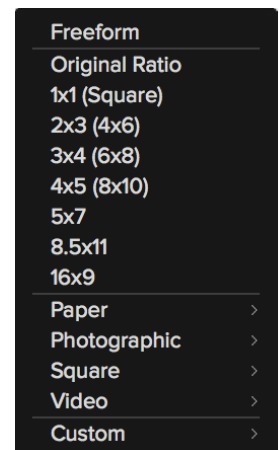
Crop Tool Options bar:

| 1x1 (Square) | ⌄ | W 1 | ⇄ | H 1 | Level 🔼 | 0 ⌄ | ↺↻ | Reset | Apply |
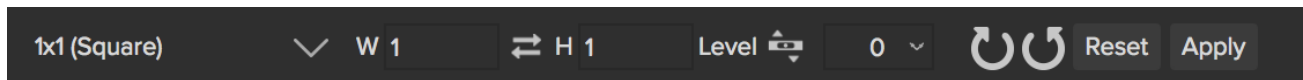
- **Preset pop-up**: Controls the crop tool mode.
- **Width**: Sets the width of the crop box.
- **Swap Dimensions**: Swaps the width and height. Handy for rotating the crop box.
- **Height**: Sets the height of the crop box.
- **Units**: Determines the unit of measure: Pixels, inches, centimeters, etc.
- **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.
- **Rotate**: Rotates the image 90 degrees.
- **Cancel**: Resets the crop tool.
- **Apply**: Applies the crop and resizes your photo.

Crop Tool Modes

The Crop Tool works in three modes, freeform, to your photo's aspect ratio, or to specific document sizes.

- **Freeform**: This is the default setting; it lets you resize the crop box to any orientation or size.
- **Aspect Ratio**: You can lock the crop box to an aspect ratio. This makes sure the crop box shape doesn't change, just the size. Use this option to trim existing pixels while maintaining a ratio without resizing the image.
- **Document Size Presets**: Document Size Presets allow you to crop and resize your image at the same time. If you know your intent is to print the image at a certain size you can crop and resize the image at the same time. Many common sizes are included plus you can create your own.

Freeform
Original Ratio
1x1 (Square)
2x3 (4x6)
3x4 (6x8)
4x5 (8x10)
5x7
8.5x11
16x9
Paper ▸
Photographic ▸
Square ▸
Video ▸
Custom ▸

The Crop Tool can crop to one of three modes: freeform, to a specific ratio, or to specific paper sizes.

The Crop Tool also has a special Leveling Tool for straightening your photos:

1. Select the Crop Tool.

2. Select the Leveling Tool from the Crop Tool Options bar. Your cursor will change to the Leveling Tool.

3. Click and drag a line across your image that should be level, either horizontally or vertically.

4. When you release the mouse the image will be adjusted automatically to the correct angle.

TRIM TOOL

The Trim tool is used to trim or crop a layer. It removes any pixels outside of a crop-style box for the current layer.

To trim a layer, select the Trim tool from the tool well. It looks like a pair of scissors. Then drag a box over the area you wish to keep on the selected layer. The area outside the trim box appears darkened for guidance. You can resize and move the trim box. When you are satisfied with your settings, press the Apply button in the Tool Options bar.

To move the Trim Box simply click and drag inside the box. You can also nudge the box using the arrow keys on your keyboard. To resize the Trim Box, click and drag on any of the resize 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 box are maintained. You cannot rotate a Trim Box. You can manually enter the size of the trim box in pixels using the width and height fields in the Tool Options bar (see below).

When you have completed your adjustments, click 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.

Trim Tool Options Bar

| Width | 3761 | Height | 2526 | *Drag a box over the region you wish to keep.* | Cancel | Apply |

- **Width**: Shows current pixels of the trim area width.
- **Height**: Shows the current pixels of the trim area height.

PERFECT ERASER

The Perfect Eraser can be used to remove distracting elements and blemishes from your image. It uses a content-aware algorithm that replaces the pixels with a natural-looking result within the boundaries that are painted.

Using the tool is easy: click on it in the tool well, and paint over the area you wish to remove. Make sure you cover the entire area. A red overlay appears where you paint. If the first attempt does not give you a perfect result, simply paint over it again and it will improve with each pass. You can also fine tune the area after applying the Perfect Eraser by using the Retouch Brush (see below).

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.
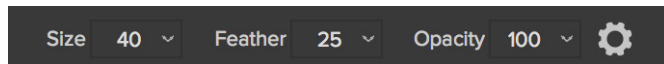
If you have a Wacom pressure-sensitive tablet, select the Pressure Adjusts Size button in the Tool Options bar.

RETOUCH BRUSH

Use the Retouch Brush to remove small imperfections like dust or blemishes.

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

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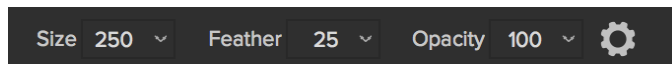
Retouch Brush Options Bar:

- **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 Wacom pressure sensitive tablet, you can adjust the size of the brush according to the pressure. Click on the button to activate the Wacom sensitivity controls.

CLONE STAMP

Use the Clone Stamp tool for replacing an area of the image with a sample area from a different part of the image. Hold down the Option (Mac OS) or Alt key (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 Bar:

- **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 Wacom pressure sensitive tablet, you can adjust the size of the brush according to the pressure. Click the button to activate.

RED-EYE TOOL

The Red-Eye Tool is the perfect tool for eliminating or reducing red eye in your images. It's a simple one-click stamp that will immediately take care of red eye.

You start by selecting the brush in the tool well. Adjust your brush size to be as close to the same size as the red eye effect you are wanting to remove. Then place the brush right over the eye and click once to remove.

Red Eye Tool Options Bar

- **Size**: Controls the size of the brush
- **Protect Skin**: Protects from the effect leaking out to skin or flesh tones

MASKING BRUSH

The Masking Brush is one of four tools in ON1 Layers designed to help layer masks. Layer masks by default are filled with white or black. If the mask is white, When you select the Masking Brush, your tool icon changes to a circle that represents the size of the brush. It may also appear as two concentric circles, indicating the inner hard edge and outer soft edge of the brush if the feather control is set above zero. There is also either a plus or minus in the center of the brush. Minus means the brush mode is set to paint-out, plus means it is set to paint-in.

To use the Masking Brush, select it in the tool well. Make sure you are on the effect you wish to hide. Then check your brush mode and confirm it is set to Paint Out. You are ready to mask now, simply paint on the image in the areas you wish to hide. As you brush, you will see the underlying layers appear. If you make a mistake while brushing there are two options to correct them: use the Undo command from the Edit menu, which will undo the last brush stroke you created, or toggle the paint mode to Paint In and brush over your mistake.
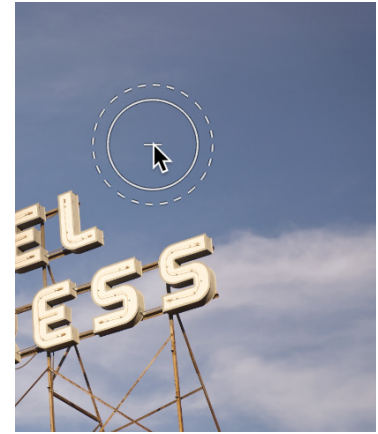
Masking Brush Tool Options Bar
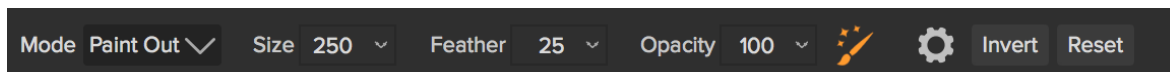
- **Paint Mode**: The paint mode controls if you are painting out (hiding the effect) or painting in (restoring the effect). You can tell your current mode by looking at the plus or minus icon in the center of the brush. If the icon is minus, you are painting out. If the icon is a plus, you are painting-in. You can change the mode in the Tool Options bar, or by pressing the X key, or by holding down the option (alt) key temporarily.
- **Invert Mask**: Invert swaps the hidden areas for the visible areas. What was hidden is now revealed and vice-versa. Inverting a mask can be very useful. It allows you to paint a layer in, rather than out, which is handy if you only want to work with a small area. You can invert the mask by pressing the Invert button in the Tool Options bar.
- **Reset Mask**: Reseting a mask reveals the entire layer it is associated with. You can reset the mask by pressing the Reset button in the Tool Options bar.
- **Erase Brush Strokes**: This is a special mode used when retouching the mask created by a

Masking Bug. It allows you to erase your brush strokes made with the Masking Brush while maintaining the mask from the Masking Bug.

Brush Size

You can control the size of the brush using the Size pop-up in the Tool Options bar. You use a small brush at high magnification for precise work and a large brush at fit to screen for general work. You can control the size of the brush several ways:

The Masking Brush consists of two concentric circles, representing the hardness of the brush (inner circle) and the soft feathered edge (outer circle).

- Use the Size pop-up in the Tool Options bar.
- Use the left and right bracket keys ([ ]).
- Use the mouse scroll wheel (preferences must be set to this).
- Use your Wacom pressure sensitive tablet.

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. You use a small feather at high magnification for precise, hard-edged work and a large, soft-edged brush at fit to screen for general work. You can visually see your feather by watching the outer concentric circle of the brush tool. To the right you can see examples of different feather options. You can control the size of the brush several ways:

- Use the Feather pop-up in the Tool Options bar.
- Use the shift + left and right bracket keys ([ ]).

Opacity
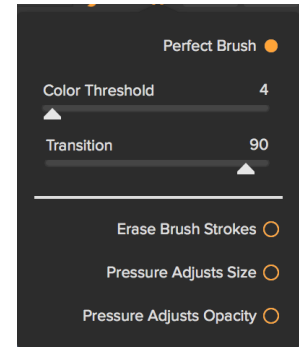
You can control the opacity, or strength of the brush with the Opacity pop-up in the Tool Options bar. Think of the opacity as the shade of gray you are painting with. The opacity has a range from 1 to 100 percent. You use a high opacity to paint quickly and hide large areas. You use a lower opacity for blending areas together or for subtle work. To the right you can see examples of different opacity options. You can control the size of the brush several ways:

- Use the Opacity pop-up in the Tool Options bar.
- Use the option (Mac OS) or alt (Windows) + 0-9 keys.
- Use your Wacom pressure sensitive tablet.

Perfect Brush

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—by clicking on the Perfect Brush icon in the Tool 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. There, you can set the following 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.

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

Wacom Controls

ON1 Layers supports pressure sensitive Wacom tablets. When you use the Masking Brush you can enable pressure sensitive controls for the brush size, brush opacity, or both simultaneously. Click on the W button next to each control in the Tool Options bar to activate the pressure sensitive controls.

The harder you press; the greater the size or opacity will get. You can set the maximum value you want to use the Brush Size and Opacity sliders. To the right you can see examples of how pressure sensitivity can be used to control the Masking Brush.

> **TIP:** Mask preview modes let you view your mask in either grayscale or as a red overlay, which can be extremely helpful when working on complex masks. Turn the mask preview on by clicking the mask preview button located at the bottom of the screen. You can change the mask preview mode under View > Mask View Mode.

QUICK MASK TOOL

The Quick Mask Tool is often the best place to start your masks. It automatically masks large similar areas without the need to brush over everything. You just need to brush loosely over what you want to mask to give it a hint. It then figures out the rest on its own.

To use the Quick Mask Tool follow these steps:

1. Select the Quick Mask Tool from the Tool well.
2. Make sure the tool mode is set to Paint Out.
3. Loosely brush over the area you want to mask. This could be a background you want to remove or a sky or an area you want to remove an effect from. When you release the mouse button the area is automatically expanded and masked. In simple cases your work may be done.
4. Continue to brush over the area you want to mask in (areas that were not automatically removed). You can also try the Grow button. Stop brushing when you get to difficult areas like hair.
5. It is often helpful to switch to the Refine Brush and go over difficult areas—like hair—to refine your mask.

Quick Mask Tool Options Bar
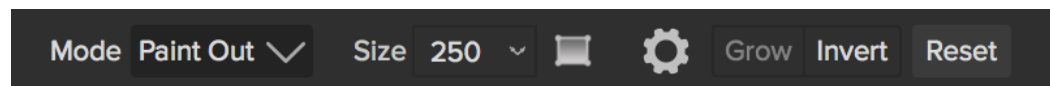
- **Mode**: Controls whether you want to paint out (mask) or paint in (restore). Generally you will use the paint out mode.
- **Size**: Sets the size of the tool.
- **Pressure Adjusts Size**: If you have a Wacom pressure sensitive tablet you can control certain parameters with pressure.
- **Box Tool**: The box tool allows you to drag a box over your subject, then press return to remove anything outside the box.
- **Grow**: Intelligently expands the mask to include more similar regions.
- **Invert**: Inverts or flips the mask so that what was hidden is now revealed and vice versa.
- **Reset**: Resets the mask to all white.

Box Mode

The Quick Mask Tool is generally used as brush but it has a second option called Box Mode. This mode is perfect for when your subject is isolated and not touching the edges of your image. To enable Box Mode, select the Box tool in the Tool Options bar. Then drag a box over your subject. You can adjust the size and position of the box using the corner handles. Then hit the Return key to automatically remove anything outside of the box and anything similar from inside the box.

MASKING BUG

This is used for blending layers with radial, gradient or reflected gradient mask shapes.

Masking Bug Tool Options Bar

| Preset | Linear Top | ∨ | Shape | Gradient | ∨ | Opacity | 100 | ∨ | Add | Delete | Reset |
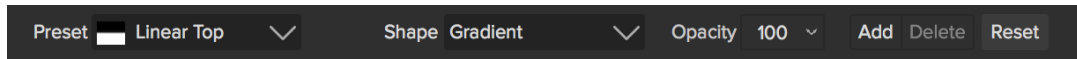
- **Preset**: The preset pop-up includes several common ways to use the Masking Bug. These presets change the current Masking Bug to match the preset.
- **Shape**: The shape pop-up controls the shape of the Masking Bug. The shapes are center, edges, gradient and reflected gradient.
- **Opacity**: Sets the maximum opacity or density of the mask.
- **Add**: Adds a new Masking Bug using the current settings.
- **Delete**: Deletes the current Masking Bug
- **Reset**: Resets the mask on the layer completely. This removes all Masking Bugs and clears any brushing that has been done.

How to Use the Masking Bug

Start by adding a Masking Bug to a layer by clicking on it or pressing the Add button. Then set the Mask View mode to Mask – Grayscale. This will let you see the Masking Bug in simple black and white.

- **Move**: Click the large circle and drag.
- **Size**: Adjust the size of the masking bug by using the solid line.
- **Feather**: Use the dashed line to adjust the feather or hardness of the mask.
- **Rotate**: The handle of the center circle will rotate the mask.

Working with Multiple Masking Bugs

You can use up to six Masking Bugs per layer. Each Masking Bug is re-editable until you hit Apply and save your image.

To add another Masking Bug, to create a complex mask shape, press the Add button or click outside of the current Masking Bug while the Masking Bug tool is selected.

Only one Masking Bug may be adjusted at a time. This is the active Masking Bug. You will see the overlay controls for the active Masking Bug while your mouse is over the preview area. Inactive Masking Bugs are marked with a small circle. You can select an inactive Masking Bug by clicking on the small circle marker.

Masking Bugs are subtractive. Each Masking 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 over-ride and paint areas back in hidden by the Masking Bugs.
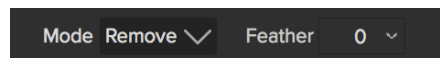
LINE MASK TOOL

The Line Mask tool creates linear masks that are made up of straight lines. They can include angles, but not curved lines. This tool is useful for masking geometric shapes like buildings and windows. For organic shapes like trees or ridge lines use the other masking tools.

Line Mask Tool Options Bar

Mode Remove ⌄   Feather   0 ⌄

- **Mode**: Add/Remove
- **Feather**: Adjusts the feather of mask i.e. the hardness of the line transition from black to white.

Using the Line Mask Tool

1. Begin by selecting the tool from the tool well. Choose a point on the photo to begin the Mask. It is recommended you begin a point that will be good to end the line. Essentially you will be creating mask using only linear lines to create a shape. When you close the shape by clicking on the first point a paint bucket will appear and you simply click to remove the inside or outside of the shape.

2. Click once to establish the first point or anchor.

3. Move the cursor to the next point and click again to establish another anchor. A straight line from the original anchor point to the second point will appear.

4. Continue to set points and create lines to establish the shape of the mask. Close the mask snap by connect the last line to the original point. The crosshairs will display a circle to indicate you are at the original anchor point.

5. A paint bucket icon will appear. Click once on either the inside or outside to remove or add.
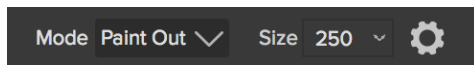
REFINING MASKS

There are three tools in ON1 Photo RAW 2018 designed to help you refine, or clean up, a mask: the Refine Brush, the Chisel Mask tool, and the Blur Mask tool. You use these tools after you have created the bulk of your masking, but want to smooth rough edges.

REFINE BRUSH

The Refine Brush is used to clean up the borders between a subject and background, as well as intricate areas like hair, lace, mesh and tree branches. Once you have removed the majority of the background with the Quick Mask Tool or Perfect Brush, paint the intersection of the subject and background with the Refine Brush to clean up the border. This will remove islands of background color and make the edge more defined.
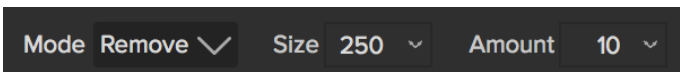
Refine Brush Tool Options

Mode [Paint Out ⌄]   Size [250 ⌄]   ⚙

- **Mode**: Controls the refinement mode, either paint out, which always refines to remove, paint in, which always refines to restore or Auto which does both at the same time. Paint out is recommended in most cases.

- **Size**: This slider 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.

- **Wacom Toggle**: If you have a Wacom pressure sensitive tablet you can control certain parameters with pressure. Controls with a W icon next to them support this when they are turned on.

- **Color Decontamination**: When enabled, colors from the drop regions are filtered out of the keep regions. This changes the colors of the pixels in the image. This is useful when the background you are trying to remove have a strong color such as green or blue screens.

CHISEL MASK TOOL

The Chisel tool works to remove fringes or halos along hard edges. 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. The Chisel tool only works on the edges so you don't have to be too careful when using it.

Chisel Mask Tool Options

Mode [Remove ⌄]   Size [250 ⌄]   Amount [10 ⌄]

- **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 brush stroke.

> **TIP:** You can double-click on the chisel tool icon in the tool well to apply the chisel to the entire image.

BLUR MASK TOOL

The Blur Mask tool softens edges of the mask where you paint. Softening the edges on blurred or semi-transparent subjects like hair can make them blend with a new background in a more realistic manner. Like the Chisel tool, the Blur tool only works on the edges in your masks.

Blur Mask Tool Options

Mode Out ⌄   Size 250 ⌄   Amount 30 ⌄
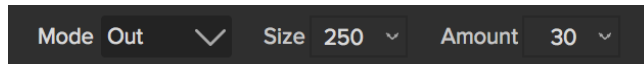
- **Mode**: In/Out/Normal lets you adjust exactly what part of the mask edge to blur. In blurs and lightens the mask, Out blurs and darkens the mask, and Normal blurs both light and darks.

- **Size**: Adjusts the size of the blur tool. Feel free to use a large size to make brushing fast. The size of the brush does not affect the blur amount.

- **Amount**: Controls the amount of blur. Use the lowest amount needed to maintain as much detail as possible.

> **TIP:** You can double-click on the blur tool icon in the tool well to apply the blur to the entire image

Layers Menus

ON1 Photo RAW (Mac OS Only)

- **About ON1 Photo RAW**: Opens the About box and displays your version number. (This is in the Help menu on Windows)

- **Preferences:** Opens the preferences dialog. (In the Edit menu on Windows)

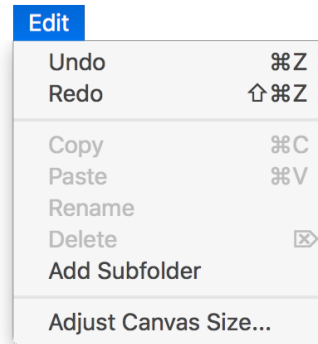- **Quit ON1 Photo RAW**: Quits ON1 Photo RAW 2018.
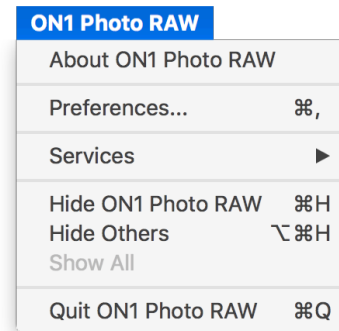
File Menu

- **New**: Creates a new file.

- **Open**: Open an existing file.

- **Add Layer(s) from File**: Open a file and add it as a layer to the currently open file in Layers.

- **Open Selected from Browser**: Opens the images selected in the mini-browser.

- **Browse Folder**: Fly-out sub-menu of sources to Browse. You can also opens the browse dialog where you can select which folder you would like to browse in a new browser tab.

- **Browse Extras**: Switches the browser to the Extras tab where you can view and open pre-installed content.

- **Manage Extras**: Opens the Extras Manager where you can import and manage extras like Borders, Backgrounds, Textures and Presets.

- **Open Recent**: Displays a list of recently opened files.

- **Close**: Closes the current file. You will have the opportunity to save or not.

- **Close All**: Closes all open files. You will have the opportunity to save or not.

- **Save**: Saves the current file.

- **Save As**: Opens the Save As dialog where you can select the filename and location to save to.

- **Revert to** Saved: Reopens the file without your changes.

- **Export**: Opens the Export pane.

- **Print**: Allows you to print your image.
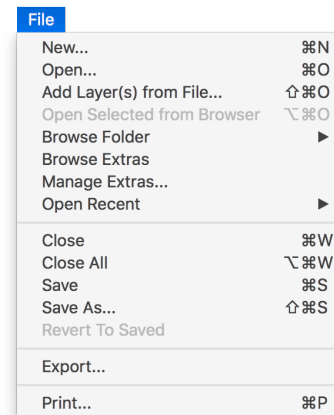
Edit Menu

- **Undo**: Removes the last file operation.
- **Redo**: Redoes the undo operation. This is only available if the last thing you did was an undo.
- **Copy**: Copies the currently selected item.
- **Paste**: Pastes the items in the clipboard to the current location.
- **Rename**: Renames the currently selected item in the Browser.
- **Delete:** Deletes the currently selected item in the Browser.
- **Add Subfolder:** Adds a subfolder inside the current folder in the Browser.
- **Adjust Canvas Size**: Lets you enlarge the current document's canvas size.
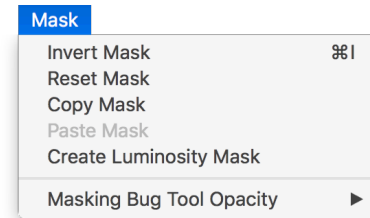- **Preferences (Windows):** Opens the Preferences dialog.

Layer Menu

- **Duplicate**: Duplicates or copies the current layer.
- **Delete**: Deletes the current layer.
- **Copy Layer**: Copies the current layer into memory so you can paste it later.
- **Copy Luminosity as Mask**: Creates a luminosity mask from the current layer and copies it to the clipboard.
- **Paste Layer**: Pastes the layer in memory into a new layer in the current image.
- **Merge Layers**: Merges the selected layers into a single layer.
- **Merge All**: Merges all layers into a single layer.
- **New Stamped Layer**: Creates a new layer above the current layer that contains a merged version of all the layers under it.
- **Hide Other Layers**: Toggles the visibility off of all layers except the current one. Makes it easy to see just the current layer.
- **New Color Fill Layer**: Adds a new color fill layer.
- **Edit Color Fill Layer**: Opens the color fill layer dialog where you can set the properties of the selected color fill layer.

- **Convert to Smart Layer**: Allows you to change your layer to a smart layer.

Mask Menu

- **Invert Mask**: Inverts the current mask.
- **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.
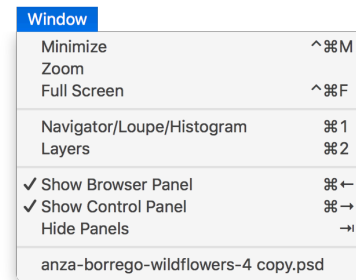
View Menu

- **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.
- **Show Clipping**: Shows the clipping overlay view, displaying the pure white or black pixels in the current image.
- **Preview Background Color**: Lets you set the background color options.
- **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.
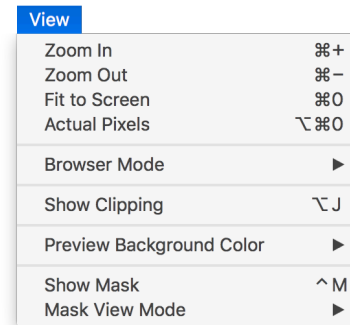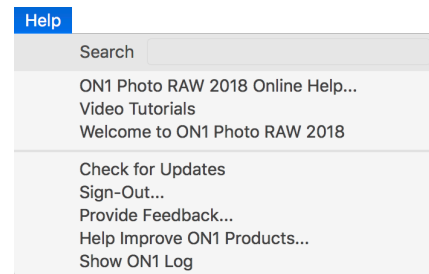
Window

- **Minimize**: Minimizes your screen.

- **Zoom**: Zooms your window to full-size (doesn't hide menu bar).

- **Full Screen**: Toggles full-screen mode (hides menu bar).

- **Navigator/Loupe/Histogram**: Hides or shows the Navigator, Loupe, Histogram and Info pane.

- **Layers**: Opens and closes the Layers pane.

- **Show Browser Panel**: Hides or shows the Control Panel.

- **Show Control Panel**: Hides or shows the Control Panel.

- **Hide Panels**: Hides or shows all Panels.

- **Document Name**: Shows the name of the open image.

Help

- **Search**: Searches the menu options (Mac OS only).

- **ON1 Photo RAW 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.

- **Welcome to ON1 Photo RAW**: Displays the Welcome window.

- **Check for Updates**: Checks with the ON1 update server to see if you are running the current version. If there is a newer version, you will be notified and be walked through the update process.

- **Sign-In**: Uses your ON1 account login information to authenticate your copy of ON1 Photo RAW 2018. (Sign-out will remove an existing authentication.)

- **Provide Feedback**: Opens the default web browser and navigates to the feedback page of the ON1 website.

- **About ON1 RAW (Windows Only)**: Opens the about box with the version number and license code 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 Photo RAW 2018.

LAYERS KEYBOARD SHORTCUTS

New File	Command N	Control N
Open	Command O	Control O
Add Layer(s) from File	Command Shift O	Control Shift O
Open Selected from Browser	Command Option O	Control Alt O
Close	Command W	Control W
Save	Command S	Control S
Save As	Command Shift S	Control Shift S
Print	Command P	Control P
Quit	Command Q	Control Q
Undo	Command Z	Control Z
Redo	Command Shift Z	Control Shift Z
Copy	Command C	Control C
Paste	Command V	Control V
Delete File	Delete	Delete
Duplicate Layer	Command J	Control J
Merge Layers	Command E	Control E
Merge Visible	Command Shift E	Control Shift E
New Layer from Composite	Command Shift J	Control Shift J
Next Blend Mode	Shift +	Shift +
Previous Blend Mode	Shift –	Shift –
Layer Opacity	Number keys 1-0 *(10% to 100%)*	Number keys 1-0 *(10% to 100%)*
Brush Size	] *(larger)*	] *(larger)*
	[*(smaller)*	[*(smaller)*
Brush Feather	Shift] *(softer)*	Shift] *(softer)*
	Shift [*(harder)*	Shift [*(harder)*
Brush Opacity	Option] *(higher)*	Option] *(higher)*
	Option [*(lower)*	Option [*(lower)*
	Option number keys 1-0 *(10% to 100%)*	Option number keys 1-0 *(10% to 100%)*

Paint in/ Paint Out	Shift X	Shift X
Invert Mask	Command I	Control I
Toggle Perfect Brush	Command R	Control R
Show/Hide Mask	O	O
Zoom In	Command +	Control +
Zoom Out	Command –	Control –
Fit to Screen	Command 0	Control 0
Actual Pixels	Command Option 0	Control Alt 0
Next Browser View Mode	Command B	Control B
Navigate Browser Selection	Arrow Keys	Arrow Keys
Navigator	Command 1	Control 1
Layers	Command 2	Control 2
Transform Tool	V	V
Red Eye Tool	E	E
Crop Tool	C	C
Trim Tool	T	T
Masking Brush	B	B
Masking Bug	M	M
Quick Mask Tool	W	W
Refine Brush	F	F
Chisel Tool	K	K
Blur Tool	L	L
Perfect Eraser	Q	Q
Retouch Brush	R	R
Pan Tool	H	H
Zoom Tool	Z	Z
Rotate Crop Clockwise	Option Right Arrow	Alt Right Arrow
Rotate Crop Counter Clockwise	Option Left Arrow	Alt Left Arrow

ON1 PHOTO RAW
COMMON KEYBOARD SHORT-CUTS

Shortcut	Windows	macOS	Shortcut	Windows	macOS
Preview Nagivation			**Photo Settings**		
Zoom-in	^ +	⌘ +	Rotate 90	^]	⌘]
Zoom-out	^ —	⌘ —	Rotate -90	^ [	⌘ [
Fit to Screen	^ 0	⌘ 0	Reset All Settings	⇧ ^ r	⇧ ⌘ r
Zoom to 100% (1:1)	^ ⌥ 0	⌘ ⌥ 0	Copy Settings	⇧ ^ c	⇧ ⌘ c
Pan Photo	hold space		Paste Settings	⇧ ^ v	⇧ ⌘ v
View & Window Modes			Sync Settings	⇧ ⌥ s	⇧ ⌥ s
Grid View	g		**Brushing**		
Photo View	e		Bigger Brush	]	
Filmstrip View	f		Smaller Brush	[	
Compare View (Browse)	c		Increase Brush Opacity	⌥]	⌥]
Fullscreen	n/a	⌘ ^ f	Decrease Brush Opacity	⌥ [	⌥ [
Hide Right Panel	^ →	⌘ →	Increase Brush Feather	⇧]	
Hide Left Panel	^ ←	⌘ ←	Decrease Brush Feather	⇧ [	
Hide Both Panels	→|		Set Brush Opacity	⌥ 1-0	⌥ 1-0
Split-Screen Compare (Develop/Effects)	^ y	⌘ y	Toggle Perfect Brush	^ r	⌘ r
Preview and Masking Views			Hold Perfect Brush Color	hold ^	hold ⌘
Original View (Preview Off)	\		Invert Mask	^ i	⌘ i
Show Mask	o		Draw Straight Line	⇧ click	
Show Clipping	hold j		**Misc**		
Browse			Open Settings (Preferences)		⌘ ,
Change Thumbnail Size	+ /—		Quick Export	⇧ ^ s	⇧ ⌘ s
Browse a Folder	^ b	⌘ b	Print	^ p	⌘ p
Select All	^ a	⌘ a	Undo	^ z	⌘ z
Select None	^ d	⌘ d	Redo	⇧ ^ z	⇧ ⌘ z
Deselect	/		Quit	^ q	⌘ q
Set Rating	1-5		**Tools**		
Set Label	6-0		Crop	c	
Dislike	x		Adjustment Brush	k	
Like	p		Adjustable Gradient	⇧ k	
Clear	u		Perfect Eraser	q	
Delete	⌫		Retouch Brush	r	
Enable Filters	^ l	⌘ l	Clone Stamp	s	
Search Text	^ f	⌘ f	Masking Brush	b	
Presets			Masking Bug	m	
Open Quick View Browser	⌥ ↑	⌥ ↑	Refine Mask	n	
Insert Preset	⌥ click	⌥ click	Zoom/Pan	z	

^ Control   ⌘ Command   ⌥ Alt   ⌥ Option   ⇧ Shift   →\| Tab

ON1 Photo RAW 2018 User Guide

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Revision 3.1, August 2018 (Version 2018.5); updated Mac OS system requirements.