# **TOPAZ DENOISE 6**

SHOOT ANYWHERE, IN ANY LIGHT

**USER MANUAL** 

# Contents

## I. Installation

How to Install	3
Plugin Compatibility	3
Host-Specific Installation	3
Photoshop	3
Lightroom	4
PaintShop Pro	4
PhotoPlus	5
License Key	6
Uninstalling	7

## II. Introduction

What is Noise?	8
Topaz DeNoise	
About Topaz DeNoise	
Banding Noise	11
Correcting Black Levels	
New Features in DeNoise 6	13
Stand Alone	13
Camera Specific Presets	
Batch Processing	14

## **III. Work Area**

nterface	··15
Main View	15
Tool Panel View	16

Ν	lo View	17
Р	Preset Panel View	.18
Preview S	Section	.19
Presets P	anel	. 21
А	pplying Presets	. 21
S	aving / Adding Presets	. 21
D	Peleting Presets	.22
Ir	mporting Presets	.23
Tools Pan	nel	.24
Menu Bai	r	.25

## **IV. Settings & Parameters**

Noise Reduction	26
Display Modes	27
Detail Recovery	27
DeBanding	

## V. Your First Project

Step 1: Noise Reduction	9
Step 2: Detail Recovery	1
Step 3: Process and Save	2

## VI. Help

Glossary	
Shortcut Keys	
Connect with Topaz	36

# Installation

Topaz DeNoise 6 works as both a standalone editor and plugin. This means a compatible host editor *is not* required to use DeNoise 6, although you may access it as a plugin within a few compatible host editors.

## System Requirements

Mac OS X 10.9 or higher Windows 7/8/10 x64 + Open GL 2.1 **\*Does not support Windows 32bit** 

## **Download Instructions**

- To download DeNoise 6 please visit <u>topazlabs.com/</u> <u>downloads</u>.
- Locate Topaz DeNoise 6 and click on the appropriate Mac or Windows button next to that product to start your download.
- The download should start automatically, however if prompted, select 'Save'.
- The downloaded installer will then be located in your Downloads folder or desktop as an .exe file (Windows) or a .dmg file (Mac).





Mac dmg

Windows exe

The program will then install as a standalone editor to:

Mac: Applications folder Win: C:\Program Files\Topaz Labs\Topaz DeNoise 6

## Compatibility

DeNoise can be accessed as a plugin within:

- Photoshop CS4+
- Photoshop Creative Cloud
- Photoshop Elements 12+
- Corel Paintshop Pro X
- Serif PhotoPlus X5+
- Lightroom 4+ or CC as an external editor
- photoFXlab

## Accessing DeNoise in Ps, PsCC, and Ps Elements

To use DeNoise 6 as a plugin within Ps, Ps Elements and PsCC you must first run it as a standalone editor (Mac only). DeNoise will then be available to use in Photoshop via the Filter menu. For Windows, the plugin should automatically appear in the Filter list.



Should DeNoise not appear in the Filter menu, you may need to exit out of Ps and then re-open it.

*Important:* Your image will need to be 8-bit or 16-bit and in RGB mode. Go to Image-> Mode to change this.

# Installation

## Accessing DeNoise in Lightroom

DeNoise can be accessed as an external editor in Lightroom by going to Photo-> Edit In-> Topaz DeNoise 6.

Develop	Photo Settings Tools View	Window	Help
_	Add to Quick Collection and Nex	dt ûB	
2015 U <b>e</b>	Show in Finder Go to Folder in Library	ЖR	
AT FILL I:I	Edit In Photo Merge	•	Edit in Adobe Photoshop CC 2015 #E Edit in Topaz Fusion Express 2 \C#E
	Create Virtual Copy	ж'	Fusion Express 2
	Rotate Left (CCW) Rotate Right (CW)	೫[ ೫]	PhotoFxLab Topaz Texture Effects Topaz DeNoise 6

Important: For optimal use of DeNoise, go to Lightroom-> Preferences-> External Editing.

É	Lightroom	File	Edit	Develop	Photo	Settings	Tools	View	W
••	About Ado	be Ph	otosho	p Lightrooi	m CC				
	Preference	s			H.	,			
▶ 、	Catalog Se Identity Pla	ettings ate Sel	 tup		<b>~</b> ₩,	le ►			

Make sure that 'TIFF' is selected under File Format. In addition, select 16 bits/component for bit depth and the color space ProPhoto RGB for optimal editing.

Preset:	Topaz DeNoise 6		
Application:	Topaz DeNoise 6		Choose Clear
File Format:	TIFF	0	The AdubeRGB (1998) color space cannot encompass the full range of colors anailable within Lightroom.
Color Space:	AdobeRGB (1998)	0	
Bit Depth:	16 bits/component	Ð	
Resolution:	240		
Compression:	None	0	

## Accessing DeNoise in Corel PaintShop Pro X

To configure DeNoise as a plugin within PaintShop Pro:

## 1. Go to File-> Preferences-> File Locations...

2. Scroll to select 'Plugins' from the File types list and click 'Add'

File types: CMM: Profiles Deformation Maps Displacement Maps Emvironment Maps	Plug-in file folders           *         If Enable plug-ins - Allow the use of external Adobe-compatible plug-ins           If Unit loaded plug-in files to those with an .882 extension only           If Allow file format plug-ins to request pre-filtering of support file types	
Gradients Masks Mover Pages Moving Profiles Palettes Patterns Detros Former	E C: (Program Files (Corel) Corel PantShop Pro X6 (64-64) (Plughs (EN C: (Program Files (Topaz Labs	Add Remove
Picture Tubes Plug-ins Preset Shapes	Politer options     T2 through      T2 th	

3. Navigate to C:\Program Files\Topaz Labs\Topaz DeNoise 6. Select the Topaz DeNoise 6 folder and click OK.



# Installation

4. Click OK again to return back to your main screen.5. Go to Effects-> Plugins-> Topaz Labs-> Topaz DeNoise 6 and select it to start the program.

## Accessing DeNoise in Serif PhotoPlus

To use DeNoise 6 as a plugin within Serif Photo Plus: 1. Go to File-> Preferences

2. Select Plug-ins from the list and then click Browse.



## 3. Navigate to: C:\Program Files\Topaz Labs

Browse for Folder	23
Select Plugins Folder	
> 🏭 shaders	•
▷ 퉲 Tablet	
▷ IneHDEGroup ▲ Dopaz Labs	
Topaz DeNoise 6 Topaz Glow	
Topaz Impression Topaz ReMask 5	
Dipaz Texture Effects	-
•	-
OK Can	cel

- 4. Select the **Topaz Labs** folder and press OK.
- 5. Press OK again to return back to your main screen.
- 6. Exit out of Serif and then re-open it.

7. To access DeNoise open an image and go to Effects-> Plugin Filters-> Topaz Labs-> Topaz DeNoise





# Installation

## **Entering Your License Key**

Upon opening Topaz DeNoise 6 you should be prompted to enter your 30 digit license key. You can also enter your license key from the top Help menu.



Simply copy and paste your 30 digit license key into the provided space to activate the program. Or, if running a trial, click 'Continue Trial'.

Should you receive an activation failure, please make sure that you have copied (ctrl/cmd + C) and pasted (ctrl/cmd + V) the key. Also be sure that you did not copy any extra blank spaces.

Please know that there is no difference between the trial and purchased version of DeNoise. DeNoise does not require a trial key, as it is clock based.

For additional license key assistance, please see our knowledge base:

- My license key is not being accepted
- Common License Key Questions



Photo © Darcy Wheeler



Photo © David Lund

# Uninstalling

## To uninstall Topaz DeNoise follow these instructions:

## - Mac

- 1. Quit Photoshop (or other editing program).
- 2. Navigate to the Denoise 6 Application File located at: Macintosh HD -> Applications.
- 3. Locate the DeNoise 6 application and move it to the trash. You will need to enter your system password to OK this change.
- 4. Navigate to your Photoshop plug-ins folder located at: Applications -> Photoshop -> Plug-ins
- 5. Locate the Topaz DeNoise folder "TopazDeNoise6 " and move it to the trash.

#### - Windows 8 &10:

- 1. Quit Photoshop (or other editing program).
- 2. Click on the Start Menu and select Control Panel.
- 3. Double-click on Add / Remove programs.
- 4. Select Topaz DeNoise and click remove.
- 5. Navigate to the Adobe Photoshop Plugins Folder C:\Program Files\Adobe\Adobe Photoshop\Plugins
- 6. Remove the file "topazdenoise6ps\_x64" and move it to the trash.

#### - Windows 7:

- 1. Quit Photoshop (or other editing program).
- 2. Click on the Start Menu and select Control Panel -> Programs -> Programs and Features.
- 3. Select Topaz DeNoise and click uninstall.
- 4. Navigate to the Adobe Photoshop Plugins Folder C:\Program Files\Adobe\Adobe Photoshop\Plugins
- 5. Remove the file "topazdenoise6ps\_x64" and move it to the trash.

# Introduction

## Noise

#### What is Noise?

Noise is a random and unwanted problem caused by the sensor (determined by your ISO settings) in digital cameras. Most often, noise appears as randomly spaced grain or dots distributed throughout your image. Noise can also appear as unevenness in color, random pixels of color or as a variation in brightness within your image.

Noise is most noticeable in plain, solid areas of your digital image, and is also found in areas of high color and in darker areas such as blacks and shadows. Noise is also apparent in underexposed images. This is because lower light regions offer comparatively less visual information than regions with more light, so noise tends to become a problem in these darker settings. Brightening dark images can also increase the presence of noise in digital images.

#### **Consequences of Noise**

The presence of noise creates a visually unpleasant image with reduced image detail and clarity. Noise will also create an inconsistency in darker areas of the image such as blacks or shadows, leaving these areas looking grainy and often with random color specks.

#### How to Spot Noise

The true effects of noise may be hard to notice at first, but if you zoom in on your digital image - 100% or more - you will instantly see the defects.



Photo <sup>®</sup> Jack Torcello

#### What Causes Digital Image Noise?

Noise can be a result of a number of things including:

- 1. A very sensitive sensor
- 2. Low light combined with a high ISO.
- 3. Sensor Size.

#### What is ISO?

The ISO setting defines how sensitive your camera sensor is to the amount of light present in your scene. It can also vary by camera model.

A higher ISO setting will cause the sensor to be more sensitive thus allowing you to take pictures in low-light or with faster shutter speeds.

> For more information and to see examples visit: www.topazlabs.com/DeNoise

# Topaz DeNoise 6

## Two Types of Noise

There are two general types of noise that you will see in your digital images.

1. Luminance Noise is the black and white noise or "grain" in an image.

2. Chrominance is the pastel-colored, speckled noise often seen in mid-tone or shadow areas.

#### **Uses and Benefits of High ISO Settings**

Generally, it's always best to use the lowest ISO setting possible. However, a higher ISO enables:

1. Faster shutter speeds to freeze motion - ideal for indoor sports photography.

- 2. Better perfomance in low light.
- 3. Reduce image blur when shooting hand held.

#### Side Effects of High ISO Settings

The side effect of a high ISO setting is noise. The presence of noise will reduce your image quality and obscure important image details.

#### **Noise Removal Tools**

There are a variety of noise reduction tools available for eliminating image noise. However all tools come with the unwanted side effect of detail loss, which affects the overall quality of your image. Another common side effect is image blurring as a result of lost detail. These side effects lower the quality and value of your image. Topaz DeNoise uses the most advanced algorithm to preserve detail.

#### When Should I use Noise Reduction Software?

The ideal time to remove noise is at the beginning of your workflow. Eliminating noise as a first step is key because it will ensure that you are working on a clean image. It is always important to remove any damaging defects before applying any color, detail or creative adjustments to your images.



**Before DeNoise** 



After DeNoise

## **Topaz DeNoise**

# Introduction

## About Topaz DeNoise

Topaz DeNoise is an advanced noise detection and removal program that reduces noise while retaining and restoring image detail offering unprecedented control over the clarity of your photos.

Topaz DeNoise specializes in reducing digital image noise, while preserving detail and increasing image sharpness.

To connect with other Topaz users, participate in Topaz contests and to see the latest tips, tricks and tutorials sign up for the new Topaz Forum online at: discuss.topazlabs.com



**Before Topaz DeNoise** 

## The primary functions of Topaz DeNoise are:

- 1. Remove image noise
- 2. Retain and restore important image details previously obscured by noise.
- 3. Sharpen edges and color edges.
- 4. Smooth color unevenness.
- 5. Eliminate horizontal and vertical banding lines
- 6. Correct image black levels to restore true color in black and shadow areas.
- 7. Rescue underexposed images by removing the excessive noise that accompanies all brightening exposure adjustments.
- 8. Rescue low-light, high ISO images
- 9. Help users create high-quality JPEG images
- 10. Simplify the noise reduction process, making it powerful, quick, and efficient.



After Topaz DeNoise

# Introduction

## **Banding Noise**

## What is Banding Noise?

Banding noise is a camera-induced artifact that appears in digital images as parallel patterns of horizontal and vertical lines. These lines often appear colorful.

There are two forms of banding noise: short banding and long banding. Short banding noise appears in isolated image areas while long banding noise extends across the entire image. Banding is typically unpredictable and unavoidable, however it is more frequently seen with the use of high ISO speed.

## DeNoise Debanding Technology

Topaz DeNoise features long banding removal capabilities. The Debanding tab tackles both horizontal and vertical banding, eliminating the long colorful lines and restoring image integrity.



## Banding Noise (200%)

After Topaz DeNoise

# Introduction

## **Correcting Black Levels**

## **Noise Effects on Image Black Levels**

Removing noise from dark and shadow areas of images effects the image's black levels - often leaving a hazy color cast. This color cast can make your image appear desaturated and less contrasted in the dark areas.

> Want to find out more about noise reduction, banding, and black levels? Visit the Topaz Labs Blog online at: www.topazlabs.com/blog

## **DeNoise Black Level Correction**

The Correct Black Level parameter in DeNoise 6 allows you to clean up this hazy color cast and restore the true richness of blacks and shadows in digital images.

This unique color correction tool allows users to retain and restore balanced, contrasted color within images.



**Before Black Level Correction** 



After Black Level Correction

## New Features in DeNoise 6

## **Stand Alone Product**

Topaz DeNoise now works as a standalone product and doesn't require a host editor to work. Although it can still be used as a plugin through Photoshop, Lightroom, and other supported host programs.

## **Camera Specific Presets**

PRESETS	Canon	•	ł	
EOS 5D Mar	k II - ISO 12800			
EOS 5D Mar	k II – ISO 1600			
EOS 5D Mar	k II – ISO 25600			
EOS 5D Mar	k II – ISO 3200			
EOS 5D Mar	k II – ISO 400			
EOS 5D Mar	k II - ISO 6400			
EOS 5D Mar	k II - ISO 800			
EOS 5D Mar	k III – ISO 12800			
EOS 5D Mar	k III – ISO 1600			
EOS 5D Mar	k III – ISO 25600			
EOS 5D Mar	k III – ISO 3200			
EOS 5D Mar	k III – ISO 400			
EOS 5D Mar	k III – ISO 6400			
EOS 5D Mar	k III – ISO 800			
EOS 5DS R -	- ISO 1600			

Topaz DeNoise now features dozens of presets based on various camera profiles, with multiple ISO presets for each camera. Now you can remove the noise from your image with a click.

# Introduction



**Before Topaz DeNoise** 

Photo ® Gary Lamott



After Topaz DeNoise

Photo ® Gary Lamott

# Introduction

## New Features in DeNoise 6

## **Batch Processing in Application**

Topaz DeNoise now offers Batch Processing. That means no more need for Photoshop actions! Just Batch Process your images directly through the DeNoise 6 Standalone application.

Image:	
Source Folder	
Choose /Applications	
🗹 Include All Subfolders	
Destination Folder	
Choose /Applications	2
✓ Keep Source Folder Structure	
Example: MyFile_0001.jpg	
Document Name	
_ (underscore)	
4 Digit Serial Number	
None	
Starting Serial #: 1	
Hide DeNoise Window While Batching	
Cancel	ок

File	Edit	View	Help	
	Open			
Red	Recent Files			
-	Save		жs	
3	Save As			
	Batch Process			

Before opening batching you'll need to open a sample image and set DeNoise to the preset or custom settings you would like to use for Batch Processing. Then Just go to: File > Batch Process

#### **Batch Processing Menu**

- 1. Source Folder Use this section to choose the folder that contains the images you'd like to Batch. If you'd like to include any other folders within your selected folder just check the box to include sub folders.
- 2. Destination Folder Use this section to choose the folder that you want the processed images from DeNoise to save into. If you'd like to keep the same sub folder structure as your source folder check the box labeled "keep source folder structure" otherwise all images in the source folder and sub folders will be saved directly to the destination folder.
- **3.** File Naming Use this section to create custom names and numbers for your processed images, including numbers, dates, and original document names. You can even choose a starting serial number.
- 4. Hide DeNoise While Batching Check this box to hide the Main DeNoise interface and only show the processing box, allowing you to keep an eye on your batching progress.

Then Just click OK to start processing.



NOTE: If you cancel a batch while processing, DeNoise will finish the image it is currently working on then cancel the batch and open the application window.

## Interface (Main View)

Although the Topaz DeNoise interface may look intimidating at first glance, don't worry: it's actually quite simple and easy to use. You'll soon be a pro after experimenting with it for a bit. In order to make sense of the function of each of the various controls, we have divided the interface into a few sections:



Provides "snapshots" of accessible pre-defined parameter settings.

**2. PREVIEW WINDOW** Displays the preview of the original and adjusted image.

**3. PREVIEW NAVAGATOR** Displays the region of the preview image you are currently focused on. **4. SETTINGS AND PARAMETERS** Controls the editing using sliders to adjust the various effects.

# Work Area

16

## Interface (Tool Panel View)

Use the small white arrows to expand and collapse the preset panel. You can click the white arrow or grab the edge of the panel and drag it in or out.



# Work Area

## Interface (No Panel View)

Use the small white arrows to expand and collapse the preset and tool panels. You can click the white arrows or grab the edge of the panels and drag them in or out.

PROCESSED ING\_2008.JPG, f/2.48372, 1/98 s, 60 1800, Caren R05 70

## Interface (Preset Panel View)

Use the small white arrows to expand and collapse the tool panel. You can click the white arrow or grab the edge of the panel and drag it in or out.



## **Preview Section**

The Preview section is the main window that is centered in the DeNoise interface. The preview section shows you the original image and the processed preview of the image. Click on the image in the preview window to switch between the Original and Preview tabs and compare the filtered and un-filtered images. To pan the preview image, click and hold the left mouse button on the preview image and drag it around. When you let go of the mouse button, the new portion of the image will be processed and the result will be displayed.







You can zoom in or out of the preview image by clicking the "magnifying glass" button above the preview image, or by clicking the shown zoom level and picking another value from the dropdown.

You can also resize the window as well by dragging the bottom right corner in and out.

The "Ctrl +" and "Ctrl –" keys zoom in and out of the image, just like in Photoshop.

You can use the arrow keys to adjust the value of the slider that is currently selected.

A complete list of the shortcut keys can be found in the Shortcut Keys section later in this manual.

Please note: We recommend that you not zoom out more than 100%. Anything below 100% hinders your ability to identify and remove image noise. The ideal zoom setting is 200% Photoshop and other host software support many Image Modes, such as Grayscale, RGB, LAB, CMYK, etc. Images can also be 8, 16, or 32 bits per channel. Topaz DeNoise supports both 8 bits per channel and 16 bits per channel. Topaz DeNoise supports RGB mode only. To work on black-and-white images, first convert them to RGB mode.

## Presets

Presets are a great way to speed up and simplify the whole process of using Topaz DeNoise. Presets are set previews with previously defined settings that you can recall and reapply at any time.

We've included some default presets for you and, athough they won't work for every single photograph, they serve as excellent starting points for customized tweaking.

## **Applying Presets**

Applying a default preset is easy and intuitive. Simply clicking on a preset will change all the settings in Topaz DeNoise to match those in the selected preset. To get the exact results you want, you may still want to go through the tabs and tweak the parameters.

## Saving / Adding Presets

Sometimes it's convenient to be able to define pre- sets and save your settings for later use. To do this, first adjust the Topaz DeNoise parameters until you're satisfied with the result. Then, click on "Save".



Remember that you can easily expand or collapse the presets panel by clicking on the small white arrow on the edge of the panel or by grabbing the panel edge and dragging it in or out.



# Work Area

# Work Area

Enter a preset name and select OK to save. It is also a good idea to use the other preset fields by entering a creator name, camera type, ISO setting, image type and a brief description of the preset.

You will also need to select a Relative or Absolute Preset Type. A Relative preset setting is generally used for broader types of image noise that require less precision. An Absolute preset setting is ideal for specific camera and ISO settings.

	Save Preset
Preset Name:	My Awesome Preset
Preset Type:	Relative to Noise Estimate     Absolute
Created By:	Topaz Labs
Category:	Canon
Camera:	7D Mark 1
ISO:	100
Image Type:	RAW
Description:	This is my standard 100 ISO preset for my Canon 7D Mark 1.
	Cancel OK
	Carter OK

Note that if the name you've entered is the same as a preset you've already defined then you will be asked if you want to overwrite the previous one.

Your preset will be automatically saved as a new file with a ".tpp" extension in the Topaz DeNoise Presets menu and the preview is automatically generated. To apply it later, just click it like any other preset.

The preset name alr overwrite it?	eady exists. Do you wa	int to
	No	Yes



## **Deleting Presets**

If you'd like to delete a preset the select the preset name and then click on Delete.

**Please Note:** Default presents cannot be overridden or deleted. Once preset is deleted, then it cannot be retrieved.

Saved presets are located in the Topaz DeNoise 6 "Presets" folder: C: \ Program Files \ Topaz Labs \ DeNoise 6 \ Presets unless you've opted to install Topaz DeNoise into a different directory. Mac users have this folder at: Macintosh HD / Library / Applica- tionSupport / TopazLabs / DeNoise 6 / Presets.



## Importing Presets

To import a preset file, click the "Import" button.

This will open up a "Browse" box to import a saved preset from your computer into Topaz DeNoise. This is useful if you have downloaded a preset file that you'd like to use.

0.0.0	Open Preset File
く > # 三 100 1001	III - Presets for Challenging 0 Q. Snarch
A Google Drive Google Drive Coopbox (Topaz Labs) All My Files Cicloud Drive A All My Files Cicloud Drive A Applications Desktop Documents Documents Coopbox Cloud Files Devices Topaz's MacBook Pro Remote Disc Shared Topaz's Mac	Prodor/down.pg     panda rap 2 mp3     PastedGraphic-1.tiff     Presets fory Joel Wolfson tpp     Adjust Night1 Wolfson.tpp     Adjust HarsL Wolfson.tpp     Adjust HarsL Wolfson.tpp     Clarity-DeHaWolfson.tpp     Clarity-DeHa
New Folder	Cancel

Have more questions about Topaz DeNoise 6 or any of the other Topaz software programs? Check out the new Topaz Knowledge Base online at: support.topazlabs.com Your preset will be automatically saved as a new file with a ".tpp" extension in the Topaz DeNoise Presets menu and the preview is automatically generated. To apply it later, just click it like any other preset.

	Save File
Save As:	▼
Tags:	
Where:	🔜 Macintosh HD ᅌ
	Cancel Save

You can then share this preset file with others who may then import it.

#### **Sharing Presets**

Feel free to share your saved presets by emailing them to your friends and having them put it into their Topaz De-Noise Presets folder.

Visit the Topaz Labs Blog which features the latest Photography, software and design information including tutorials, videos, and thoughts about both Topaz and non-Topaz topics. blog.topazlabs.com

User Manual

## Tools

You will use the various tools in the tools panel during your workflow to make your image adjustments.

- 1. Preview Navigator Displays the region of the preview image you are currently focused on.
- 2. Preview Display Modes View image noise based on the color channel that it is in.
- 3. Auto Brightness add temporary brightness to your image to help you identify and remove noise.
- 4. Undo and Redo buttons reverse and reapply image settings.
- 5. Sliders and Parameters Controls the editing process using sliders to adjust the various effects.
- 6. Reset Button Use the "Reset" button to reset all of the sliders values back to zero.



## Menu

You can access Topaz DeNoise different menus on the Menu bar at the top of the interface.

## File Edit View Help

## File Menu

(only viewable in standalone version) the file menu allows you to:

File Edit View He	lp
<u>O</u> pen	Ctrl+O
<u>R</u> ecent Files	*
E <u>x</u> it	

- Open a new document.
- View recently opened files.
- Save your edits.
- Save your edits as a new file.
- Batch Process a group of files.
- Exit the program.

## Edit Menu

Menu items here allow you to undo or redo actions within



DeNoise.

## View Menu

The View Menu offers shortcuts to control the image in

Zoom In	Ctrl++
Zoom Out	Ctrl+-
Fit On Screen	
Actual Pixels	

the Preview section. You can zoom in, zoom out, fit the image to the screen, or view by actual pixels.

## Help Menu



information held in the Menu Button on the bottom of the interface.Preferences

The help menu also contains all the

Work Area

Allows you to set the your startup parameter settings to Absolute or Relative. Relative is the default setting. Also has checkboxes for showing tooltips (button descriptions) on rollover or enabling autoupdate within Topaz DeNoise.

Product Info

Select this to go to the Topaz DeNoise website.

• Users Guide Select it to pull up this user guide.

- Tutorials Opens Tutorials for DeNoise 6
- Product Support Select to visit the Topaz Labs Support Page.
- Forum Select to visit the Topaz Labs Forum
- Enter Key Select this to enter your trial or purchased license key.
- Startup Guide Click this to launch the quickstart guide.
- About Displays your current version of DeNoise.

## **Parameters**

Topaz DeNoise has three settings tabs and a total of 10 parameters, plus 5 display modes, to help you achieve optimal image results.

# NOISE REDUCTION DETAIL RECOVERY DEBANDING

BeforeTopaz DeNoise Photo ® Jack Torcello



After Topaz DeNoise Photo ® Jack Torcello

## Settings & Parameters Noise Reduction

The Noise Reduction tab includes parameters that are related to noise removal. These tools are the main ones that you will use, and they will resolve most of your image noise issues. This is also where you will start when making any adjustments in DeNoise. All of the subsequent sliders are relative to the Overall Strength slider.



## **Overall Strength**

This is the main noise removal tool that reduces overall image noise that affects the entire RGB image. Overuse can soften the image so use with care.

For most users, "Overall Strength" is the only feature you will need to use when editing images that have noise issues. Be sure not to use too strong of a value with the "Overall Strength" slider or this may cause your image to lose detail and edge sharpness.

# Settings & Parameters

## **Adjust Shadow**

This parameter is relative to the Overall Strength slider and adjusts the noise removal strength in shadow (darker) areas of the image.

## Adjust Highlight

This parameter is relative to the Overall Strength slider and adjusts the noise removal strength in the highlight (lighter) areas of the image.

#### Adjust Color - Red

This parameter works in conjunction with the "Red" Preview Display Mode, to reduce corresponding noise in that channel.

#### **Adjust Color - Blue**

This parameter works in conjunction with the "Blue" Preview Display Mode, to reduce corresponding noise in that channel.

#### **Clean Color**

Controls the relative amount of color. Raising this value helps to correct images that contain random bits of color.

#### **Correct Black Levels**

Restores the true richness of blacks and shadows. Raising this value increases the saturation of black levels in your image.

The Adjust Shadow slider coincides with the Correct Black Levels slider. As you increase the value of the Adjust Shadow slider you are removing more noise from shadow areas and exposing more black / shadow areas. This offers the Correct Black Levels slider more black / shadow area to evaluate and restore richness to. DeNoise offers 6 different Preview Display Modes that you can use to help with noise removal and detail recovery while using Topaz DeNoise.



Enable the "Auto-Brightness" feature to brighten the image for better viewing of artifacts in dark areas. Auto-Brightness is for previewing only, your image will not stay brightened once you process your adjustments.

## **Detail Recovery**

The Detail Recovery tab offers additional tools that can help create a well-balanced image. This is where you will do your fine-tuning by restoring image details.



#### **Recover Detail**

Brings original details back into the image. A good way to use this parameter is to first set it to "o". Then after you have made your noise reduction adjustments, you can gradually increase this parameter to bring back more detail. Overuse can reintroduce noise into your image, so use with care.

## **Reduce Blur**

This parameter is an intelligent de-blurring function that is useful for correcting blurry or soft edges after removing noise. This parameter should not be set higher than necessary because that may result in edge halos and noise amplification.

#### Add Grain

Adds fine monochromatic grain to the image for a lightly textured and natural look.



**BeforeTopaz DeNoise** 

After Topaz DeNoise

For more information about noise reduction, debanding and example images please visit the Topaz Blog online at: www.topazlabs.com/blog

# Settings & Parameters

## DeBanding

The debanding tab allows you to remove horizontal and / or vertical banding from your image.



## Horizontal (Checkbox)

Selecting this option targets the horizontal banding in your image.

## Vertical (Checkbox)

Selecting this option targets the vertical banding in your image.

#### **Banding Width**

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Determines how much debanding strength is applied to the selected direction.

There are two types of banding noise that appears in images: short banding and long banding.

Short banding appears in isolated areas of the image.

Long banding extends across the entire image from end to end. The Debanding tool in Topaz DeNoise 6 targets Only instances of long banding.

# Your First Project

## Quick and Easy Noise Removal

Topaz DeNoise makes noise removal quicker than its ever been, giving you clean and clear images every time. There are two main phases to noise reduction with DeNoise, Noise Reduction and Detail Recovery. Setting the appropriate slider values in both of these phases is the key to achieving optimal image results.

Two optional steps include banding removal and black level color correction. However these adjustments are not always not necessary for every image.



Photo ® Heath Robinson

We are going to show you how effective DeNoise is and how fast it is to get optimal results in your images. You can DeNoise any image in 3 quick steps.

## Step 1:

Click on the Reset All button. If desired, select one of the default presets.



# Your First Project

Go to the Noise Reduction tab and slowly adjust the Overall Strength slider to perfect the noise removal in your image. Then compare the before (Original) and after (Processed) of your image by clicking on the image or by using your spacebar shortcut key to toggle back and forth.



# Your First Project

## Step 2:

Go to the Detail Recovery tab and slowly adjust the Recover Detail slider to bring back detail into your image. Since this image is still a little soft, take up the Reduce blur as well, then slide up the add grain to bring back some of the texture in the image. Compare the before (Original) and after (Processed) of your image, you should see a loss of grain but no loss of detail.



# Your First Project

## **Step 3:** Once you are satisfied with your changes click OK to process and you will have a clean, noise free image.



**Before Topaz DeNoise** 

After Topaz DeNoise

And that's all there is to it! You can quickly and easily remove noise from any image using DeNoise.

Clear, clean and sharp images are always just a few clicks away.

Now that you know how, go ahead try it out on your own images!

# Glossary

Topaz DeNoise 6

Achromatic - Without color.

**Action** - A set of edits or adjustments that are recorded and remembered by Photoshop and can be played back later on any image.

**Algorithm** - Any bit of code or programming that defines a process.

**Auto-brightening** – Temporary visual setting that brightensthe preview image, allowing noise to become more visibleduring removal. Brightness will not be permanently applied to image.

**Banding Noise** - Banding noise is a camera-induced artifact that appears in digital images as parallel patterns of horizontal and vertical lines. These lines often appear colorful.

**Batch Processing** - The automated process of editing multiple images with the same adjustments and corrections.

**Blur** - Make or become unclear or less distinct. Brightness - The degree to which a color sample appears to reflect light.

**Chroma** - Purity or intensity of color. The difference of a color against the brightness of another color that appears white under similar viewing conditions.

**Color** - The human perceptual response to different wavelengths of light impinging on the photo receptors in the retina.

**Color channel** - The visual component of a color digital image that represents all the pixels in that picture made up of a specific primary color. In a typical digital photo, the primary colors of red, green and blue (from the RGB color model) create all the colors in that photo, which may be represented by three color channels, each of red, green or blue.

**Color Noise** – A type of digital noise in which color edges are blurred or the image is unevenly colored and filled with spots.

**Color Profile** - defines the range of colors that can appear in a digital photo.

**Debanding** - Removing banding noise from images and restoring image color and detail.

**DeBlur** - A method for reducing image blur while sharpening image details.

**Download** - The process of transmitting or transferring data from one device to another.

**Export** - Outbound data transfer in a format that can be used by other programs.

**Grain** –Lightly speckled noise that is used to apply a more natural look to an image.

Image - An array of pixels that make up a digital picture.

Import - Inbound data transfer into a file or document.

**ISO** - The amount of sensitivity of a digital camera sensor. A higher ISO enables faster shutter speeds and/or better performance in low light, but is more susceptible to experiencing increased noise. Luma (Luminance) - The brightness in an image (the "black" and "white" or achromatic portion of the image). Luma represents the achromatic image without any color, while chroma components represent the color information.

**Noise** - Visible effects of interference in an image from a digital camera. Often appearing as random colored dots sprinkled throughout the image or uneven coloration in what should be smoothly-colored areas. It is most likely to show up in the darker or shadowed areas of an image. Noise can be an undesirable effect that detracts from overall image quality or something you can choose to create artistically.

**Pan and Zoom** - A useful function that allows users to magnify the captured image in the preview and then, by using the cursor, to move or pan around the image. Typically Pan and Zoom allows users to magnify the image 2x or 4x time. By magnifying the images and zeroing in on a specific section, you can see details not visible when the entire image is sized to fit the preview.

**Parameter** - A numerical or other measurable factor forming one of a set that defines a system or sets the conditions of its operation.

**Photo-editing or Imaging software** – Programs in which you can alter your photos and / or create digital images. Depending on the software, you can improve exposure, color and other attributes of your picture, paint on it, add type, apply special effects, remove noise, resize it, combine it with other pictures, prepare it for e-mail or posting on the web, output it to a printer, or do any number of other manipulations or edits. **Plug-in** - A computing feature with the ability to be added to a system to give extra features or functions. Preset - A pre-defined combination of parameters and settings that is saved into a folder within Topaz DeNoise. Topaz provides default presets. A preview of each preset can be seen in the preset preview window located at the top left hand side of the interface above the preset list.

Preview- Shows the processed preview of the image.

**RAW image** - An image file format that contains untouched, "raw" pixel information straight from the digital camera's sensor. It has yet to translate the information in each pixel into the full color information, so this format offers more control over how the final JPEG or TIFF image is generated.

**Reduce Blur** - An de-blur function that uses de convolution technology rather than simple sharpening techniques.

**Refine** – Improve (something) by making small changes to make it more subtle and accurate.

**RGB** - Red, Green, Blue. The color model that is used in digital cameras and by computer monitors.

Sharpness - The clarity of detail in a photo.

**Smoothing** - To make a surface more regular or consistent; free from perceptible projections, lumps, or indentations.

**Shadow** - A dark area or shape produced by a body coming between rays of light and a surface.

Glossary

# Shortcut Keys

Topaz DeNoise 5 offers the use of shortcut keys to help speed up your workflow. Many of these keys are similar to the ones used in Photoshop. The following keys work at all times, Mac and PC Shortcuts are the same unless indicated otherwise:

MAC Shortcuts	PC Shortcuts	Action
Spacebar	Spacebar	View Original Image
CMD-SHIFT-R	CTRL-SHIFT-R	Reset All
+ or CMD - +	+ or CTRL - +	Zoom In
- or CMD	- or CTRL	Zoom Out
CMD - Z	Ctrl - Z	Undo
CMD - Shift - Z	Ctrl - Shift - Z	Redo
CMD - O	Ctrl - O	Open Image (Standalone Only)
CMD - S	Ctrl - S	Save Image (Standalone Only)
Ν		Expands / Collapses Noise Reduction Tab
D		Expands / Collapses Detail Recovery Tab
G		Expands / Collapses Debanding Tab
А		Switches to RGB Preview Mode
L		Switches to "L" Preview Mode
С		Switches to "C" Preview Mode
R		Switches to "R" Preview Mode
В		Switches to "B" Preview Mode
Х		Turns the Auto-bright feature off
Y		Sets the Auto-bright feature to Normal
Z		Sets the Auto-bright feature to Strong
S		Takes a Snapshot
CMD-Shift-P	CTRL-Shift-P	Recalls previous Snapshot
CMD-Shift-N	CTRL-Shift-N	Recalls next Snapshot
CMD-1	CTRL-1	View Original Image
CMD-2	CTRL-2	View Adjusted Image
Up or Down Arrow Key		Scrolls through presets
Return (enter) key		Applies selected preset (Plugin Version Only)
[ key		Reduces selected slider value by 0.1
]key		Increases selected slider value by 0.1
Home Key		Set the slider value to minimum
End Key		Set the slider value to maximum
Double-click slider name		Resets the slider to it's default value

## **Connect with Topaz**

Follow us on <u>Twitter</u> (@topazlabs) for notifications of recent news and easily get in touch with us whenever you feel like it!

Find us on our <u>Facebook page</u> and network with other Topaz users!

Participate in the entirely user-led <u>Topaz Flickr group</u> for a helpful and highly active community for Topaz Photoshop plug-ins!

Subscribe to our <u>YouTube channel</u> to keep up with any newly released product video tutorials!

Check out our <u>blog</u> for tutorials, tips and updates from Topaz Labs!

And don't forget to check out our other social media outlets including: Instagram (@topazlabs), Pinterest, LinkedIn and Google+!



## Be sure to check out the complete line-up of Topaz products.

Photo Enhancement Plug-ins



Ultimate control over image exposure, detail, and color gives you the power to make your photos pop.



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Develop unique and compelling photography with the most technologically advanced software available.



Create powerful photos & flawless image definition. Intelligently and image contrast.

dynamically enhance



Specializes in creating crisp and stylized images. Also features extensive smoothing capabilities.



Advanced JPEG artifact reduction filters eliminate JPEG compression artifacts while preserving image detail like never before.



Advanced high-ISO noise reduction technology that eliminates noise while effortlessly maximizing and retaining image detail.



**Output & creative** sharpening with three levels of intricate and specific detail enhancement.



The superior capturesharpening solution that actually recovers lost detail and refines with micro-contrast detail enhancement.

37



Your virtual camera bag of effects simulated from real lenses and filters. Effects include creamy bokeh, old school filters and more!



Remove unwanted backgrounds from your digital images quickly and easily with ReMask.



Expand your creativity alter your image's look by applying one of over a thousand color filters.

1007



Transform your regular photo into a beautiful work of art, such as an oil painting, watercolor, line & ink drawing and more!



Create beautifully rendered and natural lighting effects in seconds!



Our standalone editor that is a one stop workshop for accessing all of your Topaz plugins. Can also work as an external editor (replacing Fusion).



Our free external editor required to use Topaz Labs in Lightroom, iPhoto and Aperture. PhotoFXlab can be used in its place as the external editor.



**Topaz Texture Effects** allows you to achieve a variety of textured, toned, and lighting effects in minutes.

Go to topazlabs.com/downloads to get your 30-day free trial!

Topaz DeNoise 6

## **Contact Information**

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Topaz Labs LLC, a privately owned company headquartered in Dallas, Texas, focuses on developing advanced image enhancement technology. With today's widespread use of digital still cameras, the need for high-quality digital images has greatly increased. Topaz Labs' mission is to bring practical state-of-the-art image enhancement technology to both professionals and consumers.

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