

# **Noise Buster AI**

# **No More Noise on Your Pictures!**



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# AKVIS NOISE BUSTER AI 12.0 | DIGITAL NOISE REDUCTION

#### No More Noise on Your Pictures!

AKVIS Noise Buster AI efficiently reduces digital noise and grain in your images using trained neural networks.

Digital cameras opened the door to easy and entertaining photography. However, consumer digital cameras also have their drawbacks: they often produce the so-called **digital noise**. It can be seen as artifacts or grains that compromise the smoothness of the photo.

It is especially annoying on the skin as it makes it uneven. This kind of noise is called **luminance noise**. There can also be **chroma (color) noise** which is perceived as random red and blue pixels spoiling the color accuracy of the snap-shot.



Digital noise can be produced by many factors: heating of the camera sensor, long exposure shooting, small pixel size (therefore digital compact cameras generate much noisier images than digital SLRs), high ISO settings, etc.

**AKVIS Noise Buster AI** is efficient noise suppression software. It reduces both **luminance** and **color** noise on digital images without spoiling other aspects of the photo.



# **Digital Noise Reduction with AI**

The software uses neural networks to get rid of digital noise and improve the image. The program includes three modes: **Weak Noise**, **Strong Noise**, and **Strong Compression with Noise**. Depending on the selected mode, the program uses the appropriate neural network.

With AKVIS Noise Buster AI your photos look neat and accomplished!



# **Post-Processing Adjustment**

There are post-processing settings to refine the result obtained by AI. You can tweak the parameters and observe the changes in real-time in the Quick Preview. The program's window shows Before and After images for comparison. You can switch between the windows with a click in the image or place the original photo and the result side by side for a more convenient preview.



# Photo Editing Tools

In addition, you can also use manual photo editing tools, starting from cropping the image and ending with mixing the result and the original on the selected areas. The *Smart Blur* tool (Home Deluxe/Business) smooths out grain and noise while preserving outlines and fine details.



## **Batch Processing**

The software offers **Batch Processing** support that lets you automatically convert a series of images. It is useful when dealing with a series of photos taken under the same conditions with identical camera settings. It saves you time and effort.

The program is equally useful both for professional and home users. You don't need any special skills or knowledge to produce high-quality results. Select a mode and adjust the parameters. Fix your grainy photos with a click!

**AKVIS Noise Buster AI** is available in two editions: as a *standalone* application and as a *plugin* to a photo editor: AliveColors, Adobe Photoshop, Adobe Photoshop Elements, Corel PaintShop Pro, etc.

# INSTALLATION

Follow the instructions to install AKVIS Noise Buster AI on a computer with Windows OS:

- Start the setup **exe** file.
- Select your language and press the Install button.
- To continue the installation process you have to read and accept the End User License Agreement.

Activate the check box "I accept the terms in the License Agreement", and press Next.

AKVIS Noise Buster AI Setup	2
End-User License Agreement	R
Please read the following license agreement carefully	
AKVIS™ END USER LICENSE AGREEMENT	
NOTICE TO USER:	
THIS IS A CONTRACT. THIS END USER LICENSE AGREEMENT IS A	
LEGALLY BINDING CONTRACT THAT SHOULD BE READ IN ITS	
ENTIRETY. THIS IS AN AGREEMENT GOVERNING YOUR USE OF THE	
PRODUCT (AS SUCH TERM DEFINED BELOW). AKVIS, THE AKVIS OF	
THE PRODUCT, IS WILLING TO PROVIDE YOU WITH ACCESS TO THE	
PRODUCT ONLY ON THE CONDITION THAT YOU ACCEPT ALL OF THE	-
☑ I accept the terms in the License Agreement	
Print Back Next Can	cel

• To install the **Plugin**, select your photo editor(s) from the list.

To install the **Standalone** version, make sure that the corresponding option is activated. To create a shortcut for the program on desktop, activate **Desktop Shortcut**.

# Press Next.

Select the way you want features to be installed.  Click the icons in the tree below to change the way features will be installed.  Click the icons in the tree below to change the way features will be installed.  Click the icons in the tree below to change the way features will be installed.  Click the icons in the tree below to change the way features will be installed.  Click the icons in the tree below to change the way features will be installed.  AliveColors  Adobe Photoshop CS6 (64-bit)  Adobe Photoshop CS6 (32-bit)  Adobe Photoshop CC 2015.5 and newer (32-bit)  Adobe Photoshop CC 2015.5 and newer (32-bit)	ustom Setup					S
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• Press the Install button.



• The installation is in progress.

AKVIS Noise Buster AI Setup		
Installing AKVIS Noise Buste	er AI	XIMP C
Please wait while the Setup Wizard i	installs AKVIS Noise Buster AI.	
Status: Copying new files		
	Back Next	Cancel

• The installation is completed.

You can subscribe to the **AKVIS Newsletter** to be informed about updates, events, and special offers. Enter your email address and confirm that you accept the Privacy Policy.

B AKVIS Noise Buster AI Setup	<b>- ×</b>
	Completed the AKVIS Noise Buster AI Setup Wizard
	Click the Finish button to exit the Setup Wizard.
	If you want to be kept posted on updates, discounts, contests, subscribe to our Newsletter (2-3 issues a month). To subscribe, enter your e-mail address below.
	E-mail address
	Subscribe to AKVIS Newsletter
	I accept the <u>Privacy Policy</u>
	☑ Launch the program
	Back Finish Cancel

• Press Finish.

After installation of the **standalone** version, you will see the program name in the **Start** menu and a shortcut on the desktop, if during installation the corresponding option was enabled.

After installation of the **plugin**, you will see a new item in the **Filter/Effects** menu of your photo editor. For example in **Photoshop**: Filter -> AKVIS -> Noise Buster AI.

# INSTALLATION

Follow the instructions to install AKVIS Noise Buster AI on a Mac computer:

- Open the **dmg** file:
  - akvis-noise-buster-app.dmg to install the Standalone version
  - akvis-noise-buster-plugin.dmg to install the Plugin into your image editor.
- Read the License Agreement and press Agree, if you agree with the conditions.



• Finder will open with AKVIS Noise Buster AI application or AKVIS Noise Buster AI PlugIn inside.

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AKVIS Noise Buster	readme.txt	AKVIS No	bise Buster Plugin	readme.txt
AKVIS Noise Buster		AKVIS No	ise Buster Plugin	

• To install the **Standalone** version, drag the **AKVIS Noise Buster AI** app into the folder **Applications** (or any other place you like).

To install the **Plugin**, drag the entire **AKVIS Noise Buster AI PlugIn** folder into the **Plug-Ins** folder of your graphic editor:

Photoshop CC 2022, CC 2021, CC 2020, CC 2019, CC 2018, CC 2017, CC 2015.5: Library/Application Support/Adobe/Plug-Ins/CC;

Photoshop CC 2015: Applications/Adobe Photoshop CC 2015/Plug-ins;

Photoshop CS6: Applications/Adobe Photoshop CS6/Plug-ins.



(click to enlarge)

After installation of the **plugin**, you will see a new item in the Filter menu of your photo editor (in **Photoshop**: **Filter -> AKVIS -> Noise Buster AI**).

Run the standalone program by double-clicking on its icon in Finder.

You can also run the AKVIS program from the **Photos** app by choosing the **Image -> Edit With** command (in High Sierra and later versions of macOS).

#### HOW TO ACTIVATE AKVIS SOFTWARE

Attention! During the activation process your computer must be connected to Internet.

If it is not possible, we offer you an alternative way (see below for Offline Activation).

Download AKVIS Noise Buster AI and install the program. Read the Installation Instruction here.

When you run the unregistered version, a splash window will appear displaying general information about the version and the number of days left in your trial period.

You can also open the About the Program window by pressing the button 👔 in the program's Control Panel.



Click on TRY IT to evaluate the software. A new window will appear with variants of licenses to test.

You do not need to register the trial version to try all features of the software. Just use the program during the evaluation time (10 days after the 1st start).

During the test period you can try all options and choose the license you like. Select one of the offered functionality types: **Home** (Plugin or Standalone), **Home Deluxe**, or **Business**. Your choice of license will affect which features will be available in the program. Consult the comparison table for more details about license types and versions of the software.

If the trial period has expired, the **TRY IT** button is disabled.

Click on **BUY NOW** to choose a license to order.

When the payment is effected, your serial number for the program will be sent to you within minutes.

Click on ACTIVATE to start the activation process.

<b>AKVIS</b> Noise Bus	ster Al Version 12.0.3158.21516-r app (64bit)	$\otimes$
	ACTIVATION	
Customer Name:	John Smith	
Serial Number (Key):	1234-5678-9012	
	O Direct connection to the activation server	
	○ Send a request by e-mail	
Lost your serial numb	ber? <u>Restore it here</u> .	
Activation problems?	? <u>Contact us</u> .	$\varnothing$
Copy HWID.	ACTIVATE	CANCEL
	© 2006-2022 AKVIS. All rights reserved.	

Enter your name (the program will be registered to this name).

Enter your serial number (your license key).

Choose the method of activation — either direct connection to the activation server or by e-mail.

#### Direct connection:

We recommend activating the program using direct connection, as it is the easiest way.

At this step your computer must be connected to Internet.

# Press ACTIVATE.

Your registration is completed!

#### Request by e-mail:

In case you have chosen activation by e-mail, a message with all necessary information will be created by the program.

NOTE: You can also use this method for Offline Activation:

If your computer is not connected to Internet, transfer the activation message to a computer connected to Internet, for example, with a USB stick. Send us this information to: activate@akvis.com.

Please do not send the screenshot! Just copy the text and save it.

We need your serial number for the software, your name, and HardwareID (HWID) of your computer.

We will generate your license file (Noise-Buster.lic) using this information and will send it to your e-mail address.

Save the .lic file (do not open it!) to your computer where you want to register the software, in the AKVIS folder in Users' Shared (Public) Documents:

#### • Windows 7/8/10:

Users\Public\Documents\AKVIS;

• Mac:

Users/Shared/AKVIS.

Your registration is completed!



When the program is registered, **BUY NOW** turns to **UPGRADE** that lets you improve your license (for example, change **Home** to **Home Deluxe** or **Business**).

# WORKSPACE

AKVIS Noise Buster AI can work independently as a standalone program as well as a plug-in to a photo editor.

Standalone is an independent program; you can open it by clicking the program's icon.

To launch the standalone version, run the program directly:

On a Windows computer - select it from the Start menu or use the program's shortcut.

On a Mac computer - launch the app from the Applications folder.

Plugin is an add-on for a photo editor, for example for Photoshop.

To call the plugin, select it from the filters of your image editing program.

The **AKVIS Noise Buster AI** workspace looks like this:



#### Features of the Workspace:

Most of the **AKVIS Noise Buster AI** workspace is taken by the **Image Window** with two tabs: **Before** and **After**. In the **Before** tab, the original image is shown, while in the **After** tab you can see the result. You can compare the original image with the result by clicking any point of the image.

Note that when the After tab is pressed, it starts image processing with the current settings.

You can select how **Image Window** and **Before/After** tabs will be shown by adjusting the **View Modes** in the bottom part of the left panel.



In the upper part of the window, you can see the Control Panel.

The button opens the home page of **AKVIS Noise Buster AI**. The button **R** (only in the standalone version) allows opening an image for processing. Right-click this button to display the list of recent files. You can change the number of recent documents in the program's **Preferences**.

The button 🛐 (only in the standalone version) allows saving a resulting image to the disk. The button 📕 (only in the standalone version) allows printing the image. The button results posting pictures from the program to the social networks. The button **(only in the standalone version)** opens the **Batch Processing** dialog to automatically process a series of images. The button 👍 cancels the last action. If it is pressed multiple times, it will cancel several previous actions. This can also be activated with the keyboard, by pressing Ctrl + z on Windows, H + z on Mac. The button 📦 restores an action cancelled by 🖕 . The button 🔊 launches filtration of the entire image. Before you press this button the filtration result is shown only in the preview area. The button 🕢 (only in the plugin version) allows applying the filtration result to the image and closes the AKVIS Noise Buster AI window. The button 👔 shows information about the program: version, license, etc. The button 👩 is designed to call the Help files of the program. The button 🇙 calls the Preferences dialog box for changing the program's options. The button **II** opens a window showing the latest news about Noise Buster AI.

To the left of the main window there is the **Toolbar**. The tools' parameters are shown in a pop-up box after right-clicking in the image.

#### Pre-Processing Tools (in the Before tab):

		$\nabla$	switches on/off the Quick Preview area (more about the preview).
The	button	女	(only in the standalone version) activates the Crop tool which allows cutting off unwanted areas in the
imag	e.		

#### Post-Processing Tools (available in the After tab):

Attention! If you switch to the **Before** tab and re-run the image processing (), the changes made with these tools will be lost!

The button activates the **Smudge** tool which helps to refine the image by removing unwanted irregularities.

The button activates the **History Brush** tool which restores areas to their original state.

The button activates the Smart Blur tool which smooths out grain and noise while preserving outlines and details.

It is available only under Home Deluxe and Business licenses.

The tools' parameters:

- Size affects the tool's diameter.
- Hardness changes the blurriness of the edges of the tool. The lower the value, the more blurry the tool's edges are.
- Strength affects the force of the tool applied to the image.

#### Additional Tools:

The button	activates	s the <b>Hand</b>	tool, which	allows you	u to scroll	the image	when it doe	es not fit v	within the	Image
Window at i	the desired s	cale. To use	e it, click the	e button, k	oring the c	cursor over	the image,	and while	e keeping i	the left
mouse butto	n pressed mo	ove in the de	sired directi	on.						

Double-clicking the tool's icon in the **Toolbar** makes the image fit the **Image Window**.

The button  $\bigcirc$  activates the **Zoom** tool, which changes the image's scale. To zoom in, left click in the image. To zoom out, right click in the image. Press z to quickly access the tool.

Double-clicking the tool's icon  $|\mathbf{Q}|$  in the **Toolbar** makes the image scale to 100% (actual size).

Moving and scaling the image is done in the **Navigator**. In the **Navigator**, you can see the reduced copy of the image. A frame surrounds the part of the image visible in the **Image Window**; the area outside of the frame will be shaded. The frame can be dragged to display a different part of the image. To move the frame, bring the cursor inside the frame, press the left mouse button, and while keeping it pressed, drag the cursor.



Additionally, you can move the image in the **Image Window** with the scroll bars or by holding down the space bar, then holding down the left mouse button while moving the mouse. Use the scroll wheel of the mouse to move the image up/down, by keeping the ctrl ( $\mathbb{H}$  in Mac) key pressed – to the left/to the right, by keeping the Alt (Option in Mac) key pressed – scale the image. Right-click the scroll bar to activate the quick navigation menu.

Use the slider to scale the image in the main window. When you move the slider to the right, the image scale increases. When you move the slider to the left, the image scale reduces.

You can also change the image scale by entering a new coefficient into the scale field. Frequently used scale coefficients can be found in a fall-down menu.

You can use hot-keys to change the image scale + and Ctrl ++ on Windows,  $\mathbb{H} ++$  on Mac to scale up the image, and - and Ctrl +- on Windows,  $\mathbb{H} +-$  on Mac to scale down the image.

Under the **Navigator**, in the **Settings Panel**, you can choose a preset in the **Presets** field and adjust the noise reduction parameters.

Under the settings, you can see **Hints** for the parameters and buttons when you hover over them with the cursor. You can choose where the hints will be shown or hide them in the **Preferences**.

#### IMAGE VIEW MODES: BEFORE AND AFTER

At the bottom of the Toolbar of **AKVIS Noise Buster AI**, there are three buttons which let you choose how the **Image Window** will look like and arrange the **Before** and **After** tabs.



- Click the first button to open a submenu that contains various options for viewing the original and processed images:
  - The button provides the standard image window mode with two tabs: Before and After.

- The buttons and e divide the main window into two parts, vertically or horizontally, respectively. The original and processed images become partially visible and the tabs are combined to form the whole picture.



With this arrangement, it's possible to drag the splitter changing the aspect ratio between the **Before** and **After** parts.

- The buttons and split the main window into two parts, vertically or horizontally, as well. However, in contrast to the previous option, the windows display the same fragment of the image before and after processing.



**Note**: Use two windows side by side when you want to see and compare the original and processed versions of an image fragment on one screen. If you would rather see the final image as a whole, you can choose the standard image view mode.

• The button 😰 swaps the positions of the original image and result when displaying two windows.

• The 3rd button lets you choose the background color of the Image Window. Pressing , , or changes the background color to white, gray, or black, while clicking on opens the Select Color dialog where you can choose a color of your choice.

#### HOW TO USE THE PROGRAM

**AKVIS Noise Buster AI** reduces both **luminance** and **color noise** on images without spoiling other aspects of the photo. The software can work independently as a standalone program and as a plugin to a photo editor.

Follow the instructions below to reduce noise on a picture using AKVIS Noise Buster AI.

in AliveColors: Effects -> AKVIS -> Noise Buster AI; in Adobe Photoshop: Filter -> AKVIS -> Noise Buster AI;

Step 1. Open an image.

- If you work with the standalone edition:

The dialog box **Select File to Open** appears if you double-click in the empty workspace of the program or if you click on the **Control Panel**. You can also drag the required image into the workspace of the program. The program supports images in the **JPEG**, **TIFF**, **BMP**, **PNG**, and **RAW** formats (CRW, NEF, ORF, PEF, etc. - See the

- If you work with the plugin:

Open an image in your photo editor by calling the command **File -> Open** or using the Ctrl + 0 key combination (or  $\mathbb{H} + 0$  on Mac).

Call the AKVIS Noise Buster AI plugin in the Filter/Effects menu of the photo editor:

in Corel PaintShop Pro: Effects -> Plugins -> AKVIS -> Noise Buster AI;

full list here). You can also drag the required image into the workspace of the program.



Step 2. You can start with processing the image using the default settings.

The result will be shown in the **Quick Preview** area in the **Before** tab. It is represented by a dotted frame. You can drag the frame or draw it anew on any part of the image, thus analyzing parts of the photo.



You can compare the filtered result with the original image by clicking in the preview area.

It's possible to change the size of the quick preview area in the program's Preferences  $mathbf{mathb}{mathbf{mathb}mathbf{mathbf{mathb}mathbf{mathbf{mathbf{mathbf{mathb}mathbf{mathbf{mathb}mathbf{mathb}mathbf{mathbf{mathb}mathbf{mathbf{mathb}mathbf{mathbf{mathb}mathbf{mathbf{mathb}mathbf{mathbf{mathb}mathbf{mathbf{mathb}mat$ 

Step 3. You can adjust the noise reduction parameters to achieve the best result.

The task of noise reduction is to find the golden mean between suppressing noise and keeping detail. Besides, it is important to take into account the psychological characteristics of visual perception: when comparing the original and the filtered photo pay your attention not only to details but to the overall impression as well. A certain amount of noise does not necessarily spoil a picture, while some smoothness of a photo may add to the visual effect (especially in portrait retouching where it is not desirable to see the skin structure in detail).

Step 4. To process the entire image, click 🔊 or press the After tab.

After processing, it is possible to switch between **Before/After** tabs by pressing the left mouse button anywhere in the image window.



Step 5. You can also use the *post-processing tools* in the After tab: Smudge , History Brush , and Smart Blur .

Attention! If you change the parameters and re-run the image processing, the changes made with these tools will be lost.

The **Smudge** tool *m* helps to refine the image by removing unwanted irregularities.

The History Brush tool 🐼 restores areas to their original state.

The Smart Blur tool smooths out grain and noise while preserving outlines and fine details. It is available

only under Home Deluxe and Business licenses. **Step 6.** It is possible to save the settings you like as a **preset** and use them in the future. The presets are also helpful when working in the batch processing mode.

To save a preset, enter its name into the **Presets** field and press the **Save** button. If you change the values of the parameters, you can always come back to the default settings of the preset by pressing the **Reset** button.

To delete a preset, select it from the list and press Delete.

To process an image with the settings of a certain preset, select it from the drop-down menu and click 🍙

Step 7. You can publish your images to social networks by clicking 💦

In the standalone version, you can also print your image with

Step 8. Save the processed image.

- If you work with the standalone edition:

Click the button **to** open the **Save As** dialog box. Enter a name for the file, choose the format (**TIFF**, **BMP**, **JPEG** or **PNG**), and indicate the target folder.

- If you work with the plugin:

Click 🕥 to apply the result to the image and close the plugin's window.

In the image editor, call the **Save As** dialog box using the command **File -> Save As**, enter a name for the file, choose the format, and indicate the target folder.



click to open a larger copy

# NOISE REDUCTION WITH AI

AKVIS Noise Buster AI uses specially trained neural networks to eliminate digital noise from photos.



Noise Removal

Noise on a color picture can be divided into luminance noise and color noise. Luminance noise is perceived as dark dots or small blots, color noise represents color spots on areas having a different color. Another name for color noise is chroma noise. The program removes both luminance and color noise, as well as jpeg compression artifacts.

Adjust the parameters in the Settings Panel.

**Noise Level**. The program uses neural networks to remove digital noise and enhance images. Select the noise suppression mode that suits your photo best:

# Weak Noise; Strong Noise; Strong Compression with Noise.



Original Noisy Photo



Weak Noise Mode



Strong Noise Mode

# Post-Processing:

Optionally, you can refine the result obtained by the neural network. When the **Post-Processing** check-box is enabled, the image will be automatically processed to remove residual defects. You can also use the post-processing parameters:

Edge Intensity (0-100). The parameter makes the edges more clear and well-defined.



Edge Intensity = 0



**Sharpness** (0-100). This parameter changes the clarity of the image by enhancing the contrast between pixels.



Sharpness = 0

Sharpness = 100

# **BATCH PROCESSING**

**AKVIS Noise Buster AI** supports **batch processing** that lets you automatically process a series of images and saves you time and effort. It is useful when dealing with a lot of photos taken under the same conditions with identical camera settings.



Even if you've never used this feature before it is simple to learn!

If you use the standalone version of AKVIS Noise Buster AI, read the instructions here.

If you use the Noise Buster AI plugin in Photoshop, use this tutorial.

# **PROGRAM PREFERENCES**

The button 📩 opens the **Preferences** dialog box. It looks like this:

Preferences	×
Language	English 💌
Interface Scale	Auto 💌
Interface Theme	Dark 💌
Initial Image Scale	○ Fit to View ④ 100%
Recent Files	10
Preview Window Size (pixels)	600
Hints	Under Settings Panel 🔻
☑ Use GPU	
☑ Lock the Control Panel	
🗌 Old Algorithm	
OK Cancel	Default

- Language. Change the program language by selecting another from the drop-down list.
- Interface Scale. Choose the size of the interface elements. When it is set to Auto, the program workspace will automatically scale to fit the screen resolution.
- Interface Theme. Select the style of the program interface: Light or Dark.
- Initial Image Scale. This parameter defines the way the image is scaled in the Image Window after opening. The parameter can take one of two values:

- image scaling **Fit to View**. The scale adjusts so that the image will be completely visible in the **Image Window**;

- if the option 100% is checked, image doesn't scale. Generally, when the scale = 100%, only part of the image will be visible.

- Recent Files (only in the standalone version). The number of recent documents. The list of the recent files, sorted by time, become visible by right clicking . Maximum: 30 files.
- Preview Window Size. Choose the desired value of the size of the quick preview area. It can have values from 200x200 to 1000x1000 pixels.
- Hints. When you hover over parameters and buttons with the cursor you can see a brief description of them in the Hints field. You can choose how the hints will be shown:

- **Under Image Window**. It shows the hints in the main window, under the image. This mode is useful if there is not enough space by height to display this field under the settings;

- Under Settings Panel. Select this to show hints at the bottom of the right part, under the settings;
  - Hide. Use this option if you do not need the hints.
- Use GPU. The check-box lets you turn on GPU acceleration and significantly speed up the noise suppression filtering. If your computer does not support GPU acceleration the check-box will be disabled.
- Lock the Control Panel check-box. It disables the possibility to hide/show the top panel. If the check-box is selected, the panel is always visible.
- Old Algorithm. When the check-box is turned on, the traditional noise reduction algorithm (non-AI) from previous versions of the program will be applied.

To save changes made in the **Preferences** window press **OK**.

If you need, click the **Default** button to come back to the default settings.

#### TRADITIONAL NOISE REDUCTION ALGORITHM

**AKVIS Noise Buster AI** allows you to remove both luminance and color noise from your digital photographs. Before version 12.0, the software used the traditional noise reduction algorithm. Since version 12.0, the program uses trained neural networks. You can switch to the old algorithm by selecting the corresponding option in the **Preferences**.



Noise Removal

Noise on any color picture can be divided into **luminance noise** and **color noise**. Luminance noise is perceived as dark dots or small blots, color noise represents color spots on areas having a different color. Another name for color noise is chroma noise.

The **Histogram** below the **Settings** is a graphical depiction of the noise level and noise components of the original picture. The gray area shows the **luminance noise**; the red area shows the **color noise**. The more the histogram is shifted to the right, the higher the noise level is. And vice versa, if the histogram is shifted to the left, the image has a low noise level. The height of the histogram displays the number of pixels having this noise level.

When adjusting the parameters, pay attention to the **right part of the histogram**, as it shows the amount of highly noised pixels. The amount of pixels in the left part shows low noised pixels that are a part of the picture, its natural background.

	_	
Presets		
blue-mountai	ns	
Save	Delete	Reset

Image Noise Histogram

**Note:** On a grayscale photo there is no color component and therefore no color noise. To suppress noise on a grayscale photo it is enough to regulate the parameters of the **Luminance Noise**.

Attention! The Histogram is only a graphic representation of the picture's noise level. It does not change as you change the settings. The histogram helps you estimate the noise level and decide what parameters should be adjusted.

On the Settings Panel, adjust the effect parameters:

**Fade** (0-100%). This parameter sets the mixing ratio of the filtered image and the original. At 100% all elements of the photo defined as noise are smoothed in accordance with the value of the parameter **Smooth Level**. As you move the slider to the left (i.e. reduce the value of the parameter), the original image noise mixes into the filtered image; at 0% there is no filtration at all. In most cases a certain amount of original noise adds to the natural look of an image and allows restoring small details.



Quality (1-20). The parameter reduces the number of color spots but significantly increases the processing time.



Quality = 3

Quality = 10

**Noise Level** (0-100). The parameter defines which elements of the image are to be considered noise (luminance or color) and which are to be considered important details. At high value of the parameter small details can be defined as noise and, therefore, be smoothed.



Noise Level = 0

Noise Level = 100

**Smooth Level** (0-100). The parameter sets the extent to which the elements defined as noise should be smoothed. The higher the parameter, the smoother the filtration result. However, at high values of the parameter, an image can lose detail and look flat. High values of the parameter **Smooth Level** for color noise can produce an alteration of colors and loss of small color details.



Smooth Level = 20

Smooth Level = 100

## Improve Detail Parameter Group:

**Microdetail** (0-100). The parameter restores small details on the image. The default value usually offers a satisfactory result, but it is possible to increase the value of the parameter to improve sharpness.



**Edge Intensity** (0-100). The parameter makes the edges and borders more visible without revealing noise. The higher the value, the stronger the effect - the edges become clear and well-defined.



**Sharpness** (0-100). The parameter changes the contrast of adjacent pixels. Use this parameter carefully, it can return digital noise to the image.



**Remove Moiré** Check-Box. Use this mode to reduce unwanted moiré patterns and remove halftone from scanned newspaper photos. The degree of smoothing is regulated by the **Blur** parameter.

Note: The Remove Moiré check-box and the Blur parameter are available only for Home Deluxe and Business licenses.



Halftone Image



Blur = 1.0



Blur = 4.0

# PRINT IMAGES IN AKVIS NOISE BUSTER AI

In the standalone version of **AKVIS Noise Buster AI** you can print the image. Press the button to open the **Print** options.



Print Options in AKVIS Noise Buster AI

Adjust the parameters appearing in the Settings Panel:

Choose a printer from the list of available devices, set the desired resolution, as well as the number of copies to print.

In the Orientation group, set the position of paper: Portrait (vertically) or Landscape (horizontally).

Click the **Page Setup** button to open a dialog box to choose the size of the paper and its orientation, as well as the print margins.

Press the Reset Margins button to return the page margins to the default size.

Change the size of the printed image adjusting the parameters **Scale**, **Width**, **Height** and **Fit to Page**. These parameters have no effect on the image itself, just on the print version. You can change the size of the printed image by entering any value in %, or by entering new values in **Width** and **Height**.

To adjust the size of the image to the paper size, select Fit to Page.

Move the image on the page with the mouse or align it using the arrow buttons.

You can activate Frame for the image and adjust its width and color.

Choose the Background Color by clicking on the color plate.

In the Page tab, you can adjust printing of the multiple copies of the image on a single sheet.



Print Page

- Copies per Page. It lets you specify the number of copies of the image on one page.
- Horizontally and Vertically. These parameters indicate the number of rows and columns for the copies of the image on the page.
- Spacing. The parameter sets the margins between the copies of the image.

In the **Poster** tab, it's possible to customize printing of the image on multiple pages for the subsequent junction into a large picture.



Print Poster

- **Pages**. If the check-box is enabled, you can specify the maximum number of the pages in which the image will be divided. The image scale will be adjusted to fit this number of the sheets. If the check-box is disabled, the program will automatically select the optimal number of the pages in accordance with the actual size of the image (scale = 100%).
- **Glue Margins**. If the check-box is enabled, you can adjust the width of the padding for bonding sheets. Margins will be added to the right and to the bottom of each part.
- Show Numbers. With the enabled check-box, a sequence number of each part, by a column and a row, will be printed in the margins.
- Lines of Cut. Activate the check-box to display the cut marks in the margins.

To print the image with the chosen parameters, press the **Print** button. To cancel and close the printing options click on **Cancel**.

Click the **Properties...** button to open a system dialog box that enables you to access the advanced settings and send the document to print.

# AKVIS PROGRAMS

# AKVIS AirBrush — Airbrushing Techniques on Your Photos

**AKVIS AirBrush** automatically transforms a photograph into a work of art which looks like made with a special airbrush tool that sprays paints or inks. The software works as an artistic filter creating stylish colorful airbrush designs from images using chosen settings of photo-to-painting conversion. More...



#### AKVIS Artifact Remover AI — JPEG-Compressed Image Restoration

**AKVIS Artifact Remover AI** uses artificial intelligence algorithms to remove JPEG compression artifacts and restore the original quality of compressed images. The software is available free of charge. It is a must for both home users and professionals. More...



#### AKVIS ArtSuite — Frames and Effects for Your Photos

**AKVIS ArtSuite** is an impressive collection of versatile frames and effects for photos. ArtSuite contains many templates and texture samples that can be used to create a virtually limitless variety of options for generating frames. Decorate a photo to give it an original and festive look! More...



# AKVIS ArtWork — Collection of Painting & Drawing Techniques

**AKVIS ArtWork** is photo to painting software designed to imitate different painting techniques - *Oil Painting, Watercolor, Gouache, Comics, Pen & Ink, Linocut, Pastel,* and *Pointillism.* ArtWork helps you to create a piece of art out of any picture! More...



# AKVIS Chameleon — Photo Collage Creation

**AKVIS Chameleon** is a fun to use tool for photo collage creation. It makes the process easy and entertaining. The tool is very easy to handle as it does not require precise selection of objects. Using the software you can quickly create your own photo collages. More...



# AKVIS Charcoal — Charcoal & Chalk Drawings

**AKVIS Charcoal** is a creative tool for conversion of photos into charcoal and chalk drawings. Using the program you can make professional-looking expressive black and white images. Playing with colors and options you can achieve outstanding artistic effects, such as sanguine and others. More...



# AKVIS Coloriage — Add Color to Black and White Photos

**AKVIS Coloriage** allows colorizing B&W photos and replacing colors in color images, performing selective colorization and desaturation. It helps to breathe new life into your old family photographs, bring a vintage or artistic appearance to your digital images. More...



# AKVIS Decorator — Resurface and Recolor

**AKVIS Decorator** lets you change the surface of an object in a realistic manner. The program puts on a texture keeping the volume of an object, following its folds and creases. The new pattern looks absolutely natural and makes you see things differently. Recoloring is also made easy. More...



#### AKVIS Draw — Hand-made Pencil Drawing Effect

**AKVIS Draw** converts your photos into hand made pencil drawings. The software creates realistic looking line art illustrations, produces both B&W and color drawings. Add a hand-drawn look to your pictures! More...



# AKVIS Enhancer — Bring Detail To Your Pictures

**AKVIS Enhancer** is image enhancement software that detects detail in underexposed, overexposed and mid tone areas of a photo with uneven exposure. Enhancer improves every part of the image! The software works in three modes: *Improve Detail, Prepress,* and *Tone Correction.* The program offers a fast method to fix a dark photo, add contrast and brightness to a picture, it lets you improve color and adjust tones. More...



# AKVIS Explosion — Fabulous Particle Explosion Effects

**AKVIS Explosion** offers creative destruction and particle explosion effects for your photos. It bursts an object and applies dust and sand particles to an image. With the software, you can create eye-catching graphics in just a few minutes! More...



# AKVIS Frames — Decorate Your Photos with Frames

**AKVIS Frames** is a free program designed for working with the AKVIS frame packs



# AKVIS HDRFactory — High Dynamic Range Images: Brighter than Reality!

**AKVIS HDRFactory** lets you create a High Dynamic Range image from a series of shots or from one single photo. The program can also be used for photo correction. The program brings life and color to your photos! More...



# AKVIS LightShop — Light and Star Effects

**AKVIS LightShop** lets you create an infinite number of astounding light effects! The program offers advanced lighting techniques for adding stars and glow effects to images. A light effect draws attention and brighten up any photo. Add a little magic to your pictures! More...



# AKVIS Magnifier AI — Change Image Size without Quality Loss

**AKVIS Magnifier AI** helps to resize images without loss in quality. Featuring neural networks based algorithms, Magnifier AI enlarges digital pictures to super-high resolution and produces stunning wall-sized prints. More...



# AKVIS MakeUp — Retouch Your Portrait Photos!

**AKVIS MakeUp** improves your portraits giving them a professional look. The software retouches facial imperfections making your skin radiant, beautiful, pure and even. The program adds glamour to your pictures and creates a high key effect. Look your best in every photo with AKVIS MakeUp! More...



# AKVIS NatureArt — Bring Nature to Your Photos

AKVIS NatureArt is an excellent tool for imitating the magnificence of natural phenomena on your photos. The program

#### includes a number of effects: Rain



#### **AKVIS Neon – Glowing Drawings from Photos**

**AKVIS Neon** lets you create amazing glowing lines effects. The software transforms a photo into a neon image that looks like drawn with luminescent ink. More...



# AKVIS Noise Buster AI — Digital Noise Reduction

**AKVIS Noise Buster AI** is software for noise suppression on digital and scanned images. The program is efficient for removing any type of digital noise. It reduces both luminance and color noise without spoiling other aspects of photos. The software includes AI technologies and adjustments for manual refining. More...



# AKVIS OilPaint — Oil Painting Effect

**AKVIS OilPaint** turns your photos into oil paintings. The mysterious production of a painting happens right before your eyes. The unique algorithm authentically reproduces the technique of the real brush. With this cutting-edge software you can become a painter! More...



# AKVIS Pastel — Turn Photos into Pastel Paintings

**AKVIS Pastel** turns your photos into pastel paintings. The program converts your photo into a lifelike digital art imitating one of the most popular artistic techniques. AKVIS Pastel is a powerful tool to unleash your creativity! **More...** 



# AKVIS Points — Apply Pointillism Effect to Your Photos

**AKVIS Points** lets you transform your photos into paintings using one of the most exciting artistic techniques - pointillism. With the software you can easily create gorgeous works of art in a pointillist manner. Discover the world of bright colors! More...



# AKVIS Refocus AI — Focus Improvement & Blur Effects

**AKVIS Refocus AI** improves the sharpness of out-of-focus and blurry photos, enhances the entire image or partially, creating a selectively focused area. It's also possible to add bokeh and lens blur effects to your photos. The program provides five image processing modes: *Refocus AI*, *Tilt-Shift*, *Iris Blur*, *Motion Blur*, and *Radial Blur*. More...



#### AKVIS Retoucher — Image Restoration Software

**AKVIS Retoucher** is an efficient program for photo restoration and photo retouching. The software removes dust, scratches, stains, and other defects that appear on damaged photos. It intelligently reconstructs the missing parts of the photo using the information of the surrounding areas. More...



AKVIS Sketch – Turn Your Photos into Pencil Sketches

**AKVIS Sketch** converts photos into amazing pencil drawings. The software creates realistic color artworks and B&W sketches, imitating the technique of graphite and color pencil. The program offers these photo to drawing conversion styles: *Classic, Artistic,* and *Maestro,* - each with a series of presets. AKVIS Sketch allows you to feel like a real artist! More...



# AKVIS SmartMask — Save Time on Complex Selections!

**AKVIS SmartMask** is an efficient selection tool that saves time and is fun to use. Selection has never been so simple! The software considerably increases your productivity. You will be freed from boring work and will have more room for creativity and realization of your ideas. More...



#### AKVIS Watercolor – Aquarelle Art from Photos

**AKVIS Watercolor** easily makes a photo look like a brilliant and vibrant watercolor painting. The software turns ordinary images into amazingly realistic aquarelle pieces of art. More...

