

# **Focus Adjustment & Blur Effects**



# akvis.com

# CONTENTS

- Field of Application
- Installation on Windows
- Installation on Mac
- Activation
- How It Works
  - Workspace
    - Using the Program
    - Refocus AI
    - Tilt-Shift
    - Iris Blur
    - Motion Blur
    - Radial Blur
    - Bokeh Effects
    - Preferences
    - Batch Processing
  - Print Image
- Examples
  - Remove Motion Blur
  - Toy World: Tilt Shift Effect
  - Look into My Eyes: Selective Focus
- AKVIS Programs

# AKVIS REFOCUS AI 11.5 | FOCUS IMPROVEMENT & BLUR EFFECTS

**AKVIS Refocus AI** is focus adjustment software that enhances the clarity of photos, increases their sharpness, and fixes motion blur problems. The program also applies artistic blur and bokeh effects to images. Improve your pictures and add aesthetic value to your photographs with AKVIS Refocus AI!

Digital cameras are a good companion for capturing everyday moments - they are handy and offer automatic settings that save you time. However, sometimes the camera fails to focus on the subject automatically and it comes out unsharp.

**AKVIS Refocus AI** will take care of such images. The software improves the sharpness of out-of-focus images. It's also possible to add bokeh and lens blur effects to your photos.

The software works in five modes: Refocus AI, Tilt-Shift, Iris Blur, Motion Blur, and Radial Blur.



**Refocus AI** mode makes blurry photos sharp and clear. The program can process the entire photo or bring into focus only the selected part to make the subject stand out against the background. The photo becomes more distinct and thus more impressive.

In this processing mode, you can choose to apply one or both focus improvement options - **Motion Deblur AI** and **Image Sharpening**, and if necessary enable the **Background Defocus** feature.

The **Motion Deblur AI** mode, based on cutting-edge artificial intelligence technologies, copes well with camera shake and motion blur problems. The **Image Sharpening** mode includes the adjustment of different types of sharpness and blur that allows you to bring your photos into focus.



Even if a photo looks sharp enough, there is always room for improvement. To draw attention to certain details, you can use selective focus. In digital photography the selective focus technique is used to shoot portraits, macro and close-up photographs. With the software you can separate the subject from the background using special tools; to achieve a more realistic selective focus effect you can sharpen one part of the photo and blur the rest (*Deluxe/Business*).



**Tilt-Shift** mode allows leaving a sharp strip in the image, adding gradual blur at the edges, with smooth transitions between the regions and with bokeh effects. This mode gives the objects on the photo a "toy" look. It blurs the outer parts and makes the objects appear as if they are miniature models. In real photography, you can achieve this effect with special tilt-shift camera lenses. Using the software you can bring any photo into a world of miniatures!



Iris Blur mode (*Deluxe/Business*) creates shallow depth-of-field effect, blurring the background while keeping the subject in focus.

In contrast to the previous mode, this one lets you specify the shape of the sharp area (ellipse, rectangle). Real photographers can achieve this effect by opening aperture and using different lenses. With this program you can create a blur background in a click.



Motion Blur mode allows you to simulate the movement in static images. It creates the photographic illusion of a fast-moving object by smearing the image in the straight line direction.

You can apply the effect to either an entire image or put an accent to certain areas by blurring the background. Add action to your images!



**Radial Blur** mode creates a circular blurring effect normally caused by rotating or zooming the camera while shooting a picture. The mode allows you to choose between two options:

**Zoom Blur** option makes the image appear to move toward or away from the viewer. **Spin Blur** option creates the appearance that the image is spinning.

Revive your images with outstanding blur effects!



Advanced photography techniques are now available for everyone!

You do not need special knowledge to achieve good results. The software is easy-to-use, even for novices. To get started quickly, the program offers a large number of presets. You can observe the result in real time and compare *before* and *after* states.

AKVIS Refocus AI is available as a standalone application and as a plugin filter.

The plugin version is compatible with AliveColors, Adobe Photoshop, Photoshop Elements, Corel PaintShop Pro, and other editors. Check the compatibility.

# INSTALLATION

Follow the instructions to install AKVIS Refocus 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.

nd-User License	Agreement			57
Please read the fol	owing license agreer	nent carefully		¥(
AKVIS™ END US	ER LICENSE AGR	EEMENT		•
NOTICE TO USER	R:			
THIS IS A CONTR	RACT. THIS END	USER LICENSE /	AGREEMENT IS A	
LEGALLY BINDIN	IG CONTRACT TH	AT SHOULD BE	READ IN ITS	
ENTIRETY, THIS	IS AN AGREEME	NT GOVERNING	YOUR USE OF T	HE
PRODUCT (AS S	UCH TERM DEFIN	ED BELOW). A	KVIS, THE AKVIS	OF
	S WILLING TO PR	-		
PRODUCT ONLY	ON THE CONDITIONS	TION THAT YOU	ACCEPT ALL OF	THE
✓ I accept the term	s in the License Agre	ement		
	Print	Back	Next	Cancel

• 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.

ustom Setup Select the way you	want features to b	e installed.		
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Click the icons in the	e tree below to cha	nge the way feature	s will be installed.	
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			32	

• Press the Install button.

Refocus AI Setup	X
Ready to install Refocus AI	NW R
Click Install to begin the installation. Click Back installation settings. Click Cancel to exit the wi	
Back	k Install Cancel

• The installation is in progress.

Refocus AI S	Getup		
Installing	Refocus AI		SIMP
Please wait v	while the Setup Wizard	installs Refocus AI.	
Status:	Copying new files		
		Back	ext 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.



## • 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 -> Refocus AI.

# INSTALLATION

Follow the instructions to install **AKVIS Refocus AI** on a Mac computer:

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

•••	akvis-refocus-app.dmg	
If you agree with the terms of this license, click "Agree" to access the software. If you do not agree, press "Disagree."	AKVIS - PRODUCT LICENSE INFORMATION NOTICE TO USERS: CAREFULLY READ THE FOLLOWING LEGAL AGREEMENT. USE OF THE SOFTWARE PROVIDED WITH THIS AGREEMENT (THE "SOFTWARE") CONSTITUTES YOUR ACCEPTANCE OF THESE TERMS. IF YOU DO NOT AGREE TO THE TERMS OF THIS AGREEMENT, DO NOT INSTALL AND/OR USE THIS SOFTWARE. USER'S USE OF THIS SOFTWARE IS CONDITIONED UPON COMPLIANCE BY USER WITH THE TERMS OF THIS AGREEMENT. General Grant of License AKVIS grants you a license to use one copy of the version of this SOFTWARE on any one hardware product for as many licenses as you purchase. "You" means the company, entity or individual whose funds are used to pay the license fee. "Use" means storing, loading, installing, executing or displaying the SOFTWARE. You may not modify the SOFTWARE or disable any licensing or control features of the SOFTWARE except as an intended part of the SOFTWARE's programming features. When you first obtain a copy of the SOFTWARE's programming features. When you first obtain a copy of the terms and prices discussed in the SOFTWARE's documentation, or you must remove the SOFTWARE from	

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



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

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

Photoshop CC 2021, 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.



After installation of the **plugin**, you will see a new item in the Filter menu of your photo editor (in **Photoshop**: **Filter -> AKVIS -> Refocus 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 Refocus 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> Refocus A	Version 11.5.1015.21217-r app (64bit)	8
	ACTIVATION	
Customer Name:	John Smith	
Serial Number (Key):	1234-5678-9012	
	Direct connection to the activation server	
	○ Send a request by e-mail	
Lost your serial numb	per? <u>Restore it here</u> .	
Activation problems?	Contact us.	)
Copy HWID.	ACTIVATE CANCE	L
	© 2010-2021 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 (Refocus.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 Refocus AI can work independently as a standalone program or as a plugin to a photo editor.

Standalone is an independent program; you can open it by clicking on 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 **Application** folder.

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

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

#### The AKVIS Refocus AI workspace looks like this:



The left part of the program's window 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 processed image. You can switch between the windows by clicking on a tab with the left mouse button.

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 program's window you can see the **Control Panel** with the following buttons:

The button more page of AKVIS Refocus AI.

The button (only in the standalone program) opens image for processing. The hot-keys for the command are Ctrl+0 on Windows,  $\mathbb{H}$ +0 on Mac.

The button (only in the standalone version) saves image to the disk. The hot-keys are Ctrl+s on Windows,  $\mathbb{H}+s$  on Mac.

The button (only in the standalone program) opens the Print dialog. The hot-keys are Ctrl+P on Windows,  $\mathbb{H}+\mathbb{P}$  on Mac.

The button 👞 lets posting pictures from the program to the social networks.
The button \overline 👩 imports a list of presets (from the .refocus file).
The button 🐻 exports presets (user settings for the image processing). You can save any number of presets to a
separate file with the ending <b>.refocus</b> . The button (), (only in the standalone program) opens the Batch Processing dialog to automatically process a series
of images. The button 😰 opens files with the <b>.refstrokes</b> extention. These are the files where you save strokes drawn on an
image. The button 🚱 saves strokes drawn on an image into a file with the <b>.refstrokes</b> extension. It is helpful when you
want to edit the photo later. The button 🔗 / 🍞 turns on/off the drawn strokes.
The button 🖕 cancels the last operation made with the pencils in <b>Refocus AI</b> mode. It is possible to cancel several
operations in a row. The hotkeys are Ctrl+z on Windows, $\mathbb{H}$ +z on Mac. The button $\Rightarrow$ returns the last cancelled operation. It is possible to return several operations in a row. The hotkeys
are Ctrl+Y on Windows, 第+Y on Mac. The button 🕟 starts image processing. Use hot-keys: Ctrl+R on Windows, 策+R on Mac.
The button $\overline{\mathbb{Q}}$ (only in the plugin version) applies the result to the image and closes the plugin.
The button 🝈 calls information about the program and opens the registration window.
The button 👩 calls the Help files. The hot-key is F1.
The button 🔬 calls the <b>Preferences</b> dialog box for changing the program's options.
The button 🗊 opens a window showing the latest news about Refocus AI.

To the left of the Image Window there is the Toolbar. The tool's parameters are shown in the Settings Panel and in popup box after right-clicking in the image window.

The button privates the **History Brush** tool which lets you fade the effect and restore the image, partially or fully, to its original state.

In the standalone version, before applying the effect, you can cut off unwanted areas of the picture and improve its composition with the **Crop** tool **1**.

#### Refocus AI Mode, Motion Blur, Radial Blur:

The button switches on/off the quick preview area (in **Refocus AI** mode).

The buttons and [available only for Home Deluxe and Business licenses] activate the special tools which are used to select processing areas.

With the blue strokes indicate the focus area, where you want to preserve or increase the sharpness.

Use red strokes k to mark background objects. You can blur this area using blur modes.

The button activates the **Eraser** tool used to erase strokes drawn with the pencils.

# Iris Blur and Tilt-Shift Modes:

The button activates the **Blur Area** tool that lets adjusting blur effect areas.

#### Additional Tools:

The button activates the **Hand** tool which allows you to scroll the image when it does not fit within the main window at the desired scale. To use it click on the button, bring the cursor over the image, and while keeping the left mouse button pressed move in the desired direction.

Double-clicking on the tool's icon makes the image fit the window.

The button activates the **Zoom** tool, which changes the image's scale. To zoom in left click on the image. To zoom out left click with Alt on the image. Press z to quickly access the tool.

Double-clicking on the tool's icon a makes the image scale to 100% (actual size).

Navigate and scale the image using the Navigator. Here you can see the reduced copy of the image. The red frame shows

the part of the image that is now visible in the main window; the areas outside the frame will be shaded. Drag the frame to make other parts of the image visible. To move the frame, bring the cursor inside the frame, press the left mouse button and, keeping it pressed, move the frame in the **Navigator**.



Additionally, you can move the image in the main window with the scroll bars or by holding down the space bar, then holding down the left mouse button while moving the mouse. The mouse's scroll wheel can move the image up and down, and holding Ctrl on Windows,  $\mathbb{H}$  on Mac – while using the scroll wheel will move the image left and right. Holding Alt on Windows, Option on Mac will scale the image. Right-click on the scroll bar to activate the quick navigation menu.

Use the slider to scale the image in the window. When moving the slider to the right, the image scale increases; when moving it 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 drop-down menu.

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

Below the Navigator is the Settings Panel where you can select a mode and adjust its settings.

In the **Presets** field you can save favorite settings as a preset to use them in the future. When you launch the program, it uses the settings of the last used preset.

Under the **Settings Panel** 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 program's **Preferences**.

# IMAGE VIEW MODES: BEFORE AND AFTER

At the bottom of the Toolbar of **AKVIS Refocus 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 IT WORKS

**AKVIS Refocus AI** improves sharpness of out of focus images and adds artistic blur effects to your photos. The software can work independently as a *standalone* programas well as a *plugin* to a photo editor.

Follow the instructions below:

Step 1. Load an image into the software.

- If you work with the standalone edition:

To open an image in the program, you can double-click in the empty workspace of Refocus AI or drag the image into the workspace, or press on the **Control Panel**. The program supports **BMP**, **JPEG**, **PNG**, **TIFF** and **RAW** file formats.

- If you work with the plugin:

Open an image in your photo editor by calling the command **File -> Open** or using the key combination Ctrl + 0 on Windows, H + 0 on Mac.

Then call the AKVIS Refocus AI plug-in:

In AliveColors: Effects -> AKVIS -> Refocus AI; in Adobe Photoshop: Filter -> AKVIS -> Refocus AI; in Corel PaintShop Pro: Effects -> Plugins -> AKVIS -> Refocus AI; in Corel Photo-Paint: Effects -> AKVIS -> Refocus AI.



Step 2. Select the processing mode in the drop-down menu in the Settings Panel:

**Refocus AI** mode improves sharpness of out-of-focus images and fixes motion blur problems. You can re-focus the entire image or only certain details.

Tilt-Shift mode adds the objects on the photo a toy look. This effect "miniaturizes" the image, blurring the outer parts and making the objects appear as if they are models.

**Iris Blur** mode creates shallow depth-of-field effect, blurring the background while keeping the subject in focus. This mode is only available for the Home Deluxe and Business licenses.

Motion Blur. This blur method imitates the straight line motion of a camera.

Radial Blur. This method imitates the effect of rotating camera and blurring from the center.

Note that **Refocus AI** mode sharpens the image, and the other four are the blur effects. Usually (but not obligatory) **Iris Blur** fits better for portraits, **Tilt-Shift** - for landscapes, **Motion Blur** - for linear moving objects (for example, a car), **Radial Blur** - for circular objects (for example, wheels of a moving car).

Step 3. Adjust the parameters in the Settings Panel.



**Step 4.** It is possible to save the settings you like as a preset and use them in the future.

Note that the presets save only the parameters values in the **Settings Panel**, and do not save the lines which define the effect area.

To save a preset, enter a name for the preset into the **Presets** field and press the button **Save**. Now, as you start the program, it will use the settings of this preset. 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.

Step 5. Share your work by clicking on . It opens the list of the services where you can publish the image.

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

Step 6. Save the resulting image.

- If you work with the standalone program:

Click on the button is 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:

Apply the result by pressing 🕥. The Refocus AI plugin will close and the picture will appear in the photo editor's workspace.

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.

### **REFOCUS AI MODE**

**Refocus AI** mode improves the sharpness of out-of-focus images and fixes motion blur problems. It lets you re-focus the entire image or bring only certain elements into focus creating a more expressive picture.



Refocus Al Mode

In this processing mode, you can choose to apply any or both focus improvements options - **Motion Deblur AI** and **Image Sharpening**, and if necessary enable the **Background Defocus** feature.

Follow the steps below to repair out-of-focus images using **Refocus AI** mode:

**Step 1.** After loading a photo, it is processed with the selected parameters, and the result is immediately shown in the quick preview window.



You can drag the preview area to analyze the effect on the different parts of the photo. Click within the preview to compare the processed sample with the original image. It can be switched on/off with the button . Change the size of the preview

# in Preferences 📩

Step 2. Adjust the settings to achieve the best result.

#### Motion Deblur AI

The AI mode helps to fix blurry images using a trained neural network. This method is extremely good for improving photos that were blurry due to the camera or subject movement.

**Remove Artifacts** (0-30). Reduces the likelihood of artifacts and non-existent details in a photo. Be careful: higher values can lead to blurry results.



Remove Artifacts = 0

Remove Artifacts = 10

**Focus** (2-9). Blur removal and improvement of sharpness of a photo. Use the parameter value depending on the initial motion blur: the stronger the blur on an image, the higher the value to set.



Original Image



#### Image Sharpening

The image processing method adjusts different types of sharpness and blur and helps to efficiently bring photos into focus.

**Smoothing** (1-10). The parameter sets the level of smoothness. The higher its value, the stronger the influence of the other parameters is.



Smoothing = 1

Smoothing = 10

**Color Blur** (1-10). The parameter is used for alignment of colors to a uniform state that lets removing fringing and halos. It is especially effective in tandem with the previous parameter.



Color Blur = 1

Color Blur = 10

Level of Detail (0-50). The parameter strengthens details on an image. Note that at higher values it can produce noise.



Level of Detail = 0

Level of Detail = 50



Remove Noise. This option lets reducing the side effects which can appear on the image (digital noise, grain, artifacts).



Remove Noise is disabled



Step 3. You can process only certain areas using the tools  $\fbox$  and  $\bigstar$ 

Note: This feature is only available for Home Deluxe and Business licenses.



Focus Area . Use the blue pencil to select areas to be processed with the above mentioned settings.

Background Area . Use the red pencil to outline parts that will remain in their original state or will be blurred.

**Hint:** We recommend drawing a *closed* outline around the objects. Otherwise, the effect can extend over the drawn borders.

Adjust **Background Defocus** -> **Blur** (0-1000). The areas marked with red will be blurred. This option will help you achieve the realistic *selective focus* effect.





Blur = 0

Blur = 200

**Eraser** . Use the tool to erase the red and blue strokes. The tool works in one of three modes:

- erase all strokes;
- erase only red strokes;
- erase only blue strokes.

You can adjust the **Size** of the tools in a pop-up window that appears after right clicking in the image.

**Step 4.** Click **()** to start image processing. You can interrupt the process by clicking on the **Cancel** button right to the progress bar.



Step 5. If you like the new settings you can save them as a **Preset** and use them later. Enter a name for your new preset and press **Save**.

Note that you can save into the presets only the parameters values shown in the **Settings Panel**. The presets do not include the areas selected with the tools.

# TILT-SHIFT MODE

**Tilt-Shift** mode allows leaving a sharp strip in the image, adding gradual blur at the edges, with smooth transitions between the regions. This mode gives the objects on the photo a "toy" look. It blurs the outer parts and makes the objects appear as if they are miniature models. It looks like the program transforms full size people, buildings, cars into their tiny versions.

In real photography, you can achieve this effect with special tilt-shift camera lenses. Using AKVIS Refocus AI you can bring any photo into a world of miniatures.



Tilt-Shift Mode

Follow the steps below to apply this effect to a photo:

Step 1. Adjust the Preview option:

Fast Preview - this option lets you try the settings on a smaller copy of the original image.

Full Processing - the image in its original size will be processed with the chosen parameters.

Processing will start automatically, in the visible part of the image, every time you change a parameter or the effect area.

Once you have adjusted the parameters, it is recommended to try the full processing to make sure that the best settings are chosen. Choose the **Full Processing** option or click on not to process the entire image.

Step 2. Activate the Blur Area tool and adjust the area of effect with the markers that appear over the image in the After tab.



- solid lines help to adjust the size of the un-blurred area;
- dots are used to rotate the effect area;
- internal dashed lines let adjusting smooth transition between blurred and un-blurred areas;
- external dashed lines define the area of maximum blur.

To move the area, place the cursor in the un-blurred part (it will turn into crossed arrows  $\bigoplus$ ) and drag holding down the left mouse button.

To re-size any section, put the cursor on the line bounding this area (it will look like a double arrow  $\leftrightarrow$ ) and drag with the left mouse button.

To rotate the area, place the cursor over a dot (it will turn into a rounded double-sided arrow  $\clubsuit$ ) and move holding down the left mouse button.



Hint: To hide the lines you can deselect the tool

Step 3. You can use one of the ready-to-use *presets* or adjust the parameters.

The Blur parameter lets you adjust the strength of the blur effect. The higher the value, the greater the blur is.



**Step 4.** All light spots in the out-of-focus region take the form of bright glare. By default, they look like round discs. You can change their shape by adjusting the parameters of the **Bokeh Shape** section.

Using the Glow parameters, you can increase the brightness and saturation of light spots.



 Tilt-Shift Effect

 Step 5. Press the button Start processing of the entire image.

 Step 6. The program lets you save your favorite settings as a preset and use them in the future.

Note that the presets save only the parameters values in the Settings Panel, and do not save the effect area.

#### **IRIS BLUR MODE**

**Iris Blur** mode creates shallow depth-of-field effect, blurring the background while keeping the subject in focus. In contrast to **Tilt-Shift** mode, this one lets you specify the shape of the sharp area (ellipse, rectangle).

Real photographers can achieve this effect by opening aperture and using different lenses. With AKVIS Refocus AI you can create a blur background in a click.



Iris Blur Mode

Note: This mode is only available for the *Home Deluxe* and *Business* licenses. Compare the licenses here.

Follow the steps below to apply this effect to a photo:

Step 1. Adjust the Preview option:

Fast Preview - this option lets you try the settings on a smaller copy of the original image.

Full Processing - the image in its original size will be processed with the chosen parameters.

Processing will start automatically, in the visible part of the image, every time you change a parameter or the effect area.

Once you have adjusted the parameters, it is recommended to try the full processing to make sure that the best settings are chosen. Choose the **Full Processing** option or click on **()** to process the entire image.

**Step 2.** Activate the **Blur Area** tool and adjust the effect area with the markers that appear over the image in the **After** tab.



- solid line helps to adjust the size of the un-blurred area;
- dots are used to rotate, stretch, or compress the effect area;
- square markers help to change a form of an ellipse.
- internal dashed line lets adjusting smooth transition between blurred and un-blurred areas;
- external dashed line defines the area of maximum blur.

To move the area, place the cursor in the un-blurred part (it will turn into crossed arrows  $\bigoplus$ ) and drag holding down the left mouse button.

To re-size any section, put the cursor on the line bounding this area (it will look like a double arrow  $\leftrightarrow$ ) and drag with the left mouse button.

To rotate, stretch, or compress the area, place the cursor over a dot (it will turn into a rounded double-sided arrow () and move holding down the left mouse button.

To change a form of the area, drag a square marker.



Hint: You can hide the lines by deselecting the tool

Step 3. Use one of the ready-to-use *presets* or adjust the parameters.

The **Blur** parameter lets you adjust the strength of the blur effect. The higher the value, the greater the blur is.



Blur = 25

Blur = 50

Step 4. All light spots in the out-of-focus region take the form of bright glare. By default, they look like round discs.You can change their shape by adjusting the parameters of the Bokeh Shape section.Using the Glow parameters, you can increase the brightness and saturation of light spots.



Iris Blur Effect

Step 5. Press the button 🕥 to start processing of the entire image.

Step 6. The program lets you save your favorite settings as a preset and use them in the future.

Note that the presets save only the parameters values in the Settings Panel, and do not save the effect area.
# MOTION BLUR

Motion Blur mode imitates the straight line motion of a camera.



Motion Blur

Parameters:

**Angle** (0-180). This parameter sets the inclination angle of the line, along which the effect will expand to the image. The values of the parameter vary between 0 and 180 degrees. At exactly these values the blurring will be horizontal. At value = 90 the blurring will be vertical.



Angle = 55

Angle = 160

Distance (1-500). This parameter defines the effect application area in pixels (relative to every point of the image).



Distance = 100

Distance = 300

You can process only certain areas using the tools  $\fbox$  and  $\bigstar$ 

Note that this feature is only available for Home Deluxe and Business licenses.

# **RADIAL BLUR**

Radial Blur mode blurs the area around a specific point, simulating the result of a zooming or rotating camera.



Radial Blur

In the Blur Center section, you can determine the position of the central blur point. To set the position, activate the icon and click the image or move the white marker. The current coordinates are shown in the fields X and Y.

There are two kinds of radial blur:

Zoom. This mode creates blurring directed away from the center.

Spin. This mode imitates the effect of a camera rotating around the central point of the image, which results in circular blurring.



Radial Zoom Blur

Radial Spin Blur

Adjust the blur area with the following parameters:

Highlights (1-100). The intensity of blurring in light areas. Shadows (1-100). The intensity of blurring in dark areas.



Blur in Light Areas



Blur in Dark Areas

You can process only certain areas using the	ne tools	and	æ.
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Note that this feature is only available for  $\ensuremath{\mathsf{Home Deluxe}}$  and  $\ensuremath{\mathsf{Business}}$  licenses.

## **BOKEH EFFECTS**

**Bokeh** is out-of-focus areas in a photo. Bokeh is determined by the way how the lens renders unsharp points of light. It's often used for creating artistic effects - to blur backgrounds for visual selection of a main object in a scene. In photography, bokeh effect depends on the shape of the aperture. Various shapes let you achieve artistic background blur effects, for example with stars.

With AKVIS Refocus AI you can make a variety of figure bokeh on any photo.

Note: Bokeh effects are available in Tilt-Shift and Iris Blur modes.



Bokeh Effects

Use these parameters to adjust the look of the spots of light in the blurred area:

#### Bokeh Shape Parameter Group.

Shape. Click on the square button in the Settings Panel and select a shape from a list. All light spots in the out-of-focus area will change in the selected shape:



Bokeh Shapes

**Smoothness** (-100..100). At the value = 0, the spots of light have the selected form. The higher the value, the more the edges of the light spots are blurry and out of focus. When decreasing the value, the center of the light spot is blurred and becomes more transparent. At the lowest value, the only contours of the shape remain visible.



Smoothness = -75

Smoothness = 75

**Deformation** (-100..100). When the parameter is set to 0, the light spots have a polygonal shape. The higher the value, the more the edges of the polygon are curved outside, making it gradually look like a circle. The less the value, the more the edges are retracted inside the shape, turning the polygon into a star.



Deformation = -50

Deformation = 50

Rotation (0-360). The parameter defines the rotation angle of the polygon around its center.



Rotation = 0



Rotation = 45

Note: Deformation and Rotation parameters are disabled for the 1st shape (circle).

Brightness (0-100). As the parameter increases, the brightness of the light spots increases.



Brightness = 25

Brightness = 75

**Saturation** (0-100). The parameter increases the color saturation of light spots. The parameter is associated with the Brightness parameter. The higher the Brightness, the more saturated colors you can get.



Saturation = 25

Saturation = 75

**Range** (0-255). The parameter specifies the brightness range of light spots to which the first 2 parameters will be applied.



Range = 200/225



Range = 240/250

## **PROGRAM PREFERENCES**

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

B Preferences	×		
Language	English 💌		
Interface Scale	Auto 🔻		
Interface Theme	🛛 🖉 🔍 🔍 🔍		
Initial Image Scale	⊙ Fit to View ○ 100%		
Recent Files	10		
Preview Window Size (pixels)	512		
Hints	Hide 🔻		
☑ Lock the Control Panel			
Default	OK Cancel		

- 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 option defines the way the image is scaled in the Image Window.
  - Fit to View: the image is completely visible in the window;
  - 100%: the image doesn't scale (generally, only a part of the image is visible).
- Recent Files (available only in the standalone version). The number of recent documents. The list of the recent files, sorted by time, become visible by right mouse clicking on 💦 . Maximum: 30 files.
- **Preview Window Size**. You can change the size of the quick preview area for **Refocus AI** mode: from 256x256 to 1024x1024 pixels. By default, the parameter's value = 512, that is the preview area has a proportion 512x512 px.
- Hints. Choose how the hints will be shown:
  - Under Settings Panel;
  - Under I mage Window;
  - Hide.
- 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.

To save changes made in the Preferences window press OK.

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

## **BATCH PROCESSING**

**AKVIS Refocus AI** supports the time-saving **Batch Processing** feature. It lets you automatically edit a series of out-of-focus images with the same settings. Just select a preset and apply it to a folder full of photos - the program will do the rest automatically!



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

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

If you use the **Refocus AI** plugin in Photoshop, use this tutorial.

## PRINT IMAGES IN AKVIS REFOCUS AI

In the standalone version of AKVIS Refocus AI you can print the image. Press the button 📥 to open the Print options.



Print Options in AKVIS Refocus 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.

#### **REMOVE MOTION BLUR**

AKVIS Refocus AI includes a specially trained neural network that helps you to fix blur in a photo that occurs due to camera shake or movement of a subject.



Motion Blur Removal

Step 1. Run AKVIS Refocus AI in the Refocus AI mode and open a photo.



Original Image

Step 2. The preview area displays the processing result with the selected preset (by default, AKVIS Default AI).



Default Processing Settings

Step 3. First, we will work with the parameters in the Motion Deblur AI section, so disable the Image Sharpening check-box.

Move the **Focus** parameter and set it to the value at which the image looks best. For our photo, this is **Focus** = 6.

Then gradually increase the value of the **Remove Artifacts** parameter. In this example, we settled on the value = 10. Let's start the processing with see how the fully processed photo will look like.



#### Blur Removal

Step 4. If the resulting image does not seem sharp enough, enable the Image Sharpening mode and adjust its parameters.



**Step 5.** And the last step is to split the foreground and background. Select the girl along the contours with and the background with . If necessary, blur the background using the **Blur** option in the **Background Defocus** section.



Click on **()** for the final processing of the image.

Selecting Areas



Result

The final result is impressive, now the photograph is clear and has an excellent perspective of the subject highlighted by the background blur.

# TOY WORLD

*Tilt-Shift* effect makes a photo of a full-scale object or scene look like a toy. Usually this effect is achieved with special lenses, but we will obtain the same result using **AKVIS Refocus AI**.

For best results, use a photo where the point of view is several meters above the subject or scene. There should be many small objects in the scene: buildings, people, cars, etc. The sky should not be visible.

We'll show you two ways to create a tilt-shift image in AKVIS Refocus AI: using Tilt-Shift mode and using Refocus AI mode.

Method 1. Image processing in Tilt-Shift mode.



Step 1. Select the Tilt Shift mode in the drop-down menu in the Settings Panel.



Default Settings of Tilt-Shift Mode

**Step 2.** Define the blur effect area with the markers that appear over the image in the **After** tab when the tool is active.

Step 3. Choose one of the ready-to-use presets or adjust the parameters to your liking.



Adjusting Tilt-Shift Settings

Here is the result:



Result: Tilt-Shift Effect

Method 2. Image processing in Refocus AI mode.

This time we chose a photo of a small square taken from a ferris wheel.



Step 1. Select the Refocus AI mode in the drop-down menu in the Settings Panel.



Step 2. Using the preview area, select the image sharpening settings. Step 3. Activate and draw blue lines around the area that will be sharpened. Then select and draw red lines within the area that will be blurred.



Step 4. Adjust the Blur parameter for the red area.Step 5. Press to process the entire image

Selecting Areas

Here is the result:



Tilt-Shift Effect Created in Refocus AI Mode

As you can see, it's easy to make a Tilt-Shift effect with AKVIS Refocus AI!

# LOOK INTO MY EYES

AKVIS Refocus AI is designed to produce clear images from blurry photos. Even if you think a photo is clear enough you can always choose to improve individual areas, such as the eyes. And who knows what magic will be found in such an appealing gaze?..

It's easy to create a selective focus effect with AKVIS Refocus AI.



**Step 1.** Start **AKVIS Refocus AI** and open with **b** the photograph of the unknown mysterious smiling princess. The beauty of the girl's face is somewhat dampened by the blurriness of the photo.



Step 2. Select Refocus AI (Image Sharpening) mode. The preview window helps you to select the best options for making the colors more vivid and expressive and the image clearer.

Press **()** to process the image:



Before Processing

After Processing

**Step 3**. The startling clarity with which she emerges from the background detracts somewhat from the overall impression of the photo. To focus just on the eyes, change the processed area: mark areas to be processed in blue using the *interval* tool, and mark the areas which will not be processed in red using the *interval* tool. We will also select a dress to make it (especially the decoration pattern) more expressive.



If you wish the red areas can be a little blurred. We will keep them untouched (Blur = 0).

Marking Areas With Strokes

Press 🕟 to reprocess the image. The result looks very natural and beautiful.



Result

# 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 – Digital Noise Reduction**

**AKVIS Noise Buster** is software for noise suppression on digital and scanned images. Digital noise can be seen as artifacts and random red and blue pixels that compromise the smoothness of a photo. The program is efficient against both color and luminance noise. 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...

