

PhotoZoom 8

User manual

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1. Activation

If you have purchased **PhotoZoom 8**, you can unlock it by entering the unlock code that was delivered with the software.

In case you have not unlocked the software yet, the unlock window will appear automatically when you start the program (either the stand-alone version or one of the plug-ins):



PhotoZoom Classic 8 - Unlock

BenVista

Please enter your unlock information below.
The unlock code is the 25-character code that you receive when purchasing the software.

Unlock code: (25 characters)

Name: (optional)

Email: (optional)

Enter the serial number (unlock code). This is printed on the attached booklet of the boxed version. If you have decided to download, you will find the serial number in your customer account at www.franzis.de.

Some user licenses require a name and an e-mail address, which must be entered together with the unlock code. In these cases, the required name and e-mail address must always be entered exactly with the unlock code received. Please make sure that you insert all information exactly as indicated.

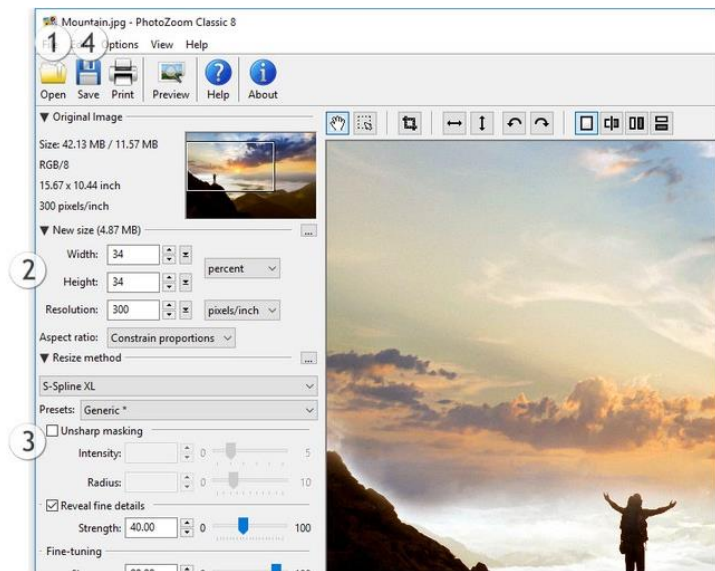
You only need to enter the unlock code once to permanently unlock the software. Even after installing updates, you do not have to enter the code again.

Note that as long as you have not unlocked the software, it will run in demo mode, which will result in a limitation: The images you save will contain watermarks. While the software is running in demo mode, you can open the unlock window at any time via "Unlock..." in the help menu.

Note: If you purchased the software online and received your unlock code through e-mail, we highly recommend to fill in your unlock info using **copy/paste** (Ctrl + C and Ctrl + V). This may avoid typing errors.

2. Quickstart

A short introduction to get you going in a few simple steps:



The numbers in the image above indicate where each of the following steps should be performed.

1. Click Open, and select an image you want to resize.
2. Fill in the new size (in pixels, percentage, or centimeters / inches, whichever you prefer).
3. Select the resize method you want to use, or leave it at the default setting*
4. Click Save, specify a filename, and wait for the process to finish.

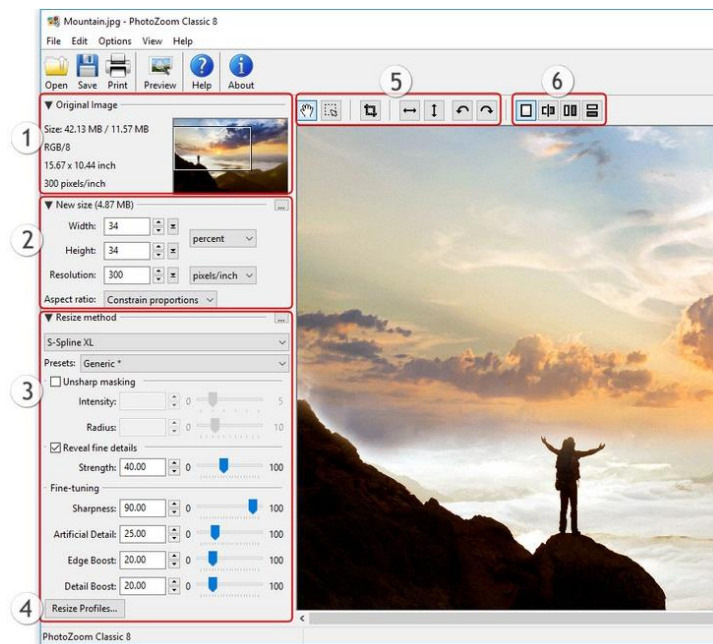
Done!

* The default setting (S-Spline XL, preset: Generic) will give fine results in most cases, but the ideal settings may differ from image to image. When you select a different resize method (for example S-Spline) or preset, you can preview the differences in the preview window.

For tips and information on fine-tuning your resize method, see the chapter 4. Resize Methods and Fine-tuning.

3. The Program Explained

PhotoZoom 8 offers a wide range of functionality, from basic to highly advanced. The software interface is divided into several sections, which will each be explained separately below:



1. Original Image


This section provides information on the original image, as well as a navigation box. The navigation box shows a thumbnail of the image. The part that is currently visible in the preview window is indicated by a rectangle. You can drag this rectangle around with your mouse to preview different areas of the image.

2. New Size

In this section you can specify the desired new size for your image in terms of pixels, percentage of the original, inches, centimeters, millimeters etc. All sizes are defined in width by height. You can alter the size of the image by typing in new values or by clicking (and holding) the arrow buttons with your mouse. As you make changes to the image size, the preview in the preview window updates immediately.

For printing purposes, the required width and height should be specified in an appropriate unit, for example inch or millimeter. It is also important that you specify a suitable print resolution.

Note: A print resolution of 300 pixels per inch is common, and recommended for most printing purposes.

Click the -button to choose from a list of common print and pixel size presets.

Aspect ratio


The "Aspect ratio" setting gives three options: "Constrain proportions", "Stretch", and "Crop". These settings work as follows:

- *Constrain proportions:* When you change the width of the image, **PhotoZoom 8** automatically changes the height (and vice versa) in order to maintain the proportions of the image.

- *Stretch*: You can stretch the image out of its original proportions.
- *Crop*: Specify the desired new size of the image, and **PhotoZoom 8** automatically crops the center area based on the specified new size. To adjust the area you want to crop, click "Adjust..."

3. **Resize method**

There is a number of resize methods you can choose from. The default is S-Spline XL, the new and improved S-Spline technology, which usually gives the best results. But it is also possible to select a different method. Every resize method comes with sharpening settings that can be fine-tuned, and some presets: pre-defined settings that were specially designed for different types of images. The default presets (marked with *) for each resize method are "average" settings. The default S-Spline XL preset (named "Generic") will give great results in most cases, but for optimum results it is recommended to try the other S-Spline XL presets as well, and fine-tune them if desired.

Click the -button to select another resize method or/and preset quickly.

For information on the sharpening settings, refer to the chapter 4. Resize Methods and Fine-tuning.

When you manually fine-tune the resize method settings,

the selected preset automatically switches to "Custom-made".

4. **Resize Profiles**

By clicking the "Resize Profiles..." button, you can select, add, and manage your resize profiles.


A resize profile is a compilation of resize method and size settings. When selecting a resize profile, you select all the settings from the profile in one go. For example, a resize profile could contain the following settings:

- New Size: 11 by 17 inch @ 300 pixels per inch
- Resize Method: S-Spline XL, using the "Photo - Detailed" preset


When you often use the same settings, resize profiles can greatly increase your workflow as you don't have to specify your favorite settings over and over again. Instead, you can simply select a resize profile with a single click.


5. **Navigate, crop, flip, and rotate**

With the buttons explained below, you can quickly navigate through the image, and crop, rotate, and flip it.

The "navigation tool" , which is selected by default, is being used to preview different areas of the image in the preview window. Note that this function is only usable when the image does not fit into the preview window as a whole. If necessary, reactivate the navigation tool by

clicking it. Drag the image through the preview window to preview the desired part. For the same purpose you can instead, if preferred, also use the navigation box (left of the "navigation tool").

With the "selection tool"  you can select a part of the image. Click the selection tool to activate it. To make a selection, click and drag a frame in the image (click and hold the left mouse button while moving your mouse, then release to make the desired selection).


Once you have selected a part of the image in the preview window, the "crop tool"  becomes available. Click the crop tool to cut out the part you have previously selected using the "selection tool".


By using the different arrow buttons, the image can be flipped horizontally and vertically, and rotated clockwise and counterclockwise.


6. Split screen previewing


Using the split screen buttons you can split the preview window into parts. The resize method settings can be changed for each part separately. This allows you to preview the results of different resize methods simultaneously, and make a live comparison. For example, you can compare the S-Spline XL resize method with the Bicubic method, or pick two S-Spline XL presets to compare against one another.

You can apply or turn off split screen previewing by using the following buttons.

With the -button you can turn off split screen previewing. You will have just one, large preview window.

The -button splits the preview window into two vertical halves. The split line forms the boundary between two adjacent areas of the image, each enlarged with a resize method of choice. Let's say you have used the S-Spline XL method for the left part, and Bicubic on the right. By moving the split line horizontally, you can see the Bicubic result change real-time into S-Spline XL (which should look as if the screen is being wiped clean), and vice versa.

The -button splits the preview window into two vertical halves. Each half shows the exact same area of the image, so you can compare different resize methods and settings side by side at a glance.

The -button splits the preview window into two horizontal halves. Each half shows the exact same area of the image, so you can compare different resize methods and settings side by side at a glance.

4. Resize Methods and Fine-tuning

Different images ask for a different approach. The S-Spline XL and S-Spline methods each come with various "presets". They are designed to offer good average settings for different types of images, such as photos or graphical images. Besides the standard presets, **PhotoZoom 8** also offers advanced fine-tuning tools, which allow you to manually tweak all the settings to your liking.

Below, all the separate fine-tuning settings will be explained. Also, a few common problems & solutions will be discussed (for example: how to handle JPEG artifacts, which you will often find in images originating from the Internet).

4.1 Reveal Fine Details

The "Reveal fine details" filter comes as a complementary option to the S-Spline XL resize method. It is designed to enhance subtle image details and add definition to fuzzy textures, while leaving details that are already clearly defined (e.g. strong edges) untouched. This gives images a generally more detailed appearance, without causing them to look unnatural or over-sharpened. Whether you want to enlarge, downsize, or merely enhance your images (without resizing them), the "Reveal fine details" filter will help you improve the quality of your images, no matter their size.

Use the Strength setting to determine how strongly the "Reveal fine details" filter will be applied.

4.3 S-Spline XL

- *Sharpness*

The Sharpness setting determines the overall sharpness of an image. Usually, the best results will be obtained when a high Sharpness setting is being used, typically from 75 to 100. An important exception to this is images that contain noise and JPEG artifacts; see the "Problems & Solutions" section below.

- *Artificial Detail*

The Artificial Detail setting adds grain to an image, giving it a more natural look. The ideal setting usually varies between 10 and 25. With some images a higher setting may be desired, such as photos that contain a lot of tiny details (for example: a spatial photo taken in a forest). In exceptional cases, a setting lower than 10 might be desired.

- *Edge Boost*

The Edge Boost setting accentuates sharp edges (high color contrasts). An Edge Boost setting of 75 or higher especially works well on graphical images and text. On photos, it is usually better to apply a lower setting (between 0 and 50, dependent on the photo), otherwise the enlargement may look too plastic-like. In sporadic cases, a photo may benefit by an Edge Boost setting higher than 50.

- *Detail Boost*

Rather than sharp edges, the Detail Boost setting accentuates soft edges (low color contrasts). By increasing this setting, subtle or vague details are being emphasized stronger in the enlargement. Usually the ideal Detail Boost setting varies between 0 and 60. A higher setting is more likely to give plastic-like results, but there are of course exceptions.

4.4 S-Spline

- *Artificial Detail*

By increasing Artificial Detail, S-Spline can reconstruct detail in the enlargement. Usually, the highest frequency detail (like grass, hair, etc.) gets lost when creating big enlargements. The Artificial Detail tries to reconstruct these details in the enlargement.

- *Strength*

Increase Strength to preserve more contrast from the original image in the enlargement. For images with lots of contrast or sharp details (like texts, line drawings or cartoonish material), it's best to use a high value. However for other images this can introduce too much "forced detail", possibly giving an unnatural result.

- *Sensitivity*

Changing the Sensitivity makes S-Spline detect high-frequency details (like edges) better. Just like Strength, using more Sensitivity

can give a better result, but when overdone it can cause the enlargement to look "too sharp".

- *Anti-Aliasing*

The Anti-Aliasing feature detects aliasing artifacts (like jaggy pixel lines) in the original image, and suppresses them in the enlargement.

4.5 Unsharp Masking

Unsharp masking can add additional sharpening to any of the resize methods offered by **PhotoZoom 8**.

- *Intensity*

The "Intensity" setting determines the strength of the sharpening.

- *Radius*

The "Radius" setting determines the size of the area around each pixel, that will be taken into account in the sharpening process.

4.6 Problems & Solutions

- *Noise and JPEG artifacts*

When images contain noise and/or JPEG compression artifacts (which for example is often the case with images originating from the Internet), this can have a very bad influence on the quality of the

enlargement. When these distortions become too visible to your liking, it may help to tone down or disable the "Unsharp masking" and/or "Reveal fine details" settings. If that isn't sufficient, try the S-Spline XL preset named "Reduce noise/artifacts". This will filter out the distortions up to a certain level.

- *"Plastic-like" enlargements*

When an enlargement result looks too plastic-like to your liking, it should help to change the settings as follows:

- **S-Spline XL:** increase the amount of "Artificial Detail" and decrease "Sharpness", "Edge Boost", and "Detail Boost"
- **S-Spline:** increase the amount of "Artificial Detail" and decrease "Strength" and "Sensitivity"

It is also recommended to try "Reveal fine details" at different strengths, and to reduce or disable the "Unsharp masking" settings.

4.7 Other Resize Methods

In more than 99.9% of the cases we recommend using either the S-Spline XL or S-Spline method to enlarge your images with. The other methods (Lanczos, Bicubic, Bilinear, etc) are merely included for comparison purposes: they are also offered by competitors, while the S-Spline XL and S-Spline methods are offered exclusively by our software.

5. Menu and Toolbar

You will find the following buttons on the toolbar:



Open

Opens an existing image in the preview window.

Save

Saves the resized image, after letting you choose a location and specify a filename and format. Common formats like TIFF, JPEG, PNG, BMP, and TGA are supported. See chapter 7. Image File Formats for further details.

If you want to publish your images online, use the JPEG format to get the smallest file. For printing purposes, use TIFF, PNG, or BMP to maintain as much image quality as possible. TIFF is commonly used for professional printing.

Note: Saving paletted images (indexed colors, such as GIF) is not supported. **PhotoZoom 8** will convert such images to grayscale or truecolor RGB.

Print

Prints the image, after letting you choose from various print settings.

Preview

Updates the preview in the preview window, based on the current settings. Note that when "Auto Preview" is enabled (which usually is the case), the "Preview" button will be disabled. Auto Preview ensures that an image is being updated immediately when a setting changes. Sometimes it can be useful to turn off auto previewing (for example on slow systems). To do so, you can deselect the "Auto Preview" option from the "View" menu. You can then use the "Preview" button when you want **PhotoZoom 8** to show you a preview based on the changes you made.

Help

Opens the User Guide.

About

Shows information on the software and its creators, version number, license details, website links, and licensing and copyright information.

The Menu

Below you find an overview of all the menu items, including keyboard shortcuts (for both Windows and Mac) where available.

File

Open... (Ctrl + O / Opens an image
Cmd + O)

Save as... (Ctrl + S / Lets you specify a name, location, and format
Cmd + S) for the resized image, and then saves it

Print... (Ctrl + P / Lets you choose from various print settings, Cmd + P) and then prints the image

Open example image Opens the **PhotoZoom 8** example image

Recent Images > Quickly reopens a recently opened file

Exit (Windows only) Exits the program

Edit

Undo (Ctrl + Z / Cmd Reverts the last change + Z)

Redo (Ctrl + Y / Cmd Repeats the last change + Shift + Z)

Select Activates the selection tool

Crop Cuts out the selected part of the image (this option is only active when a selection has been made)

Deselect (Ctrl + D / Deselects the currently selected part of the image (this option is only active when a selection has been made) Cmd + D)

Flip Horizontal Flips (mirrors) the image horizontally (left becomes right)

Flip Vertical Flips (mirrors) the image vertically (top becomes bottom)

Rotate Left Rotates the image 90 degrees counterclockwise

Rotate Right Rotates the image 90 degrees clockwise

Reset Image Discards all changes applied to the image

since it was opened (this cannot be undone)

Options

Language > Chooses a language for **PhotoZoom 8** to use

View

Preview Updates the preview in the preview window, based on the current settings. This option is only available when "Auto Preview" (in the same menu) is turned off.

Auto Preview (on/off) When enabled, the preview window will update after each change you make

Toolbar > When disabled, changes are only shown after you click the "Preview" button or menu option.

Help

Help Opens the User Guide

Check for updates... Up-Checks if a free update (newer version) of **PhotoZoom 8** is available

Purchase... Links you to BenVista's online store, where a user license for **PhotoZoom 8** can be purchased

Unlock... Unlocks the software if a valid unlock code is provided (also see Unlocking the Program)

Support... Links you to BenVista's support pages: www.benvista.com/support

About Shows information on the software and its crea-

tors, version number, license details, website links, and licensing and copyright information.

6. System Requirements and Image File Formats

Windows

Microsoft Windows 10, 8.1, 8, 7
Intel or AMD compatible processor
100 MB free hard disk space

Mac

macOS Mojave (10.14), High Sierra (10.13), Sierra (10.12), OS X El Capitan (10.11), Yosemite (10.10), Mavericks (10.9)
Intel compatible processor with 64-bit support
100 MB free hard disk space

Image File Formats:

This chapter provides an overview of the image formats supported by **PhotoZoom 8**, and their specifications.

Raw image formats are supported, but are not included in this overview.

Format:	TIFF	JPEG	PNG	TGA	BMP	GIF
Features:						
Max resolution (pixels)	300000 x 300000	32767 x 32767	300000 x 300000	65535 x 65535	32767 x 32767	32767 x 32767
Max file size	4 gigabyte	2 gigabyte	16 exabyte	2 gigabyte	2 gigabyte	1 gigabyte
Compression	yes ¹	yes (lossy)	yes (lossless)	yes ²	yes ²	yes (lossy)
Color models:						
RGB	yes	yes	yes	yes	yes	yes ³
CMYK	yes ⁴	yes ⁴	n/a	n/a	n/a	n/a
Grayscale	yes	yes	yes	yes	yes	n/a
Channel types:						
8 bit channels	yes	yes	yes	yes	yes	yes
16 bit channels	yes	n/a	yes	n/a	n/a	n/a
Alpha channel	yes (multiple)	n/a	yes	yes	n/a	n/a
Profiles / metadata:						
ICC profiles	yes	yes	yes	n/a	n/a	n/a
Exif profiles	yes	yes	n/a	n/a	n/a	n/a
IPTC profiles	yes	yes	n/a	n/a	n/a	n/a
XMP profiles	yes	yes	n/a	n/a	n/a	n/a

n/a: This option is not supported by the image format.

1: The TIFF format supports both lossless and lossy (JPEG-based) compression. When saving images as TIFF, you can choose what kind of compression you prefer.

2: The format supports run-length compression. **PhotoZoom 8** can open them, but saves uncompressed images.

3: The GIF format supports palette colors only, and is typically used for low-quality (256 color) images. **PhotoZoom 8** can open GIF images (and treats them as RGB), but does not save them as GIF.

4: **PhotoZoom 8** can open CMYK images, but saves them as RGB.

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