Photomizer 2

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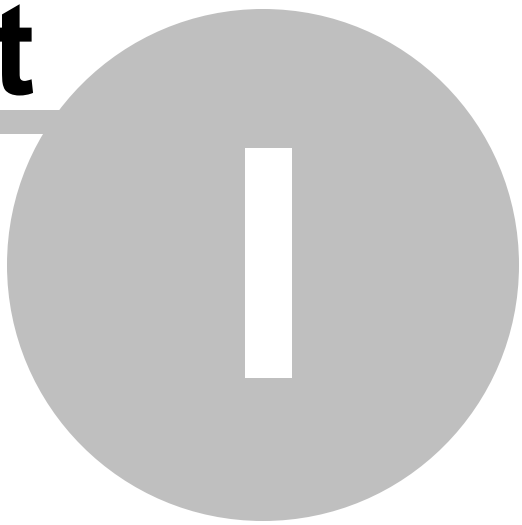

1 Photomizer 2

Photomizer 2 – optimizes your digital photos to top form

Note: Should you have problems with the installation please refer to chapter "Installing the program". Otherwise please start the introduction to the program either with chapter "Instructions" or with chapter "Program structure"!

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1.1 Features & Information

The new Photomizer 2 – optimizes your digital photos to top form

Photomizer 1 set the bar high – the new Photomizer 2 jumps over it, raises the known efficient functionality of the predecessor thanks to many internal improvements to a new level and completes it with numerous filters and additional minor and major changes.

Completely revised user interface

Many new and old functions but everything is easy to reach and to operate: Thanks to the completely revised user interface you can work with Photomizer 2 as smoothly as usual, target-oriented and undisturbed by any distractions – but with a clearer arranged interface, even a bit more intuitively and with a new zoom function and full-screen preview for a better image analysis. The 1-click optimization, popular with hobby- and semi-professional photographers, was kept of course.

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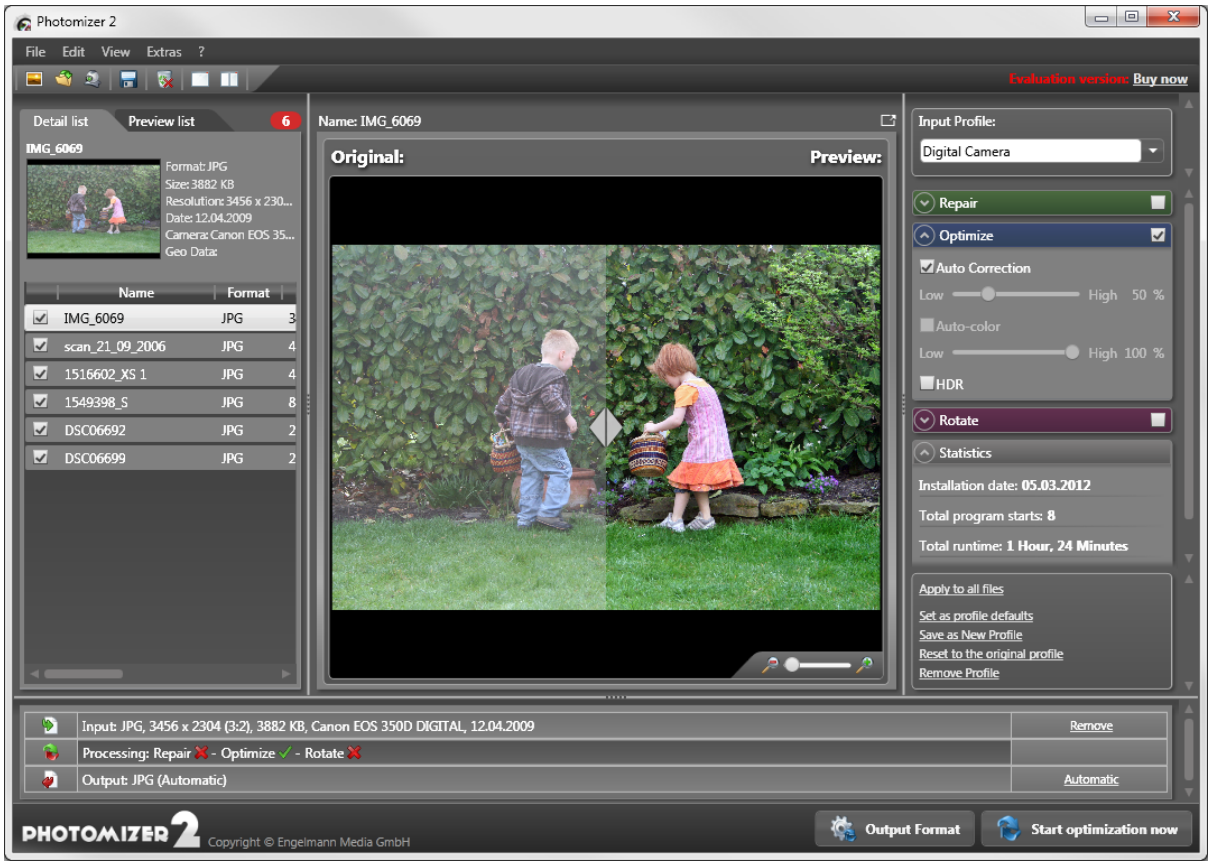
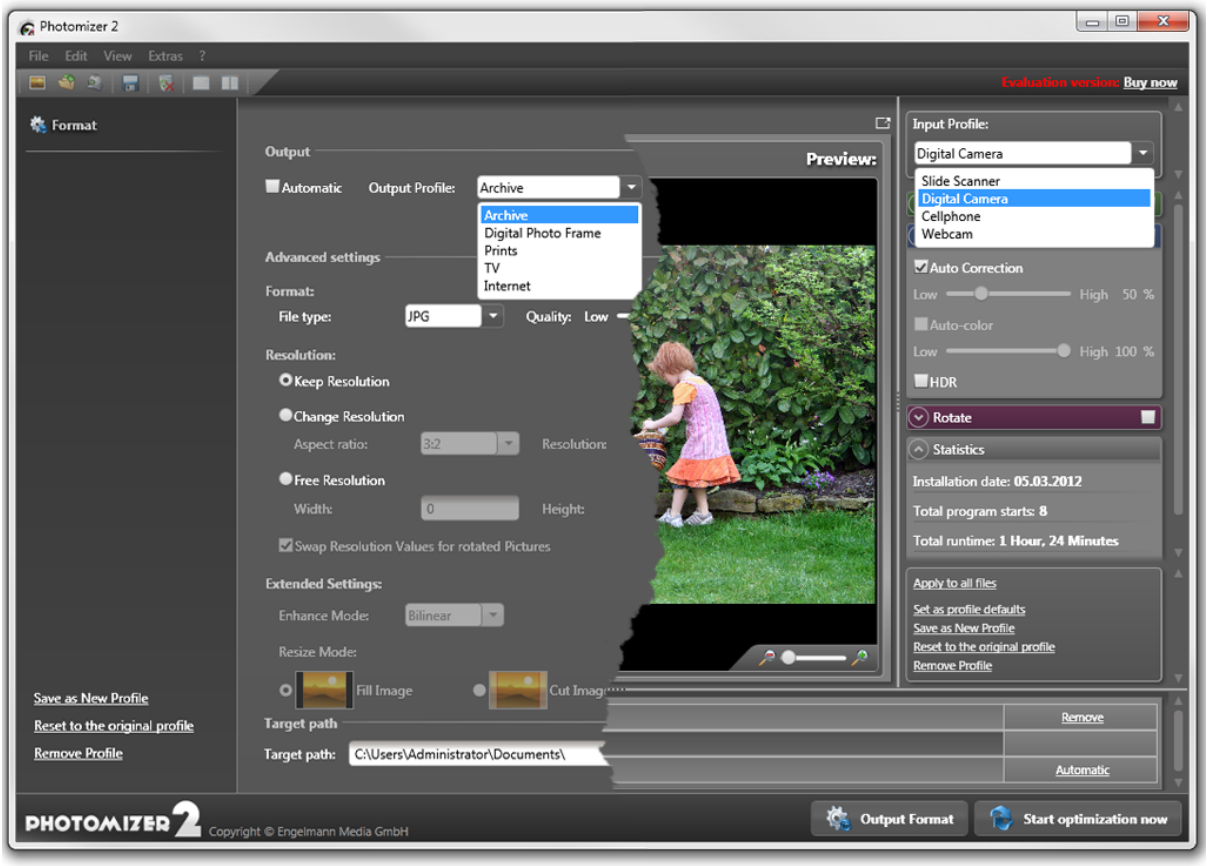


Click to enlarge.

Profiles for a faster and even more effective editing

The new editing profiles provide another enhancement towards perfect user friendliness. These are defaults that can be used for defined groups of photos to improve special features. Included in delivery are numerous default profiles – like those for optimization of digital camera shots, slides, webcam photos, scans and cellphone snapshots. This time-saving and efficient collection can be completed by your own profiles for individual viewing habits.
For more information go to www.engelmann.com



Click to enlarge.

1.2 Product contents

The packet comprises the Photomizer 2 software incl. electronic help file, license and serial number. On request, Photomizer 2 is also available on CD and with printed instructions.

1.3 System requirements

Program installation requires a functioning Windows operating system. Supported are *Windows 8 32/64 Bit, Windows 7 32/64 Bit*, *Windows Vista 32/64 Bit* as well as *Windows XP 32/64 Bit*.

Concerning the hardware it generally applies: the more capable, the better. You require at least:

- CPU with 1 GHz
- 1 gigabyte RAM
- About 60 MB hard disk storage for program installation
- Screen resolution 800 x 600 or higher
- Mouse or compatible input device
- .NET Framework 4.0 (is automatically installed if necessary)

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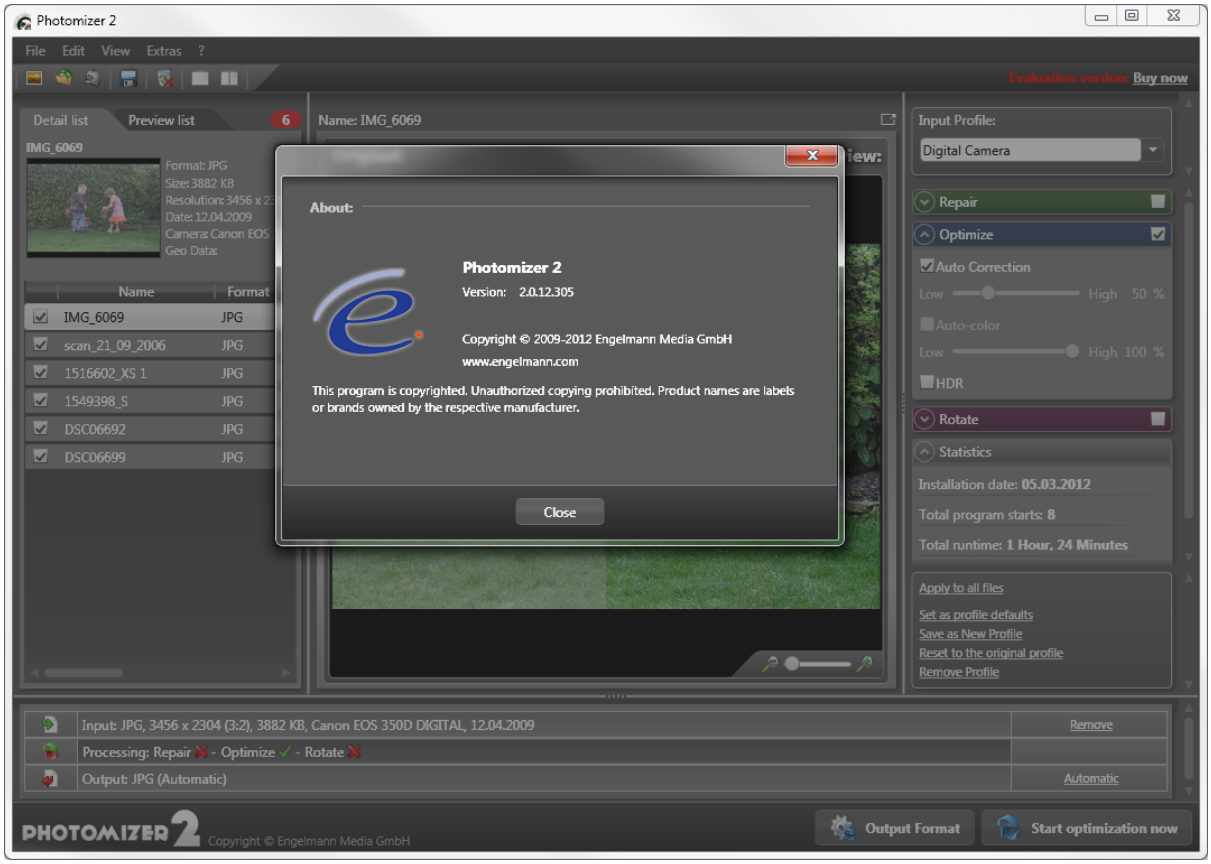
Note: An active Internet connection is required to enable the software.

1.4 Support

If unexpected problems occur when using the Photomizer 2 please contact our Support. You can reach our Support Center via the contact form at *http://www.engelmann.com*
Important! To help you as effectively as possible we require the following information:

- Program name (Photomizer 2) and version number. You find the version number via: '? --> About --> Version'
- The designation of the used operating system and possibly installed service packs.
- A short error description and indication of frequency (sporadic or regular). If you can create / have created a screenshot of the error message please attach it to your e-mail inquiry.



Click to enlarge.

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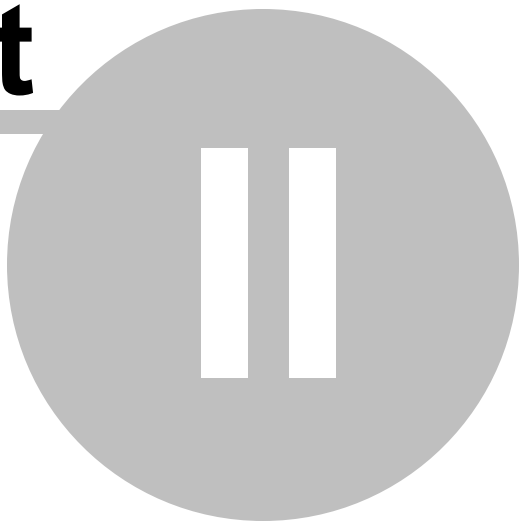

2 Installation

To facilitate the entry this chapter lists all the important information for installing Photomizer 2 on your PC.

Installation: Help for installation of Photomizer 2.
Program start: How to start the program?
Demo version: Explanation of the demo version.
Licensing: How to buy and register Photomizer 2?
- Buy Photomizer 2 Please support the further development of the product and buy Photomizer 2. Here we will explain how.
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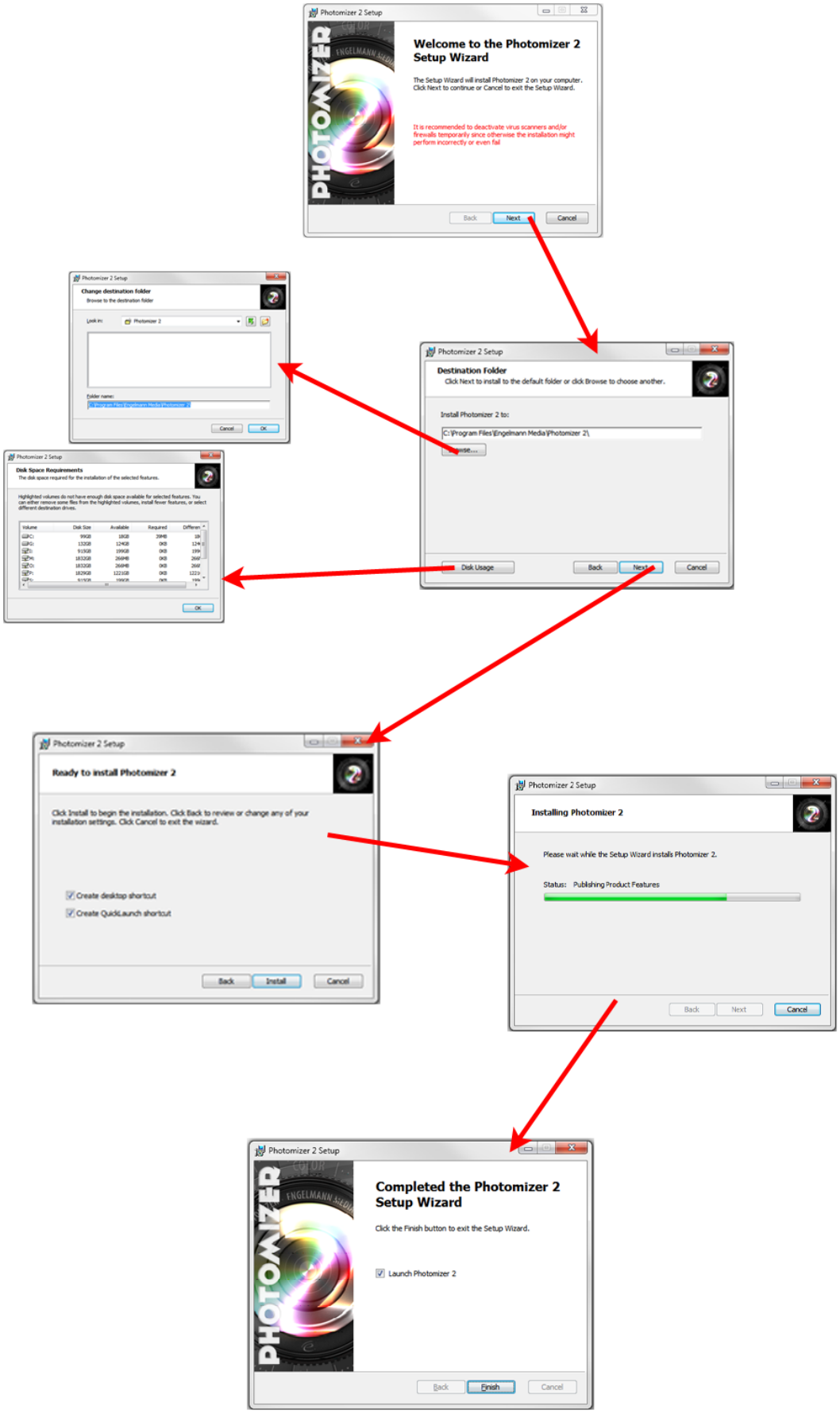
Photomizer 2 Setup
Welcome to the Photomizer 2 Setup Wizard
The Setup Wizard will install Photomizer 2 on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
It is recommended to deactivate virus scanners and/or firewalls temporarily since otherwise the installation might perform incorrectly or even fail
Back
Next
Cancel
Photomizer 2 Setup
Change destination folder
Browse to the destination folder
Look in:
Photomizer 2
Folder name:
C:\Program Files\Engelmann Media\Photomizer 2\
Cancel
OK
Photomizer 2 Setup
Destination Folder
Click Next to install to the default folder or click Browse to choose another.
Install Photomizer 2 to:
C:\Program Files\Engelmann Media\Photomizer 2\
Browse...
Disk Usage
Back
Next
Cancel
Photomizer 2 Setup
Disk Space Requirements
The disk space required for the installation of the selected features.
Highlighted volumes do not have enough disk space available for selected features. You can either remove some files from the highlighted volumes, install fewer features, or select different destination drives.
Volume
Disk Size
Available
Required
Difference
OK
Photomizer 2 Setup
Ready to install Photomizer 2
Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.
Create desktop shortcut
Create QuickLaunch shortcut
Back
Install
Cancel
Photomizer 2 Setup
Installing Photomizer 2
Please wait while the Setup Wizard installs Photomizer 2.
Status: Publishing Product Features
Back
Next
Cancel
Photomizer 2 Setup
Completed the Photomizer 2 Setup Wizard
Click the Finish button to exit the Setup Wizard.
Launch Photomizer 2
Back
Finish
Cancel

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2.2 Program start

After successful installation you start Photomizer 2 with one of the following options:

- **Via the *Start menu*:** Click on 'Start --> Programs --> Engelmann Media -->Photomizer 2'.
- **Via the *Desktop*:** Double click on the Photomizer 2 symbol on your desktop (if you configured it during installation).
- **Via the *Quick start bar*:** Click on the Photomizer 2 symbol in the quick start bar. (**Note:** The *Quick start bar* is not available by default as of Windows 7.)

Important: Prior to first program start please make sure that your PC is connected to the Internet, so that Photomizer 2 can be licensed and released.

2.3 Demo version

You can test Photomizer 2 to a limited extent for two days; however, a watermark (logo) will be integrated to the images during this period.

If Photomizer 2 did already convince you, please go to chapter Licensing to get more information.

If you want to test Photomizer 2 for a longer time, you can request a serial number via the '*Free trial key*' button, which will prolong your demo time by five days. During this period, up to 25 photos can be completely optimised or manipulated. A logo will be integrated to the images.

Copy the serial no. that you get by e-mail and add it to the field '*Key input*'. Alternatively you can use the command '*Add key from the clipboard*'. Then click on *Check key*. The displayed message tells you whether the serial no. was entered correctly or not.

Note: An Internet connection is compellingly required for serial no. check!

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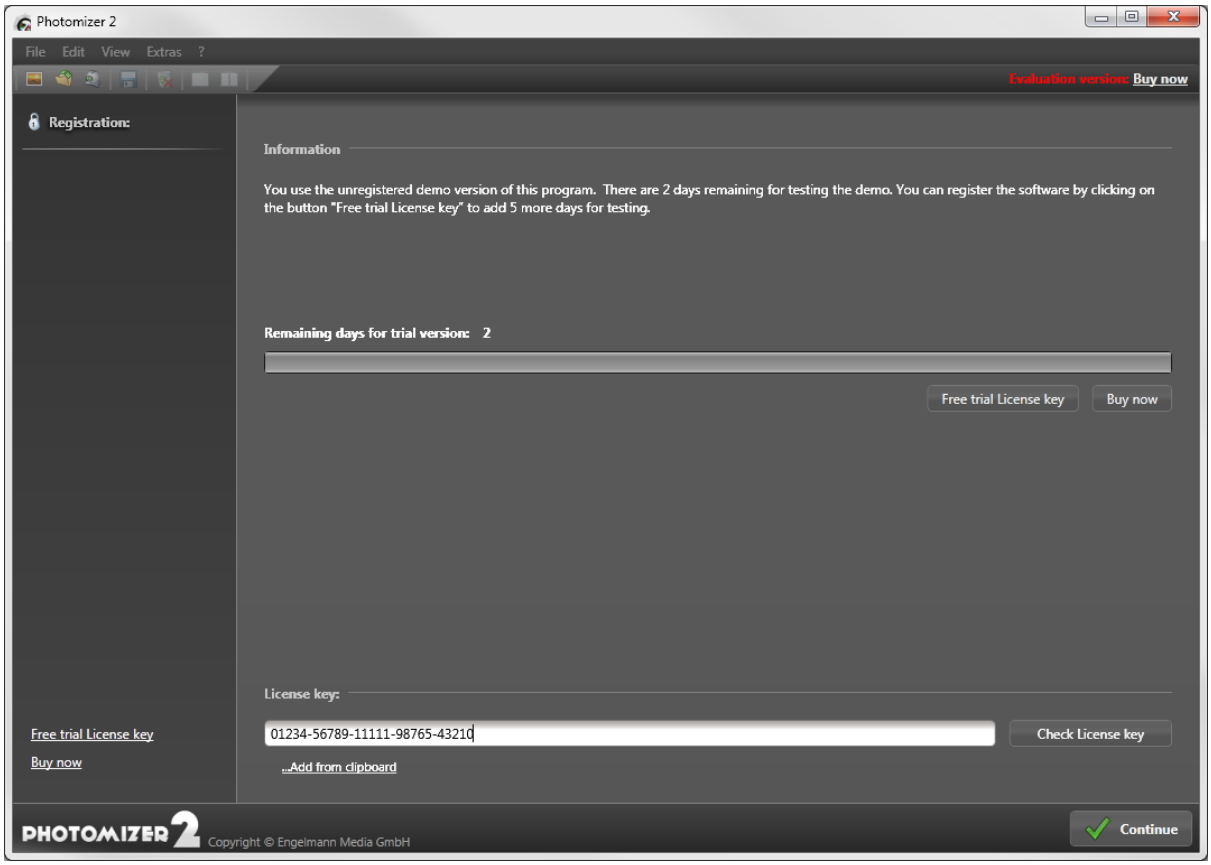

Click to enlarge.

2.4 Licensing

Concerning the program licensing there are two different possible scenarios:

- Photomizer 2 convinced you within the demo period and you want to buy it?
Then click here please: *I want to buy Photomizer 2!*
- You already have a valid license/serial no. for Photomizer 2.
Then click here please: *I already own Photomizer 2!*

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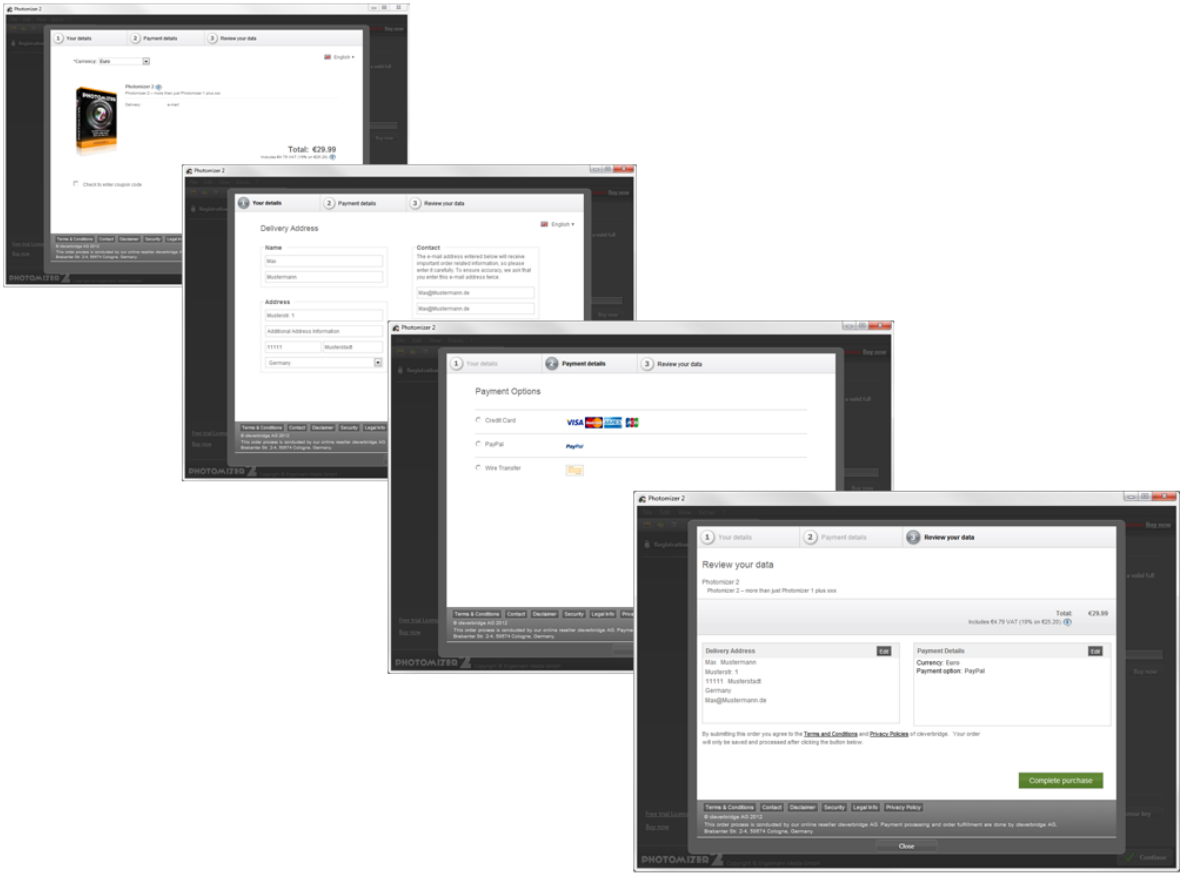

Click to enlarge.

After having finalized the purchase you should get the message that Photomizer 2 was licensed successfully. The transaction is finished and you can enjoy Photomizer 2 without any restrictions.

2.4.2 Bought

No matter whether you already bought Photomizer 2 or not, the ‘demo window’ will be displayed on first program start. To license your copy you have to enter the serial number to the appropriate field.

You either got the serial no. in an e-mail (in case of online purchase) or it is enclosed in the Photomizer 2 packet. After entering it click on '*Check key'.* A message appears, telling you whether you entered the serial no. correctly or not.

Please note that an Internet connection is compellingly required for serial no. check!

Note: A new installation of the application is not necessary when you purchased Photomizer 2 after expiry of the demo version.

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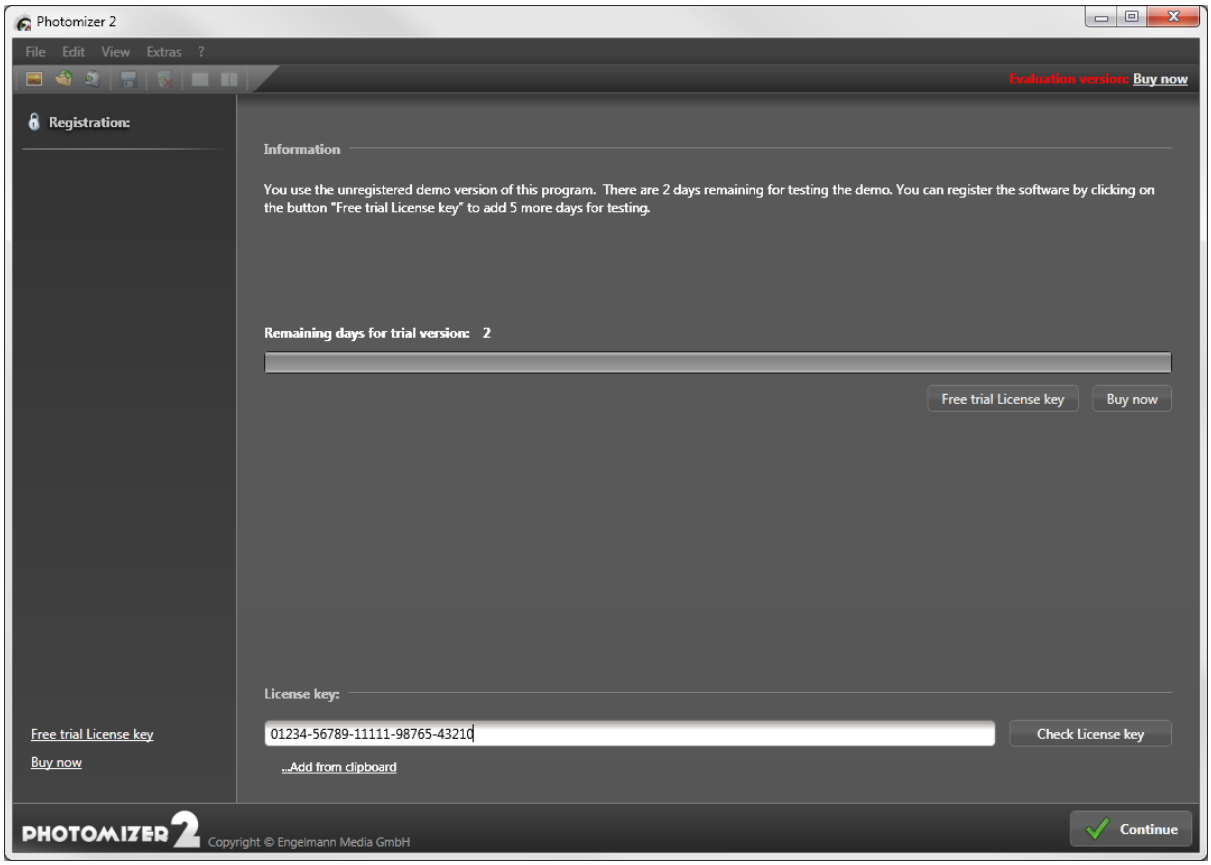
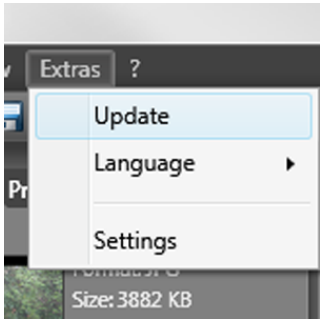


Click to enlarge.

2.5 Updates

All registered users get free updates according to the respective version number of their programs!

For program update go to the menu bar and click on '*Extras --> Update*'. The check only takes a short time and should be repeated regularly.



Tip: Enabling the '*Activate auto update*' option in Settings guarantees that Photomizer 2 automatically searches for updates on program start.

Note: The update assistant only transfers the program data required for update; it does not transfer any personal information.

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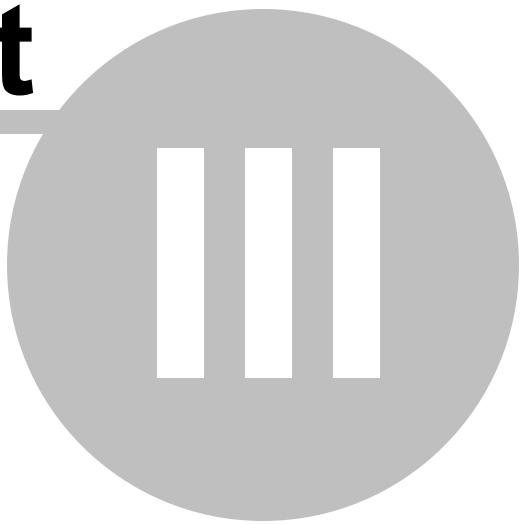
Part



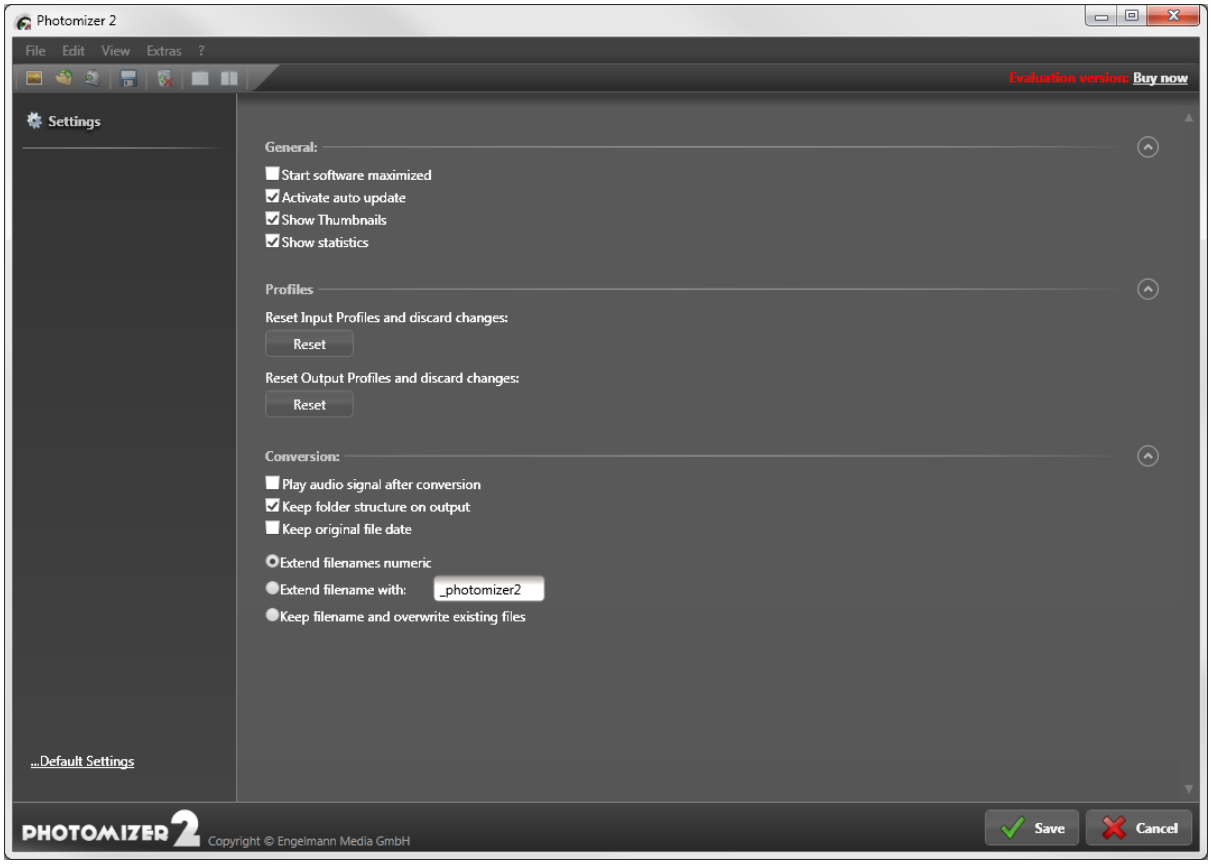
3 Instructions

Welcome to the brief instructions of Photomizer 2.

Here we will briefly explain how you optimize or manipulate images with Photomizer 2.

3.1 General settings

The general settings serve for adjusting the performance of Photomizer 2 to your demands. You come to these settings via *'Extras'* in the menu bar.



Click to enlarge.

General:	*Start software maximized:*	Activate this option so that Photomizer 2 automatically runs in full-screen mode on program start.
	Activate auto update:	Activate this option so that Photomizer 2 automatically searches for updates. **Note:** No personal data is sent when searching for updates!
	Show thumbnails:	Here you determine whether you want to show thumbnails.
	Show statistics:	Activates the statistics display. Please

		see also the chapter "Show statistics".
Profiles:	*Reset input profiles and discard changes:*	Resets all input profiles to the status after installation.
	Reset output profiles and discard changes:	Resets all output profiles to the status after installation.
Conversion:	*Play audio signal after conversion:*	Activate this option if you want Photomizer 2 to play an audio signal after conversion.
	Keep folder structure on output:	Activate this option if you plan to copy complete directories to the program and if you want the folder structure of the hard disk to be kept on output and configured anew if necessary.
	Keep original file date:	Activate this option if the file date of the converted file is to match the original date
	Extend file names numeric:	If during conversion the software notices that the file name of an image already exists, it is automatically extended by one number.
	Extend file name with:	If during conversion the software notices that the file name of an image already exists, it is automatically extended by the entered string.
	Keep file name and overwrite existing files: *leftleftleftleftleftleftleftleftleftleft*	If during conversion the software notices that the file name of an image already exists, the existing file is automatically overwritten. (**Attention!** The old file gets irretrievably lost.)
Reset settings:	You find this option in the lower left corner of the window. Click on this button if you want to reset *all* settings to default.	

3.2 Add files

Click on the symbol left on top of the input list. This opens a window in which you can navigate to your desired photo. Select the photo with a click and open it by clicking on '*Open*'.

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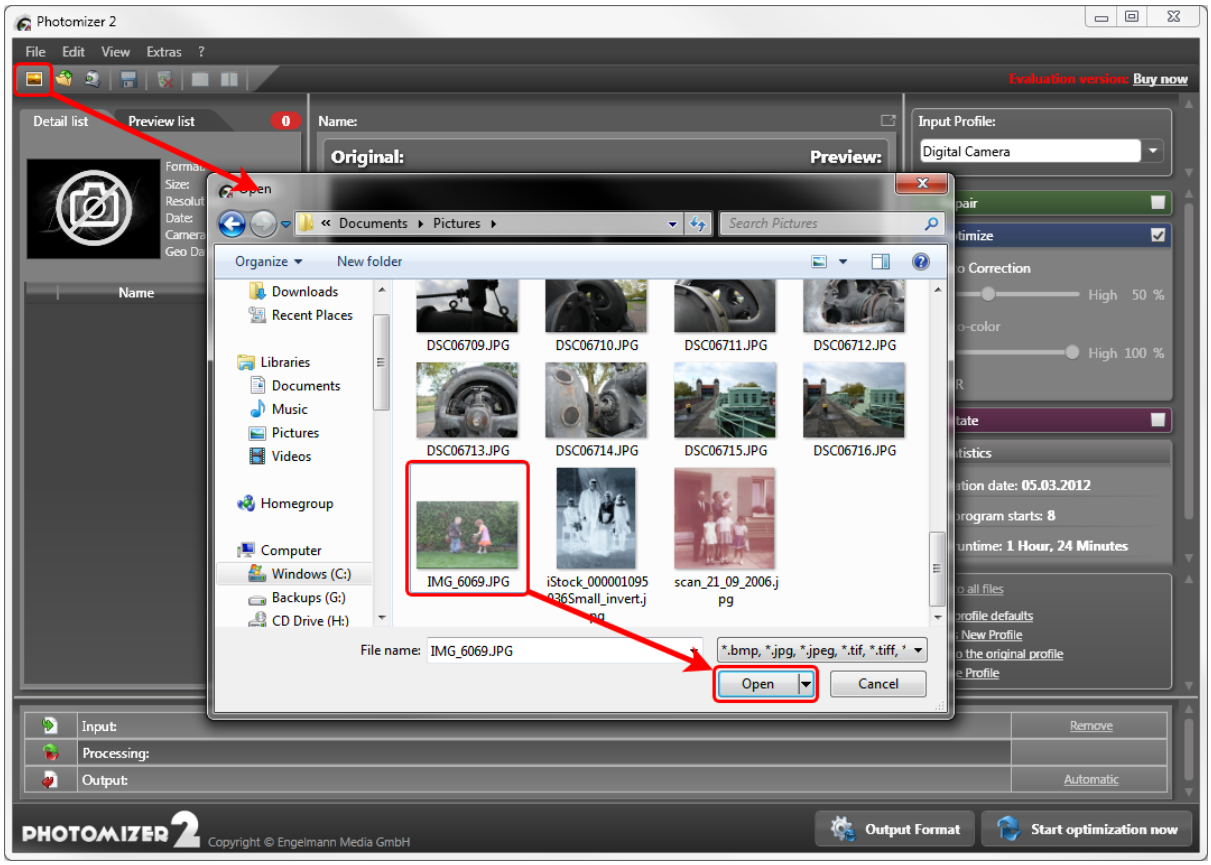
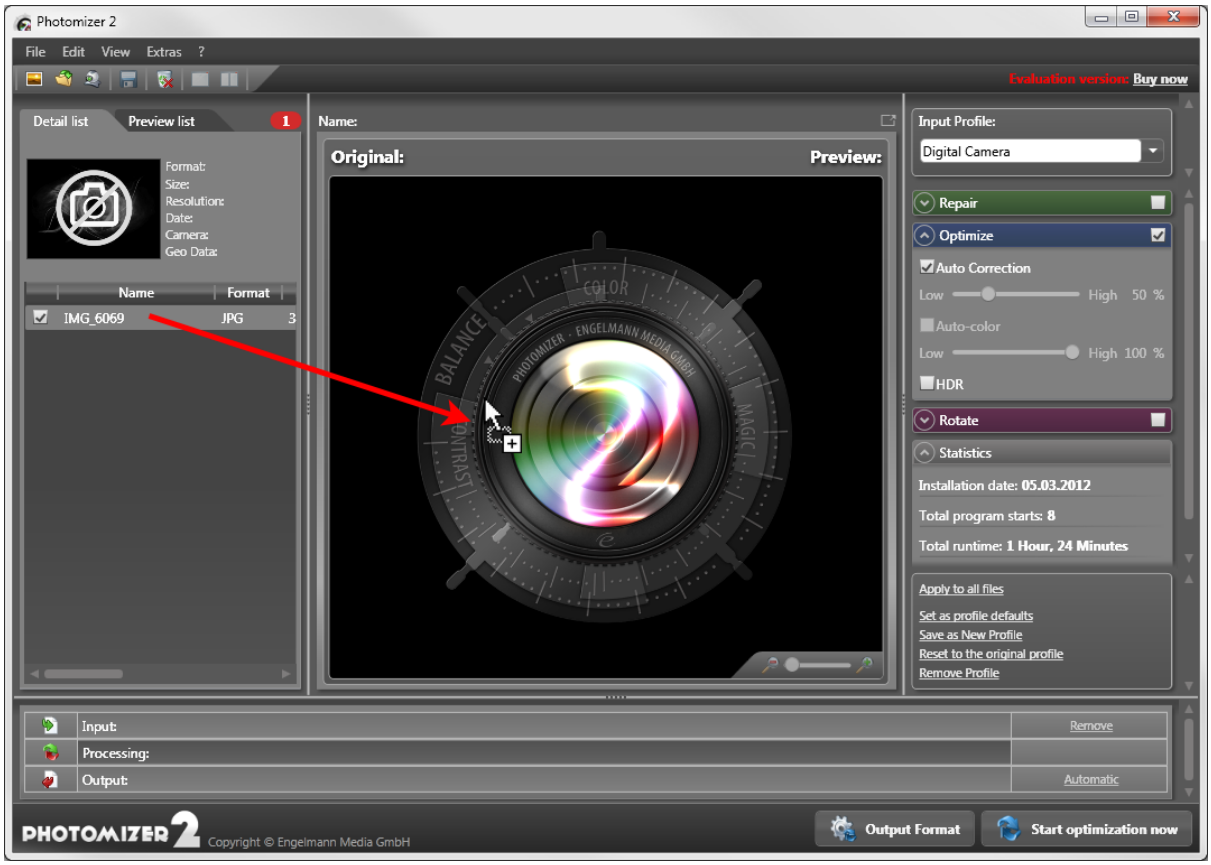


Click to enlarge.

Photomizer 2 has loaded the photo. To activate it for editing, drag the mouse to the window in the middle or double click on the file entry in the list.



Click to enlarge.

Only activated images can be optimized or manipulated individually!

3.3 Preview & full screen mode

In order to edit a picture you first have to load the preview; this can take some time depending on the picture size.

Above the detail list you can select between single view and split view. Above the preview you find an icon for change to full screen mode.

Single view: If this option is active, the currently marked photo file including the already made optimization is shown, i.e. the result of all currently valid settings. To compare the changed photo with the original please click on the 'Preview / Original' button in the middle.

Preview/Original (only visible in single view): With this button you change between display of original and changed photo.

Split view: If this option is active, you see the currently marked photo file split in the middle; at the left you see the original and at the right you see the changes made for optimization.

Slider (only visible in split view): You can move the slider with the mouse from right to left to see the difference between original and edited photo.

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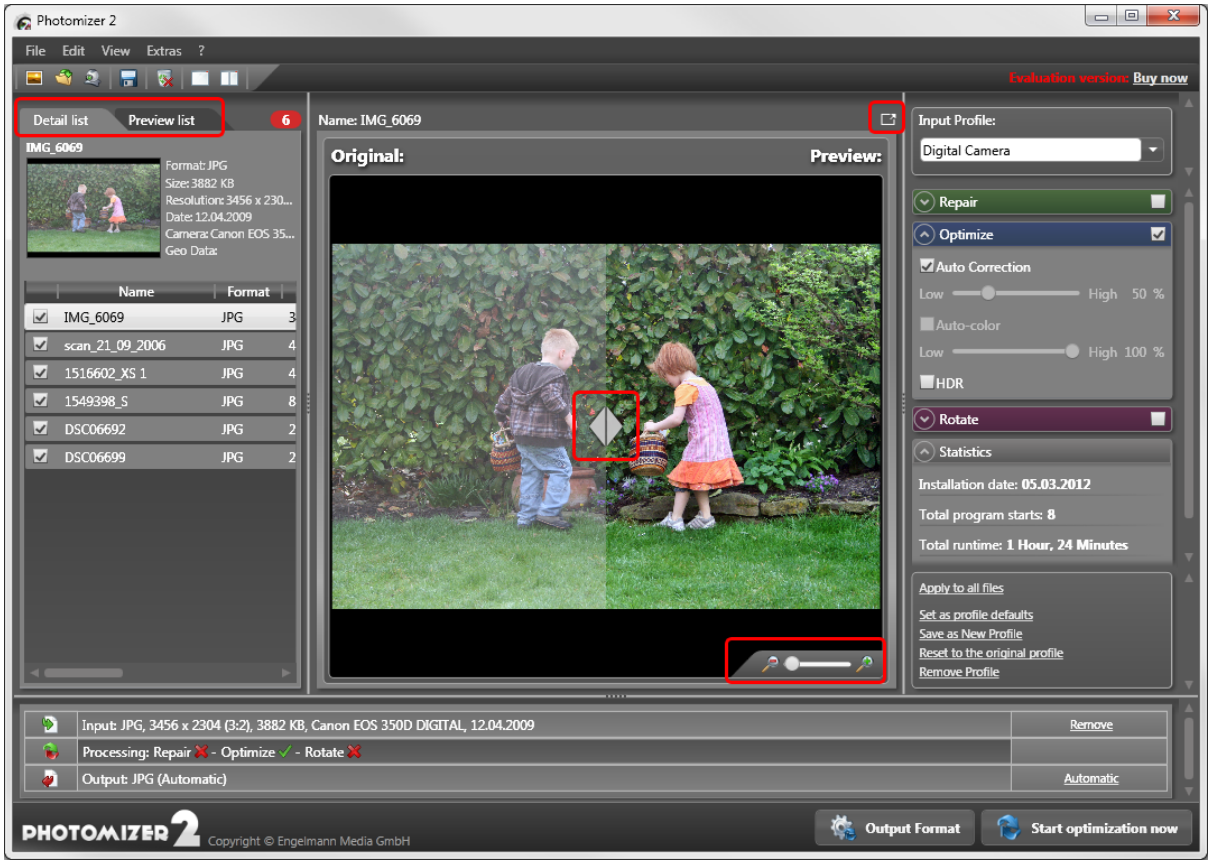
Full screen: In full screen mode you can edit all the settings directly. Please select ‘Single view’ or ‘Split view’ for this mode!

Scroll: You can enlarge your picture either by scrolling with the magnifier or the mouse.



Click to enlarge.

3.4 Input profiles

Photomizer 2 allows configuring individual profiles. Thus, you can adjust and save all settings depending on camera or output device. Default profiles are for instance 'slide scanner', 'cellphone', 'digital camera' and 'webcam'.

Likewise conceivable are individual input profiles for iPhone and other small devices or a profile, which always converts to a fixed output size, e.g. for optimum use of a digital picture frame’s memory space.

Each profile stores the selected settings of the 'Repair', 'Optimize', 'Rotate' options as well as the respective output format.

At the bottom right, above the button 'Start optimization now', you find all options for configuring or editing your profile:

- Set as default profile
- Save as new profile
- Reset to the original profile

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- Remove profile

3.5 Optimization & Manipulation

At the right side of the program interface you find all the options for manipulation of your photo:

- Repair
- Optimize
- Rotate

Repair
Photomizer 2 can remove noise, for example in snap shots that were taken under unfavorable light conditions. The artifact filter eliminates artifacts, which occur during de-blocking and JPEG-compression of images.

Optimize
Photomizer 2vides capable filters for image optimization. You can have the program work automatically or you can optimize manually. When you enable the checkbox under 'Auto-correction' and 'Auto-color', you can control the degree by means of a slider. leftleftleftleftleft

HDR effect: 'HDR' means 'High Dynamic Range' and stands for a technology that can increase the dynamic range of a picture. Normally, digital photos cannot save differences in brightness realistically; they rather create images with low contrast (LDR, Low Dynamic Range). To produce an HDR-image you require special cameras or at least software, which artificially creates 3D-computer graphics or generates it from three LDR-images with three different exposures. The HDR-simulator included in Photomizer, however, works with just one image and creates amazingly HDR-similar images. The other two are automatically calculated internally. This compensates for instance over- and underexposures while image details are kept for further editing.

Rotate
Mark those photos that lie on the side and rotate them accordingly. Photos that are turned upside down have to be rotated twice.

3.6 Output format

Before converting your photo with the optimized settings you should check the *output format*.

The output format settings offer two possibilities. When activating the check box 'Automatic', Photomizer 2 will carry out most of the work for you. Disable this option to get more possibilities and to adjust the output.

Photomizer 2 can handle the graphics formats **JPG a**nd **BMP.** JPG as lossy compression format is generally used when storage space is to be saved, e.g. in case of photos that are meant for publication in Internet or for display in a digital picture frame. The quality level corresponds to the degree of compression. The lower it is the more the picture will be compressed, the less storage space is required. However, one has to expect compression artifacts which result in grainy pictures.

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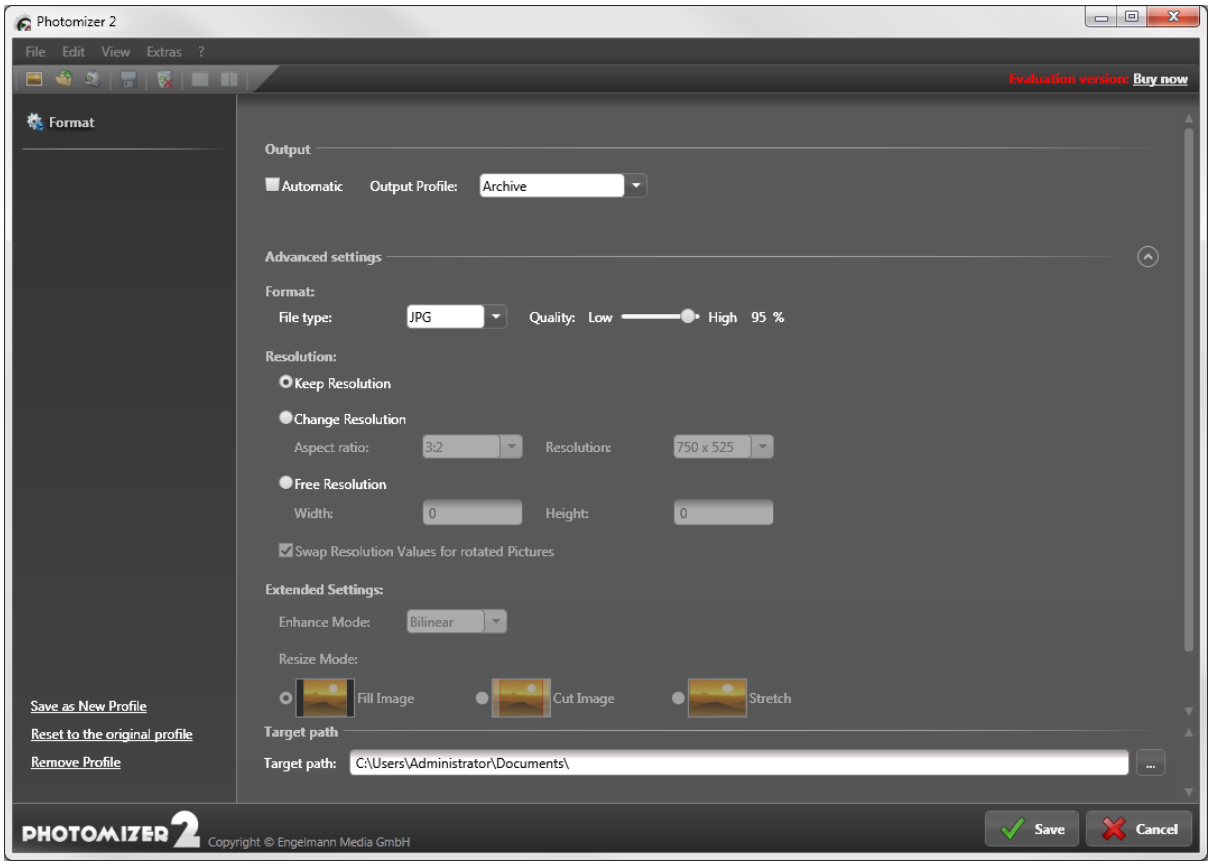

Click to enlarge.

In contrast, BMP serves for uncompressed storage of a picture in full quality and is therefore suitable for long-term archiving – but requires considerably more storage space.

The desired application possibly determines the format to be selected. Some digital picture frames for example exclusively support the JPG-format. However, if you are free to choose, select the format that suits your demands: JPG saves a lot of storage space but at the expense of the picture quality. BMP on the other hand offers a high image quality whilst requiring considerable storage capacity. For viewing on a smaller display JPG is completely sufficient but if the photo shall be transported to another computer and is to be shown or edited there, BMP is at least worth considering.

Basically it applies: **The higher the resolution in which a photo is to be stored, the better the quality** – yet only, if the original image resolution is already high enough. Upscaling is only partly successful, this is why for long-term archiving you should always use the original resolution or only minimum upscaling. **No original with a small resolution like e.g. 160 x 120 pixels will gain image details just by increasing it to e.g. 640 x 480**.

For other applications like publication in Internet or display in digital picture frames one can normally choose between different possible resolutions. Some providers of digital picture frames, however, determine the size by default.

If selection is possible you should take the resolution that corresponds to the physical one of the respective display. Devices often scale higher or lower resolutions to display size, which can result in poorer image quality and at least costs computing time. (If you do not know the display resolution of your device, please refer to its documentation.) Exception: Some digital picture frames allow viewing

photos on TV. Is this function to be used, the resolution of the respective TV is normally recommended – provided the original resolution allows this. For conventional TVs one should use at least 640 x 480 pixels, for high-definition TVs at least 1,280 x 720.

Tip: If you do not know the original resolution of a photo, use the preview above the file list!

To change the resolution of all photos click on the check box *'Change resolution'*.

A drop-down list offers various common resolutions for selection or you add a resolution with a click on the plus icon. To avoid distortion several additional options are available.

Scaling: With each change of resolution (particularly in case of enlargement) image details get lost. To compensate this loss you can select from a number of filters that take care of these artifacts.

- **Linear**: Fastest interpolation method, yet not the most thorough one. Details are smoothed.
- **Bicubic:** One of the most common interpolation methods which keeps details and still works quickly.
- **Nearest neighbor**: One of the most effective scaling filters, often used for increased resolutions higher than 320 x 240. The filter works more accurately than the bicubic but also takes more time.
- **Spline 16**: Step-by-step interpolation with an accuracy of up to 16 bit.
- **Spline 32**: Step-by-step interpolation with an accuracy of up to 32 bit.
- **Lanczos 3**: One of the most effective scaling filters, often used for increased resolutions higher than 320 x 240. The filter works more accurately than the previously mentioned but also takes more time.
- **Lanczos 4**: Like Lanczos 3, but even more accurate.
- **Gaussian**: Another filter for interpolation of images, based on the Gauss-algorithm and suitable for both, scale up and -down.
- **ODU:** The proprietary development Object Detection Upscaling allows enlargement with simultaneous quality enhancement and offers scaling, which so far was only possible with very expensive special hardware. ODU is by far the most effective of all used techniques, yet the most time-consuming.

Note: Photomizer 2 has an automatic scaling optimizer, which ensures that your pictures are most efficiently displayed on a defined medium. If for instance you have a digital picture frame, your pictures are automatically adjusted to the display – without disturbing black borders. The upscaling-unit drastically minimizes the error sources that occur when resolutions are changed; regarding the scope of features it can well be compared to very expensive special software, as it is used in university laboratories and by law enforcement agencies.

No change of resolution: If you do not tick the check box 'Change resolution', Photomizer 2 does not change the original resolution of the photo. The afore-mentioned options are no longer available. In this case please note that the display of photos in digital picture frames now depends on the respective device. Some devices scale up or down the resolutions for complete display, others only show a part of the picture (if larger than the display) or a picture with black border (if smaller than the display size). In order to **avoid black borders**, the option 'Change resolution' has to be enabled. If this is the case various options for image display are available:

- **Add borders:** Serves for adjusting the photos to a changed target resolution by leaving the original aspect ratio unchanged and filling possible black borders with picture material (depending on the original format). Aims at using the full screen of the display.
- **Cut image:** Serves for adjusting a photo to the target resolution by leaving the original aspect ratio unchanged but by enlarging the image so that it fills the target display completely. Edges may be cut (depending on the original format).
- **Stretch image:** Serves for adjusting a photo to the target resolution but changes the original aspect ratio. Depending on the original format the photo is stretched horizontally or vertically. This leads

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to a certain distortion which may be more or less strong, depending on the photo.

3.7 Start optimization

A click on the ‘Start optimization’ button activates the converter. All photos with the same settings are converted, except for those that were marked for separate conversion in preview.

A progress bar keeps you informed about the processing.

Via the ‘Open output path’ button you start the Windows-Explorer directly in the directory with the edited photos after the list has been processed.

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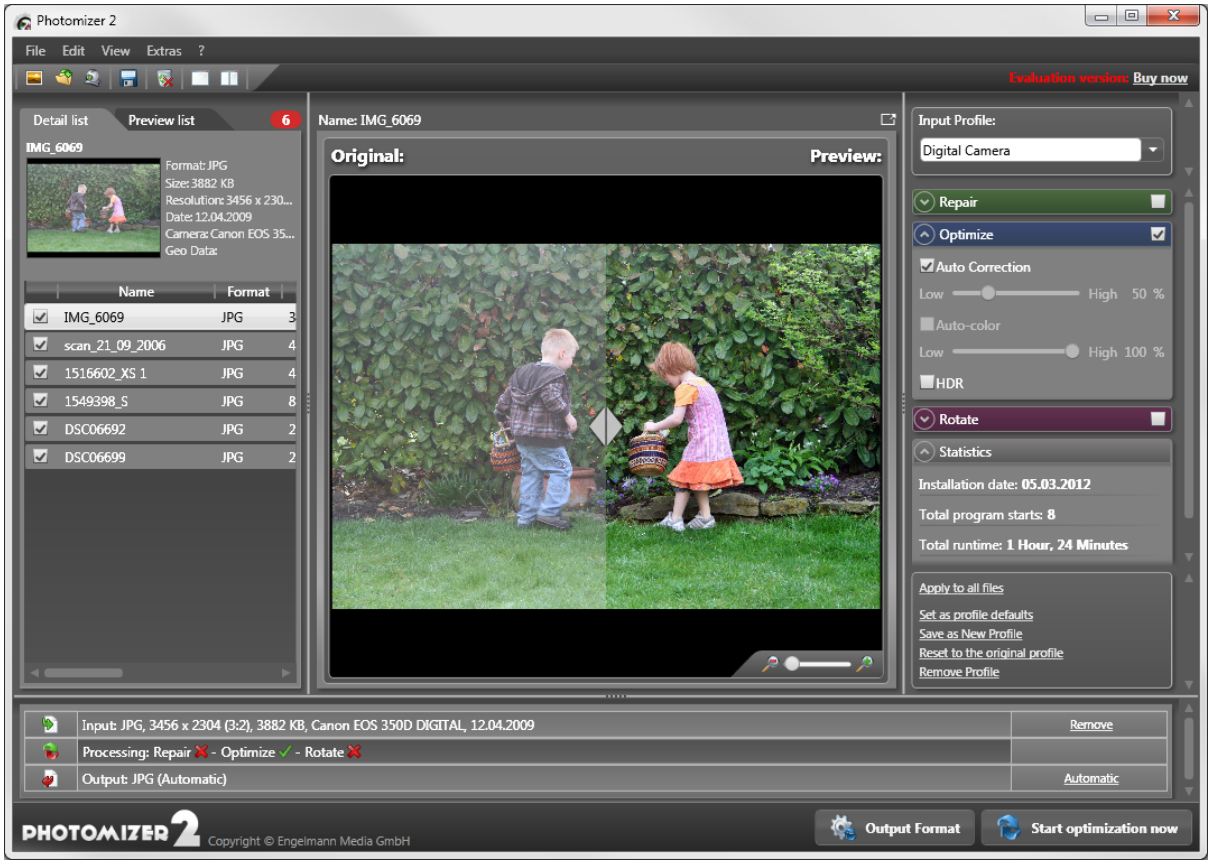
Part

4 Program structure

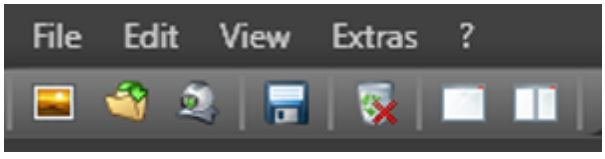
In this chapter we will explain the program structure of Photomizer 2 in detail.



Click to enlarge.

4.1 The menu bar

The menu bar of Photomizer 2 is divided in two sections.



- File, Edit, ...
- Icons

4.1.1 File, Edit, ...

This bar shows many program functions once again in a structured form. Furthermore, you here come to some functions that are not directly displayed in the main window.

- File:	1. Open file...	Loads a photo to the file list.
	2. Open folder...	Loads a folder to the file list.
	3. Import from camera...	Imports a photo from a connected camera, e.g. a webcam or a microscope.
	4. Save file as...	Here you can save the currently marked photo with all the selected options.
	5. Exit	Exits the Photomizer 2.
- Edit:	1. Open source path...	Opens the folder that contains the currently selected photo.
	2. Select	Adds the currently selected photos to conversion. The enabled check box in front of the photo indicates the marking.
	3. Deselect	Removes the currently selected photos from conversion. The disabled check box in front of the photo indicates the removal.
	4. Select all	Marks all photos in the list as 'to be converted'.
	5. Deselect all	Marks all photos in the list as 'not to be converted'.
	6. Remove item	Removes the currently selected photos from the item list. (The photos are NOT deleted from your hard disk!)
	7. Clear list	Clears the complete item list. (The photos are NOT deleted from your hard disk!)
- View:	1. Single view	Activates the single view.
	2. Split view	Activates the split view.
	3. Full screen mode	Activates the full screen mode.
- Extras:	1. Update	Opens the update dialog. (see also 'Updates'.)
	2. Language	Allows switching between the (supported) languages. (see also 'Language'.)
	3. Settings	Opens the general settings. (see also 'General Settings'.)
- ?:	1. Help	Opens this help.
	2. About	Opens a window with general information, which is important e.g. for the support. (see also 'Support'.)

4.1.2 Icons

Icons serve for fast and easy access to the program's main functions. Mouse over an icon to get information about the respective functions behind.

4.2 Item list

The item list manages the photos that you want to optimize. It mainly consists of ***Detail list***, ***Preview list*** and ***Context menu***.

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Note: You cannot use *detail list* and *preview list* simultaneously. You can switch between the various list types using the *Tabs* above the currently used list.

Click to enlarge.

Detail list:

This list provides a clear overview of all relevant data for the selected photos.

- Checkbox:	If this is activated, the respective photo will be optimi:
- Name:	Shows the photo name.
- Format:	Shows the format.
- Resolution:	Shows the resolution (in pixel).
- Camera:	Shows the used camera.
- Date:	Shows the date when the photo was taken.
- Options:	Shows all the selected optimization- and manipulatio options.

If some of the fields are not visible, you can reach them by means of the scroll bar at the lower edge of the list.

Click to enlarge.

Preview list

This list gives a fast overview of your selected photos.
To change the *Thumbnail* size, please move the *Slider* at the upper edge of the list.

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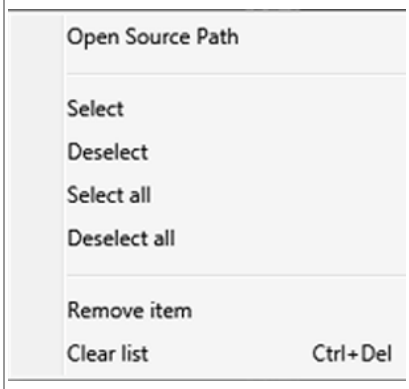

Context menu

The context menu is the most important list tool. You come to this menu with a right mouse click on the photo. (Note: You can also mark groups of photos.)

The following options are available via the context menu:

- Open source path:	Opens the folder that contains the currently selected photo.
- Select:	Adds the currently selected photos to conversion. The enabled check box in front of the photo indicates the marking.
- Deselect:	Removes the currently selected photos from conversion. The disabled check box in front of the photo indicates the removal.
- Select all:	Marks all photos in the list as 'to be converted'.
- Deselect all:	Marks all photos in the list as 'not to be converted'.
- Remove item:	Removes the currently selected photos from the item list. (The photos are NOT deleted from your hard disk!)
- Clear list:	Clears the complete item list. (The photos are NOT deleted from your hard disk!)

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Part V

5 Show statistics

Statistics show among others, how long the Photomizer 2 is being used and how many photos you have already optimized.

You can display the statistics either via menu '*View*' (see "File, Edit, ...") or via '*General settings*' (see "General Settings"). After having switched on the statistics view it is displayed at the bottom right, next to preview. You may have to use the scroll bar to show the display.

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Part VI

6 Language

To facilitate your work with Photomizer 2, particularly if you work on a PC that is used by several people in different languages, you can switch between the available languages at any time. You come to this option via '*Extras'* (see "File, Edit, ..."). Select the desired language and Photomizer 2 will be displayed accordingly.

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Part VII

7 Shortcuts

The following shortcuts are available:

CTRL+ O	(open file)
CTRL + D	(open folder)
CTRL + E	(camera import)
CTRL + S	(save file)
Alt + F4	(close)
CTRL + 1	(single view)
CTRL + 2	(dual view)
CTRL + F	(full screen)
CTRL + T	(toggle preview/original)

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Part

8 Glossary

Algorithm: Special instructions for a computer on how to solve a mathematical problem

Aspect ratio: The aspect ratio of an image is its width divided by its height, e.g. 1.33:1 for 4:3-images (common TV picture).

Bitmap: Graphics on basis of bits

BMP: File format for bitmaps (.bmp)

Conversion: Change from one status to another, here from one image size to another

Data compression: Reduces files to save storage capacity. We distinguish between lossless (like ZIP) and lossy compression (like JPG format). The former have to be de-compressed again prior to use, the latter not.

Digital display: here: picture size in pixel

Dimensions: here: width x height of a picture (in pixels or centimeters /millimeters)

Enhancement algorithm: Filter used for enhancement of digital images; aims at preventing a deterioration of the image.

Filter: Special methods for changing an image. These comprise e.g. noise filters but also enhancement algorithms

Image format: Special standard in which an image is stored, e.g. JPG (compression format) or BMP (uncompressed)

Jaggies: Appearance of pixel edges when the enhancement is too high

JPG: File ending for a compressed image format (.jpg)

Pixel: Each picture on a display consists of single elements or pixels. Their number depends on the resolution, e.g. 76,800 pixels for a resolution of 320 x 240. There is no binding unit for the size of a pixel; depending on the display it may be smaller or larger, quadratic or rectangular. This is the reason why for instance a pocket PC with 640 x 480 pixels can handle a resolution twice as high as a PC with the same display size but only 320 x 240 pixels. The single pixels are only half the size and therefore much closer to one another.

Resolution: Number of horizontal and vertical pixels of an image. During conversion the original resolution is converted to a new target resolution. All digital picture frames use a defined resolution which they can display best; other parameters need to be scaled – which is possible or not depending on the device. In any case this costs calculating time, battery consumption and picture quality.

Splash screen: Opening screen of a software

Update: Program update

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