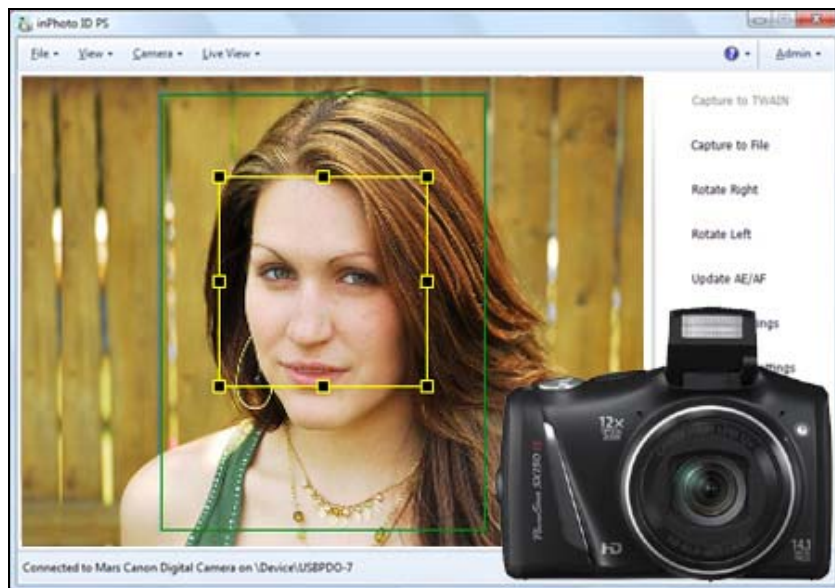


inPhoto Capture PS



**Automatic photography
With Canon Powershot camera**

User Guide



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1. INTRODUCTION

Thank you for purchasing **inPhoto Capture PS** software!

inPhoto Capture PS is designed for full control of Canon Powershot cameras, automatic ID photography, image transfer to all TWAIN compatible applications (e.g. , Adobe Photoshop, Jasc Paint Shop Pro, XnView and others) and to all TWAIN compatible ID card management software and image databases, or save to disk.

inPhoto Capture PS can work both as the stand alone application and as TWAIN driver with all programs supporting TWAIN protocol. Connect your Canon Powershot camera to computer, install **inPhoto Capture PS** software, and enjoy working with your camera from within any card management application supporting image acquisition via TWAIN.

Basic features of **inPhoto Capture PS** software:

- Ability to work as TWAIN driver.
- Ability to work as stand alone software.
- Full control of all camera settings from computer.
- Live image preview.
- Image rotation: manual by 90 degrees.
- Automatic face detection on the live image in preview window
- Automatic image capture.
- Automatic face crop on the captured image.
- Image resizing and enhancement.
- Image export to the TWAIN compatible software (e.g. to ID card design and management software.
- Save images to the specified folder.

2. SOFTWARE PACKAGE AND PC REQUIREMENTS

Software package includes the following:

1. Setup file (inphotocaptureps.exe file),
2. Card preparation wizard (cardsetup.exe file),
3. Start Up Guide (inPhotoCapturePS_Startupguide.pdf file – downloadable from www.akond.net),
4. User Guide (inPhotoPS_Userguide.pdf file - downloadable from www.akond.net),

5. Serial number to activate the software.

PC requirements:

- Windows XP SP3, Windows Vista, Windows 7 (including 64bit),
- Free 20MB on hard disk for the software files,
- Microsoft .NET Framework 3.5 Service Pack 1,
- One free USB 1.0 (or higher) port to connect Canon camera to PC,
- **Important!** It is necessary to have the card reader connected to PC (or built-in).

Supported cameras:

inPhoto Capture PS software supports the following **Canon Powershot** cameras:

- Canon A480
- Canon A495
- Canon SX200 IS
- Canon SX210 IS
- Canon SX130 IS
- Canon A800
- Canon A2200
- Canon SX150 IS
- Canon A810
- Canon A4000
- Canon SX40 HS
- Canon SX160 IS
- Canon SX500 IS

3. CAMERA AND SOFTWARE INSTALLATION

InPhoto Capture PS software installation

If the software is supplied with the Serial Number:

1. Run **inPhoto Capture PS** Setup file. During the process of the software installation you will need to prepare (program) the camera SD memory card. The **Card Preparation Utility** is included in the software **Setup** file. Just follow all Wizard instructions.

2. Activate your license using on-line or off-line activation and enjoy working with **inPhoto Capture PS**.

Canon Powershot camera installation

- 1 Insert batteries to your Canon camera or use AC power supply unit.
- 2 Install your Canon camera on the tripod photo stand.
- 3 Connect your Canon camera to PC with the USB cable. Turn the camera on.

Camera preparation

In order to be able to use **inPhoto Capture PS** software to control your **Canon Powershot** camera from computer connect your camera to PC with USB cable, switch the camera on, and run **inPhoto Capture PS** software. The live image shall be displayed in the software window.

Final check

After you perform all above steps please check the following:

- 1 Your Canon Powershot camera is installed on the tripod stand.
- 2 The USB dongle is plugged into the USB port of your PC (if the software was supplied with the USB dongle).
- 3 **inPhoto Capture PS** software is installed on PC.
- 4 Canon Powershot camera is turned on and connected with the USB cable to your PC.

inPhoto Capture PS start up

Now you can run **inPhoto Capture PS** software as TWAIN source from all TWAIN compatible applications.

- If you work with Incardex (ID card software) click on the photo with the right mouse button, select **inPhoto Capture PS** driver in a list, then double click on the photo field, and **inPhoto Capture PS** will be started.
- If you work in Adobe Photoshop go to File / Import / inPhoto Capture PS.
- If you work in Jasc Paint Shop Pro go to File / Import / TWAIN / Select Source, and select inPhoto Capture PS. After the source

- is selected use Acquire command (File / Import / TWAIN / Acquire).
- If you work in other third party applications supporting TWAIN please refer to the corresponding documentation supplied with your graphic software.

You can also run **inPhoto Capture PS** as stand alone software (Start – All programs – inPhoto Capture PS).

After **inPhoto Capture PS** is started up you will get the live image in the image preview window.

Attention! The live image can be not sharp, dark, with not natural colors, etc. In order to get proper image in the preview window and start capturing photos please read the next Chapter.

4. INPHOTO CAPTURE PS OPERATION

inPhoto Capture PS window

The **program window** view has two sections: the **Image Preview** area (on the left) and the **Control Panel** (on the right).

The menu in the upper part of the software window provides access to **inPhoto Capture PS** commands and settings.

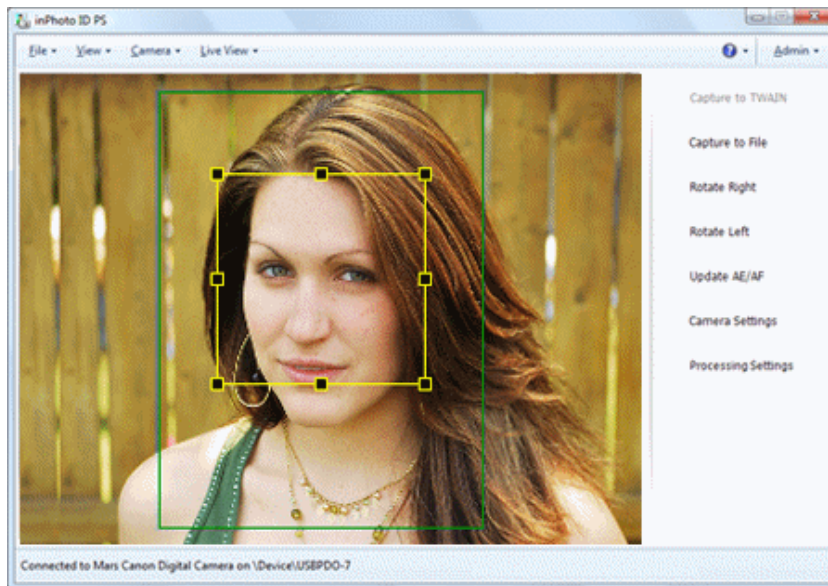


Figure 1. inPhoto Capture PS window.

In the **Image preview** area you can see live image of the object to be captured. Live image preview provides an ability to control image quality before capture and change camera settings if necessary. When you change camera settings you can see live preview changing in Image preview area.

The **Control Panel** includes 7 controls: Capture to TWAIN, Capture to file, Rotate right, Rotate left, Update AE/AF, Camera settings, and Processing settings. Press **Capture to TWAIN** to capture image to TWAIN compatible application. Press **Capture to file** to shoot the photo and save image file to disk. Press **Rotate right** or **Rotate left** to rotate live image in the Image preview area. Press Update AE/AF to update automatic exposition / automatic focus settings if they have been changed.

Capture to TWAIN button will be disabled if **inPhoto Capture PS** is started as stand alone application. In order to be able to capture photos to TWAIN compatible software **inPhoto Capture PS** shall be run from a TWAIN compatible software.

If you press **Camera settings** button the **Camera settings** window will open. This window provides an ability to control the settings of **Canon PS camera** from the personal computer with **inPhoto Capture PS** software.

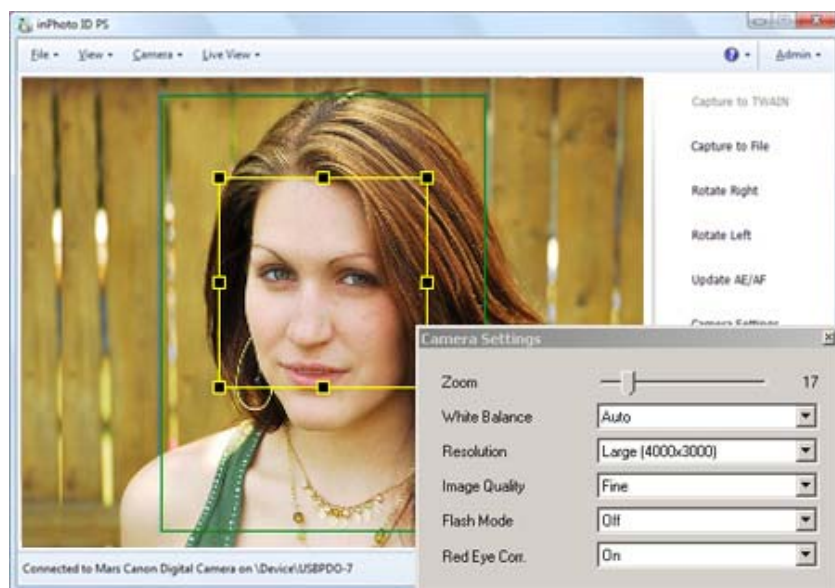


Figure 2. **inPhoto Capture PS** window with **Camera Settings** windows.

When you select all Canon Powershot camera settings as you need for your application it is possible to close the **Camera settings** window by pressing **Camera settings** button again or by clicking Close button in the upper right corner of **Camera settings** window.

Press **Processing settings** to display the Image processing window. In this window you will be able to setup the face crop and image enhancement settings. They will be saved and used by **inPhoto Capture PS** to process the photos.

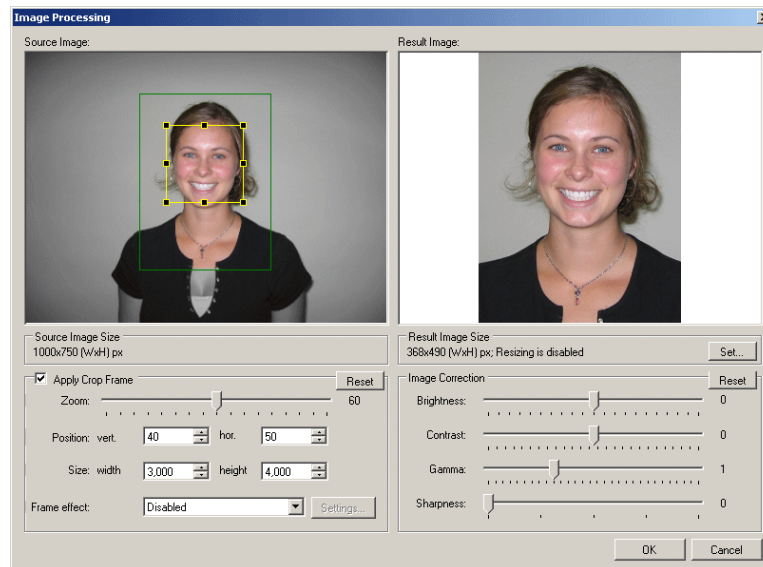


Figure 3. Image Processing window: general view

The cropped image can be enhanced if you are not quite satisfied with the resulting image quality. It is possible to adjust image brightness, contrast, gamma, and sharpness using the corresponding controls in the right part of the **Image Processing** window.

The **Image Processing** window has the following areas:

- Source image area. If **Apply Crop Frame** is checked the human face will be outlined by the yellow frame (shows the face found) and by the green (or red) frame (cropping frame).
- Processed (cropped) image area.
- Information on the source image size.
- Information on the image resizing options.
- The crop frame parameters area.
- The photo enhancement and resizing area.

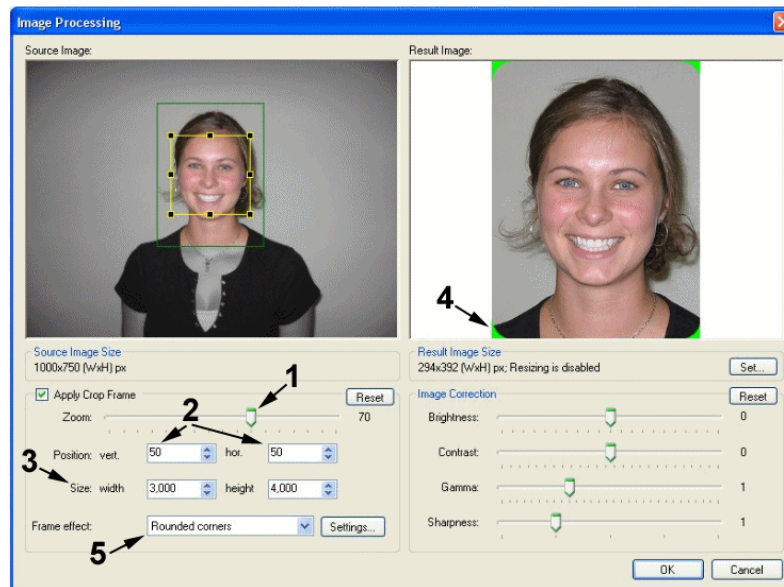


Figure 4. Image Processing window: areas and controls.

Make the desired settings in the **Image Processing** window and they will be used for the automatic processing of the source images.

Source image and crop frame

The face area is automatically outlined by the yellow frame. The user can change the yellow frame size and position if necessary. The green (crop) frame outlines the result image area on the source image. The **Crop frame** is built automatically and can not be changed manually.

This ensures a constant position of the person face on the resulting image. If the face on the image is not recognized automatically you have an option to outline the face area manually. If the face is located too close to the image frame and the area to be cropped is cut by the image border, the frame color will change from green to red.

You can turn the crop frame on and off by checking **Apply Crop Frame** checkbox.

1. Zoom

Using the **Zoom** slider set up the face percent on the resulting ID photo. **"70"** value means that the human face center will be at **70%** height of the full cropped photo.

If you use the same **Zoom** value for the photos to be processed you will get the consistent resulting images having the same size and the same surrounding area / face area ratio. The faces of a small child and a large adult person will have the same size in the resulting images. This is in full compliance with the requirements for ID images, and also allows better identification when these images are used in electronic or printed form.

2. Position Vertical and Horizontal

Position Vertical and Horizontal controls allow you to change the face position on the resulting image. Using these controls you can change the position of the yellow frame center to the crop (green) frame center. In other words you can shift the green frame horizontally or/and vertically.

Adjust **Position vertical** and **Position horizontal** values to set up the face position on the resulting photo. The left bottom corner of the resulting photo corresponds to Position vertical **"0"** and Position horizontal **"0"**. Set the Position vertical and Position horizontal to **"50"**, and the face center will be located in the center of the resulting ID photo. Set the Position vertical to **"25"**, and the distance above the face center will equal to **25%** of the total photo vertical size.

3. Size

Set the **actual photo size**. You can use either round values (e.g. 3 x 4) or fractional values (e.g. 3,5 x 4,5).

4. Rounded corners.

The ID photo corners can now be rounded. The corners color and roundness radius are optional.

To reset all the settings to default values, click Reset button.

5. Frame effect.

For now the **Rounded corners** option is available. New options will be added in the future.

Image Correction

The cropped image can be enhanced if you are not quite satisfied with the resulting image quality. It is possible to adjust image brightness, contrast, gamma, and sharpness using the corresponding controls in the right part of the **Image Processing** window.

Brightness control allows you to make the image brighter or darker. Contrast is used if a face has little gradation. Gamma allows for both options - at the same time increasing or decreasing the brightness and contrast.

Sharpness allows you to emphasize image details. It can improve the image when shooting was not enough in focus, or shooting conditions and camera quality do not allow to get a good focus image. For example, if the image was captured by the low-end webcam, the small value of sharpness can help to improve the image details and make result image of better quality.



WARNING! These improvements are only based on information obtained from the image. So it can not fix a broken shot, to restore the image, or to correct shooting errors. It is always preferable to capture an image of the best quality to minimize the necessity of any improvement.

To reset all the settings to default values, click Reset button.

Resizing

You can customize the resulting image size in pixels. This allows all produced files to be the same size, as well as reduce file size. File size is important in order to save disk space or database size. In the case of large database ID image size reduction can strongly reduce overall database size, which prevents the slow down and improves its reliability.

Resizing in **ID Photo Processor** reduces the size of resulting image. Image size increasing can not be performed.

Resizing can also increase the image quality. You can shoot the image with maximum size, regardless of the size required, and then resize it to desired value. In this case resizing leads to improved output image quality.

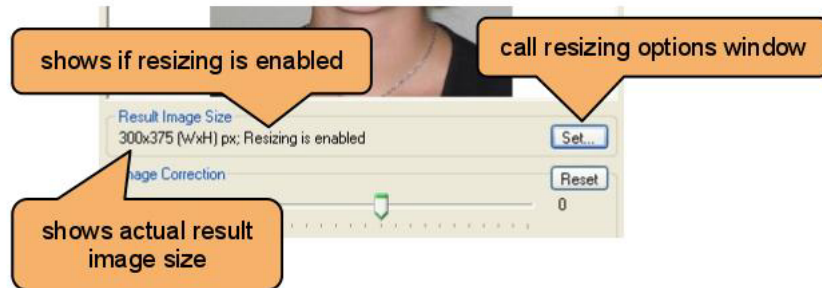


Figure 5.

To enable resizing click Set button in Result Image Size box. In the Resizing options dialog box enable the corresponding checkbox and set the desired image size. All resulting images with the bigger size will be resized. Resizing always keeps image proportion. Actual image size after resizing will be displayed in the **Result Image Size**.

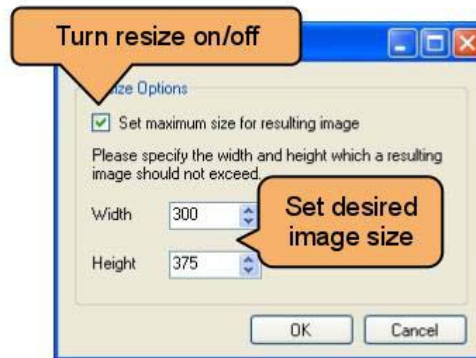


Figure 6.

Click OK to complete setting up resizing options and save it. Options will be applied to each processed image.

Live image preview

Image preview (see Figure 1) is very important for image quality control and adjustment before capture.

inPhoto Capture PS software provides the **dynamic image preview**.

The dynamic preview mode provides an ability to control the image quality before capture. All changes made to the Canon Powershot camera settings have effect on the previewed image immediately after they are performed.

The rotated image will be displayed in the preview window if the corresponding controls are selected (**Rotate right** or **Rotate left**).

The automatic face detections will be performed in the preview window if the corresponding settings are made on the **Processing** tab of the Options dialogue box (see **Options**).

The yellow frame on live image in the preview window automatically outlines the face area. The green frame outlines the image area which will be cropped. The green/yellow frame ratio is adjusted by the sliders in the **Image Processing** window (see Figure 3). If it is necessary to change the green/yellow frames position and aspect ratio, capture an image (the **Image Processing** option shall be selected on the **Processing** tab of the **Options** window) and make required adjustments in the **Image Processing** window. After that press **Back** button to return to the **Image Preview** window. If the face is located too close to the image frame and the area to be cropped is cut by the image border, the frame color will change from green to red.

Warning. inPhoto Capture PS automatically detects and crops the human face only. All other objects are not detected and cropped automatically. Use manual crop option for other objects if necessary.

Press **Capture to TWAIN** button to capture the image and transfer it to the TWAIN compatible software.

Press **Capture to TWAIN** button to capture the image and transfer it to the TWAIN compatible software. **Capture to TWAIN** control will be disabled if **inPhoto Capture PS** is started as stand alone application.

Press **Capture to file** button to capture the image and save it in a folder specified on the **Save file** tab of the **Options** window (see **Options**).

Image rotation

Working with **inPhoto Capture PS** software the user can rotate the image in the Preview window. The rotated image will be captured either to the TWAIN compatible application (if the software is run as TWAIN driver) or to file (if the software is run as stand alone application). There is an option of manual image rotation by 90 degrees.

The ability of manual image rotation is very useful for different applications including the object photography, and jewel photography in particular. The user can easily select the desired angle for the best presentation of the object.

In order to rotate the image click **Rotate right** or **Rotate left** controls on the Control panel.

Camera settings control

The **full control** of your Canon Powershot camera settings is performed with the commands of the **Camera settings** window.

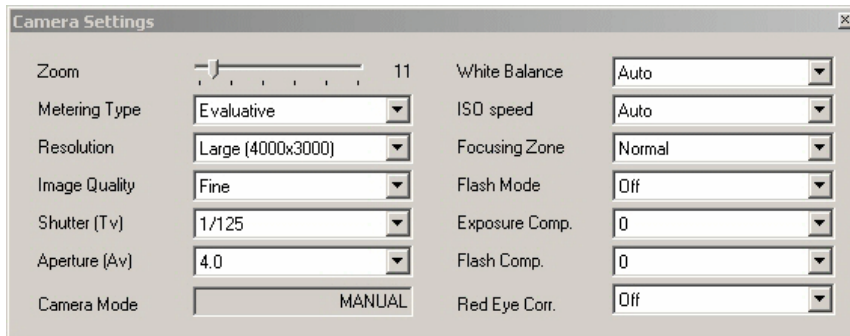


Figure 7. Camera settings.

To zoom the image in or out move **Zoom** slider.

The **Camera settings** window contains the following fields:

- **Metering mode.** This is the exposition metering mode. The values in the list depend on the camera model.
- **Resolution.** Select the image resolution from the drop down list. The speed of image transfer to the TWAIN compatible software will depend on the selected image resolution.

Recommendation: When you capture ID photos the low image resolution of 640x480 can be used in most cases.

- **Image Quality.** Select the image compression from the drop down list. The speed of image transfer to the TWAIN compatible software will depend on the selected image compression.
- **Shutter.** In this field it is possible to set the shutter value if you work in Manual or Shutter priority shooting mode (not applicable for simple Canon camera models).
- **Aperture.** In this field it is possible to set the aperture value if you work in Manual or Aperture priority shooting mode (not applicable for simple Canon camera models).
- **Camera mode.**
- **White Balance.** Ability to select the best white balance setting from a list of available options (depending on the Canon camera used). The image colors will be reproduced better if the white balance is selected in accordance with the lighting conditions.
- **ISO speed.** It is recommended to increase the ISO value if you capture with the high shutter speed or if you want to minimize the risk of image blurring when the camera is shaken.
- **Focusing Zone.** Depending on the option selected the Canon camera will be focusing automatically on the whole image or on its central part.
- **Flash Mode.** You can set the flash settings to Automatic, On, or Off.

Recommendation: Always use the camera flash to capture ID photos to provide the best image quality.

- **Exposure Compensation.**
- **Flash Compensation.**
- **Red Eye Correction.** Switch on/off red eye correction.

Face crop and image enhancement

After the image is captured **the face area can be cropped.**

Upon pressing the **Capture to TWAIN** button in the image preview window the Image Processing window will be invoked. This window can be skipped off if the corresponding settings are made in the **inPhoto Capture PS** options.

This window provides an ability to crop the face area (automatically or manually), and enhance the resulting image if necessary.

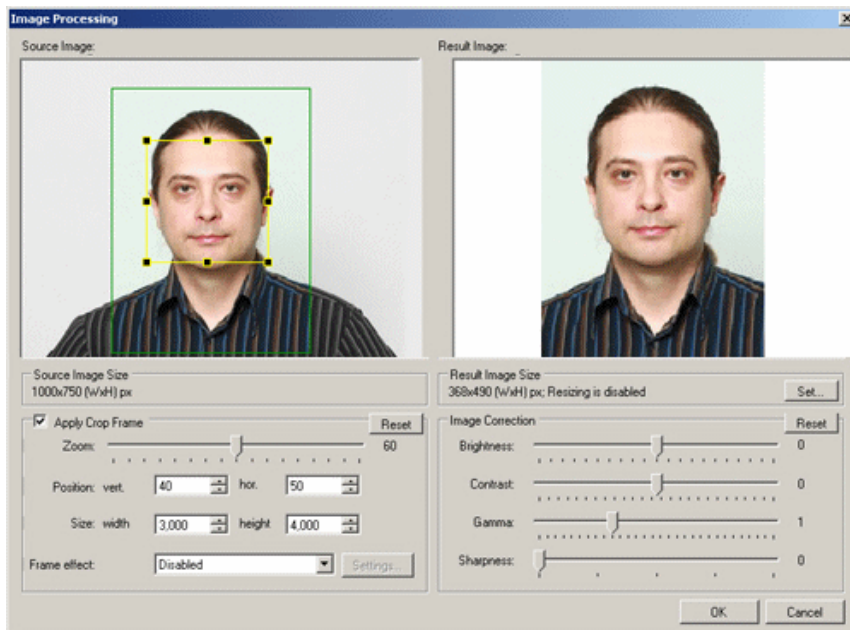


Figure 8. Image Processing window.

The face area is automatically outlined by the yellow frame. The user can change the frame size and position if necessary. If the face on the image is not recognized automatically the user has an option to outline the face area manually.

The green frame outlines the image area to be cropped. The yellow frame / green frame ratio and position are adjusted by **Zoom, Vertical offset, and Horizontal offset** controls. User **Size width** and **Size height** boxes to set the resulting image size.

If the face is located too close to the image frame and the area to be cropped is cut by the image border, the frame color will change from green to red. In this case the user has three options: ignore, modify the image frame, or press Back button and return back to the image preview window.

The cropped image will be displayed in the right part of the Image Processing window.

The cropped image **can be enhanced** if you are not quite satisfied with the resulting image quality.

It is possible to adjust image brightness, contrast, gamma, and sharpness using the corresponding controls in the right part of the Image Processing window.

It is also possible **to resize** the resulting photo. For this press **Set...** button in the right part of the **Image Processing** window and set the required image size in pixels in the corresponding window.

Press OK in order to transfer the cropped, resized, and enhanced photo to the TWAIN compatible application from which **inPhoto Capture PS** has been started up.

Image transfer and save

inPhoto Capture PS software provides an ability to transfer the captured images to TWAIN compatible applications for further processing. It is also possible to automatically save captured images to file.

Press **Capture to TWAIN** button, and the previewed image will be captured and transferred to the TWAIN compatible software for further processing and saving.

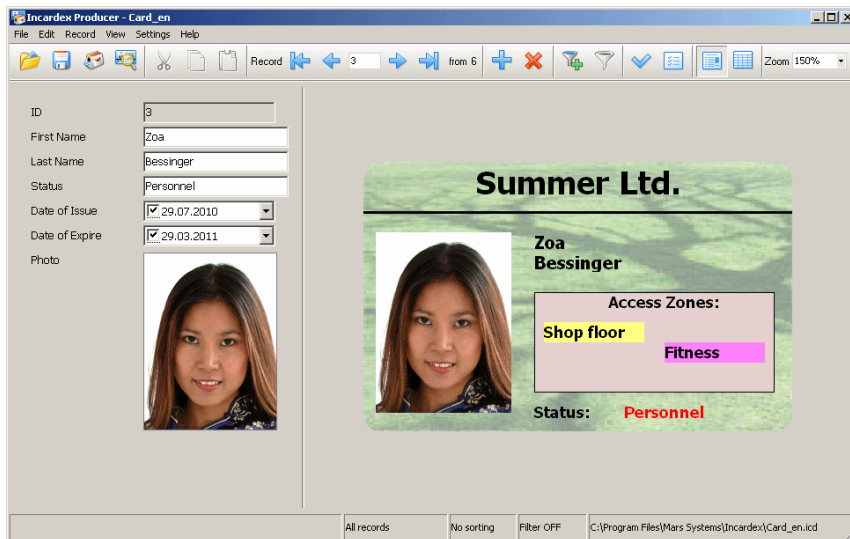


Figure 9. Photo acquired to **Incardex** (ID card software).

When the image is captured and transferred the **inPhoto Capture PS** window will either stay open or get closed (if the **Close on capture** option is selected on the Genera tab of the Options dialogue box).

To reduce the software activation time for the next image capture check **Hide to tray instead of close** to hide **inPhoto Capture PS** to tray when it is closed.

The captured image will be displayed in the TWAIN compatible software (e.g. **Incardex**).

When **Capture to file** option is used the image will be captured and saved to file on the disk.

The user can set up the folder, and the rules for file naming. These settings are made on the Save tab of the Option dialogue box. See Options section for more details.

Options

The **Options** dialogue box (File menu) is used to set the options of **inPhoto Capture PS** operation.

The **Options** dialogue box contains 6 tabs. On the **General** tab it is possible to select the options of **inPhoto Capture PS** start up and close process.

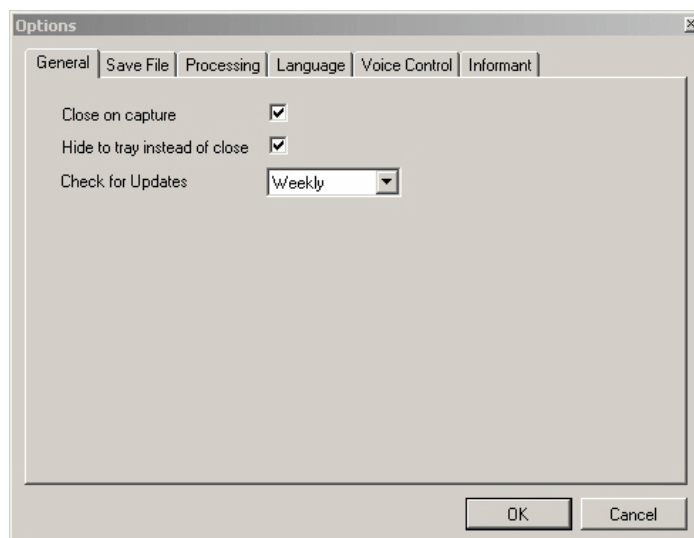


Figure 10. **Options** dialogue box, **General** tab.

If **Close on capture** is checked the **inPhoto Capture PS** will be closed after the image is captured and transferred to the TWAIN compatible software (or saved to file).

Check **Hide to tray instead of close** to hide **inPhoto Capture PS** to tray when it is closed. It reduces tremendously the software activation time for the next image capture.

The **Save file** tab is used to define the save to file settings. It is possible to select the folder to save images to upon pressing **Capture to file** button and create separate folders for the year / month / day.

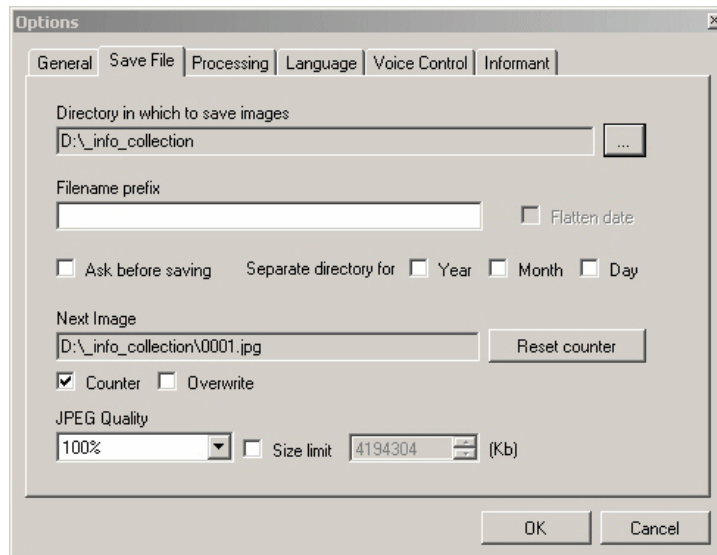


Figure 11. **Options** dialogue box, **Save file** tab.

Check **Ask before saving** box on the **Save file** tab of the **Options** dialogue box, and after the image is captured the **Save as** window will be displayed, and you will be able to give a name to the image file before saving. The file will be saved on disk in the specified folder with the name assigned.

On this tab it is also possible to set the JPEG image quality and set the size limit for the resulting photo.

The **Processing** tab contains controls to set up face detection and image processing options.

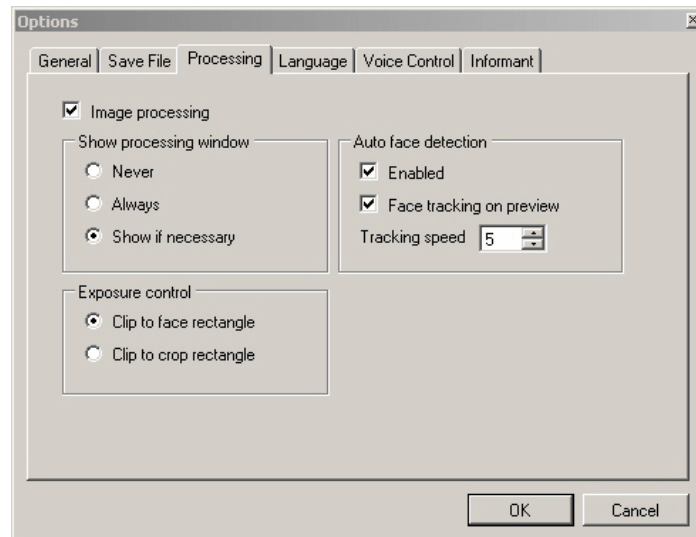


Figure 12. **Options** dialogue box, **Processing** tab.

Check **Image Processing** to enable image processing after capture.

The **Show Processing Window** group includes the following options:

- **Never**: the Image Processing window will not be displayed (will be skipped off), and the image will be processed according to the last settings made. If the face has not been found automatically the full image will be captured,
- **Always**: the Image Processing window is always invoked,
- **Show if necessary**: the Image Processing window is displayed when necessary, e.g. when the face is not recognized on the image, when the face is too close to the image frame, etc.

Check **Auto Face Detection** to activate the automatic face recognition and detection.

Check **Face Tracking on Preview** to enable dynamic face detection in the preview window.

The **Language** tab provides an ability to select the software language. New language settings will take effect after the software is restarted.

The **Voice control** tab is used to select the commands to control the web camera by the voice.

The **Informant** tab is used to enable/disable the voice informer.

The **Select camera** dialogue box called up from the Camera menu is used to select the Canon camera to be controlled from the **inPhoto Capture PS** software.

The **inPhoto Capture PS** software provides an ability to control several cameras connected to the computer. Select camera in the drop down list and control all settings of the selected camera model from your computer.

5. ABOUT COMPANY

We hope that you install **inPhoto Capture PS** software and learn how to use it with no problems, and that your work will be more effective and comfortable than before.

Other software products offered by our company:

ID Photo Software

- inPhoto ID SLR
- inPhoto ID PS
- ID Photo Processor
- inPhoto ID Webcam

Camera control software

- inPhoto Capture SLR

ID card software

- Incardex

Information on all above products can be found on www.akond.net.

Please feel free to contact us

- If you have any problems or questions concerning **inPhoto Capture PS** operation,
- If you have any comments on **inPhoto Capture PS** operation,
- If you need any help on selection of software and hardware for your application.

We will be happy to help you.

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