

Manual for Passports Photo system SKT03 and elFoto2.3 ® software



Computer requirements

Processor min. 1,6 GHz
Windows 7/8/10 (32/64 bits) / XP / Vista (32/64 bits)
2 GB RAM (advisable: 4GB)
50 MB free space on hard disk
2 x USB 2.0 gate
Screen resolution min.: 1024x768 pixels



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International photo requirements for biometric passports

Changing international situations necessitate more control in international movement. One of the elements that boost general safety is the improved security in international transit. One of the elements to ensure general safety is the improved safeguarding against falsification of travel documents. The linking of the person and the document is achieved by means of saving biometrical data, like a photo, on the document.

In the biometric passport this photo is not only printed, but also saved in a microchip. This enables a quick check of the document and the person.

In order to process biometrical documents made in different countries, they need to satisfy to general standards. These have been developed by ICAO and accepted as the international standard ISO / IEC 19794-5 first edition on June 15th 2005.

Based on these directions, instructions for photographing have been formulated, that satisfy the ICAO criteria for the taking of biometrical photos of the face, for passports and travel documents supplied by official authorities. Photos for such documents must comply with the new regulations on electronic identification.

In order to satisfy the needs of photographers, ELFO has developed an all-purpose system to take photos for official documents, in particular for biometrical passports.

The elFoto ® application enables:

- Preview of a photo on screen in real time.
- Steering the built-in Canon camera.
- Taking a photo.
- Save taken photos and print-ready photos on the hard disk in JPG-format.
- Automatic rotation (eye-line levelling).
- Cropping to standard formats.
- Colour balance correction.
- Editing photos with templates for driving licences, passports, ID-cards.
- The processed photo is always saved on the hard disk in BMP-format.
- Uploading of photos taken by another camera in JPG / JPEG / TIF / TIFF/ BMP-format in order to crop and rotate.
- Printing photos for Personal ID with 1, 2, 4, 6 ...photos, in size and format of your choice.
- Change the language interface between EN-English, FR-Français and NL-Nederlands.

Maintenance and cleaning of the SKT03:

Use disposable wipes to clean the camera lens.

Use a slightly moisten soft cloth to clean the softlight reflector and the background.

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1. Mounting

The SKT03 needs to be set up according to the indications on the pictures below.

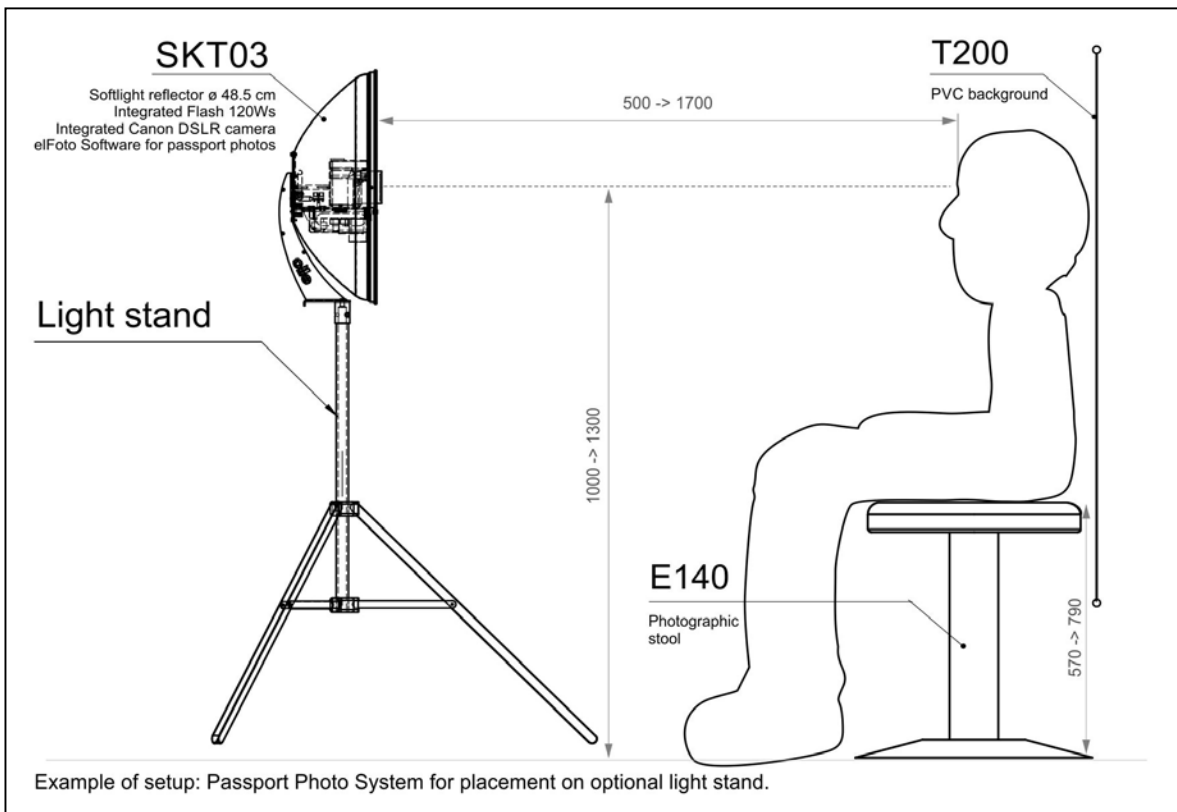
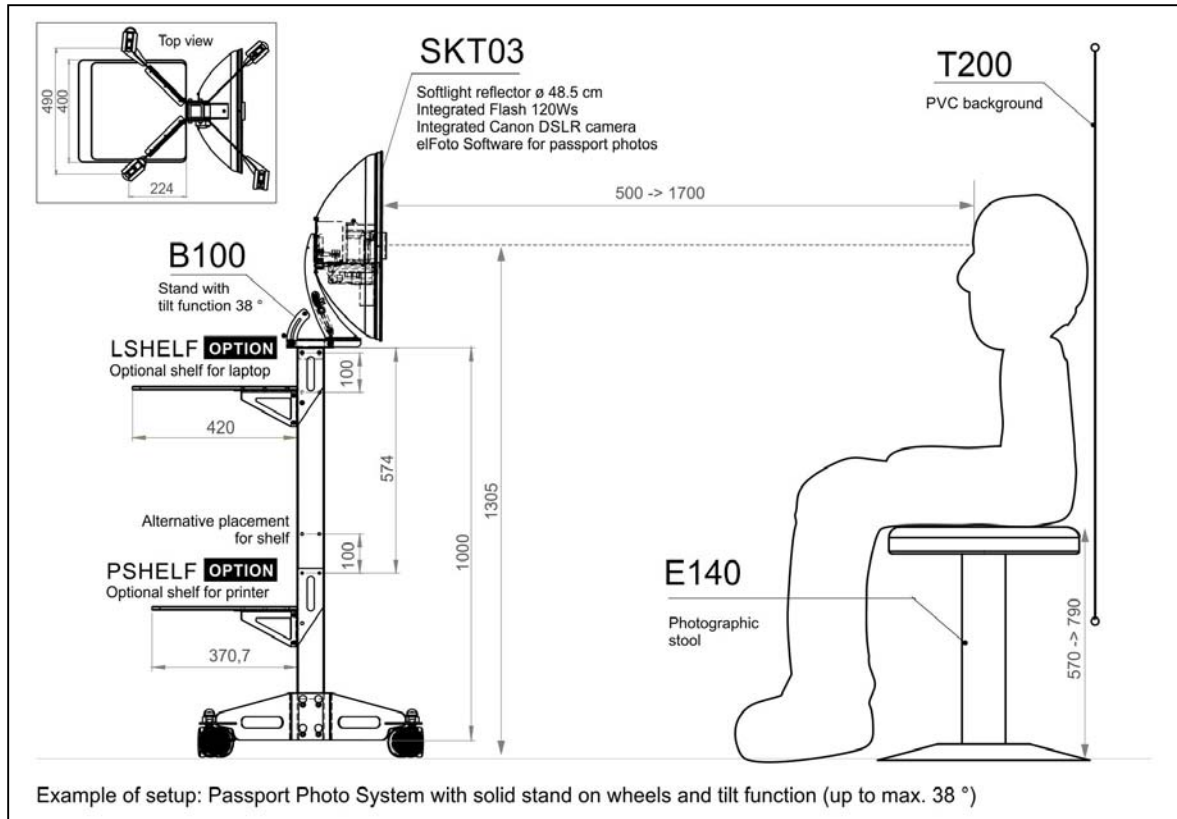
To set the correct illumination, it is important to measure the distance between the face and the white front panel of the SKT03, this must be at least 0.5m to max. 1.7m.

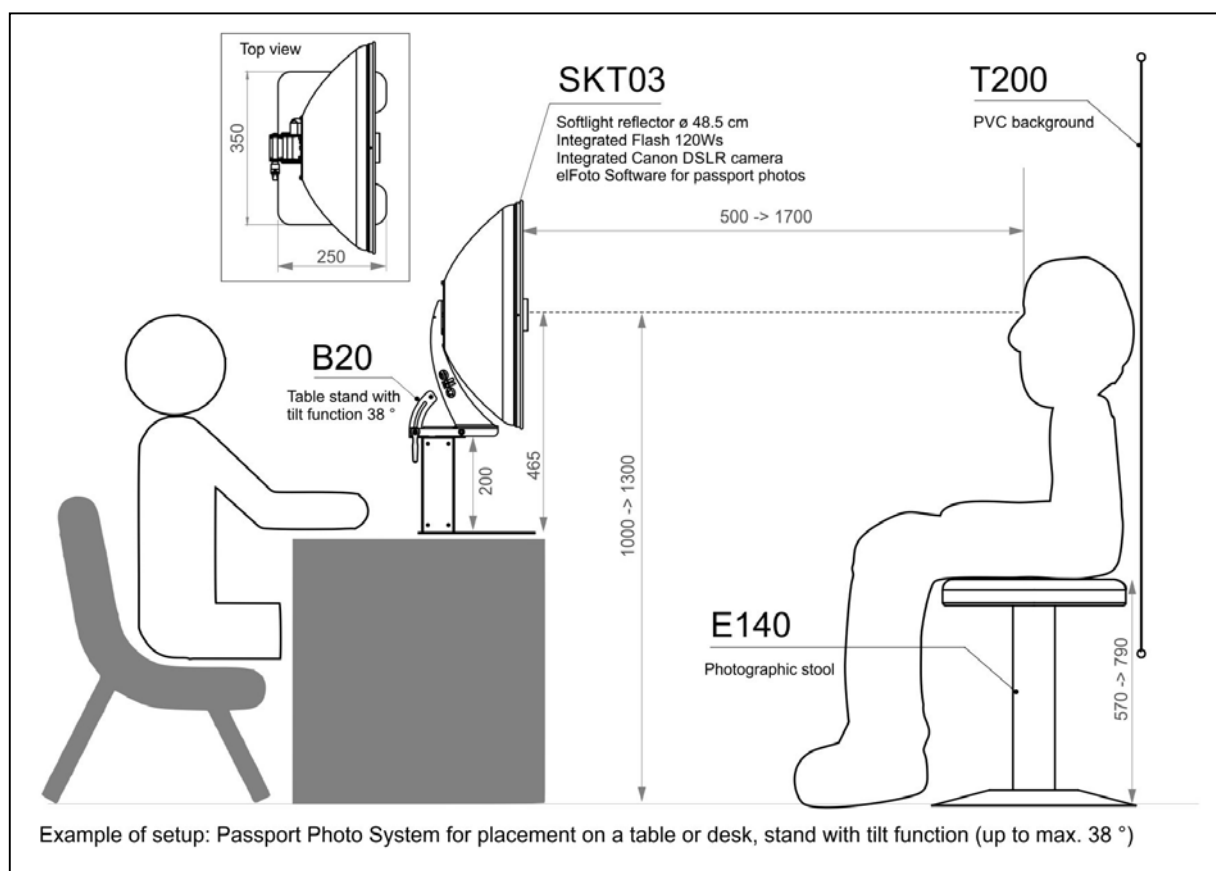
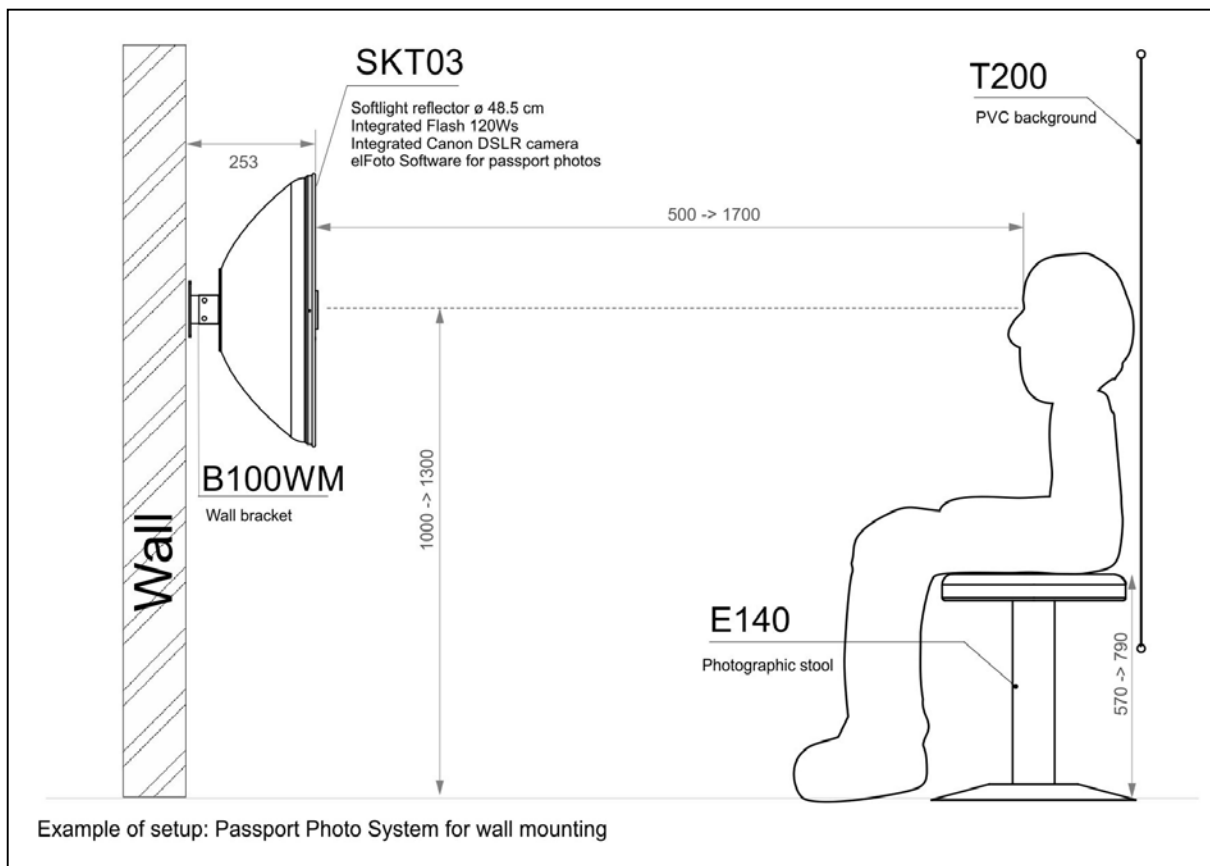
A distance of 1,20 m or 1,30 m is advisable.

After starting the program, the distance is shown in the left column on the start-up screen (see further under point 9 - Fig 16 and 17).

The lens and eyes must be at the same height, by adjusting the height of the light stand or the photographic stool when installing with the B100 stand, wall mounting B100WM or table stand B20.

While setting up or changing the distance, you can zoom in or out by turning the lens in front, so the person's face is shown correctly.





1. Installing the software on the PC

Start-up the installation program “**setupeIFoto2.3.exe**” .

It is advisable to close all active programs first.

On the first screen of the Setup (Fig 1) you can select one the available languages for the program.
Then start the 'Setup Wizard' (Fig 2) and follow the instructions on the screen.

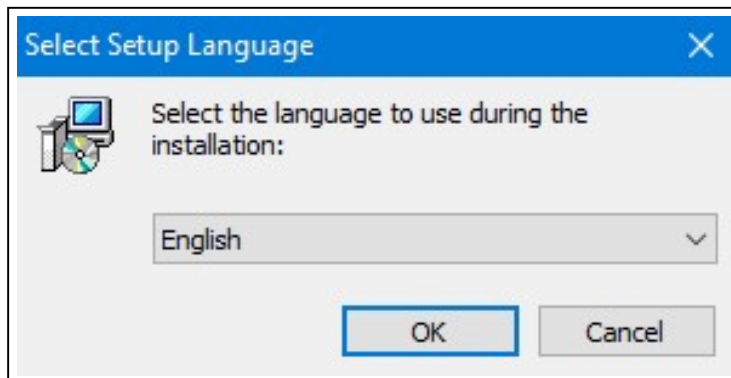


Fig 1

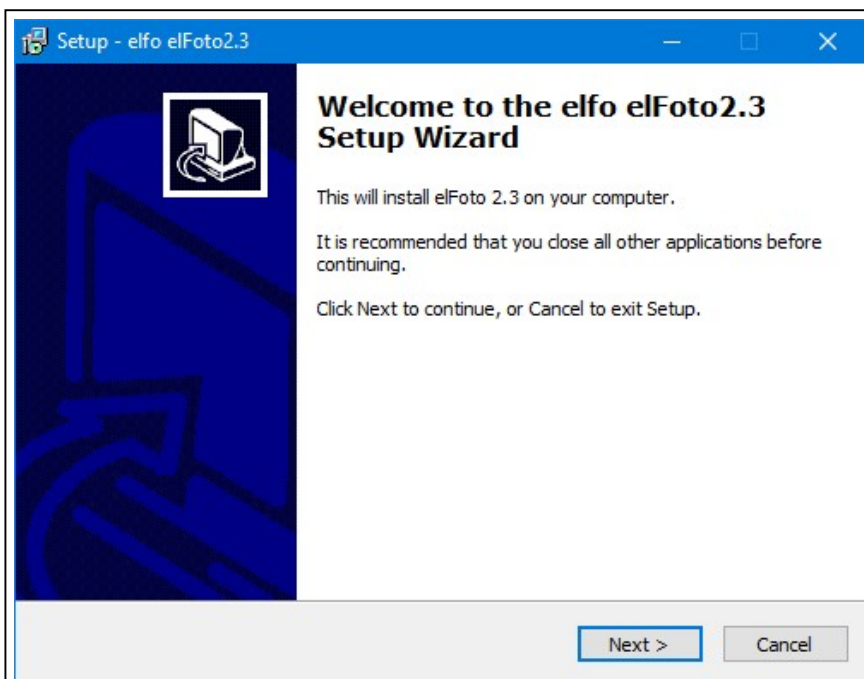


Fig 2

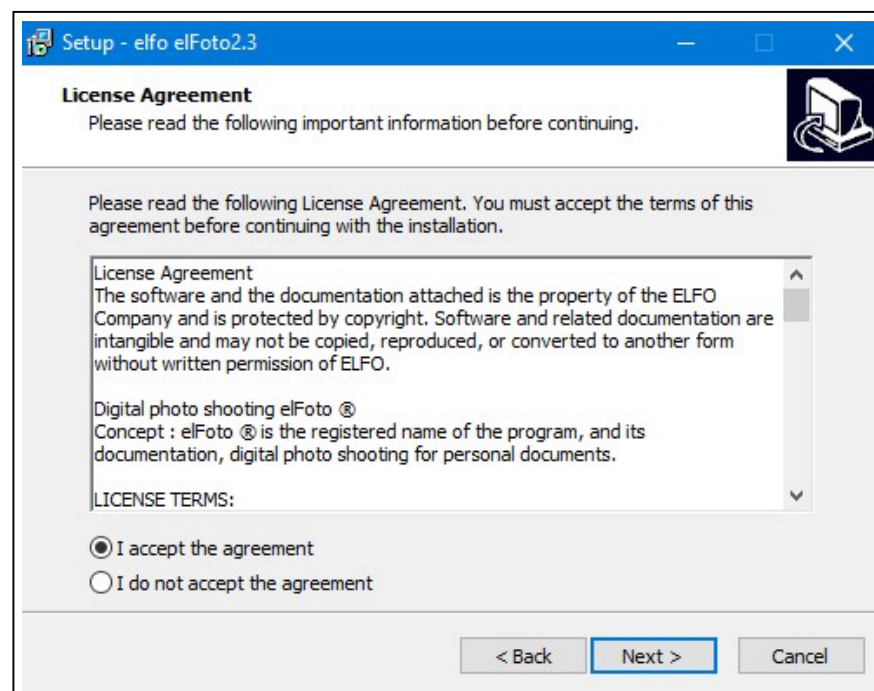


Fig 3

On the screen "License Agreement" (Fig 3) you must select the option "*I accept the agreement*" to continue the installation.

By clicking "*Next*" you agree completely with the licence conditions, as shown below,

The license for elFoto is authorized for the use of the software on a specific computer.

For use on more computers, additional licenses (serial numbers) are necessary.

The included elFoto software contains the license with a single serial number, which must be activated together with the "Computer ID number" (a unique number linked to your computer).

License Agreement

The software and the related documentation is the property of the ELFO Company and is protected by copyright. Software and related documentation are intangible and may not be copied, reproduced, or converted to another form without written permission of ELFO.

Digital photo shooting **elFoto**®

Concept: **elFoto**® is the registered name of the program, and its documentation, digital photo shooting for personal documents.

LICENSE TERMS:

1. This license agreement is an agreement between the user and the ELFO Company.
 2. The ELFO Company grants you a non-exclusive right to use this **elFoto**® software indefinitely and for the purposes specified in the documentation.
 3. The license is granted for use of the software on one computer. Each additional computer system will be considered as an attempt to distribute the program illegally.
 4. Copying **elFoto**® software or documentation is prohibited. You may only make backups. All the copies must be marked.
 5. The program is described for use with the cameras specified in the documentation or for loading images from other sources and further processing. The software is licensed, not sold. The ELFO Company reserves all rights to this software. ELFO confers only the right to use a copy of the software in combination with certain hardware.
 6. It is prohibited to copy, modify, rent, lend, or transfer in whole, in pieces or copies. It is forbidden to attempt to decode, recompile and use the source code of the program.
 7. The ELFO Company can allow the transfer of a license and the rights attached to the program, to another user who installs the program on another computer, provided the transfer of all copies upgrades, prior versions of the software, along with the documentation and licensing. Such transfer of ownership must be submitted to ELFO to obtain a License Key for the new user.
 8. The ELFO Company warrants that the media on which the Software is delivered is free from defects in material and manufacturing.
 9. After purchasing the program, prior to registration, ELFO Company can cancel the purchase subject to payment of the shipping costs. In the demo program there will be company information added to each demo photo.
 10. The ELFO Company offers no explicit or implicit warranty.
 11. The ELFO Company shall not be liable for any economic loss, loss of data, work interruptions or other consequences of the use of the program. It does not warrant that the functions contained in the Software will meet your requirements and that deficiencies identified during the use will be removed.
 12. The ELFO Company will endeavour to update the software developed in accordance with the changes in the regulations regarding the parameters of photos for documents. All errors detected by the user must be notified to the company ELFO, for adaptation in future updates.
 13. Each program is provided with a serial number, necessary for the execution of the registration procedure. The registration procedure for elFoto® program is described in the documentation.
- During registration, the program is assigned to a particular operating system and hardware.

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After accepting the Licence Agreement, follow the instructions on the successive screens of the automatic installation program.

The installation procedure is ready after clicking “*Finish*” on the screen below (Fig 4)

Finally, you need to reboot your computer to use the program !.

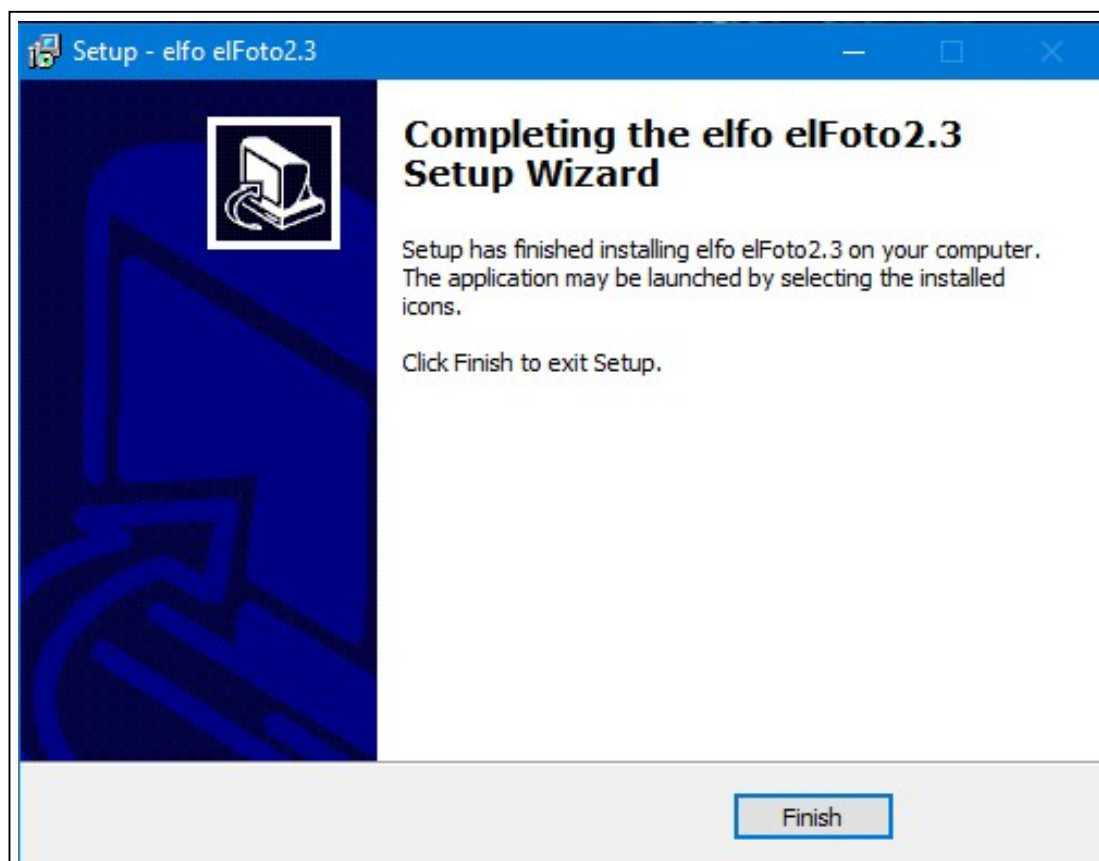


Fig 4

3. Starting the program

Connect the STK03 to the electrical power and to the PC with the USB cord (Fig 5).

Set the unit switch to ONN " I ". A small red control LED beneath the camera lens is highlighted (Fig 6).



Fig 5

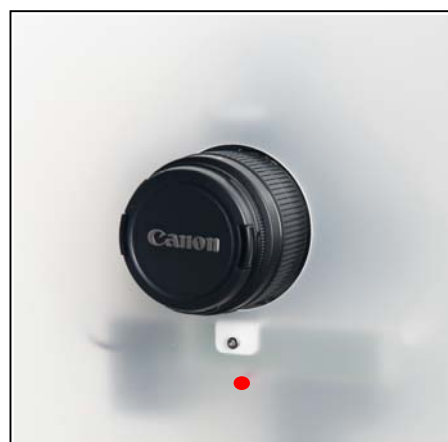


Fig 6

- * Power supply : available in 2 versions
- Standard : 220-240V AC 50Hz
 - U universal : 100-240V AC 50/60HZ

Start the program with:

- "elFoto2" in the Windows Start menu (Fig 7) (Windows button)
- The button on the desktop
- The file "elFoto.exe" (directory C:\elfo\elFoto2.3).

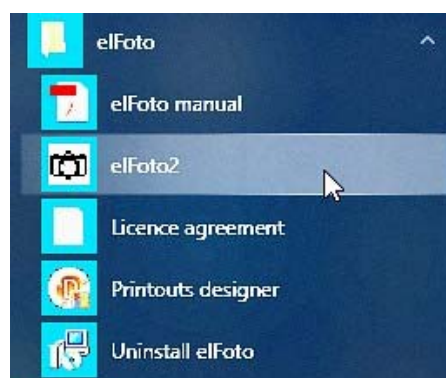


Fig 7

On the first screen after starting up (Fig 8) you need to type your **company data** for the "Exif" file.

These data can also be filled in later and always changed later on.



Fig 8

When an error message (Fig 9) about the connection of the camera appears, you need to check if the USB 2.0 cord is connected correctly.

When the camera is correctly connected from the start, this message will not appear.

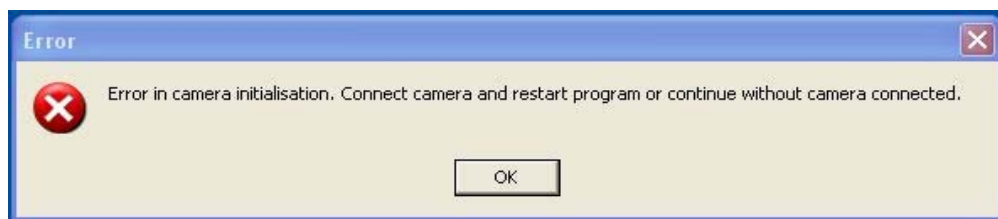


Fig 9

The "DEMO-version" of the program is now ready for testing (Fig. 10).

Language selection: The button at the lower-right of the screen opens the drop down list that allows you to change the language interface between EN-English, FR-Français and NL-Nederlands.

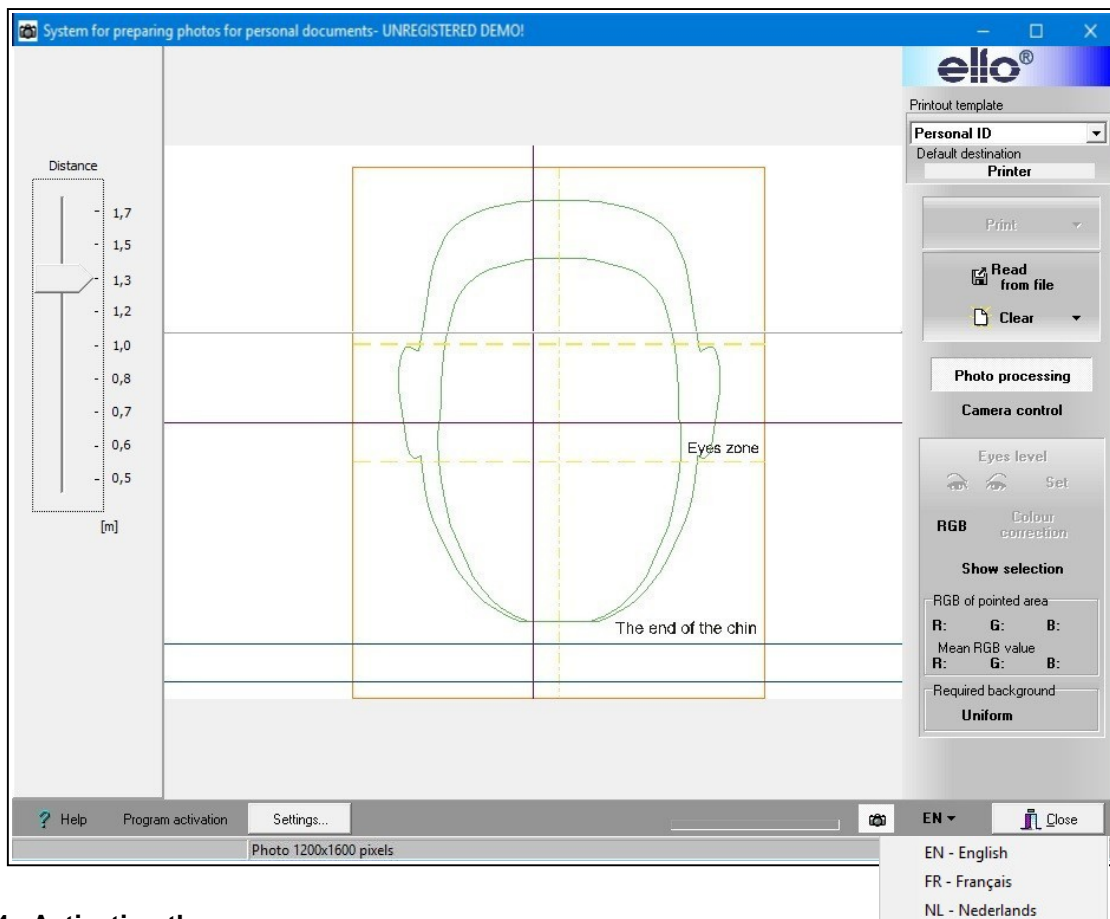


Fig 10

4. Activating the programme

For a complete functionality, the program needs to be activated by the button on the bottom left "Program activation" (Fig 10).

When the program has not been activated, the photos will be unusable due to text over the image.

The "Computer ID number" is a unique number coupled with the computer; this number is installed in the operating system and shown on the screen (Fig 11).

This number, together with the Serial number of the purchased program and the data of the end user, has to be e-mailed to info@gsi.be.

After checking the data of the purchase, you will receive the Activation code.

Keep the activation code in a safe place if you should have to install the program again **on the same computer** (for example in case of a forgotten password to adapt the user settings, ...).

Enter the Activation Code and the Serial number (Fig 11) in the correct fields and press "Save".

Take care not to make mistakes inserting these data.

After a successful activation, "DEMO" will no longer be visible in the top bar and the button "Program activation" will no longer be shown at the bottom.

Fig 11

5. User settings

Configuring and activating the personal user settings with the “Settings” button at the bottom left.

Password: Accessing these setting requires a password (Fig 12).

It is advisable to change the default password in the screen “User settings” (Fig 13), in order to protect your personal setting from unwanted changes by third parties.

Write down this password and keep it in a safe place.

If you have forgotten your password and can not find, it you will need to reinstall the program in order to be able to change the user settings.

"Password for Setting"

Type the default password: elfo
(small characters).



Fig 12

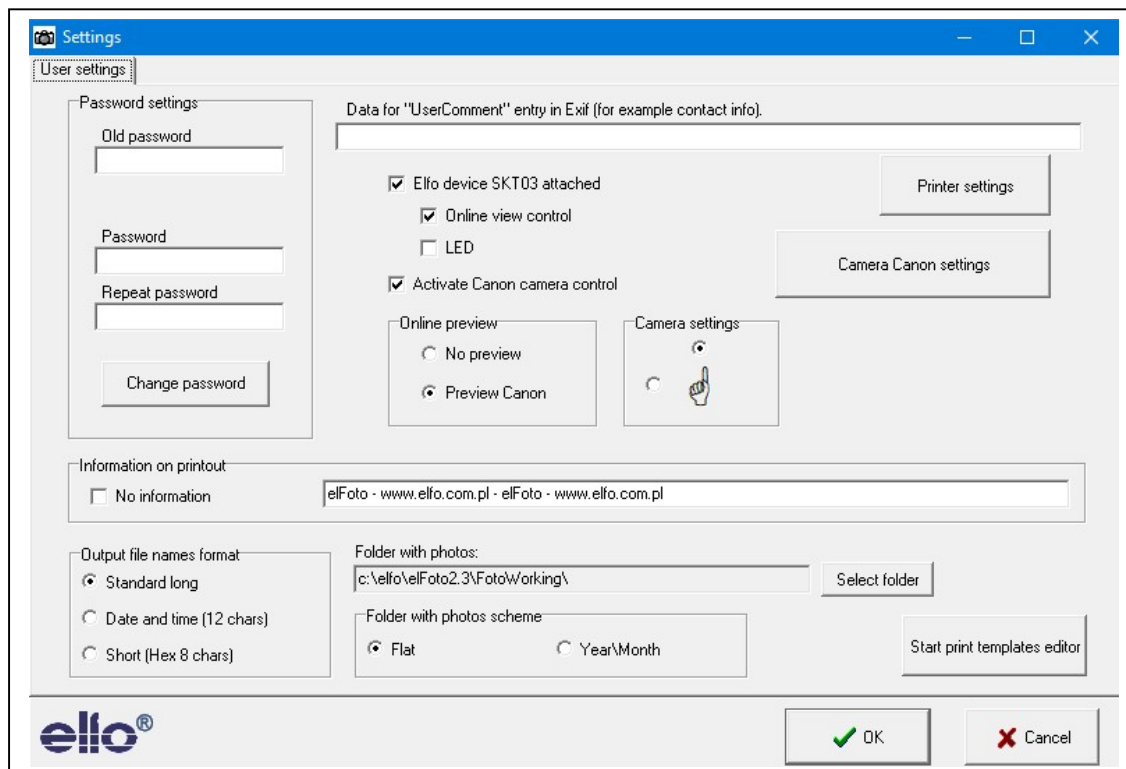


Fig 13

User Settings (Fig 13)

- “Elfo device SKT03 attached” and “Online view control” need to be checked.
 - “Activate Canon camera control” needs to be checked.
 - “Camera settings”: for frontal passport pictures, select the top choice; the hand points upwards.
 - “Online preview”: select “Preview Canon”
 - “Focus mode”: select “Face tracking”
 - “Information on printout” : enter the desired text on the printout or select “No information”.
 - “Output file names format”: select “Standard long”
 - “Folder with photos scheme”: select “Flat”
 - “Folder with photos”: specify an existing directory and folder in which you want to save the photos. The default installation folder is C:\elfo\elFoto2.3\PhotoWorking. If you want a different folder, you must create one in Windows beforehand ! The programme can not create a folder,
 - Then click button “Camera Canon settings”.
- Remark: check the connection of the SKT03 when you get the error message:
“Camera not in mode remote control”

6. Camera Canon settings

Depending on the model of the built-in Canon camera, the settings can be selected (Fig 14).

- "Online mode" : select standard Mode 2
(Change into Mode 1 if a problem occurs in Mode 2).
- "External flash connected" : must be checked.

Experts only:

- Select between the various options in the drop down lists.
- Eventually adjust white balance and picture style.
- Eventually check the box: "On start initialise camera with saved parameters".

Remark: for the Canon D1300 camera the 4 selection boxes at the bottom right are not functional.
Nothing happens while clicking "Load settings; Save settings, Set Camera and Show camera settings".

After completing the camera settings, click "Close".
You return to the screen "User settings" (Fig 13).

Then click "Printer settings".

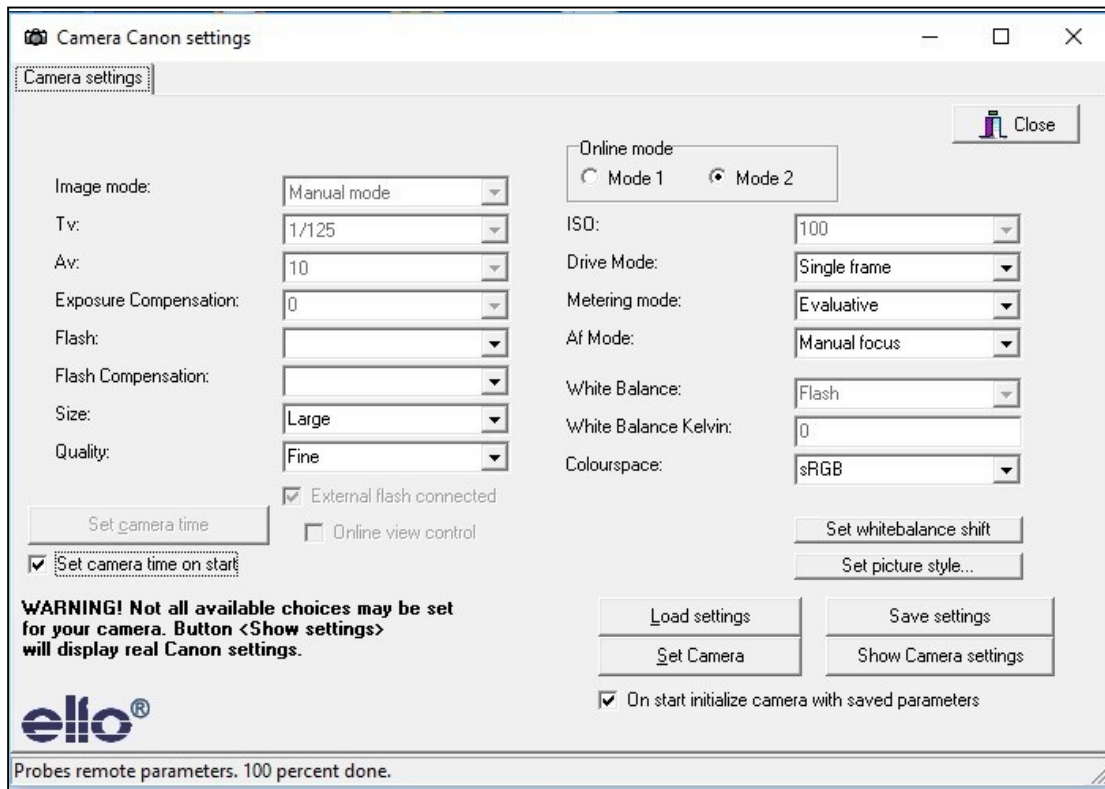


Fig 14

7. Printer settings

Choose the Défaut printer for elFoto and paper format.

If you want to use special photo printers 100x150 mm like Canon Selphy series, you need to install the printer first. Then go to "Printer settings" and select the proper printer and paper size of 100x148 mm, print orientation vertical.

Confirm with "Apply changes".

You will return to the screen "User Settings" (Fig 13).

Press "OK" button to save all User Settings.

The start-up screen appears (Fig 10).

Click "Close", right bottom, to finish the "elFoto" program.

8. Printouts designer - Design Template Printouts

With the included separate program “elFotoDruk.exe” different print template can be created: Personal ID for 1, 2, 4, 6 ...photos, in size and format of your choice.

To start the program:

- “**Start print templates editor**” button in the lower right of the User Settings (Fig 13).
- “**Printouts designer**” in the Start menu (Fig 7) of Windows (Windows button).
- “**elFotoDruk.exe**” (directory elFoto2.3).

At the top in the middle of the screen (Fig 15) you will find the “Available Templates” with underneath the image of the selected layout and on the left the print data.

You can remove unwanted templates with “*Delete template*” and easily create new ones.

Designing a new print template:

Click “*New Template*” (top left).

Select the desired number of photos in row (ex. 2), in column (ex. 2, 3, ...), the total width and height of the print.

If necessary select the destination of the print:: Printer (= default), JPEG file and the resolution,

Enter a unique name In the box “*Template name*”, for example “Personal ID 4x”“Personal ID 6x” and click “*Save changes*”; the name of the newly made template is shown in the box “Available Templates” (top, middle).

Repeat this action for each additional new template.

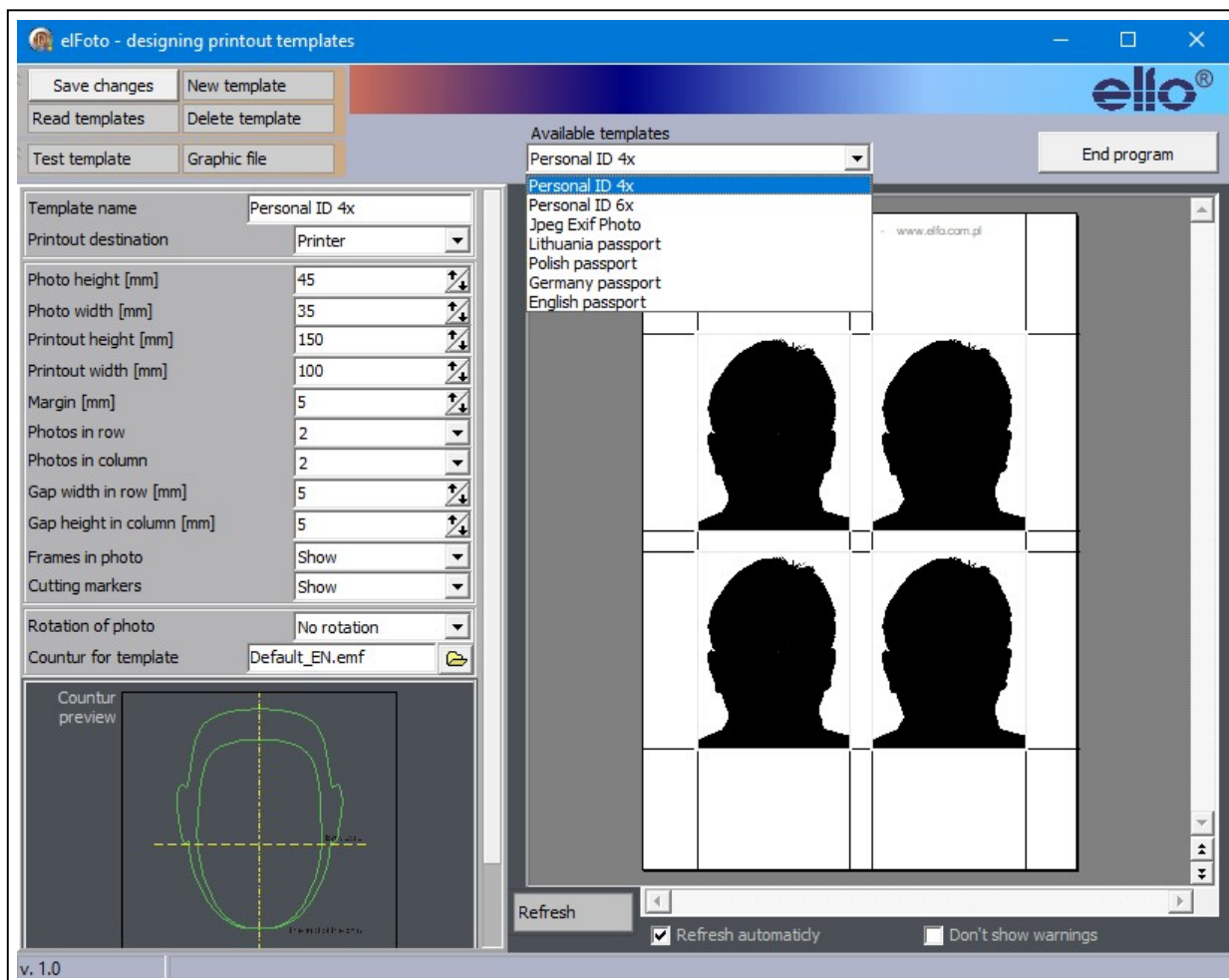
Under “*Available templates*” each newly made template can be checked: settings and example of the picture are shown.

To end the program click again on “*Save changes*” and then on “*End program*”.

Languages:

Designed templates are only available when using the language in which they are created.

For use in another language, they should also be created in this other language.



The installation is now finished.

After rebooting, the program “elFoto.exe” is ready to take photos.

Fig 15

9. Start-up screen

After starting the “*elFoto.exe*” program, you get the screen “*Video preview*” (Live preview - Fig 16).

- The picture in the middle shows the subject in real time.
The picture quality depends mostly on the ambient light and the camera and may sometimes not be satisfying. The photo itself will be taken with flash light and will not show this shortcoming.
- The left hand side column on screen shows the distance of the camera to the person (Fig 17).
- The upper right column shows the print options (Fig 18)
- The bottom right column offers a choice between two modes:
“**Camera control**” (Fig 19) and “**Photo processing**” (Fig 20).
- The Camera-icon (left of the language button) sets the camera to active (white) or inactive (grey).
- **Language selection**: The button at the lower-right of the screen opens the drop down list that allows you to change the language of the program interface between EN-English, FR-Français and NL-Nederlands.



Fig 16

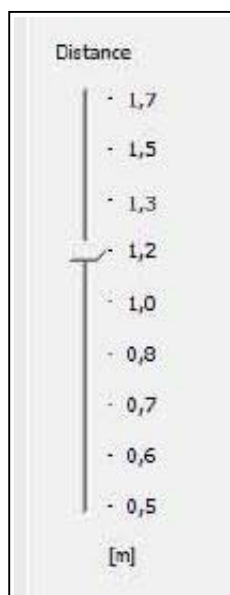


Fig 17



Fig 18

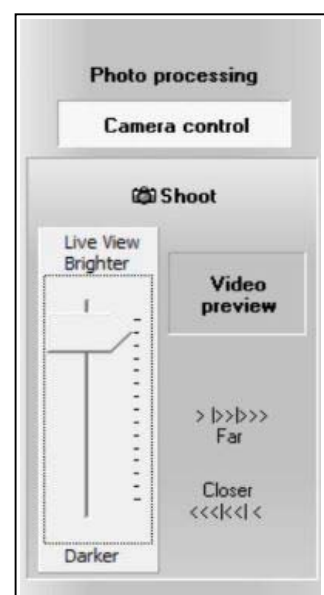


Fig 19

10. Taking a photo

It is recommended to always take photos of a person **without glasses**.

The eyes should be clearly visible and reflections in glasses have to be avoided.

If, exceptionally, the photo must be taken with glasses, the subject needs to bend down the head slightly (max. 10°, for example looking at the control led under the camera lens), or tilt the glasses slightly to avoid parallelism of glasses and camera lens.

Taking photos with the built-in Canon camera.

On the screen you can see the image of the person to be photographed in real time.

When setting up for the first time or when changing the distance, you can zoom in or out by turning the lens, so that the person's face is shown correctly.

Available buttons in Camera control (Fig 19):

- "Video preview": Live preview – real time screen view on / off.
- "Far / Closer": Manual focus of the Live preview.
- "Live View Brighter / Darker": Adapt brightness of the Live preview.
- **"Shoot" - Take a picture : Place the mouse pointer on the "Shoot" button. Wait a moment (1 - 3 sec) until the system is properly focused.** The auto focus frame changes **from yellow to green** and the camera gives an audible signal that the system is ready.

Now click the "Shoot" button to take the photo.

When clicking "Shoot" the program will first focus the camera and then take the photo.

The saved photo in the camera memory is automatically sent on to the control computer.

The photo is shown on screen.

The untreated photo is saved in JPG format on disk, in the folder specified under "Settings" of the program.

After this the "Photo processing" mode is active (point 11 – Fig 20).

Important: When switching from "Photo processing" to "Camera control" the function Video preview (Live preview) will not be active automatically.

Click "Video preview" to activate it.

11. Photo processing

Newly made or saved photos can be edited by the program (Fig 20).

- The eyes should be on a horizontal line.
- A template with a cropping frame will appear over the image, to allow the correct fitting of the photo in accordance with the regulations applicable for the layout of digital passport photos.
- Colour correction is possible for professionals.

11. 1. Aligning the eyes horizontally.

Click left hand side mouse button on the pictogram “*Eyes level*” (Fig 20) to activate horizontal setting of the eyes.

Click in the pictogram on the icon of the left hand side eye and then on the centre of the left eye pupil on the photo; a magnifying glass enables to adjust the centre of the pupil (Fig 21).
Do the same with the right hand side eye.

After marking both eyes, click the button “Set”.

The program automatically adjusts the photo and aligns the eyes horizontally.

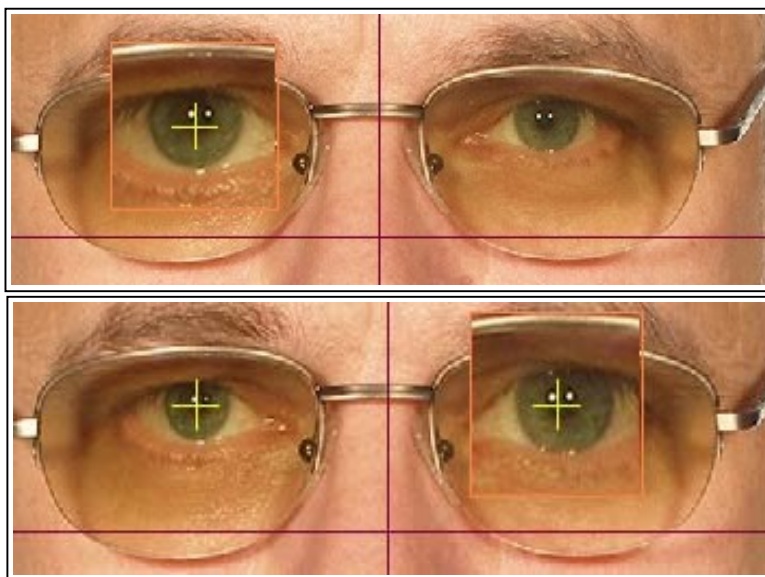


Fig 21

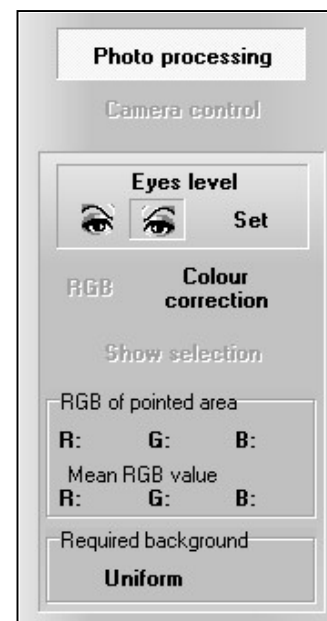


Fig 20

11. 2. Cropping the photo and adjusting the template

On top of the photo a template with cropping frame is shown allowing the correct positioning of the photo according to the regulations for the format of digital passport photos.

The template (Fig 23) appearing on top of the photo enables a fast and perfect way for framing the photo.

The two green frames determine the correct height of the face, from the bottom of the chin to the top of the forehead. Sometimes a hypothetical top of the forehead needs to be applied, because it is partly covered by the hair. The width of the face does not need to fit into the green oval perimeter.



Fig 22

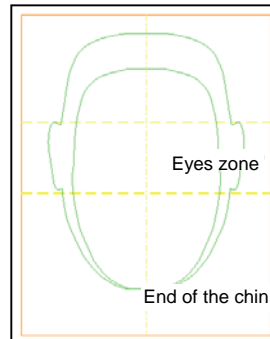


Fig 23

Adjusting the template to the photo (Fig 24 - 25 - 26).

The screen "Video preview" shows a not yet adjusted photo (Fig 24) and an adjusted one (Fig 25).

Place the mouse pointer in the template; by holding down the left mouse button you can move the template over the photo in any direction.

To change the size of the template: put the mouse pointer on one of the corners or on the middle of a side line (small squares in the corners and the sides) of the cutting frame of the template. Move them while keeping the left mouse button depressed. This action will change the size of the template and the cutting frame proportionally.

Repeat these movements until the bottom of the chin and the top of the forehead are within the borders of the template.

Finally: centre the template on the middle of the face by moving it horizontally; the central vertical line of the cutting frame shows the middle (Fig 26).

Click button "Show selection" to show the print representation of the edited photo on the screen (Fig 27). Click again to return to the screen with templates.

Choosing a print template for photo printing.

Under "Printout template" top right of the screen (Fig 16 and 18) you can choose between several predefined print templates (ex. Fig 22), with the characteristics and the number of photos to be printed.

To create new print templates : see point 8.

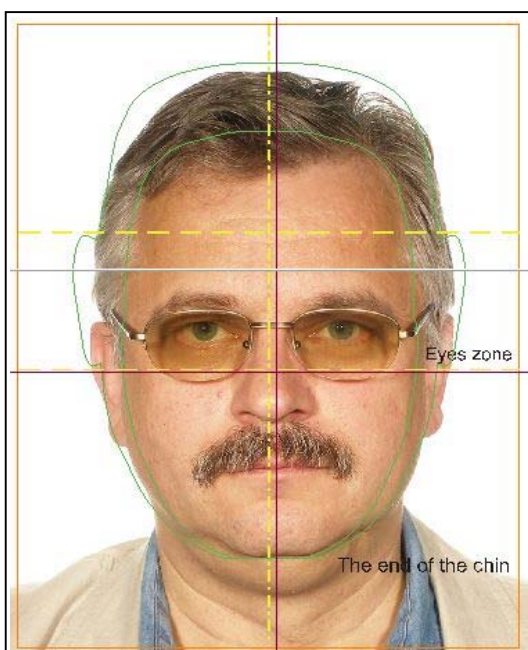


Fig 26

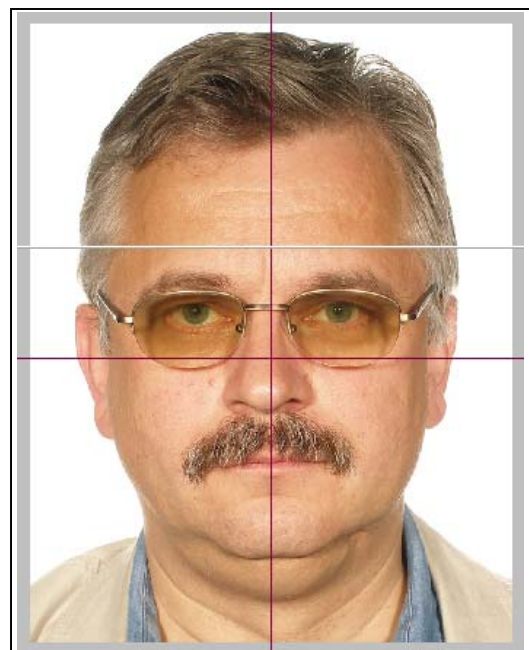


Fig 27

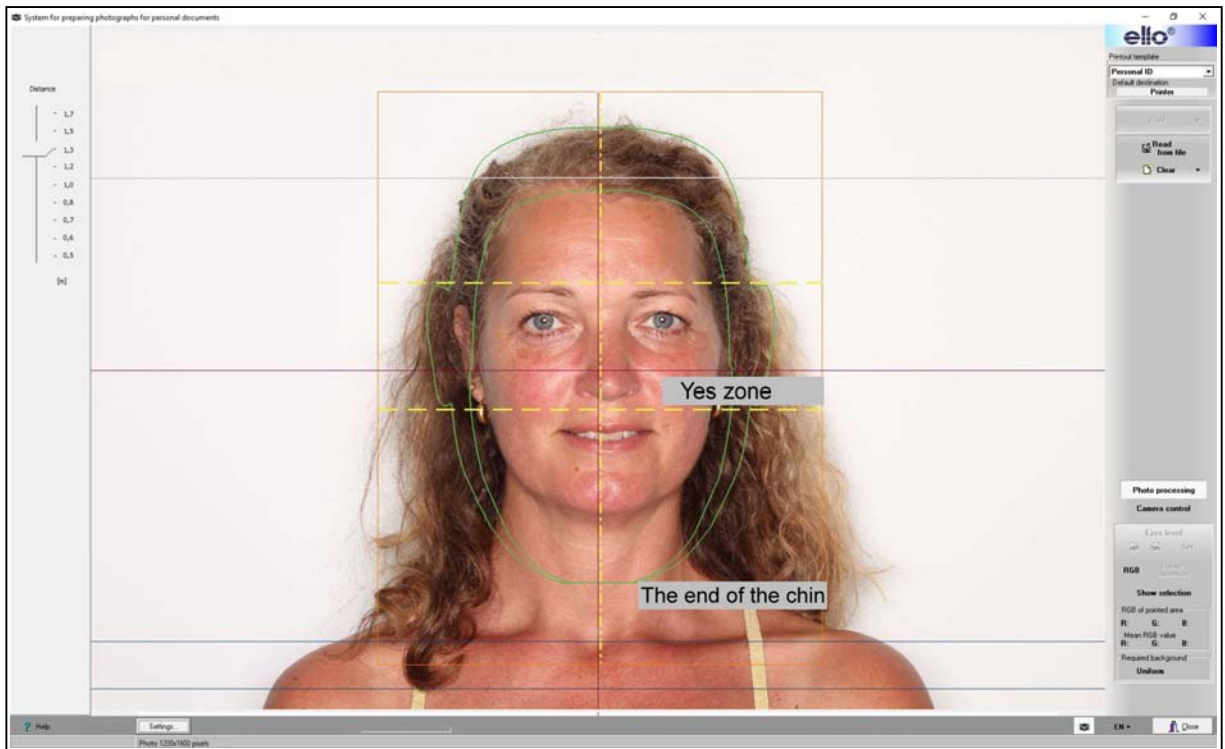


Fig 24

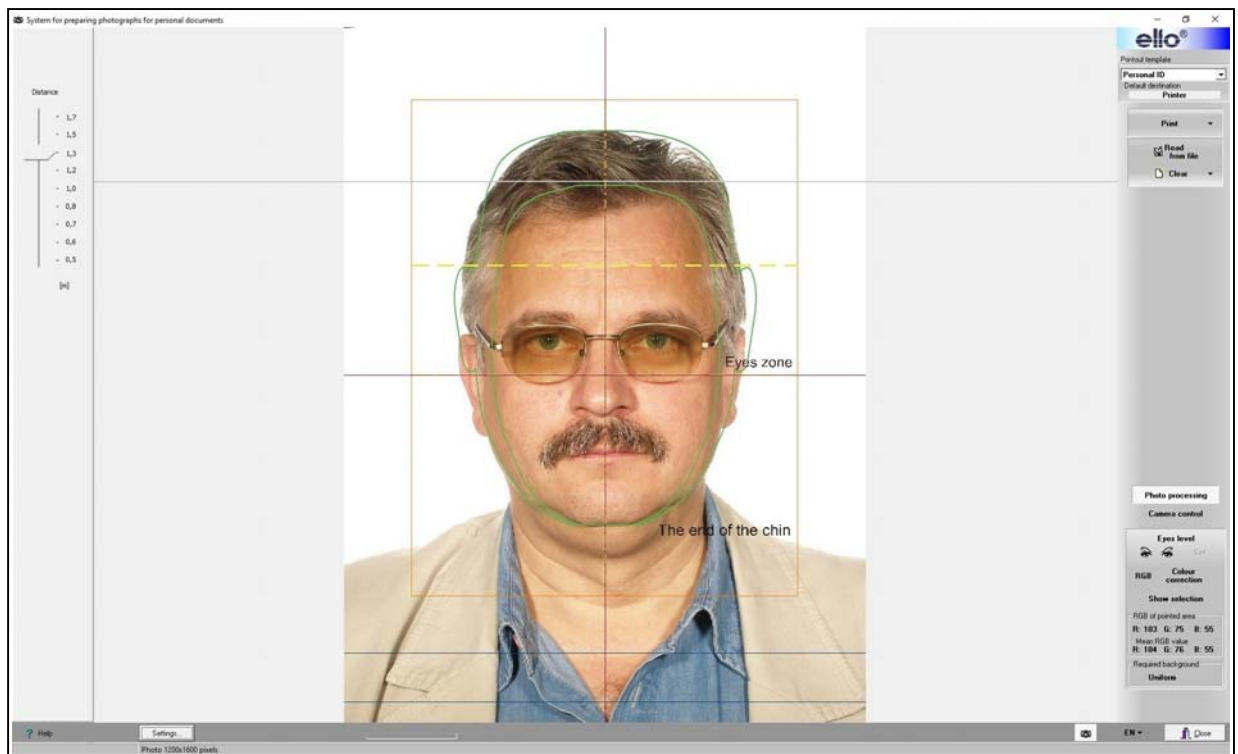


Fig 25

11. 3. Colour correction

This option is only intended for experimenting by professionals.
Click on "Colour correction" (Fig 20).

A screen appears to adjust the colour balance, luminosity, contrast, saturation and gamma correction.
The photo on the left is the original; on the right is the modified photo.
This immediately gives a clear view of the influence of the change.

When the selection "RGB" is checked, the movement of the arrow on the scale will change the 3 colours simultaneously (when selecting field R). Example of photo (Fig 28) with changed saturation.
If the selection "RGB" is not checked, the colours can be adapted separately.



12. Printing and saving the photo

After a successful setting and cropping of the photo you can proceed to the "Printing".

Choose under "Printout template" (Fig 29) the template with the desired photos (ex. 4 photos)
Click "Print" and then in the drop-down menu on "Print".

When you click "Print" the processed photo is also simultaneously saved as a BMP file.

An example of the print is shown on the screen.

Clicking the "Printer symbol" (top left) switches to the printing screen; if necessary you can change the number of prints required. Click "OK" to print.

To save the photo file to be printed, using the selected print template (ex. print with 4 photos) on the computer: select the desired saving format from the drop-down menu under "Print" (ex. JPEG + 300dpi - Fig 30).

The file is saved in the folder specified under "Settings" of the program.

The data from the saved photo file is used for printing. An unlimited number of prints can be made.

The images below (Fig 31) are examples of possible prints with 4 or 6 photos.



Fig 29

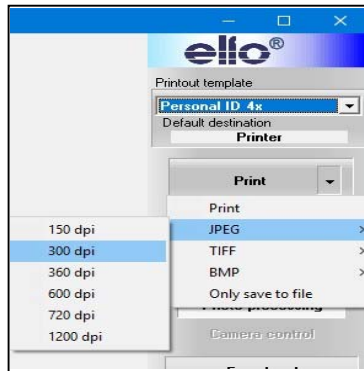
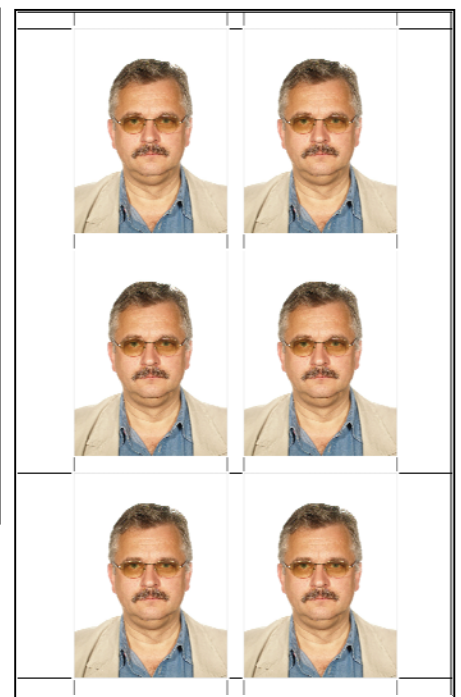


Fig 30



Fig 31



13. Re-printing of previously saved photos

1. Select the desired print template (ex. Personal 4x – Fig 29).
2. Click "Read from file" and select the desired photo in BMP format in the opened folder ("Folder with photos" specified under point 5 "Settings")
3. If the photo has already been processed with the elFoto program, the checkbox "Photo ready to print" is checked and the photo can be printed directly (Fig 32).
4. Click on "Print" and select "Print". An example of the print-out is loaded and appears on the screen. Clicking the "Printer symbol" (top left) switches to the printing screen; if necessary you can change the number of prints required. Click "OK" to print.

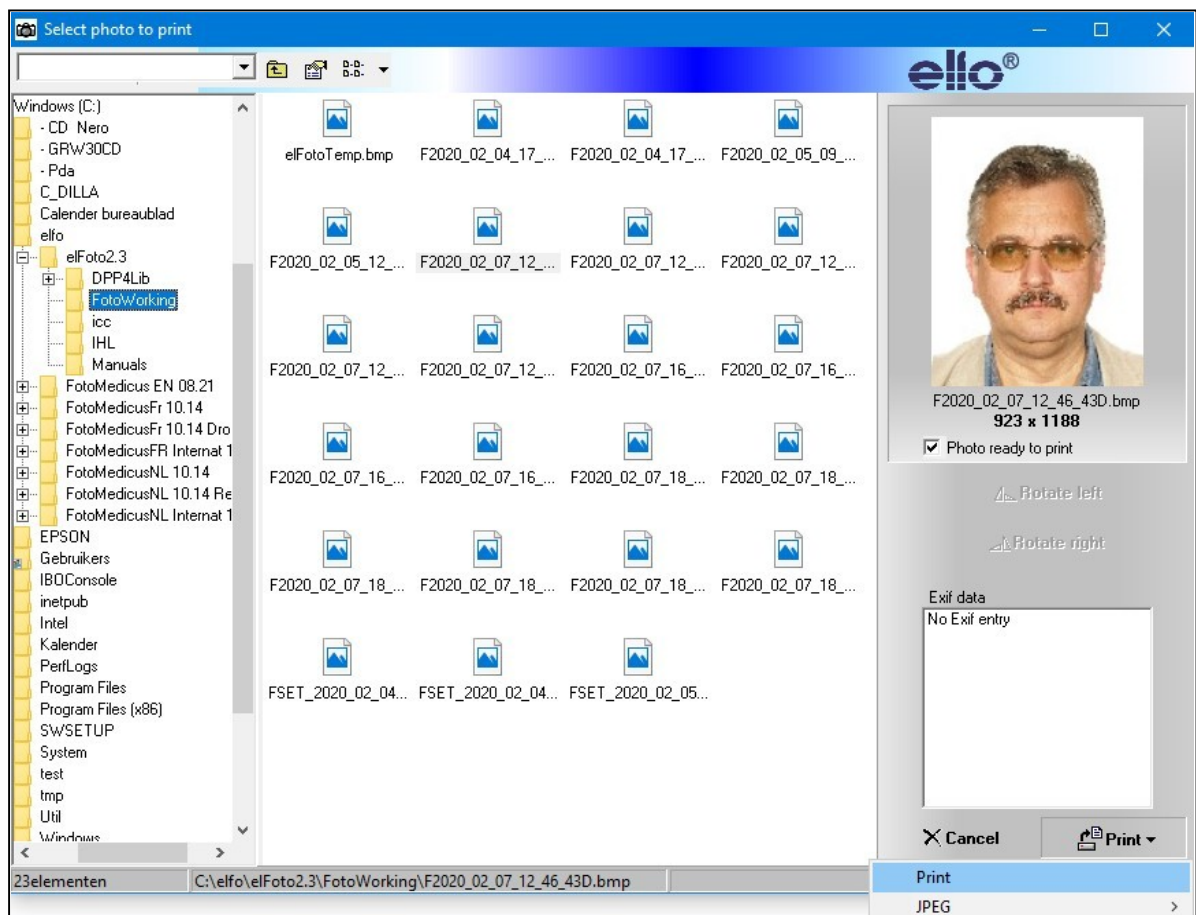


Fig 32

14. Editing existing photos that have not been taken with SKT03

Cropping, rotating and colour correction is also possible for photos not taken by the SKT03 application. It allows adjustment and preparing for printing each photo taken by any camera.

Press button “Read from file” (Fig 18) and a screen as shown below appears (Fig 33)

- The left side shows the folders on the disk.
- The central area shows the files.
- The upper right corner displays a preview of the selected photo.
- Control buttons under the photo allow rotating it.
- Press “Load” when the photo is in vertically position.

The “Photo processing” screen is shown and the uploaded photo can be edited further for the horizontal setting of the eyes, cropping, colour correction and printing like described before (points 11 and 12).



Fig 33



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