FOCUS projects 4

User manual

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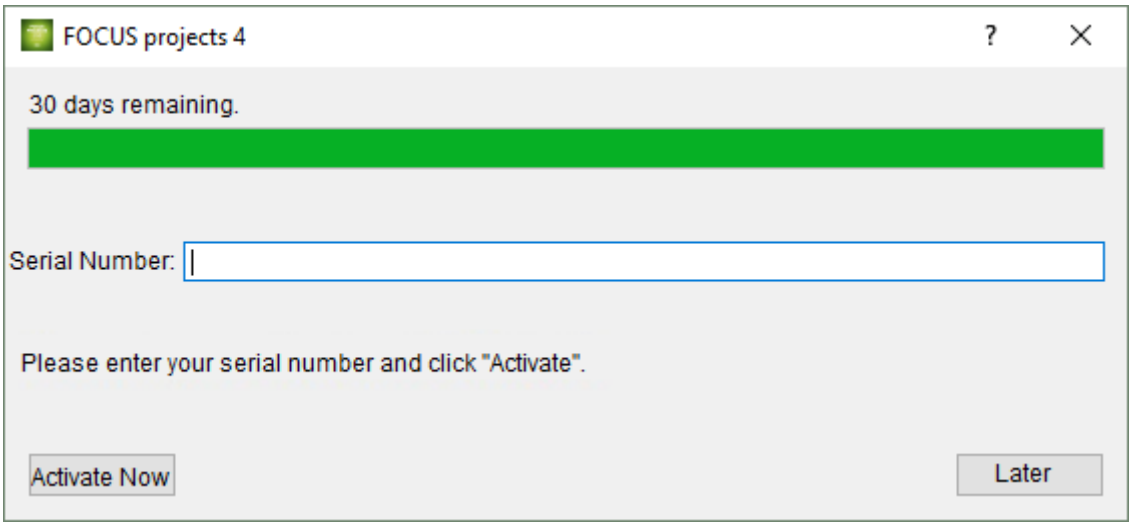
Activation

Upon starting **FOCUS projects 4** for the first time, you will be prompted to activate the program. Proceed as follows:

Install **FOCUS projects 4** as described by the installation instructions.

Input your serial number. For the box version, this can be found on the accompanying booklet. If you have chosen to download the program, you will have received the serial number by email directly following your purchase.



Finally, click on the “Activate” button. The software has now been successfully activated!

Note: FOCUS projects 4 can be installed on up to two computers using the same serial number.

A second serial number is not necessary. When installing the program on a second device, simply enter the serial number again and press “Activate”.

1. Fascinating Macro Photography

The world of macro photography is often considered one of the most awe-inspiring fields of photography. Macro photos don't only provide for a visually inspiring image experience but also help bring hardly noticeable or even completely unseen photographic details to life. Magnification of ice crystals on a window or the delicate wings of a dragonfly reveal nature's miniature works of art and provide access to a completely new photographic world of possibility. If you're new to this line of work, begin with easier image edits. Grains of salt, screws, model cars or even feathers are all fantastic macro photo objects worth displaying in full detail.

I have a macro lens. Why do I need FOCUS projects 4?

You've undoubtedly come across the situation before. Zoom in on an object too close and a focus depth at aperture 32 still isn't large enough to display the entire object in full clarity. Small aperture sizes often leave brightness levels too low and diffraction clarity issues tend to arise resulting in reduced detail sharpness.

Here, the focus Stacking Method can help: This technical term describes the process of combining images with varying sharpness levels within a single image. The resulting image computed in **FOCUS projects 4** pieces together all infocus regions of each individual **image onto one layer**, thus displaying the entire image in absolute clarity.

15 photos have been taken for use in the following matchbox example.

Matchbox < focused at the front

Matchbox focused at > the back

Displayed here are the first and last shots from an image series. In total, 13 additional photos taken between the first and last image were needed to display all of the matches in full focus.

FOCUS projects 4 *layers and precisely aligns all images and computes a single image from the data. All relevant areas of the resulting image then receive the necessary degree of focus.*

Tips for your first macro shots:

Retro-Adapter

There's absolutely no need to buy a new lens – just rotate your standard or wideangle lens. There is a wide range of priceworthy adapters available on the market.

Using ISO

Make proper use of your camera's wide range of ISO capabilities. ISO up to 2000 is no problem for most new cameras.

Use a Tripod

It is almost impossible to hold the camera completely still in telephoto position. Here you should use a quality tripod and a remote release for your camera. Using a remote release for your camera ensures that your camera remains absolutely motionless during shutter release. Alternatively, you can also lean your camera against a stable surface.

More Light

If you wish to use shorter shutter speed and a greater depth of field, just add more light. For this, you can use LED ring lights or a macro flash.

Which aperture is the best?

This question has no simple answer: This depends on the lens you're using. Select the aperture which yields the best image performance when used together with your preferred lens. This is usually found somewhere between aperture 5, 6 and 11.

Insect Macro Photography

If you would like to compile Focus Stacks of insects, getting out early in the day is key. Shots taken around midday don't often yield positive results. Photographing around dawn when insects are sleeping or still in hibernation offer the best chances for success.

2. What´s new in Version #4?

FOCUS projects 4 offers many new features. Here is an overview of some of the most important developments:

- ✓ **Maximum Focus Stack Count:** Upload up to 30 images
- ✓ **Focus Boost Technology:** Focus Squared, Focus Cubed, Focus Infinity and Diamond Cut Sharpening
- ✓ **Two new Focus Stacking Algorithms:** Pyramid Distance und Pyramid Colour
- ✓ **Significance check for Focus Stacks:** According to weighting or according to image content
- ✓ **Compression of the Depth Map:** More accurate adaptation of 3D-reconstruction
- ✓ **Acceleration of Focus Stacking Fusion** : Focus Stacking Fusion is more than 30% faster

- ✓ **19 new post-processing effects:**

- Masking - Details
- Denoising – Banding
- Denoising – Farbwolken
- Reduce haze and fog
- Weighted black/ white point
- Brightness progression
- Normalisation
- Restore hightlights
- Veiling glare

- White and black correction
- Colour balance
- Colour dynamic
- Color gradient
- Colour light and shadow
- Normalisation (RGB)
- Smooth colour tone
- Gauss soft Focus
- Neon Glow
- Warp

✓ **Selektive Drawing:**

- 9 Effects
- 4 Composing Levels
- 48 Processing Methods

✓ Print Final Image (Ctrl + D)

✓ Clipboard (Ctrl + C)

✓ Colour normalisation and brilliance optimisation of input images

✓ Scaling function for input images

✓ Focus Fusion Profiles

✓ **New Effects Category:** Smart Mask Filters

There is a new effects category for intelligent and automatic masking of Post-processing effects which include 8 different masks.

Details
Colour saturation
Colour tone
Gradation
Brightness
Light
Shade
Black – White point

✓ With the **two new preset categories**, there are now 62 presets in total:

- Landscape: 6 Presets
- Glow: 5 Presets

✓ Interactive Contrast Optimisation in the Focus Fusion

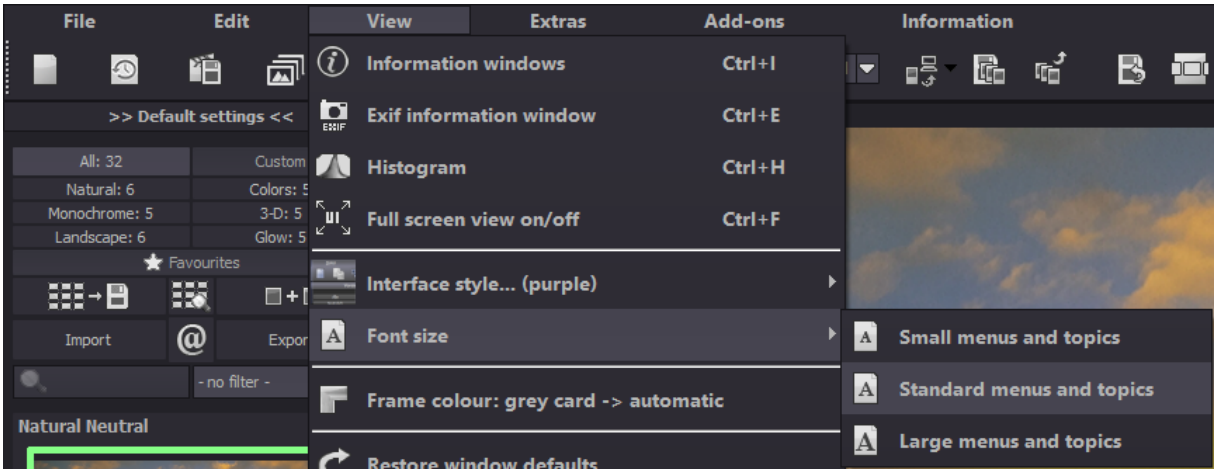
✓ Reverse the Order of the Image Sequence

✓ Note Function in the Undo-Timeline

3. Configuring the User Interface

Optional font size for Menus and titles

In the main menu of the program you will find in View -> font size an option to customise the size of the letters in the menu as well as in the titles of the programm.



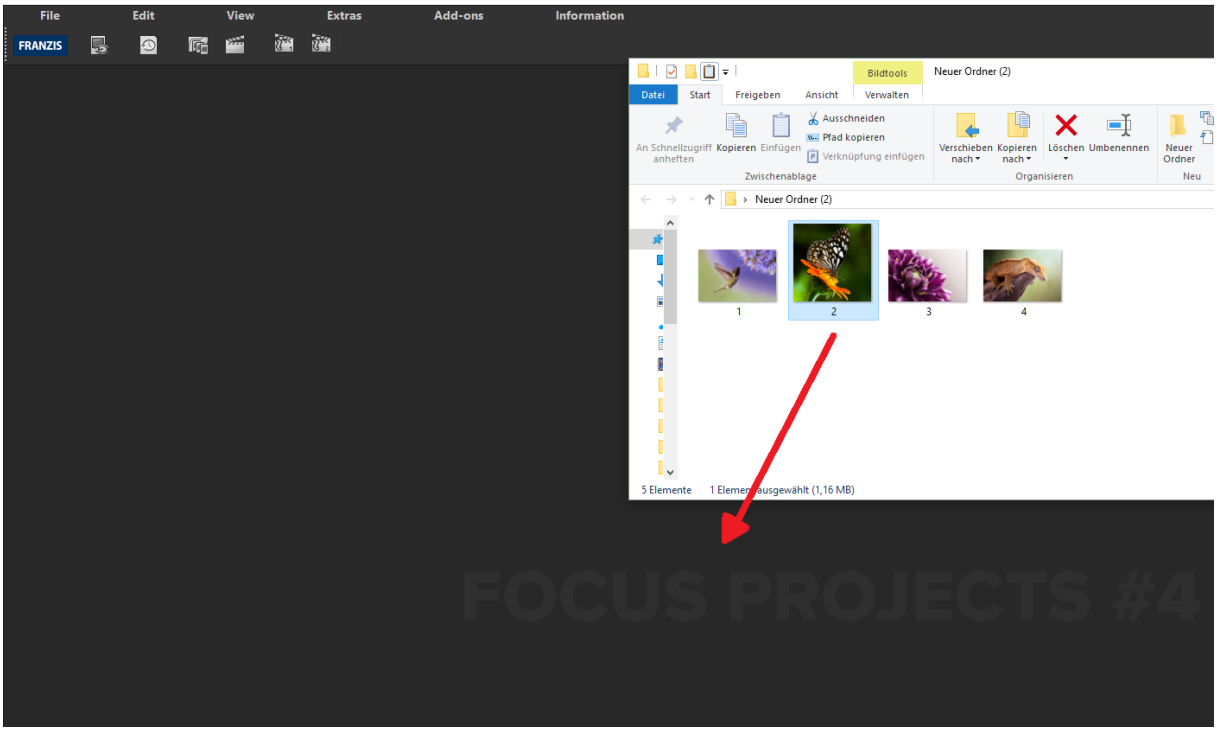
The font size can be adjusted to the run time of the program.

4K-monitors gives you the option to enlarge the font size for better readability of the menu.

4. Macro Photos Done Quickly

You can obtain a finished HDR image in just 5 clicks with **FOCUS projects 4**:

1. Load Stacking Sequence
2. Post-Processing → Preset Selection
3. Optimisation Assistant
4. Select Image segment and Save, that´s it!



You can simply drag and drop your image sequences onto the start screen.

How to get the results you want, and fast - the elaborated presets and looks, individual image adaption and selected drawing allows you to go down your own creative route. **FOCUS projects 4** offers both options.

At the top of the screen are the main menu as well as the menu bar. This menu bar contains the following functions (from left to right):

- Image Sequence Browser
- History Viewer
- Import Image Sequence
- Open Project
- Load Sample 1
- Load Sample 2

Optionally image data can also simply be „dropped“ onto the screen by Drag & Drop. Then the image data is uploaded automatically.

5. Importing Image Material

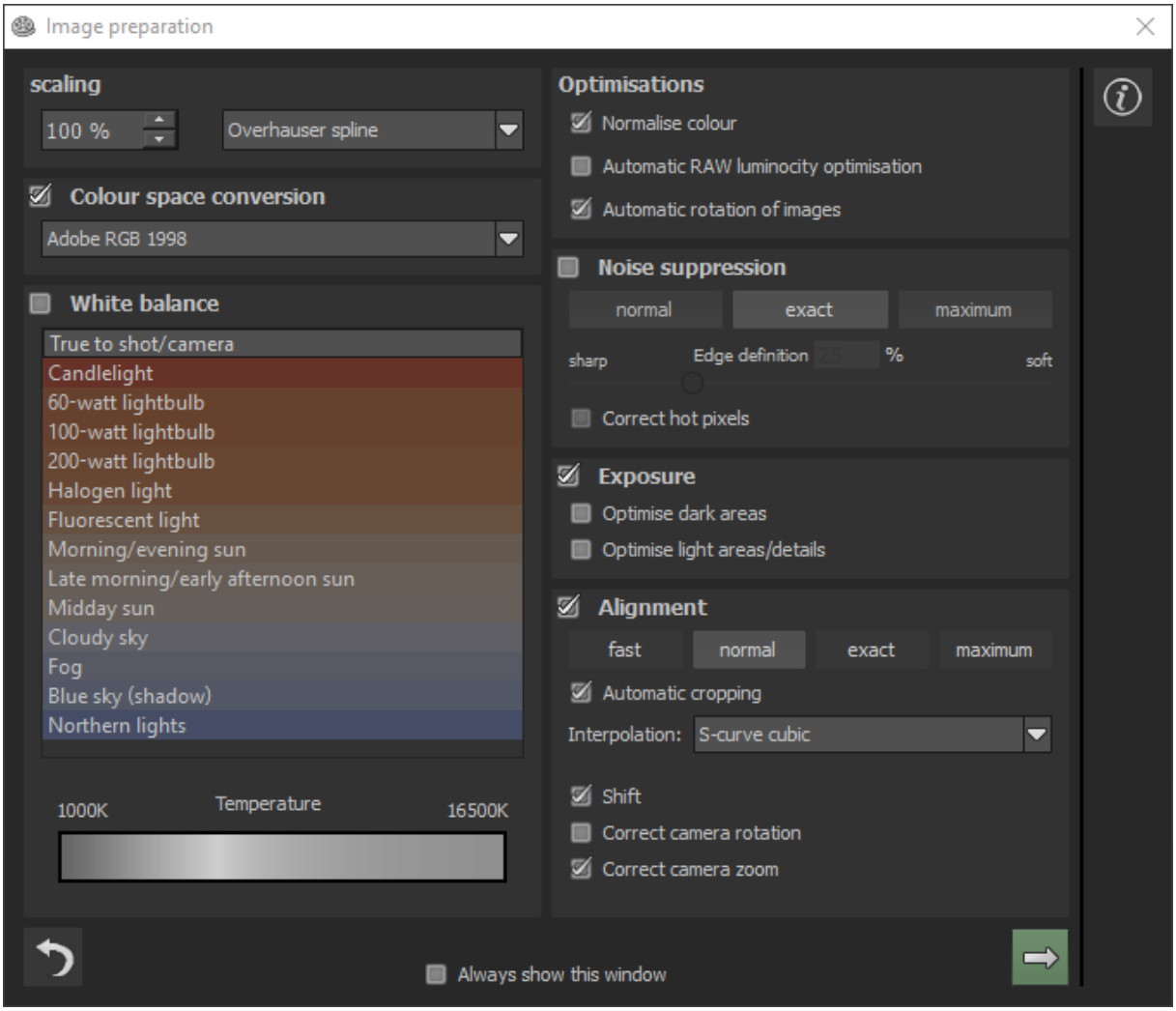
To load an image simply drag and drop the images onto the start screen. Alternatively, you can also use the toolbar buttons or drop-down file menu.

The **maximum number** of possible images is **30 pictures** in **FOCUS projects 4**.

Note: The Image Preparation dialogue is automatically deactivated in the default settings and is only displayed once the „Always show this window“ option has been activated in the menu.

The image preparation dialog will open as soon as an image or image sequence has been selected or draggend and dropped into the program.

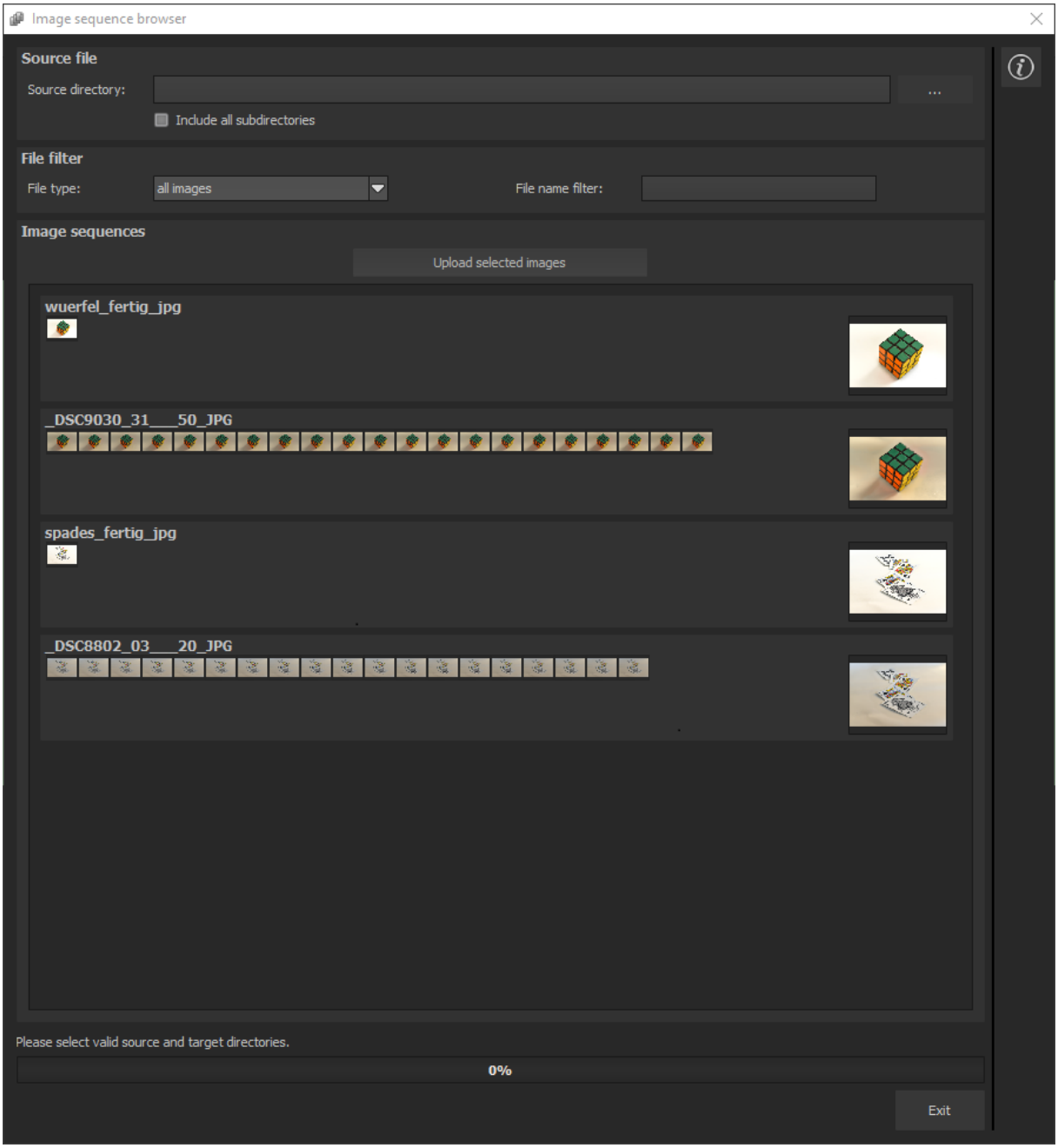
Here you can also choose each time you upload a sequence (click on the box at the bottom).



➢ Image Sequence Browser

For a better overview of your image sequences you can use the image sequence browser before uploading your image sequences.

Click on the corresponding symbol in the task bar. A preview window will open. Choose by „quell folder" your image sequence folder.

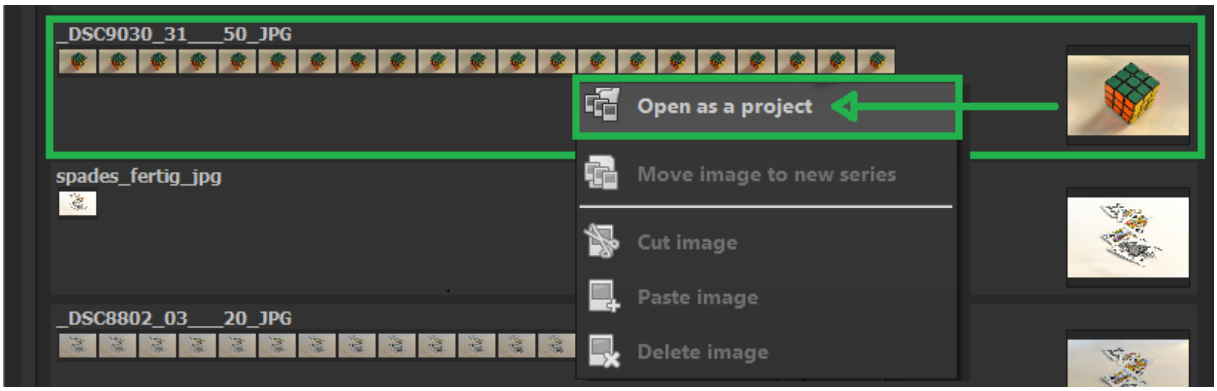


FOCUS projects 4 starts immediately with the calculation, fitting automatically the right images together as well as showing a preview image. If you go across the image with the mouse, the image will automatically enlarge itself.

The **file type-filter** is practical here, since one often has jpg rows and RAW images together in one folder. But if you type in RAW in the **file type**, only the RAW rows will be shown. You won´t have any doubles any more.

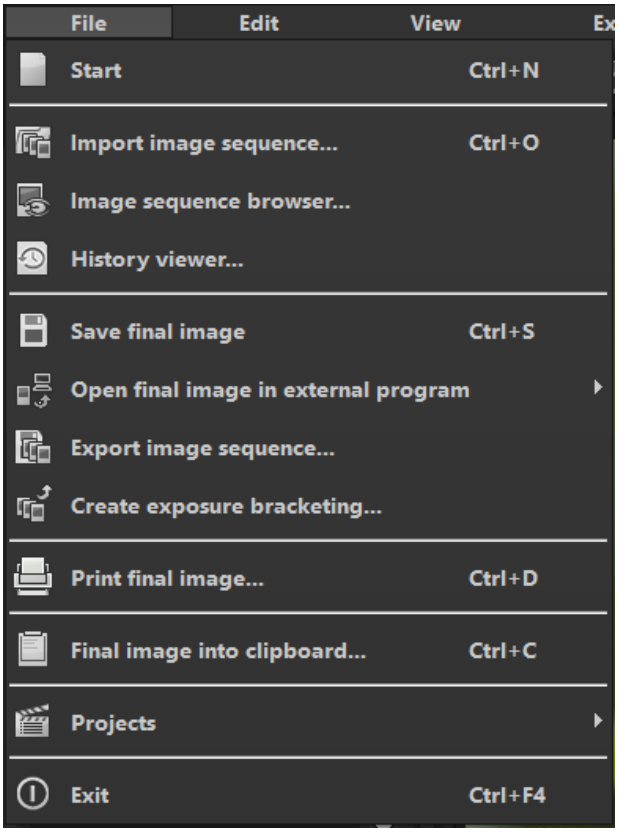
At 100% the search for images is finished.

From this point on you will be able to upload the desired image sequence Click on the desired row with a right mouse click and chose in the context menu “open as project”.



FOCUS projects 4 uploads the images of the desired sequence and just like the simple Drag & Drop of the images on the desktop we start now with the image preparation.

6. Menu Bar



7.1 File

File → Start

When you are finished editing an image or would like to close your current image, clicking on Start (or Ctrl + N) will close the image currently open.

File → Import Image Sequence

In order to open an image, click on **Import image sequence** (or Ctrl + Shift + O) … to search for the sequence you would like to edit.

File → Image Sequence Browser

Select your sequence folder from within the "Source-Folder". **FOCUS projects 4** immediately begins its calculation process and automatically gathers the best photos from your sequence. From here you can then upload your preferred image sequence.

File → History Viewer

Clicking here will provide you with an overview of your separate projects and allow you to choose between them.

File → Save Final Image

If you are content with your editing results and would like to save your image, click on **Save Final Image** (or **Ctrl + S**) …

File → Open Final Image In External Program

If you would like to continue editing your current image in another program, you don't even need to leave **FOCUS projects 4** For this, simply click **on Open Final Image in External Program**.

File → Export Image Sequence
Select **Export image sequence** in order to save your edited exposure bracket and open it in an external program.

File → Create Exposure Bracketing

Möchten Sie aus Ihrem aktuellen Bild eine Belichtungsreihe erzeugen, klicken Sie hier. Sie haben die Wahl zwischen drei, fünf oder neun Belichtungen.

File → Print Final Image

Click here to print your final image. The image is automatically and correctly scaled to the print medium.

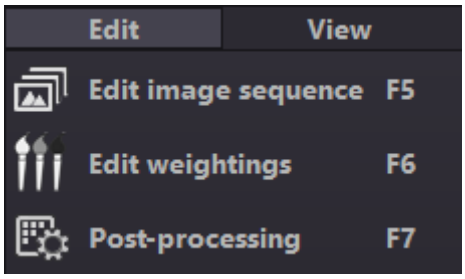
File → Final Image Into Clipboard

The final image is posted to the clipboard. You can then seamlessly insert it into other programs.

File → Projects
If you've already begun a project in **FOCUS projects 4** and would like to continue editing, open the file by clicking on **Projects**.

File → Exit
Click on **Exit** (or **Ctrl + F4**) to close **FOCUS projects 4** .

7.2 Editing



Edit → Edit Image Sequence

FOCUS projects 4 utilizes a complex process to filter out all accurately exposed pixels and combine them into one image (please see 14. Macro Image Stacking and Editing Image Sequence).

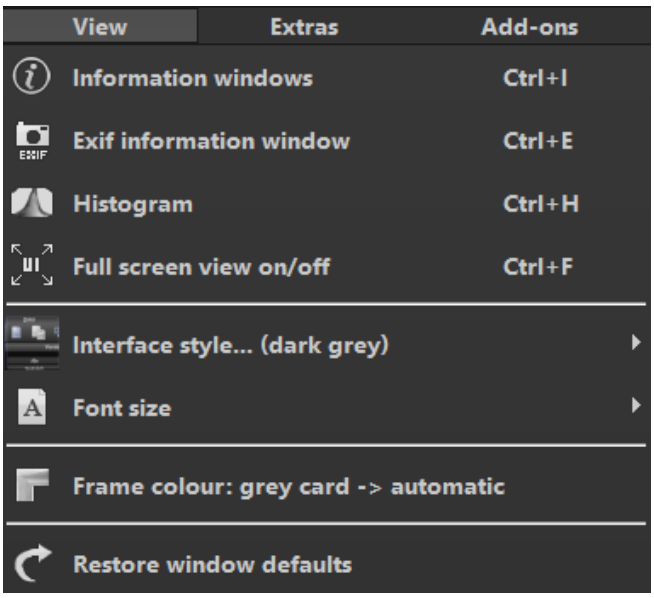
Edit → Edit Weightings

The Weight Painter is a tool used for manually editing individual images in a series in order to selectively alter specific regions of the photograph. (Please see 12. Edit Weighting with HDR Painter).

Edit → Post-Processing

Once you have edited or removed noise from an image, you find yourself in Post-Processing Mode.

7.3 View



View → Information Windows

This window displays all image sequence information regarding the preset settings.

View → EXIF Information Window

This window shows you (if available) all image file EXIF information such as location, camera type, exposure duration and capture time.

View → Histogram

The histogram provides you with a consolidated overview of the **Light Distribution Information** present within your photo. This makes it easy to recognize if your photo is over/ underexposed.

View → Full Screen View On/Off

If you ever feel distracted by the task bar, you can toggle between a normal and full screen view by clicking on **Full Screen View On/Off**.

View → Interface-Style… (dark gray)

Clicking on **Interface Style...** will allow you to alter the color scheme for **FOCUS projects 4**. The color scheme you have currently selected will appear in brackets.

View → Font Size

Change the font size levels between small, medium and large.

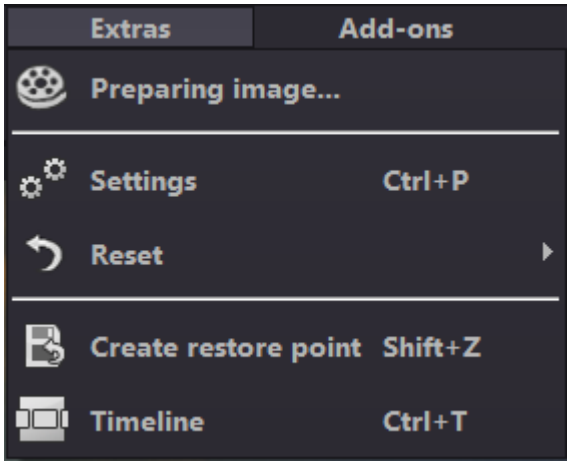
View → Frame Color: Gray Cart → automatic

If you click on **Frame Color: Gray Cart**, the program will set the your image's average color value as the frame color.

View → Restore Window defaults

Returns the current window to its original size.

7.4 Extras



Extras → Preparing Image

Here you can begin to prepare your images prior to Macro stacking (see 8.Image Preparation).

Extras → Settings (Ctrl + P)

Here you will find the various configuration options adaptable to your unique preferences offered in **FOCUS projects 4.**

Extras → Reset

This returns the current user interface to its original size.

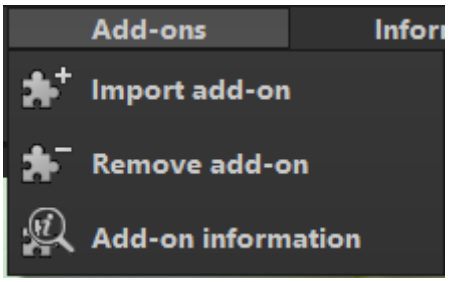
Extras → Create Restore Point (Shift + Z)

If you would like to save your image in its current state and continue editing without initiating a file-save, simply select the **option Create Restore Point** or (**Shift + Z**). This allows you to return to the last saved state of your image at any time.

Extras → Timeline (Ctrl + T)

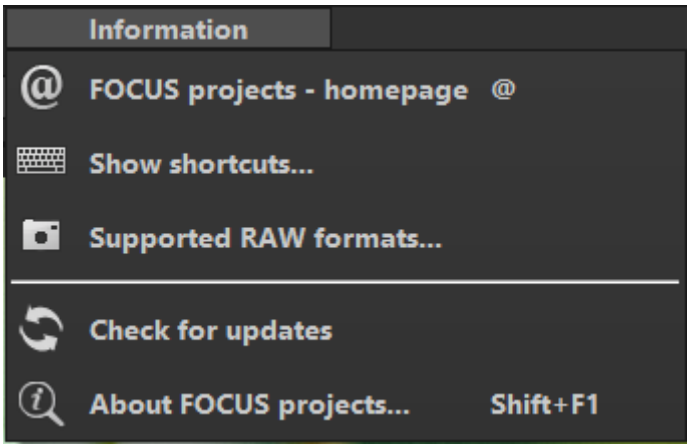
Click on the **Timeline** or (**Ctrl + T**) to display all saved Undo-Points.

7.5 Add-ons



With the help of Add-ons, you can now not only import Presets into **FOCUS projects 4** but also integrate new Post Processing Modules that provide your Presets with an entirely new look. However, currently are no Add-ons available.

7.6 Information



Information → FOCUS projects – Homepage

Click here to navigate to the **FOCUS projects 4** homepage.

Information → Show Shortcuts

Here you will find all keyboard shortcuts available in **FOCUS projects 4**.

Information → Supported RAW Formats

A list of all cameras whose RAW Files are able to be opened in **FOCUS projects 4.**

Information → Check For Updates

This checks online whether newer versions of the software are available for download.

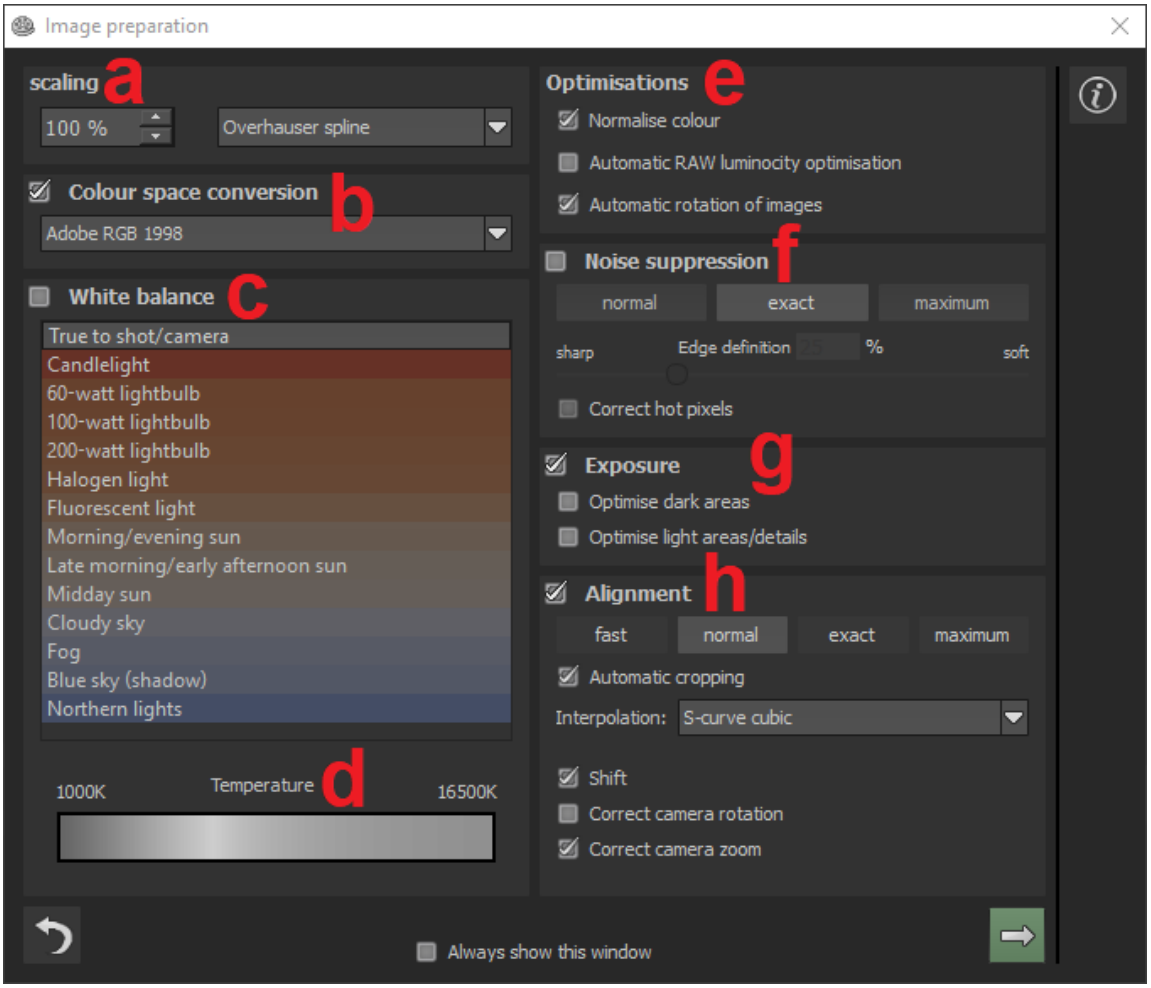
Information → About FOCUS projects (Shift + F1)

Information about the current version, 3rd-Party Software and Credits from **FOCUS projects 4** .

7. Image Preparation

Here you can precisely configure the program's settings.

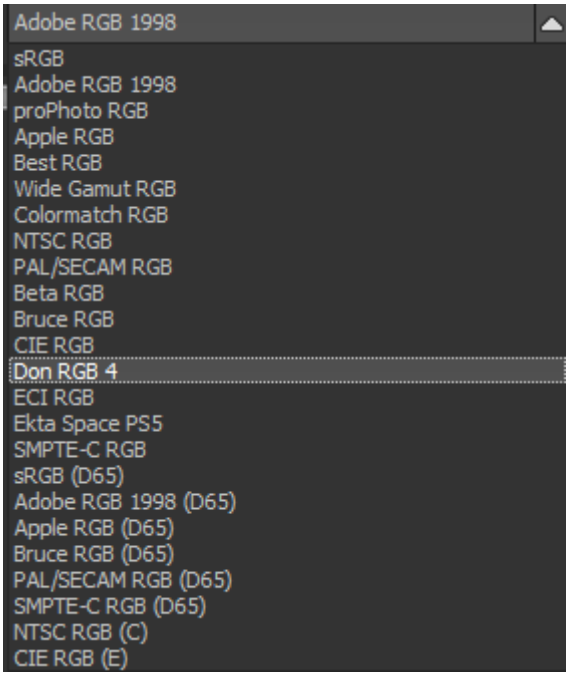
For the first steps, please use the standard settings. These default set-tings can be restored with the arrow at the bottom left. Nothing can be irretrievably adjusted.



a. **Scaling**: Set the scaling for your input image data here. The new image size is calculated based on the image area. As size of the scaled image data in relation to the original image data you can choose for example 25% to scale the image data to half the width and half the height. Choose 50% to scale the image data to half the number of megapixels. 400% scales the image data to double the width and double the height.

   Moreover you can select a suitable method for interpolating your image data. The "simple" method is very fast and leads to a direct pixel scaling, while the "frequency response curve" method takes more time but leads to sharper results.

b. **Colour space conversion:** advanced users can choose a colour space here - for all other users, it is recommended to not make any adjustments, to avoid incorrect colour rendering later. **FOCUS projects 4** offers several new colour spaces (D65). The **standard illuminant D65** is representative for a phase of natural daylight with the colour temperature of 6500° Kelvin.



c. **White balance** corrects colour casts that occur with shots taken, for example, in a warmly lit room. To start, leave this setting unchanged.

d. With this regulator one can adjust the **colour temperature** when you´re already uploading. It is advised that you leave the setting on “default” and to regulate the colour temperature later in post-processing.

e. Under **Optimisations** there are three different options for improving your image data. Normalising the colour ensures that the shadows in the image are black and the lights in the image are white. You can activate or deactivate the automatic luminocity optimiser when loading RAW image files. If automatic rotation is activated, images will be automatically rotated according to their Exif orientation.

f. **Noise suppression**: these buttons allow you to select the precision of the noise removal, and the slider regulates the degree of the sharpness for the edges. Here dark images can undergo significant noise removal and have hot pixels (light spots caused by the camera’s sensor in dark situations) eliminated.

g. **Exposure**: Optimising dark areas of an image can help to reduce the tinging which frequently occurs in shadows or dark patches. Optimising lights fleshes out as many details as possible from the light areas of the source image.

h. **Alignment:** here you can influence how the individual images of the series are congruently positioned on top of one another. The subtlest movement of an object, unintentional zooming or rotating of the camera can be considered. In the majority of cases, the default settings often lead to the preferred result. The automatic cropping function corrects empty areas at the edges of your images.

8. Post-Processing: Presets

Just like in the last version we shall start after the uploading of images directly in post-processing. Here we control the tone mapping of the images, before editing the results with filters and effects.

Left side of the post-processing screen: The presets show the breakdown of the live preview in categories – „All“, „Natural“, „Landscape“, „Monochrome“, „Colors“, „3-D“, „Custom“ und „Glow“ with the quantity of presets in the appropriate category.

To begin, we've chosen the "Natural Neutral" preset. Clicking on the preview image applies the effect to the image in real time, which will then be displayed in the middle of the screen. Discover the wide variety of different looks by clicking on the 32 different presets. You will be amazed by the intriguing styles in the artistic section!

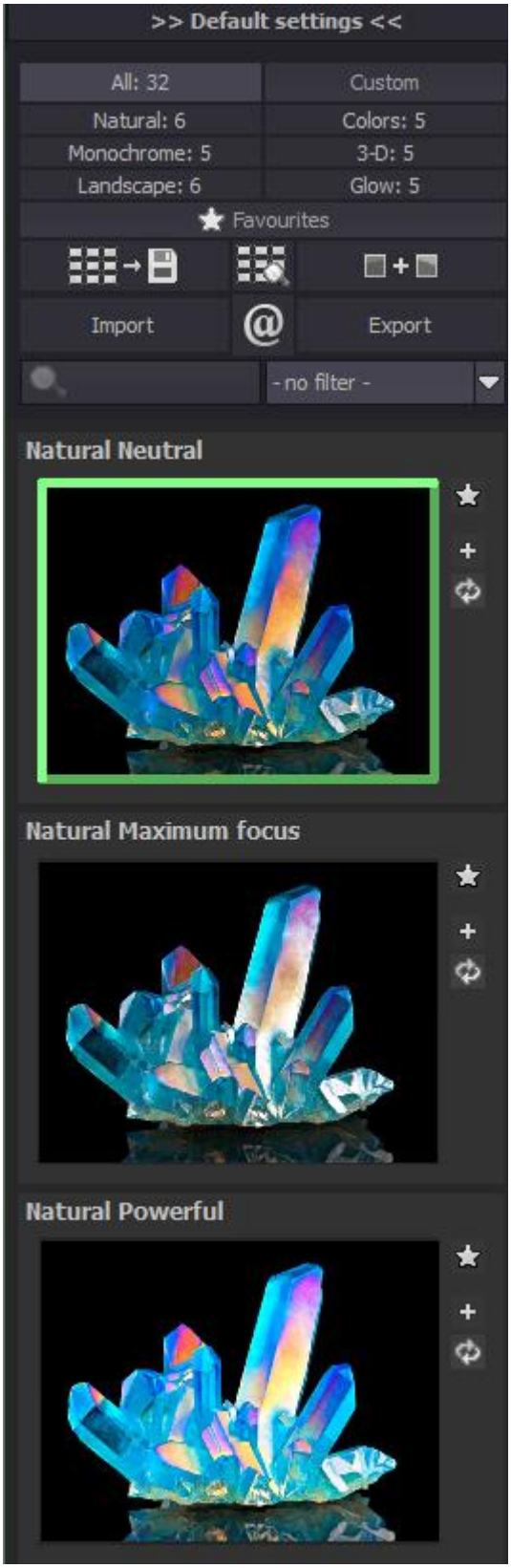


Image with „Natural Neutral“.

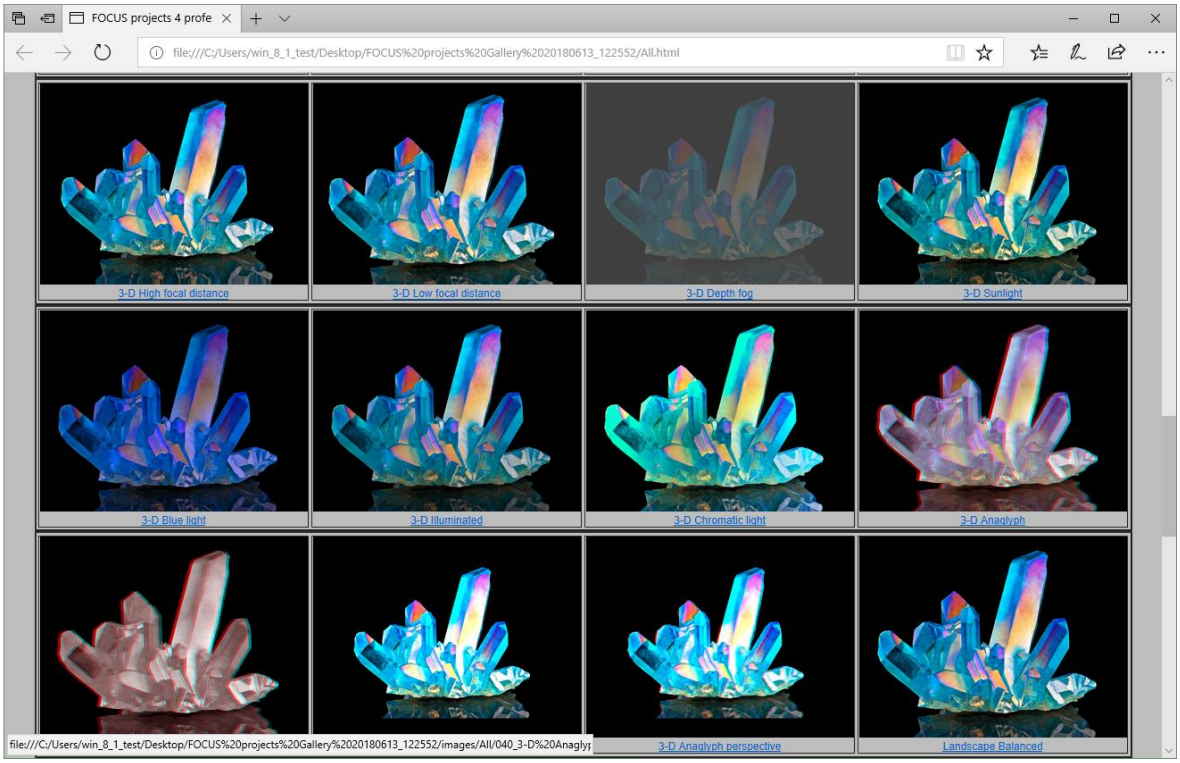
Image after applying the „Colors Intense“ preset.

All 32 **FOCUS projects 4** presets at a single glance. The bar “presettings” you can detach easily and adjust to the desired size.

Preview Gallery

Would you like to see all the previews for the loaded image or series? Open up the category “all” and then subsequently click on the symbol.

FOCUS projects 4 constructs then a browser gallery with all the presets. For a larger display click on the picture.



This very practical feature is reminiscent of good old contact sheets. You can create proofs to assess how the image with your favourite presets would look when printed.

➢ The variation browser

The variation browser allows you to choose from different versions of a function and is primarily operated with the mouse:

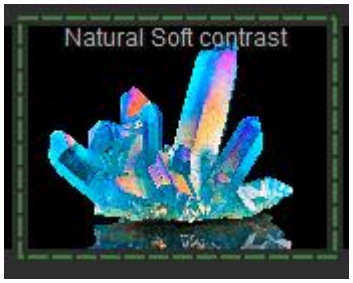
- **Shifting the segment:** hold down the left mouse button, before moving the mouse
- **Zooming in:** scroll up
- **Zooming out:** scroll down
- **Choosing the variant:** double left click on the image
- **Setting a referent:** left click on the image
- **Comparison with referent:** hold down the right mouse button over the image

The corresponding short cuts you can find under “menu” → “information → short cuts”.

Click on the symbol and **FOCUS projects 4** will show you the entire preview gallery of that **chosen category**. Zoom in now on the variant that you want to compare and set a reference image.

This reference image you will be able to put on any image **through a left click** of the mouse. You can fade in this reference image into the other image **by holding down the right mouse button**. The border surrounding the image in a green dashed line shows you the reference image so that you can make the comparison. In this way you can compare any two variants in the browser directly and visually.

Example: As a reference image you choose the variant “Natural Soft Contrast” and mark the image with a left mouse click. The green dashed line shows that you have chosen this image.



Now you look for a different preview image, in this case Preset „Colors Intense “ has been chosen.

Right click on the preset „Colors Intense” and the reference preset will fade in. As soon as you let go of the mouse button, you will see the „Colors Intense” again. This is how you simply and purposefully compare looks with another before choosing the ones you like the best.

Selection of your desired variation:
With a double click you chose the variant. The relevant program settings will be carried out automatically.

Deleting of a variation:
If you want to delete a variation, move the cursor over it and click the [Del] button. After that, click on the “compress” button. If you want to display the deleted variations again click on “reset”.

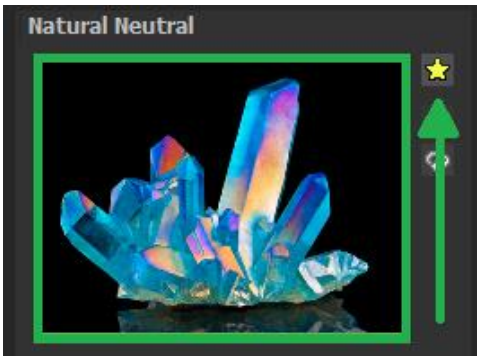
Tip:
Your current choice will, when you open the window, be automatically set as your reference image.

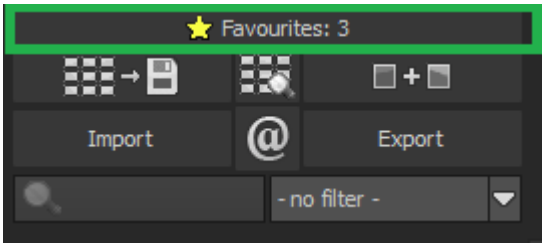
- **Combine Presets**

To merge two looks together use the “Combine default presets" button directly under the categories. These new presets will be saved under "Custom". It’s that easy to expand your numerous options and accumulate new ideas!

- **Name Favourites**

Have you found certain presets that you love and instantly want to have handy? Click on the **top right star** in the preset window and add the setting to your favourites. By clicking the button, previews all of your favourite presets will be displayed.





- **Save Undo-Point**

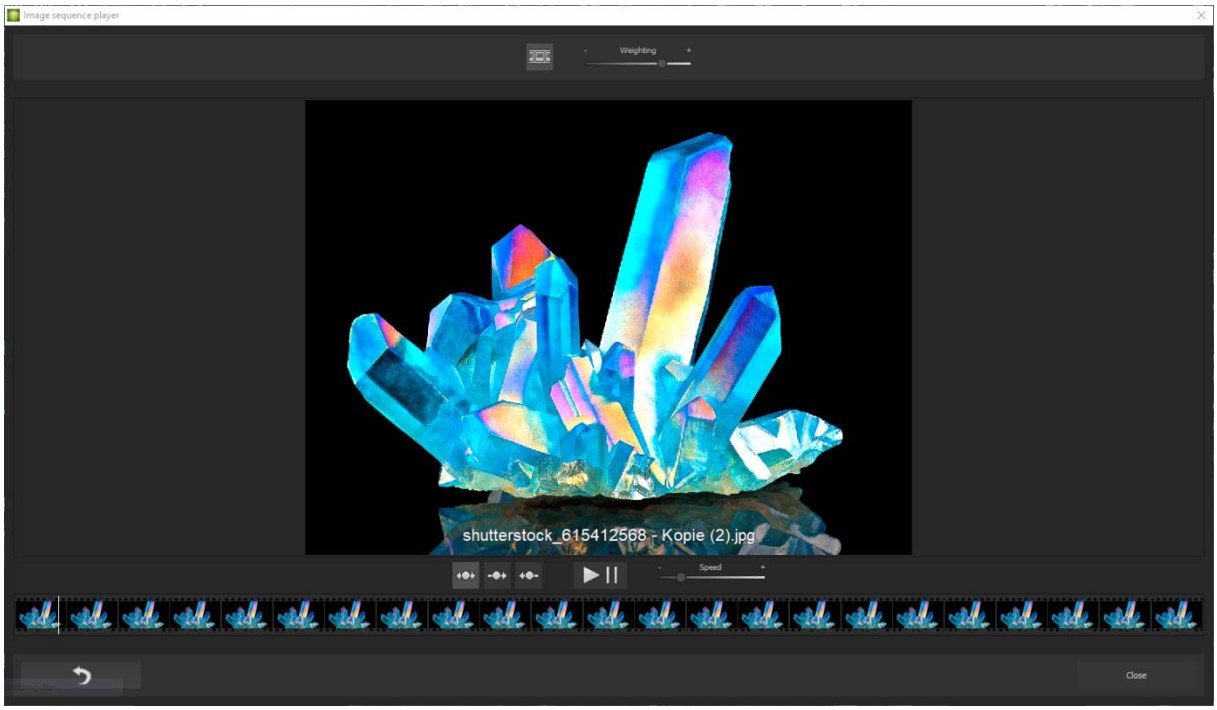
With the Save Undo-Point Function you can save your edits to an image at different intervals and later view these in the Timeline and pick up where you left off.

- **Timeline**

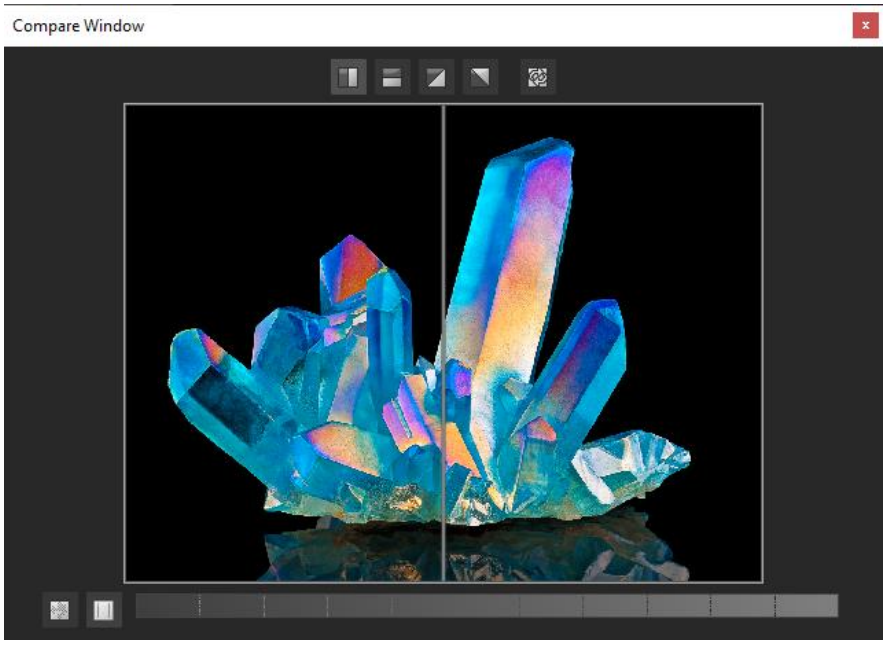
In the Timeline you can view and directly access all saved Undo-Points.

- **Image Sequence View**

The image sequence player is a tool that lets you analyse Focus stacks. Here you can look at the whole sequence as a film in order to spot gaps in the sharpness depth layers. In addition, you can use it to add the weightings of your selected focus stacking algorithms to the video sequence (by using the slider in the upper bar). This enables you to recognise if single areas will yield better stacking results after retouching.



- **Comparison View**



Do you want a comparison to the macro image? Simply right click on the middle of the image to see the before/after result.

A quick check on the editing process is available at any time. For an extensive overview with selectable areas and luminance display, click on the symbol bar.

- **Preview Mode**

Is this option is activated your original image is displayed in a smaller version. If you switch it off, all calculations will be carried out in full-size images. Please note that deactivation takes more time to process in the preview mode.

- **Real Time Processing**

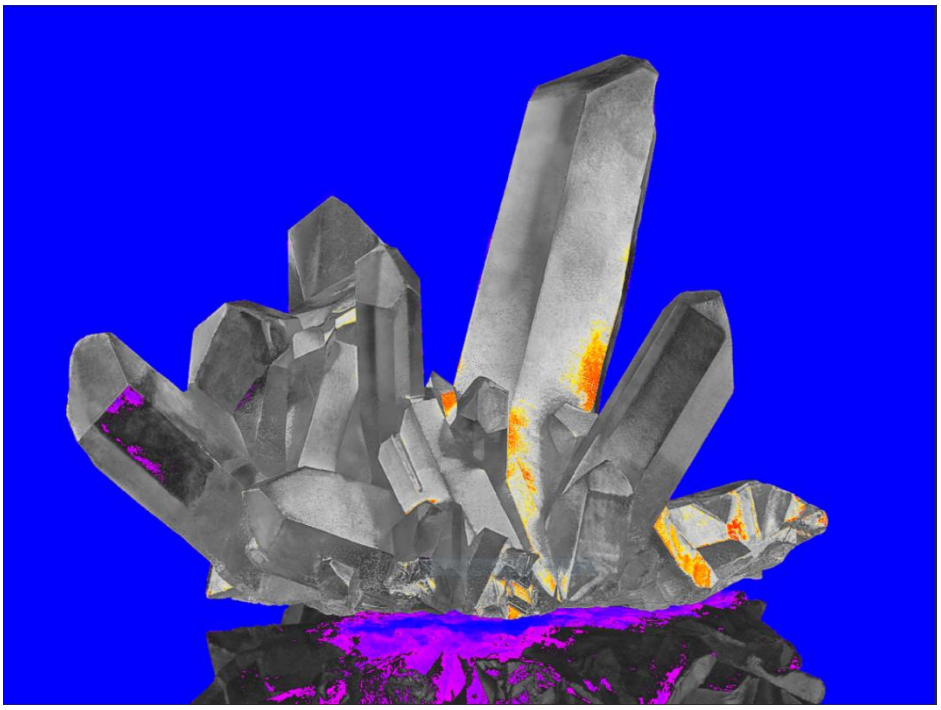
When activated, all of the changes that you have made to the preset settings will be immediately applied to the image and you will see the outcome of your adjustments directly. If this option is deactivated, then you will only see the outcome of your adjustments when you click the button “calculate afresh”:

- **High-Quality Display**

Activate this option to see the preview image in high-resolution. If the preview is set at 100%, there will be no difference. If you zoom in on a section of the photo however, there is a noiceable difference in quality.

- **Border Pixel Display**

The border pixel display helps to reveal areas that tend towards maximal light and dark values that is to white and black. Dark border pixels are depicted by blue and light pixels by orange.



Depiction of border pixels in dark blue and orange tones.

If you would want to brighten this image, you have to be careful of the orange border pixels. Light surfaces on the car and the walls should not become too white, in order to avoid losing detail. In technical terms, these patches are called “burned highlights”. The border pixel view helps to find these critical image areas

- **Symbol „Original Resolution Setting“**

With this pushbutton you will set the zoom factor on the original resolution.

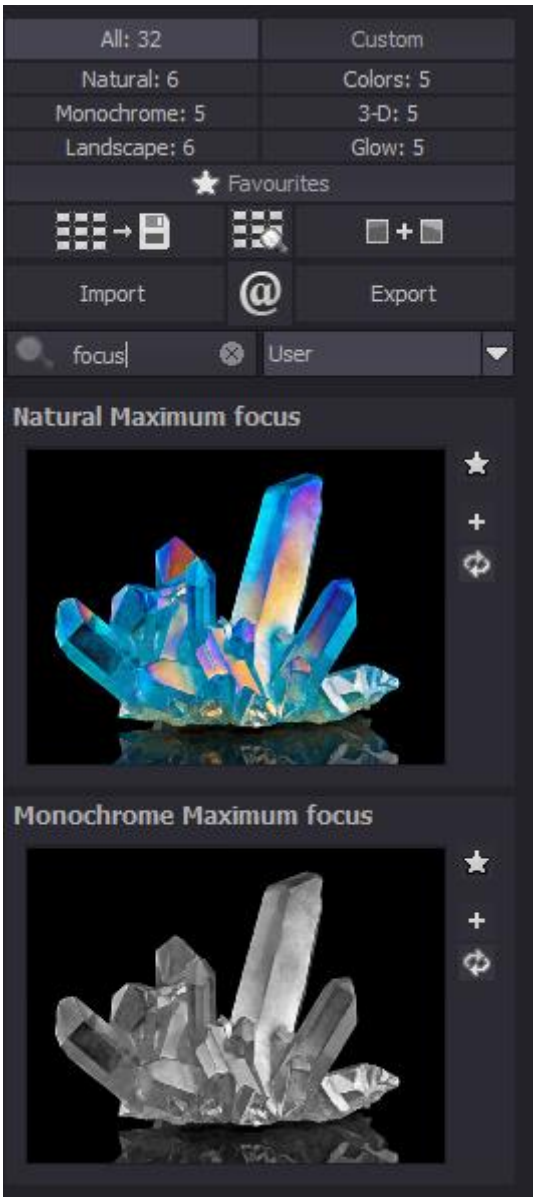
- **„Increase the Zoom factor to the screen size“**

With this symbol you will enlarge the zoom factor to the maximum possible screen size.

- **Import/Export of Presets**

Presets from earlier versions can be easily imported. Do you want to exchange all of your presets with a friend or just secure all of your treasures? Use the practical export function.

➢ Filter Presets



Locating presets can be difficult when you have imported presets or created many additional looks. For example, enter “filter" into the search bar and only presets relating to “focus” will be shown, for example “Natural Maximum focus”and “Monochrome Maximum focus”. This makes the search a lot easier.

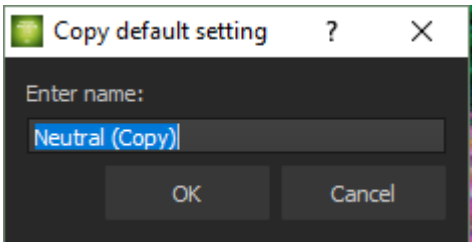
➢ Custom Presets

One thing is certain, regardless of which settings you have changed, if you have applied additional filters or adjusted a filter’s settings, the selected preset has been modified and to the right of the preview image is the following symbol:

Clicking will reset the preset back to its initial state. Careful: All of the modifi-cations applied up to this point will be undone!

Clicking saves all of the changes in a new preset.

A dialog box will open where you can enter a new name for your preset or confirm the suggested one. The system will name it “Copy”.



The preset will be saved and moved to the “Custom" presets category. The new preset has been additionally generated and the starting preset is preserved. You can also never overwrite a default preset!

Let’s switch now to the “Custom" preset category.

Here we can find our first custom preset.

There are a few new symbols to the right of the preview image:

Is this the favourite preset that you have made? Mark it to find it right away next time!

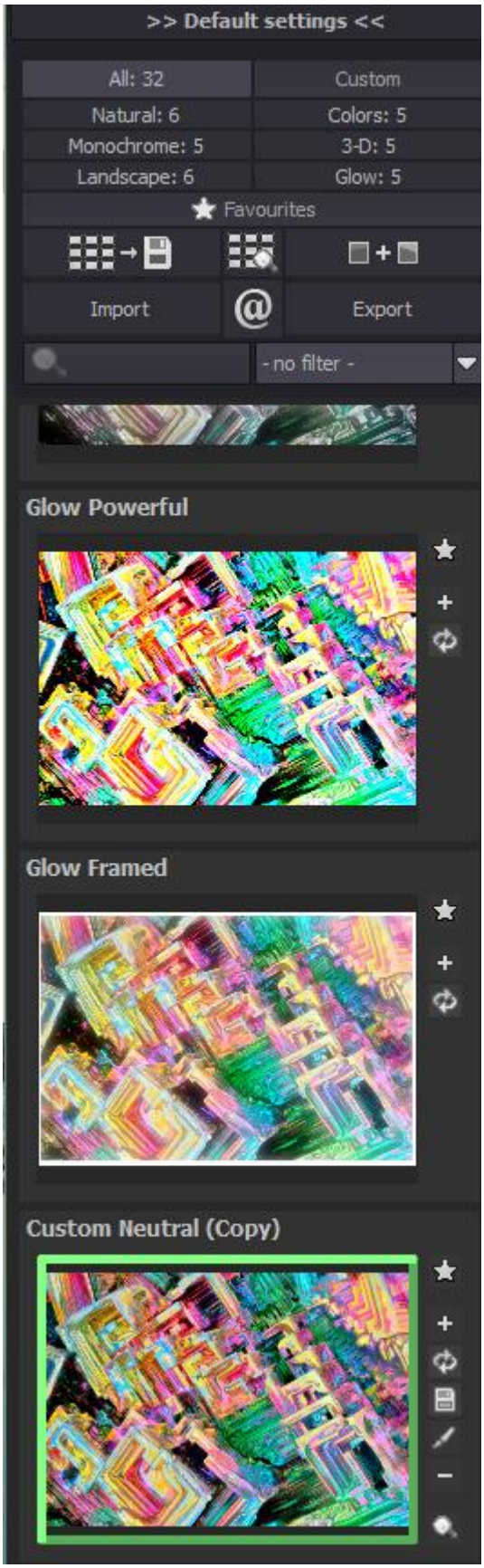
Have you changed this preset and don’t want to lose this new look? Then create a new one!

Reset the most recently changed settings for the newest preset.

You have readjusted once again? No problem. Save the changes with the disk symbol.

Change the preset’s name

You can also delete your custom preset entirely.



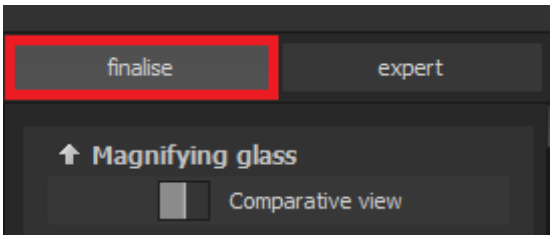
Use this to enter a search filter. For example, enter the search filter „Color play“, and subsequently type the term into the search filter bar directly under “Import". All presets with this search filter will be dis-played.

You can enter the names of places you’ve holidayed and all of the presets that you used for those specific holiday photos will then be easy to find and to apply to other pictures.

The filter drop down menu to the right already contains „Color play“ and you can simply select it from the entered search filters.

9. Post-Processing: Finalisation

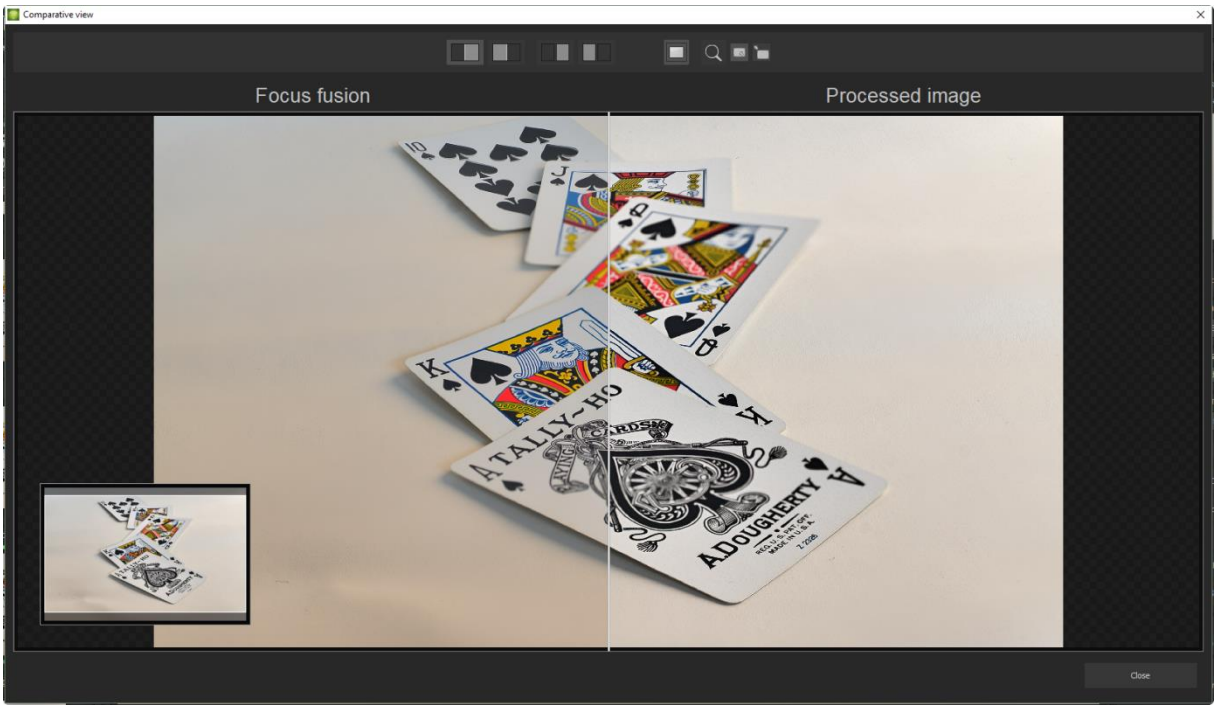
Now that we have understood the most important part of post-processing, let's go onto fine-tuning, which can be found on the right side of the screen under "Finalise". These features are intended to only to be used to edit pictures further after selecting a preset.



➢ The Magnifying Glass

On the right hand side (at the very top) in Post-processing you will find the 1:1 magnifying glass. The magnifying glass shows you the area under the mouse in a 1:1 pixel view.

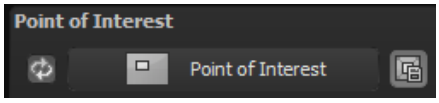
When clicking on the magnifying glass the new compare window will appear, which compares your edited image and the original image. It simultaneously gives you the opportunity to examine the comparison through the magnifier display.



To keep the magnifying glass on a specific point, press down on the “L“ key, while you move the mouse over the screen.

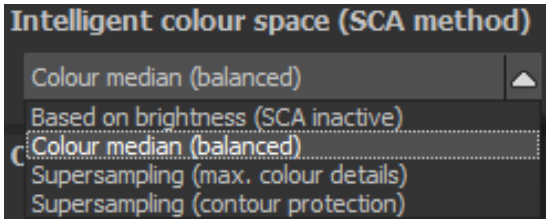
Click into the image area of the magnifying glass, to change between the display modus “divided before/after comparison” and “direct before/after comparison”.

To free the fixated area of the magnifying glass, press down on the “L” key once more.

- **Point of Interest** 

Activated “Point of Interest” renders the current editing only to a specially defined area of the image. The effects will be applied in their full form, however only visible in the specified spots, the rest of the image will be left unaffected. This effect is intended for very large, high-resolution photos, for example panorama pictures.

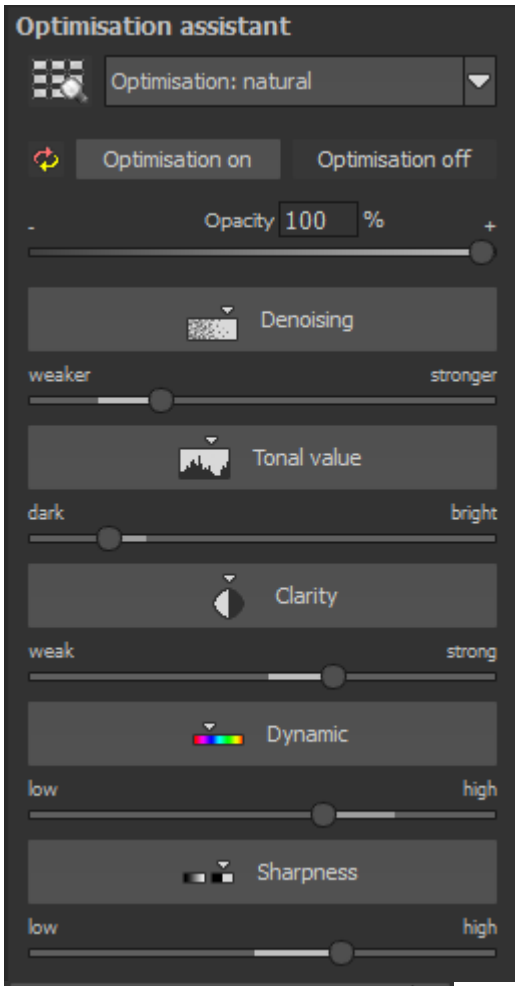
➢ Intelligent Colour Space (SCA Method)



This menu offers you options for optimal colour detail gradation of your tone mapping results. Selecting SCA method (Smart Colourspace Adaptation) demonstrates differences in the details of more saturated colours.

Tip: With "Supersampling" you will get exceptional details and saturated colours and stark color variations around contrast edges.

➢ Optimisation Assistent



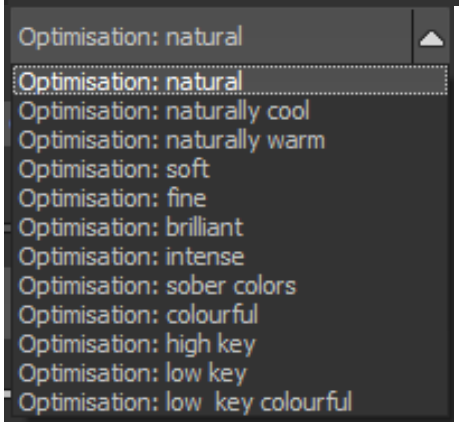
The optimisation assistant is a very efficient tool for fast, fascinating results.

When the preset is activated, **denoising, tonal value, clarity, dynamic and sharpness** settings can all be adjusted by sliding the control to the left or right. The result can be seen live.

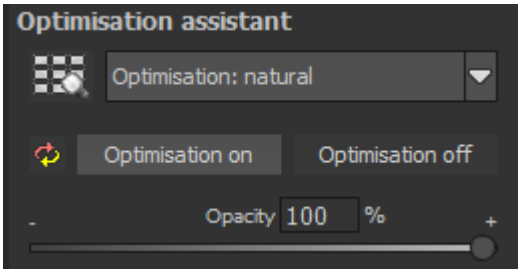
The optimisation assistant is intelligent; it remembers the values you entered, and applies the same settings to the next image in the same way, but tuning the result to the new motif.

If you would like to edit without the assistant, you can simply turn it off. If you would like to turn off the values that have been "learned" so far, click on the button.

Additionally, the assistant can be given optimising specifications for an entire image style: choose between „naturally cool", „naturally warm", „soft", „fine" „brillant", „intense", „muted colors", „Multicolor", „High-Key" , „Low-Key" und „Low-Key Multicolor".

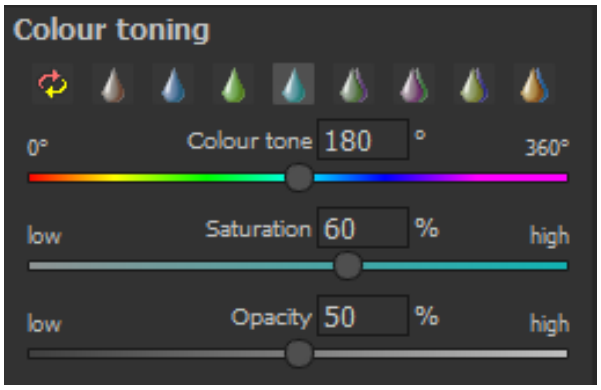


➢ The Opacity Regulator of the Optimisation Assistant



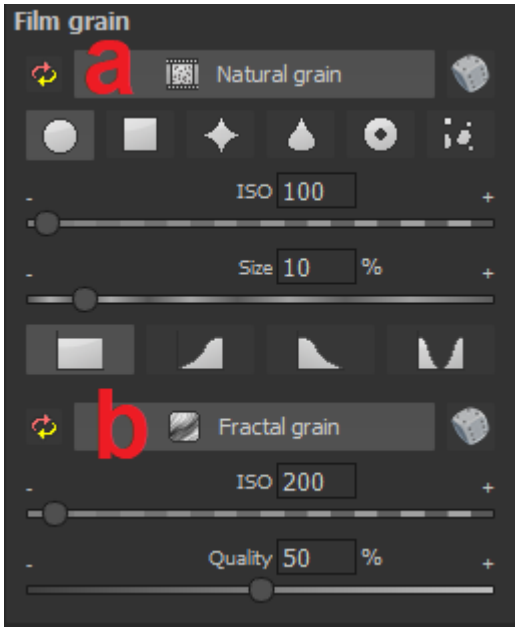
The opacity regulator in the optimisation assistant activates itself automatically as soon as one optimisation is activated. The opacity regulator works on every effect that optimises the image as well as the optimising presettings.

➢ Colour Toning:



Use colour toning to give your image a special colour mood. Select a toning variant and control it´s special effect using the slider for the colour tone, saturation and opacity.

➢ Granulation Module



a) Natural Grain

In natural grain the different levels of photographic paper are simulated, which creates a natural irregularity.

These following parameters are therefore at your disposal:

- **Form:** Choose here from six different variants

- **ISO-Number**

The preset value conforms to the average “restless value” on a naturally grey surface

- **Size**

The maximum size of the simulated granulation

- **Masking**

Gives you the opportunity to calculate the granulation in all different types of daylight or alternatively in light, shade or shade and light

Complete: all brightness values receive natural film grain.

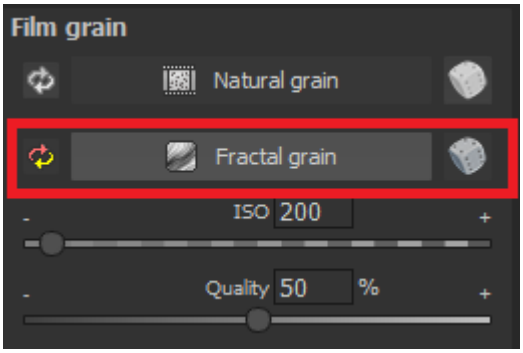
Lights: the lights receive natural film grain.

Shadow: the shadows receive natural film grain.

Lights & Shadows: Both receive natural film grain.

A Click on the button creates a new random distribution of grain and therefore a whole new look.

b) Fractal Grain



Fractal grain simulates a large scale irregularity, which is created through the storing and deterioration of photo material.

Therefore the following parameters are at your disposal:

- **ISO-Number**

The preset value conforms to the average “restless value” of a naturally grey surface.

- **Quality**

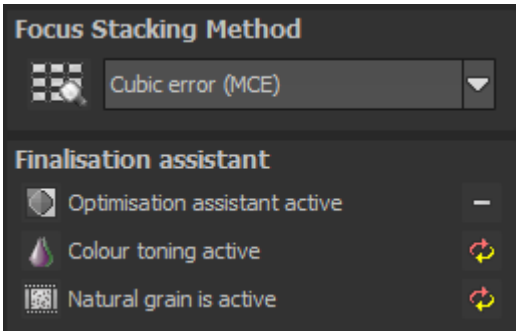
Determines the accuracy of the calculation (number of iterations for the fractal algorithm) of the fractal granulation

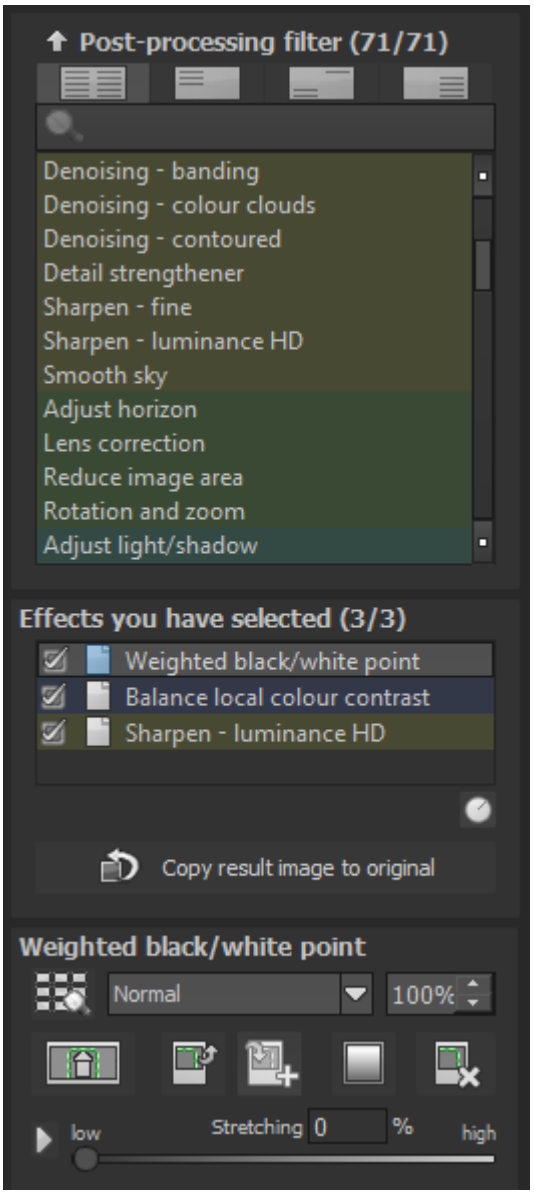
In the granulation module there is no singular best setting, since the ideal grain size, form and quality is 100% dependant on the motif. Here you can try out different things and find new creative paths.

A Click on the button creates a new random distribution of grain and therefore a whole new look.

Information and helpful tips on making local adjustments and using Selective Painting can be found in Chapter 15. Local Adjustments/Selective Painting.

10. Expert Mode





You can edit effects in different areas of the interface. Underneath the focus stacking method is the finalisation assistant. The assistant shows you all active features in the panel finalisation in a neatly arranged way. Additionally you can deactivate the fast access functions here. Underneath that is a list of all the available post-processing filters. Double-clicking on one of them will add it to the end of the list of effects, you have selected.

If you want to change the values of a single effect within the list, select the effect by left-clicking on it. You can now see an area with all the parameters for the effect you have chosen below the list of selected effects.

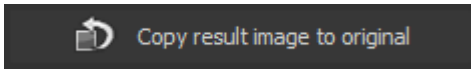
Here you can choose the settings for the processing method with the corresponding opacity, effect intensity, colours, positions and many more. Please also note that you have a context menu available within the list of selected effects.

In order to get the hang of these values you can either take a look at the tooltips, or just click on some default settings and see how the effects and their respective parameters change.

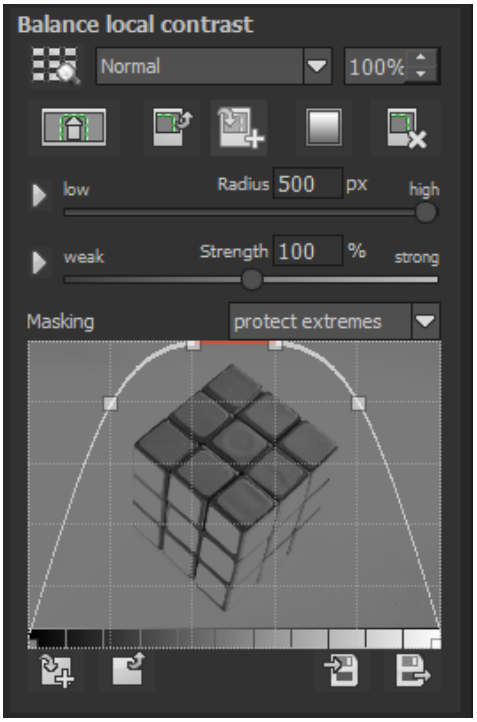
Smart Mask Filters: FOCUS projects 4 computes the chosen effects from top to bottom. This means that the order in which you´ve added effects within your list can have a major influence on your image result. For example, it the effect “Masking luminance” is activated, effects applied thereafter will only influence the brightness levels within your image.

Beneath the display for effects, you have selected, is furthermore the “copy result image to original image” function. It sets the current result image as the new original

image as if you had uploaded the result image directly. Use this function to save computing time when using a very large number of effects.



Another effective option for setting up parameters is the real-time preview.



To the left of every slider in the parameter area you can find a “play” button. Clicking on it will make the respective slider go in one direction and then in the other. If you have found your desired setting this way, simply press “Esc” on your keyboard to apply this value to your image.

Each filter enables the user to determine the layer effect and opacity level for the chosen effect layer.

Opens the Selective Editing view for the effect currently selected.

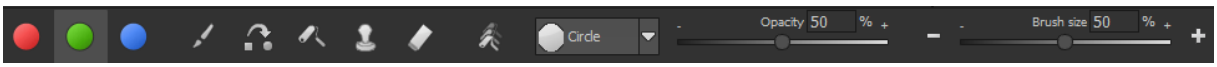
Copies the selective areas to the clipboard.

Adds the selective areas from the clipboard to the currently selected effect.

Displays the selection of preset selective processes.

Deletes all selective areas of a selected effect.

11. Edit Weighting



The Painter is a powerful tool to manually adjust a macro image by editing individual images of a sequence to selectively change certain areas.

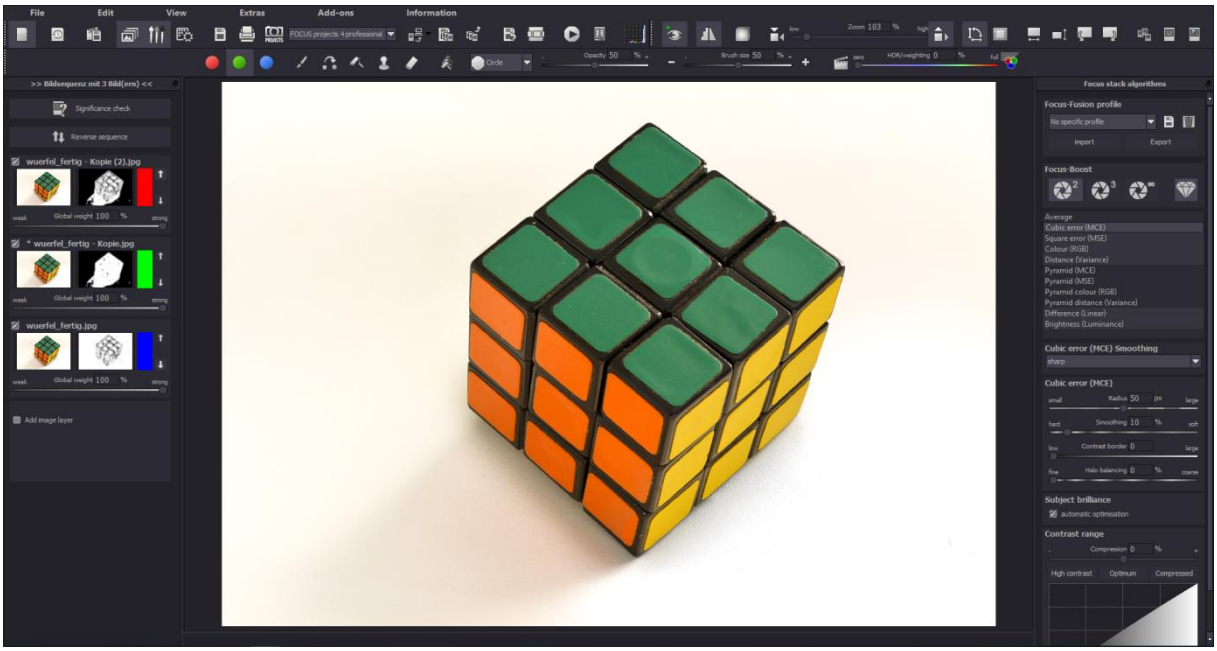
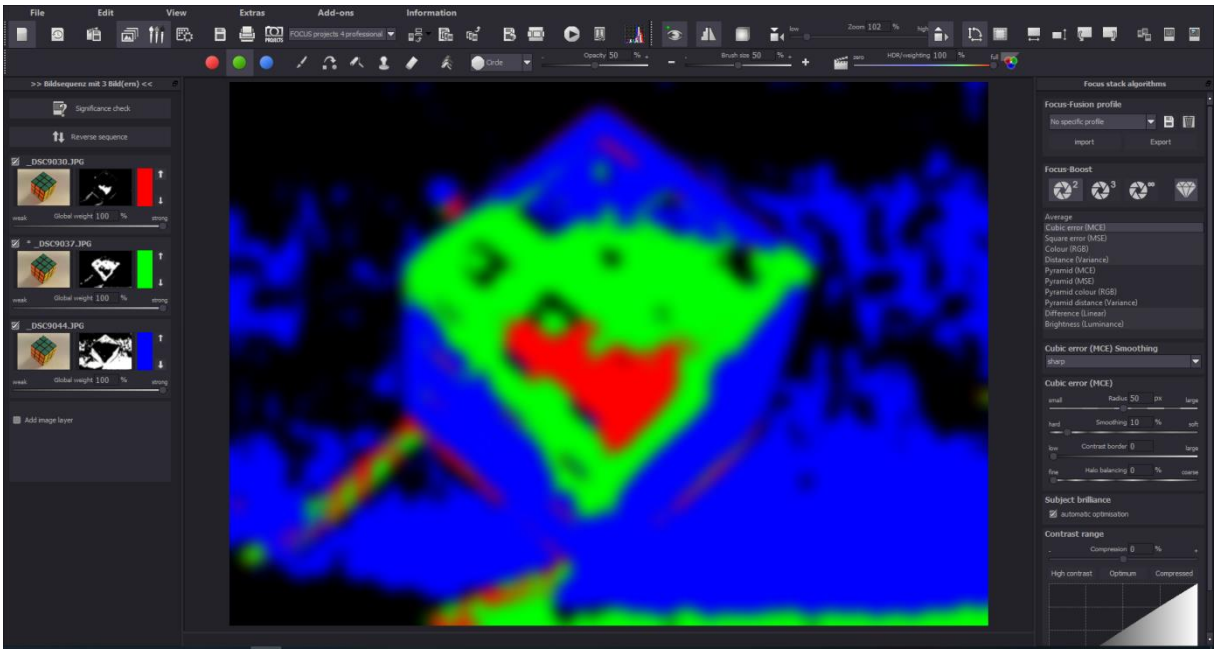
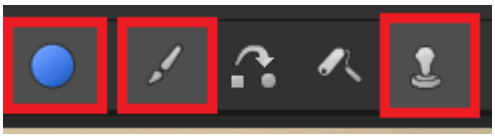


Image Sequence View (left): The individual images of a series are sorted into red, green and blue. When the bracketing has more than 3 exposures, the master image will be set as green and the next active neighbouring images as red and blue. If you would now like to make changes to the weighting of a particular image, pay attention to the image's colour and choose the respective colour in the paint symbol bar.

To clarify: To paint with the brush does not mean, that you paint colours onto the image, but you transfer the sharp areas of an image onto the final image.

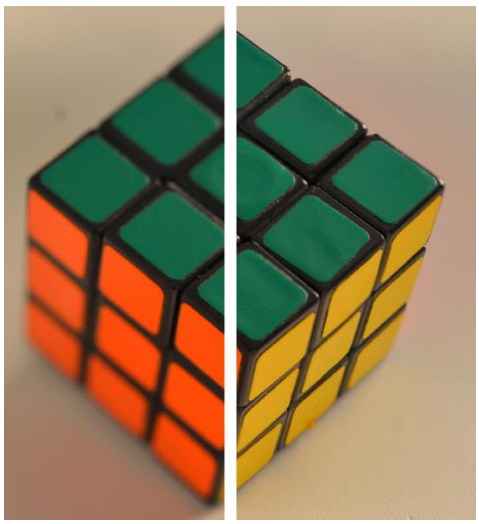


Example: The stack of a dice consits of three images that were assigned to the colours red, green and blue. These colours indicate which image area has been created from which image stacks. In order to manually change the weighting for a certain area - for example for the blue (third) image – which means that only the background image will be used during the calculation of the focus fusion, select the blue colour from the retouching toolbar, the “increase weithting” tool and the stance (in order to decrease the weighting of all the other images).



Adjusted Weighting:

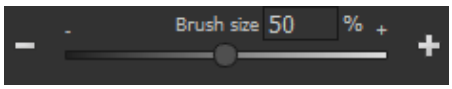
After drawing, the adjusted weighting can be seen to the right of the individual image. The white areas mean that these parts are more weighted now.



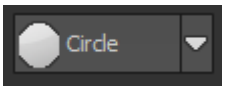
➢ **Important Tools of the Painter:**

Increase weighting: Draw on the selected area to enhance the weighting of this portion of the image

Reduce weighting: Draw on the selected area to reduce the weighting of this portion of the image.



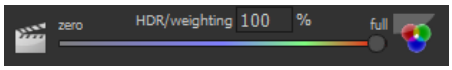
Brush size: Adjust the size of the brush.



Brush form: With numerous new brushes, you will find the right from for your selected area.

Stamp: The stamping mode not only edits the weighting of the current image, but adjusts the weighting of all of the other exposures accordingly. For example, if you use the paint tool to increase the weighting of an area in one image, the weighting of that same section will be reduced in all of the other exposures to amplify the effect.

Blurring: If you want soft transitions between corrected and original areas, trace the blurring function over the borders to soften the transitions.



HDR-image/ weighting: This function mixes the view between the HDR image and the weighting. This is very effective for maintaining control while drawing.

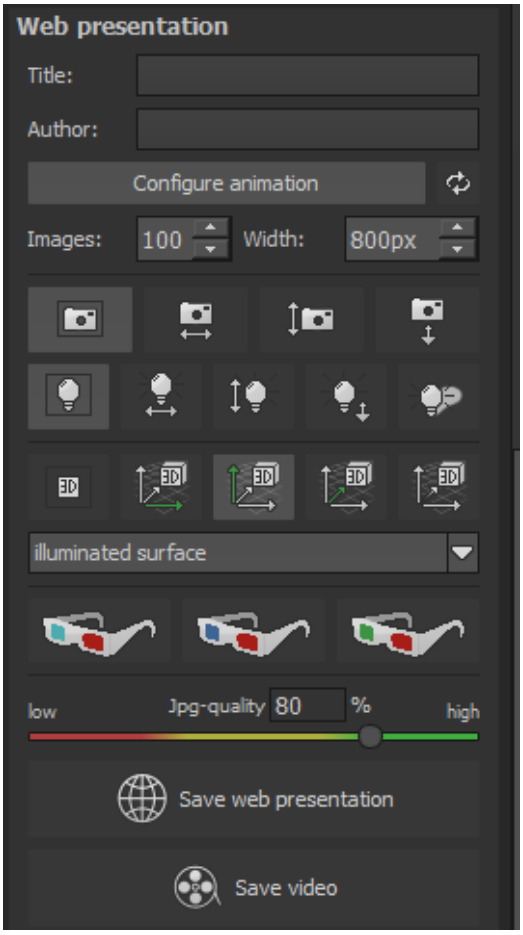
Delete weighting: Delete the drawn weighting for the active image of the series.

Delete all: Warning: This function deletes all of the drawn weightings and returns to the initial settings.

12. Presentation Functions

In the presentation functions area are two blocks available.

- **Web Presentations**



Here you can create 3D animations of your focus stack. These can be saved either as a website or as a video file. To configure the type of animation, select “Configure animation” – this will open the settings area of the animation creation tool.

With the box underneath you can adjust the number as well as the width of your images (in pixels).

In addition, a range of options are available to you that let you animate the camera, light sources and the focal distance. You can choose between six different types created objects.

The symbols of 3D glasses activate the 3D view with the help of a red-cyan, red-blue or red-green anaglyph glasses.

The JPG quality determines the quality of image compression within the web presentation. The higher this value the better the quality of the result and the file size.

Save Web Presentation creates a web presentation in a self-contained HTML site. Save Video creates a QuickTime (Vjpeg) video of your current animation parameter settings.

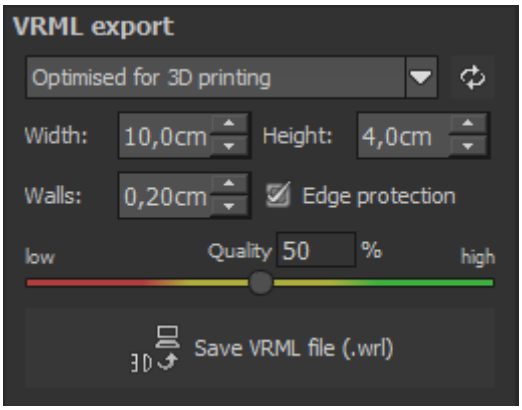
- **VRML export**

If you want to further edit your focus stack as a 3D object, you can do so with the export function into the standardised VRML format. After export, the 3D object will automatically open in your installed VRML viewer.

You can adjust type, scale as well as detail level for the VRML export. The quality determines how many triangles will create your 3D object. A low value will create an object with around 5,000 triangles, while a high value will create up to a million triangles.

The edge protection of the 3D VRML export ensures that the 0 level is kept within the edges of your image.

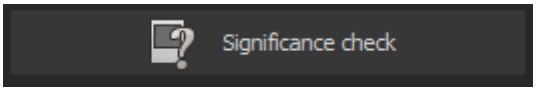
If you don’t have a VRML viewer on your computer, you can find a very good software solution at: http://www.instantreality.org/



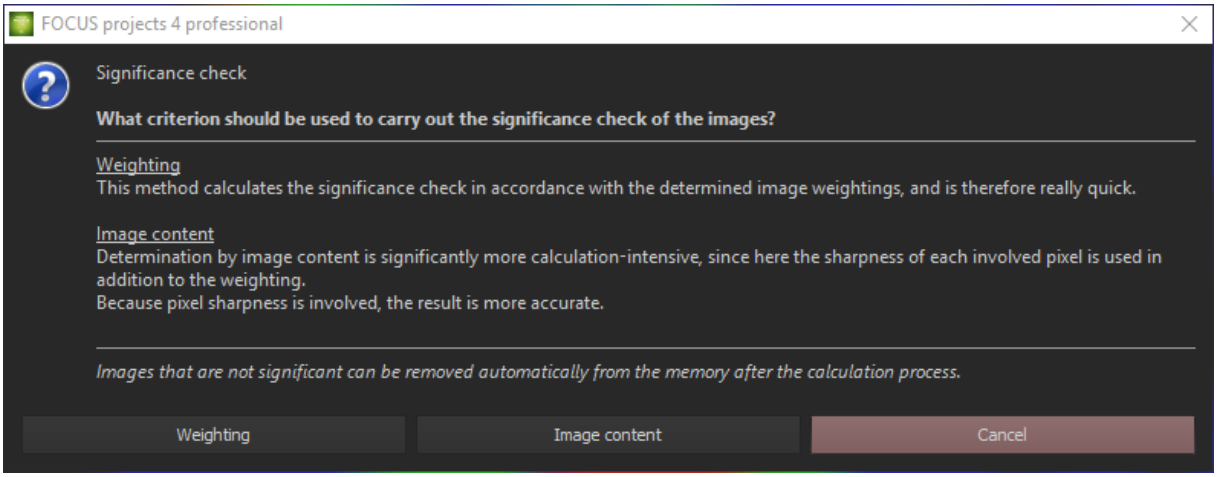
13. Macro Image Stacking and Editing Image Sequence

Editing the focus stack is optional. In order to go to this area, select „edit image sequence” in the upper toolbar.

13.1 Significance Check



The Significance Check can be used to identify and remove images which do not have a major editing effect on the image result. Here you have two different check types at your disposal: Weighting and Image Content. The first method is quicker since this checks the image weightings which have already been calculated. The latter method incorporates pixel sharpness of individual pixels resulting in a far more accurate result.

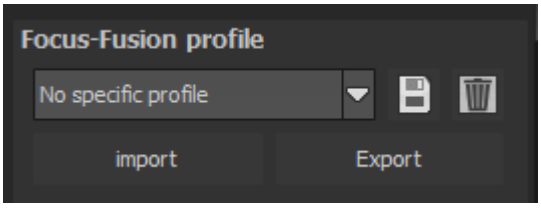


The removal of images without a significant part in the processed image reduces the size of the image sequence to those images that contain a relevant part of the image fusion result.

13.2 Reverse Sequence

This function reverses the entire order of the image sequence. It is used to reverse the generation of the depth map (see 14.8) - it switches „back“ and „front“.

13.3 Fusion Profiles



Use the Fusion Profiles to save parameter settings in Focus Stacking algorithms for future application. Here you have the possibility to import or export one or more Focus Fusion Profiles. The current algorithm settings can be saved as a new profile which can then be given its own unique name. If you would like to delete an active profile from the database, click on the trash symbol.

13.4 Focus-Boost

Utilizing an internal computation process, recently developed Focs Boost technology creates different image variations using your entered parameter settings and uses these edited images to generate an even sharper Focus Stacking image.

Focus Squared Technology: generates different processed images that are invisible to you from parameter settings in the vicinity of the actually set values. These internal processed images are then joined to create the final image using a special sharpness fusion method.

Focus Cubed Technology: is an enhancement of the focus squared technology. It includes further parameter combination in the additional stacking method. This calculation requires additional working memory and a significantly longer calculation time.

Focus Infinity Technology: is the highest level of additional parameter combinations for the additional stacking method. This calculation requires additional working memory and a significantly longer calculation time.

Diamond Cut: the diamond cut sharpness method was specially created for focus stacking and reveals details more clearly.

13.5 Focus Stacking Algorithms

FOCUS projects 4 offers 11 focus stacking calculation methods (algorithms) in total. The algorithms highlighted gray are intended for use with low resolution images. The remaing calculation methods are best suited for use when working with high resolution images.

The algorithm “average” creates the simple average of your image sequence and lets you compare image sharpness without determining the sharpness per pixel.

The following two algorithms (MSE and MCE) are stacking methods, which calculate the weighting for the image areas (in mathematics, this means an nth order error metric of the moment) from the sharpness per pixel.

The pyramid methods are complex methods that use, in addition, a so-called Gaussian pyramid for every created image and then apply the sharpness method.

Colour (RGB) produces the image from the image sequence in accordance with the colour strength.

The focus stack distance (variance) algorithm produces the image from the image sequence in accordance with the brightness strength.

The four algorithms below are direct methods that let you determine image sharpness from the difference, colour brightness and statistical variance.

Don’t get hung up on the technical terminology. Just go ahead and try the different algorithms by clicking on them, and decide which one best suits your image.

Below the algorithms you have the parameter area for every selected algorithm.

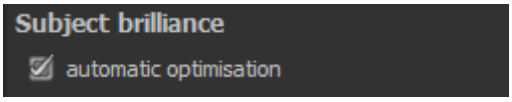
Radius: The calculation width or accuracy of the process.

Smoothing: The strength of soft focus for the calculated weights.

Contrast border: The minimal sharpness necessary to declare a pixel as “sharp”. This parameter helps to reduce image noise for the stacking calculation (see also chapter 14.7).

Halo balancing: This value determines whether the search will focus on fine details (small value) or big details (large value). By adjusting this part of the calculation, you can avoid stacking halos.

13.6 Subject Brillance



Activate an intelligent degree of variation in tonal value by clicking the checkbox.

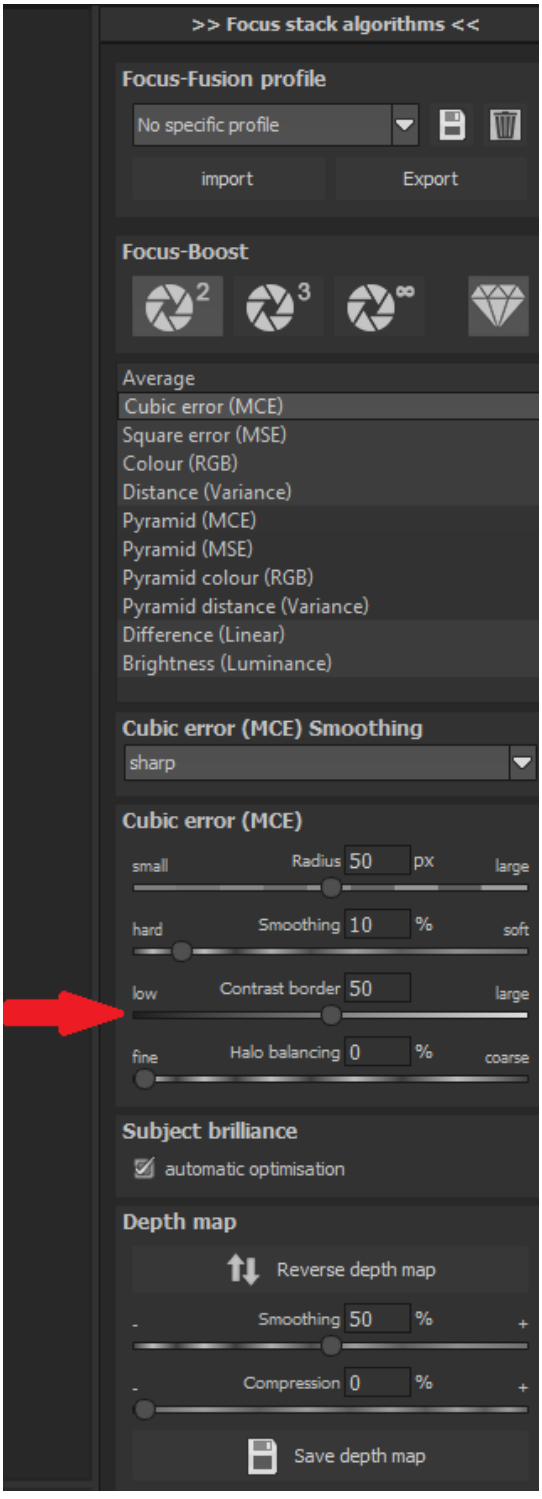
13.7 Depth Map

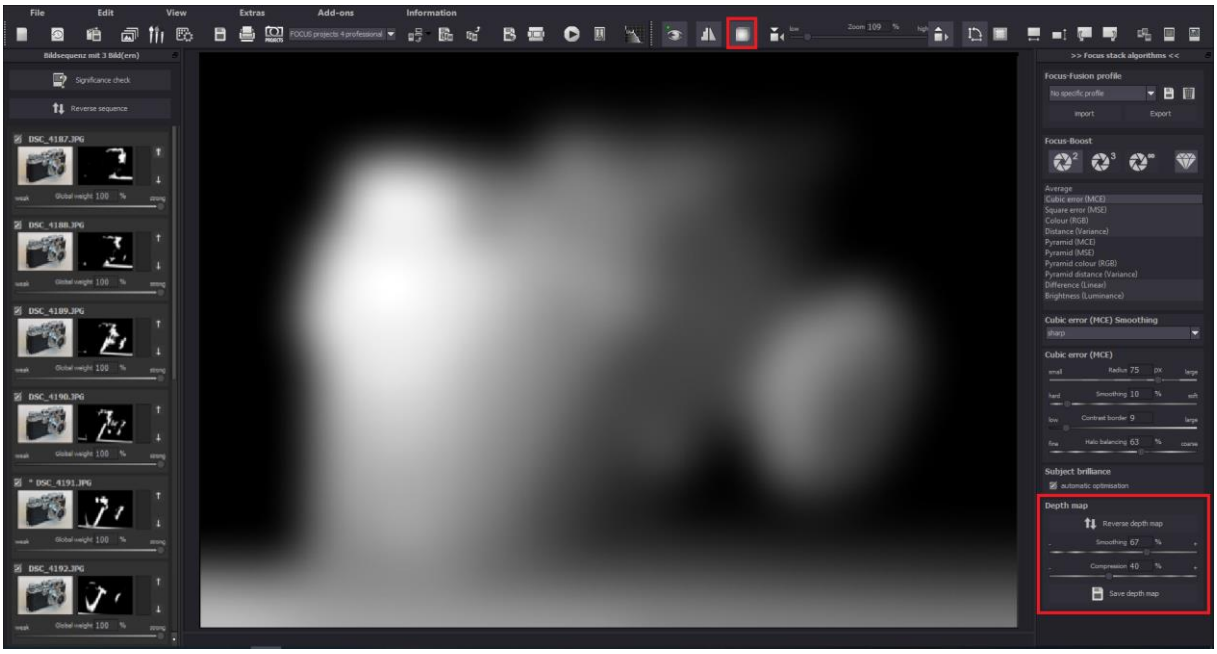
The Depth Map is a reconstruction of the distance of individual pixels to the camera which provides you with a 3D model of the surface of the object in your photograph. This can be used to retrospectively adjust the focal length to your image in Post-Processing or to save a VRML model for 3D printing.

The depth map can be found in the upper toolbar above the image. This displays an additional area where you can revert the depth map (if the images are present “from back to front”). In addition, you can set individual smoothing for the depth map and save it as an image file.

The contrast border in the algorithm parameters helps you to clear the depth map from areas that were not properly recognised. This usually happens if certain sharpness layers are not displayed in the focus stack.

Increase the contrast border (in our example, to 50%) to automatically assign those areas with a low contrast to the back area of the image.





Here you can see the depth map of a camera with the lens superimposed

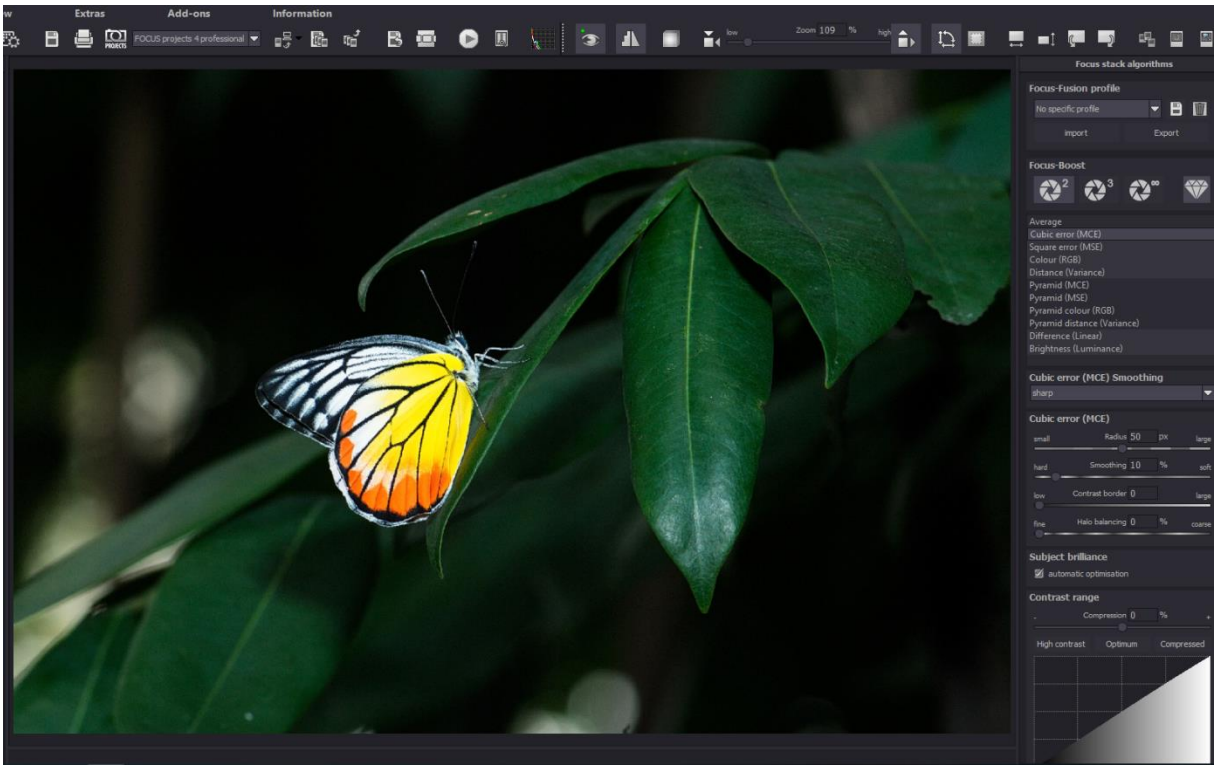
13.8 Contrast range

A calculation example:

The brightest area of an image has a value of 5 (the value 1 would mean a white pixel in the image) and the darkest area in the HDR image has a value of 0.01.

If one divides now 5 by 0.01 then the resulting contrast rage of 5/0.01 = 500. This means that the proportion between the brightest to the darkest area of the image is 500 to 1.

From this contrast range you can take inspiration from the area “contrast range”.



The compression value shows how strong the compression of the HDR image brightness is in comparison to a non-manipulated macro image. Here it is 0%, since we haven't done any changes yet.

The compression value you can adjust as you wish to. A low value creates a higher contrast range in the macro image (the macro is being "stretched" in its brightness). A higher value creates a smaller contrast range (the macro is being "compressed" in its brightness).

Underneath the controller you will find three buttons, which control the automatic optimisation of the contrast range:

- ✓ **High-contrast:** Creates a high-contrast macro image. Therefore an image with very deep shadows and very bright lights.
- ✓ **Optimal:** Creates a well-balanced macro image.
- ✓ **Compressed:** Creates a macro image with a small contrast range. This can be helpful with contrast rich bracketing series, since it helps to bring out further details in tone mapping.

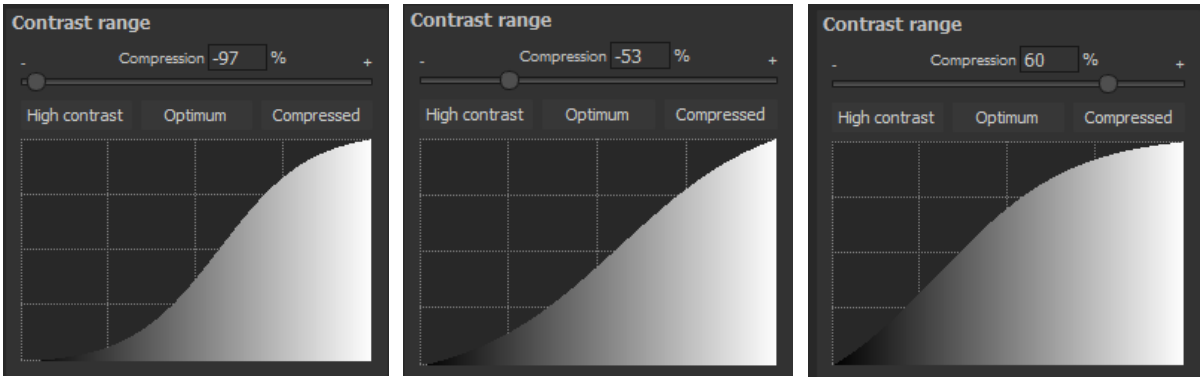
As soon as you confirm the automatic modus you will be able to follow live, how the best values for your current HDR image is searched for.

Tip:

This value is for every focus stacking algorithm different. So it could be a good idea after the change of an algorithm to click on the desired automatic.

Under the automatic optimisation buttons you will find a curve display. This shows how much the brightness values of the macro image have been adapted in the contrast range optimisation of the program.

Curve display of the distribution of the brightness value:



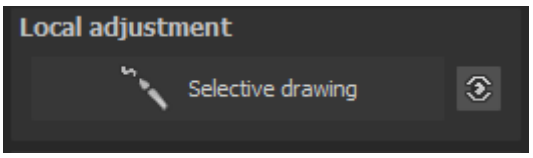
High-contrast Optimal Compressed

High-contrast

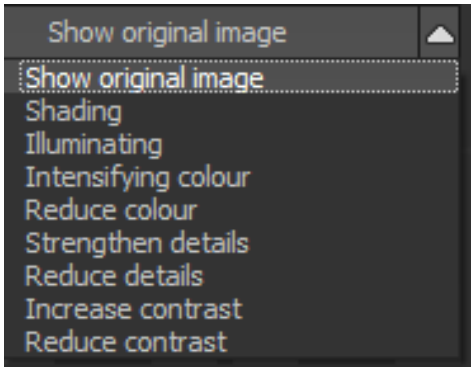
Optimal

Compressed

14. Lokal Adjustments / Selective Drawing



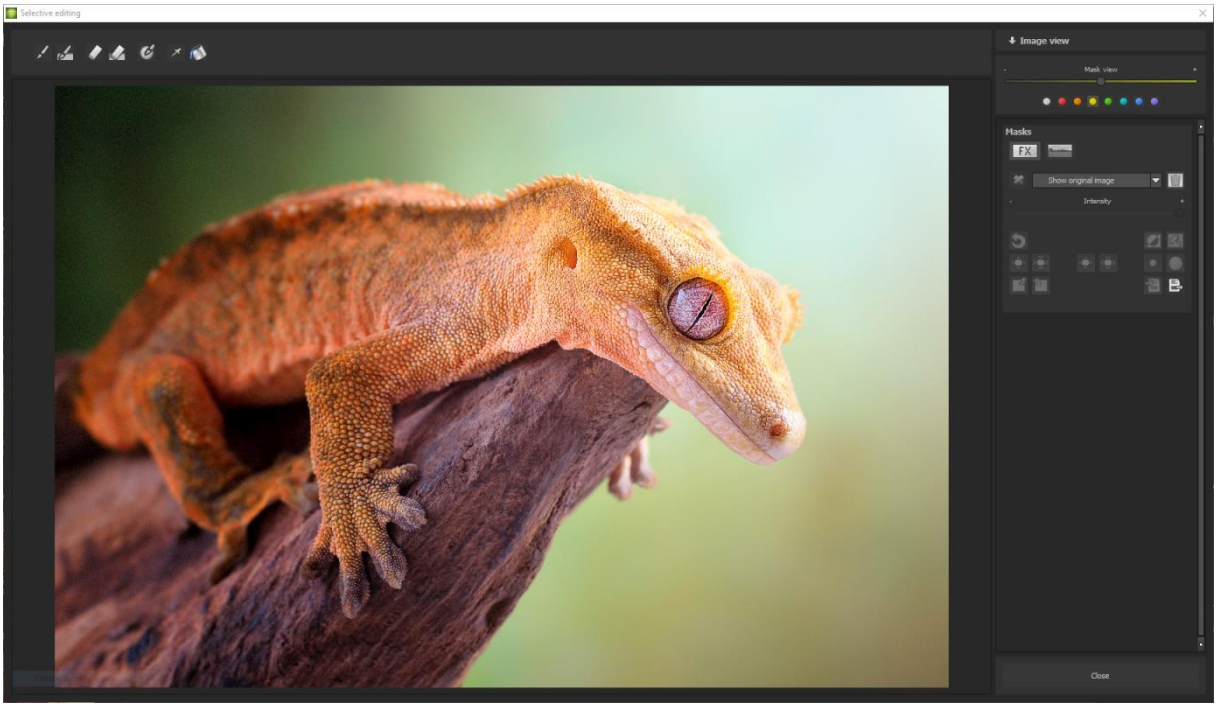
The selective drawing tool from **FOCUS projects 4** deserves very special attention. Firstly, this tool selectively edits chosen areas without complicated masks done by hand, like other photo editing programs. **FOCUS projects 4** includes a completely newly developed intelligent border recognition algorithm that independently identifies borders, lines, differentiations and light differences in drawing mode. The boundaries of the area that the mouse skimmed over are saved as a mask. These easily and precisely set masks serve as the basis for 9 important image enhancements: “Shading", “Illuminating”, “Intensifying Colour”, “Reduce Colour”, “Strengthen Details”, “Reduce Details” and “Sharpen”, etc. …



These masks can even be saved as its own image file and used in other photo editing programs.

How it all works is probably easiest to explain with an example. Open the selective drawing window (post-processing, finalise - bottom right). Our example is a single image file of a gecko. The picture’s colour details are already well edited.

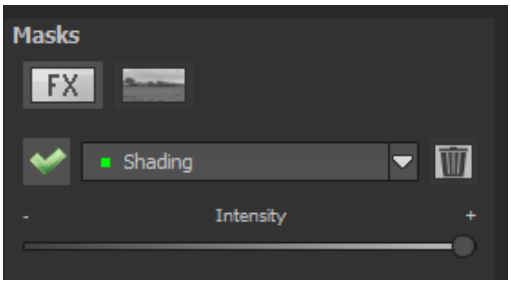
Now we want to slightly darken the wood without changing the rest of the image (gecko and background).



➢ **Quickly finalize your image with Selective Painting**

1. Select editing objective

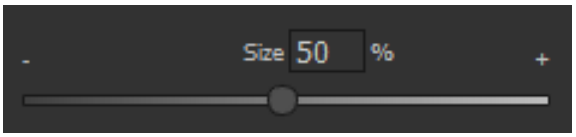
For this case, select “Shading”. Make sure that the selected mask function is activated and the green checkmark is showing.



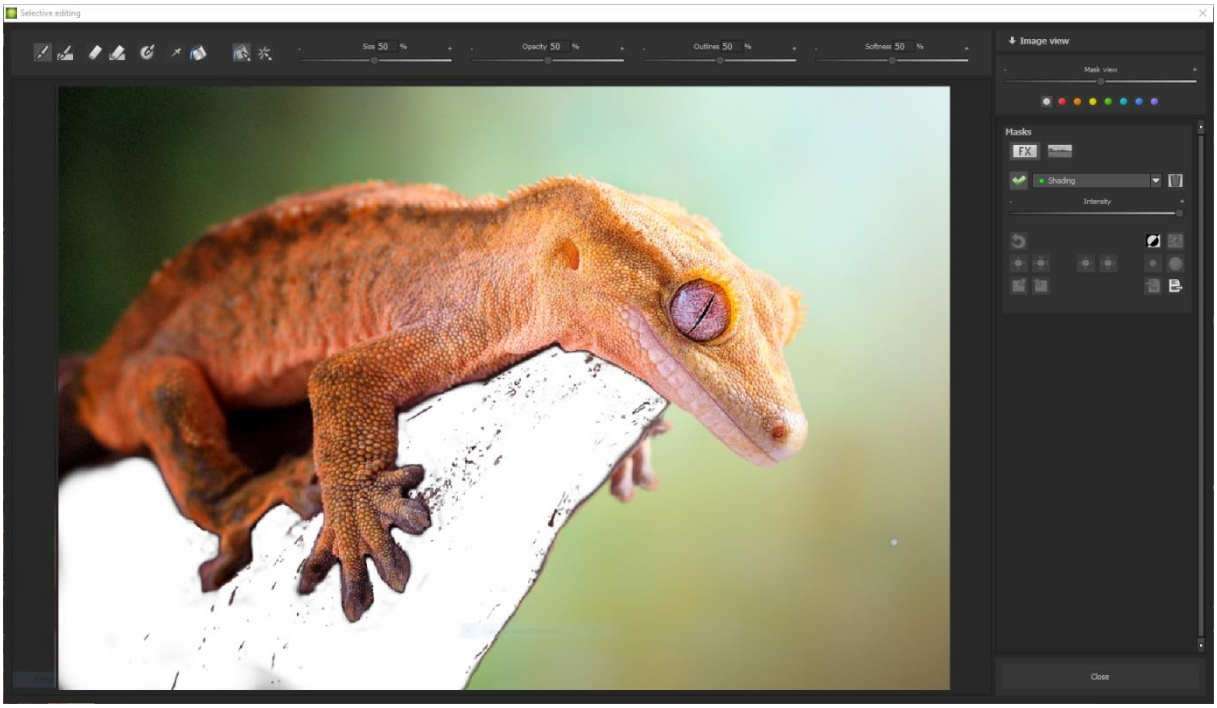
2. Activate drawing mode

3. Activate filling mode

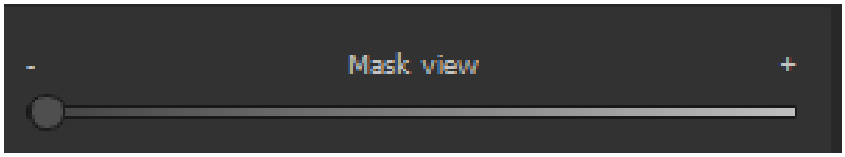
4. Run the mouse over the contours without clicking. You can decide and correct the brush size afterwards.



5. Now look at the mask display. The object where the borders were automatically recognised is now depicted. Click and hold, and then trace your mouse along the edges of your chosen object until it is completely selected. In the blink of an eye we will see the effect as well as the overlying mask.



6. Once fully selected, blend the mask out by moving the mask intensity control to the left.



7. You will now see only the effect that is darker wood – our objective was „shading“. Now you can adjust the intensity of the effect by sliding the control towards the + or -, according to your preferred strength. Done: The wood is darker while the gecko and background remain untouched by the editing.

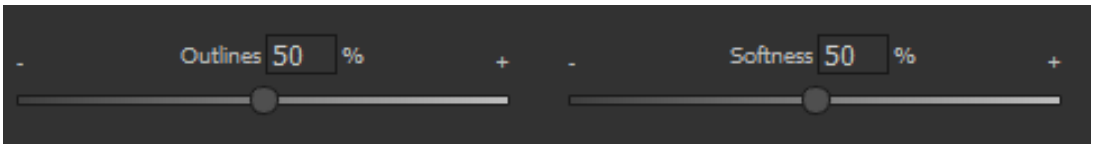
8. Click on “Close”. You will be returned to post-processing and the selective change will be applied.

9. Use your quickly made mask for a further effect. Go back to the selective drawing. Our selective mask has remained.

10. Click on and copy the mask to the clipboard. Switch the mask to “Sharpen” and use the to paste the mask back again. Now you have sharpened just the wood, and the other parts of the image were not influenced

11. Every selectively applied effect can be activated and deactivated with the green checkmarks.

12. Borders have different intensities in every image. Presets normally do just fine, but sometimes it is necessary to adjust the contour and sharpness settings in order to reach perfect fine-tuned results.

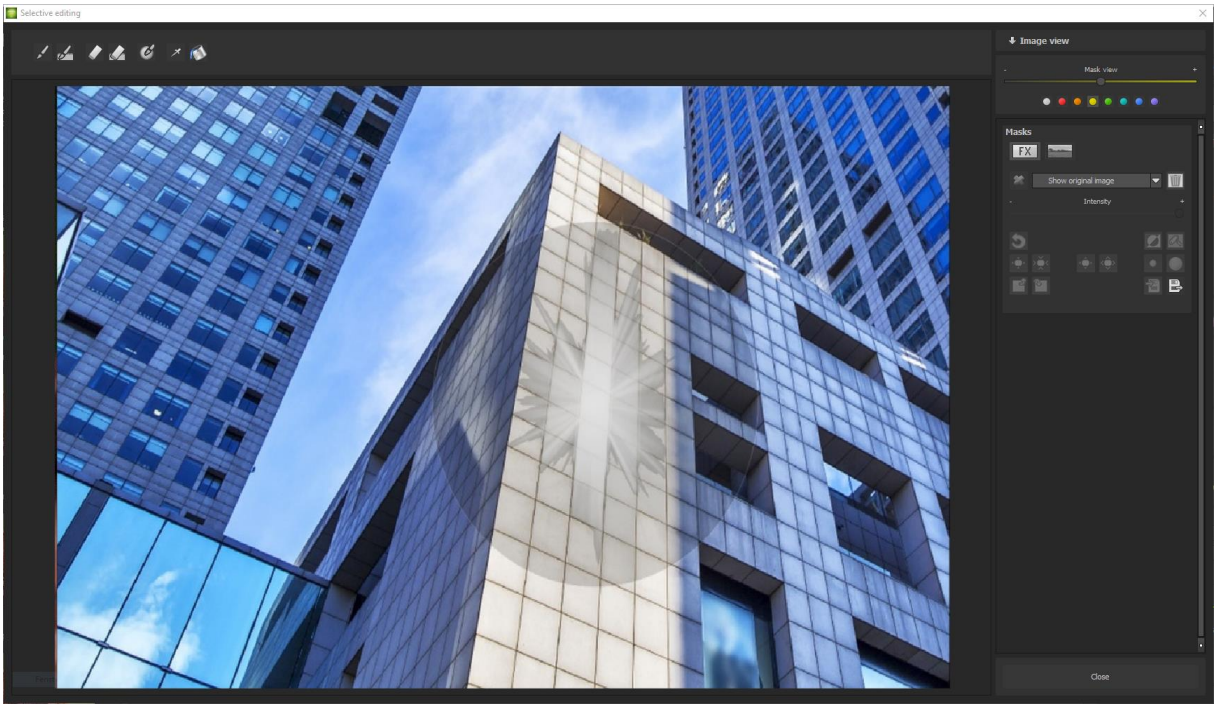


13. Have you drawn outside of the lines, despite the border recognition? You can easily remove it with the eraser. If you only want to remove a small section, use the eraser with limitation. When set to 50%, you can only remove 50% of the mask, regardless of how much you erase. The limited drawing mode works in the same way, and only draws at a certain opacity.

14. If you want to mask the entire image except for a small object, it is a good idea to mask only the small object and then reverse the mask by clicking on the

Pro Tip: You have two filling modes to choose from when you want to fill a mask. When do you use which mask? We used the normal fill mode as in our example for a large surface, which is also preferred for water and sky areas.

Ray filling mode is very precise and favoured for smaller objects, geometric forms or subjects with straight lines, like in our example here.

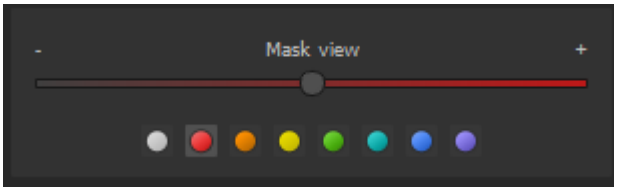


With ray filling mode you can mask just the walls of the skyscraper while the window surfaces are not selected.

Functions and Possibilities in Selective Painting

- **Optional mask colours**

Choose for the presentation of the mask as well as the brush one of the ready-made colours.



The display will be immediately adjusted to your desired colour.

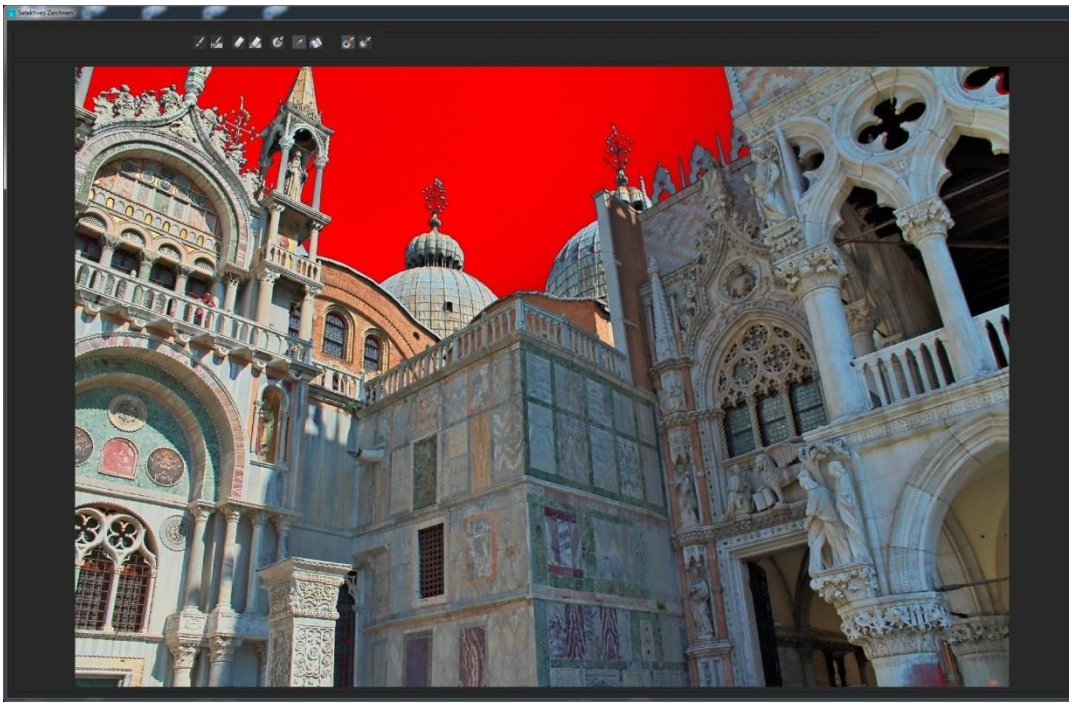
- **Selective Drawing – Creating Masks**

Masks can also be created from a colour or brightness.

With the button **(1)** you activate the “Create Mask” modus. You will find yourself in the standard mode “Create Mask out of Colour”**(2)**. If you want to create the mask out of a brightness, chose the **(3)** button.

The tolerance controller decides, how sharp (smaller value) or soft (higher value) the created mask will be.

While you are in the “create mask” mode your mouse pointer will turn into a pipette. The colour or brightness in which your mouse pointer is set, will determine the type of mask being created.



In the above example we can see how a red mask has been created for the sky.

Tip: If you want to combine several colours in one mask, simply click on the desired colours after each other with the pipette on the screen. The current colour will with every click be added to the current mask.

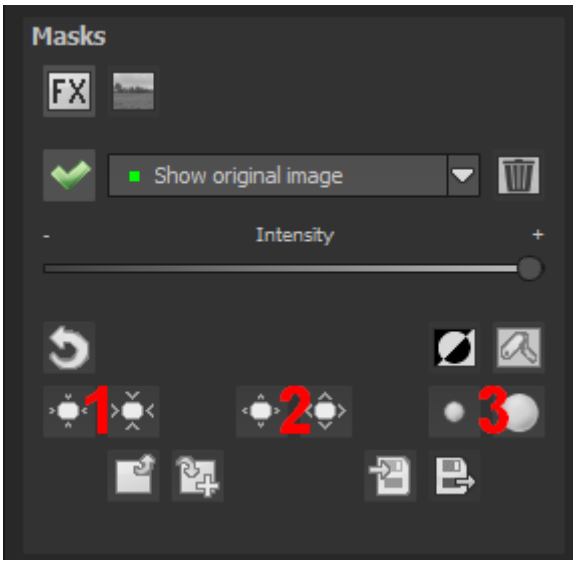
- **Selective Drawing – Smoothing Brush**

The smoothing brush (1) gives you the opportunity to draw selective areas of the mask softly.

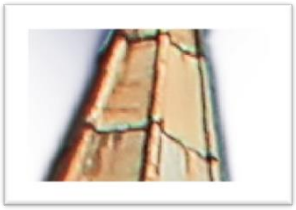
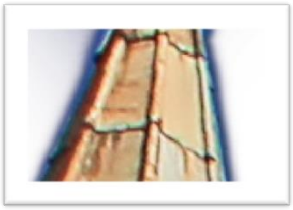
To draw an area even softer, just go over the same area with the smoothing brush several times.

- **Global Mask Functions**

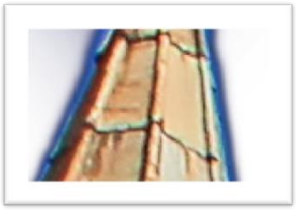
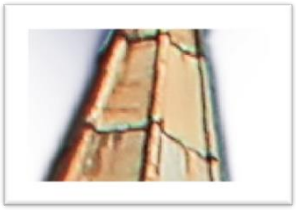
In the area of global mask functions are several special modes that one can use directly.



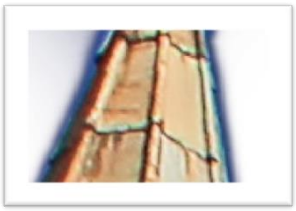
1. Reducing the entire mask outline

 becomes 

2. Increasing the entire mask outline

 becomes 

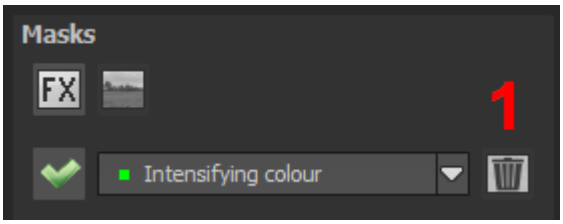
3. Soft-focus on the entire mask

 becomes

With global functions there are two buttons – the left button fulfils the function with a lower effect while the one on the right with a bigger effect.

- **To reset the function of a mask**

Every mask can without any influence on the other masks be reset to its original state. You simply click on the waste paper button **(1).**



After clicking on the button a security query will follow, so that no im-portant work can be lost by accident.

15. Composing Mode

In the Composing mode of selective drawing you have the opportunity to build up to **four levels** of images into your current motif.

To switch into the composing modus, click on the "**composing**" button (1).

From the list of **choices** (2) you can choose with which composing level you want to work with.

With the button (3) you activate the currently chosen mask. Now you can through a click on the **frame** of the image (4) upload any image you wish to create the next level.

You can use RAW images, Jpg, Tiff as well as several other image formats.

Underneath the display screen you will find the parameter area that begins with two buttons with the following functions:

(5) Multiple Application

Reduce the size of the image on a different level than the one that you´re currently working on. With this option you will be able to stretch the reduced image outwards (up, down, left, right).

(6) Determine the Width-to-Height Ratio

This function allows you to determine the width-to-height ratio of the uploaded levels, since the width-to-height ratio in an uploaded image level can differentiate from the current image you´re working on. This preserves the proportion of the levels.

(7) Horizontal Reflection

This function allows the image layer to be mirrored horizontally. This enables more precise adjustment to the current image without having to make changes to the image layer.

(8) Vertical Reflection

This function allows the image layer to be mirrored vertically. This enables more precise adjustment to the current image without having to make changes to the image layer.

(9) The Control-parameter

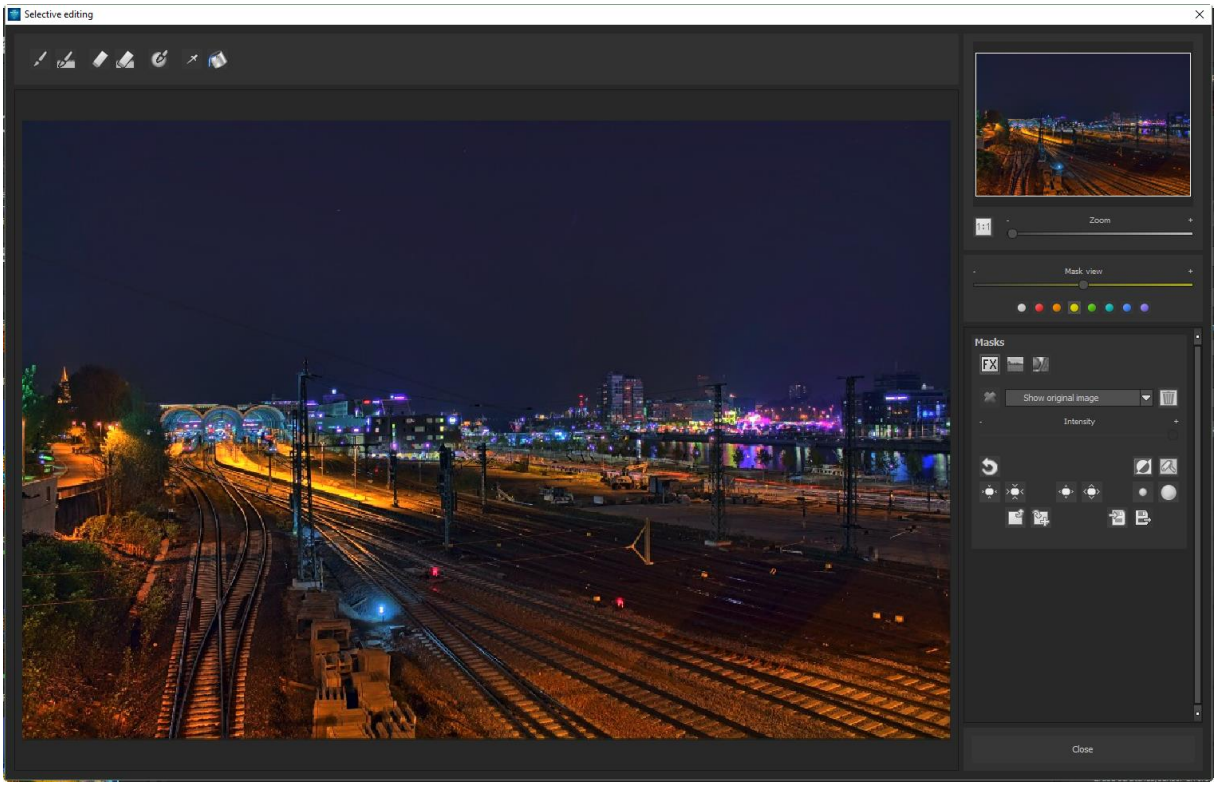
Width-to-height ratio: If the width-to-height ratio isn´t fixed with the button (6), you will be able to change the width-to-height ratio however you desire.

Zoom: Choose the size of that image level by zooming in or out

Shifting horizontally: Move the image level to the left or right

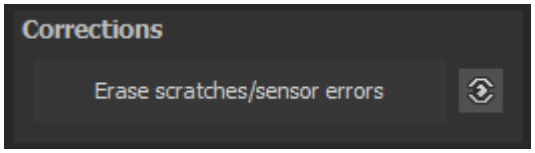
Shifting vertically: Move the image of that level up or down.

Exposure to light: Regularly the light from your current image does not match with the exposure of your other image levels. Here you can adapt the exposure and darken or brighten the images however you want, so that they match.



A night image with a not very fascinating night sky...

....you can change within a minute with the help of composing into an eyecatcher.



16. Removal of Scratch and Sensor Errors

Micro-contrast enhancement used in macro photography unfortunately shows every unwanted sensor imperfection that every photographer, despite internal camera sensor cleaning, knows and dreads. Don't stress - just eliminate them! With the easy to apply correction function from **FOCUS projects 4,** it can even be fun.

Pro Tip: This intelligent correction doesn't only remove sensor spots, but other disturbing things too - a deserted beach has never been so easy to produce.

Simply mark defects in your motif, the program will automatically substitute these areas with other appropriate parts of the image.

The sensor spots are circled in red

Here's how to go about correcting:

Select the brush tool under **(6)** and click on the point of the image that you would like to correct. A circle will appear beside it that will serve as a source.

Move this circle to a place on the image that can act as a source for the first marking. The selected area will then be improved based on the source.

Prior to this, you can reveal sensor spots, which will appear as a bright patch in the image, with **(1).**

(2) Allows you to expose or hide the fixed areas. The corrections are still active, even if they have been blended in. Hiding is solely to enable a before and after comparison.

You can select multiple areas to correct by simply clicking on the brush symbol **(6)** and adding another point.

The button marked **(3)** can blend the targeted corrections in and out, which also controls clarity.

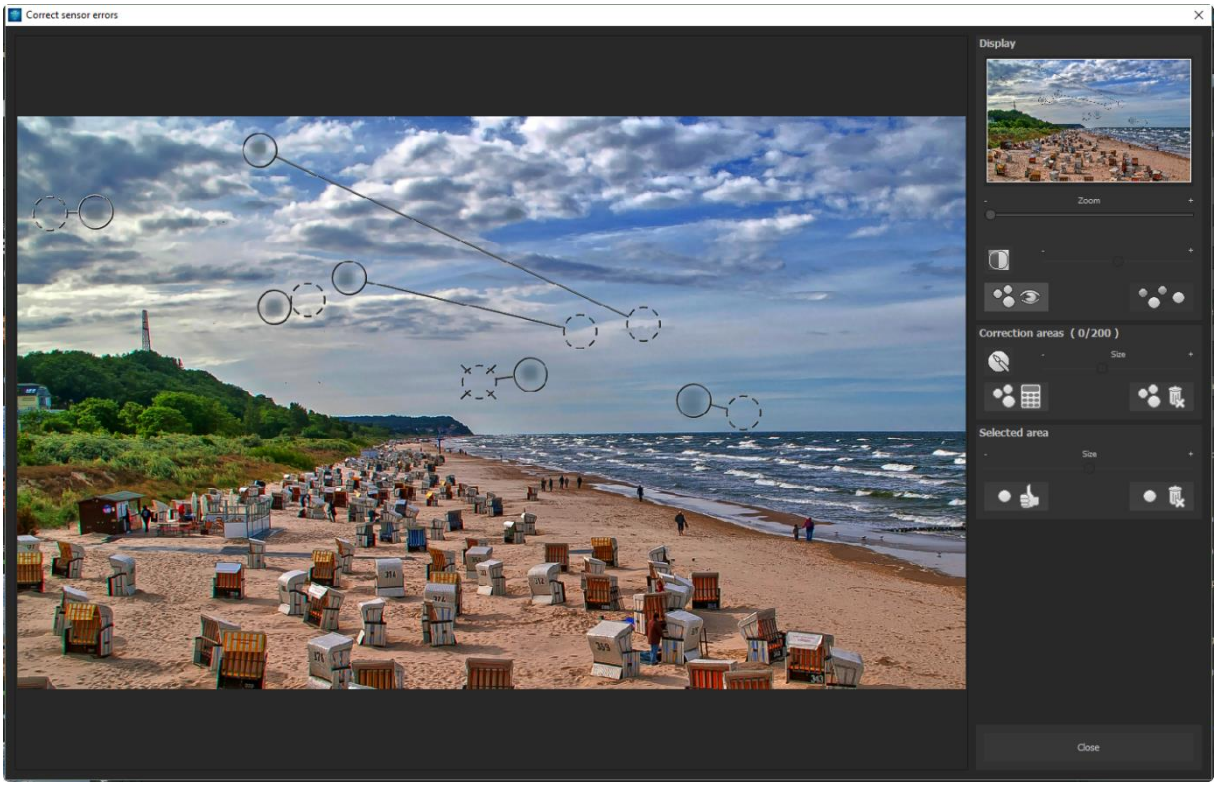
(5) Deletes the added corrections.

The section marked **(7)** controls the size of the area that is to be corrected.

You also have the option to automatically search for the best source area for the improvement. Click on the **(8)** button.

Button **(4)** calculates the appropriate correction spots for all of the points automatically set using **(8)**.

All currently selected corrections can be deleted with the **(9)** button.



The sensor spot corrector marks all of the patches and determines a source within the image that can be used as a substitute.

Successful sensor spot correction.

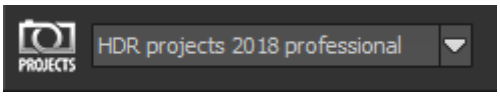
17. Workflow

➢ Edit final image further in an external program

FOCUS projects 4 offers interaction with external programs. That way you can take a successful HDR result to another photo editing program and continue there.

➢ Open in other projects programs

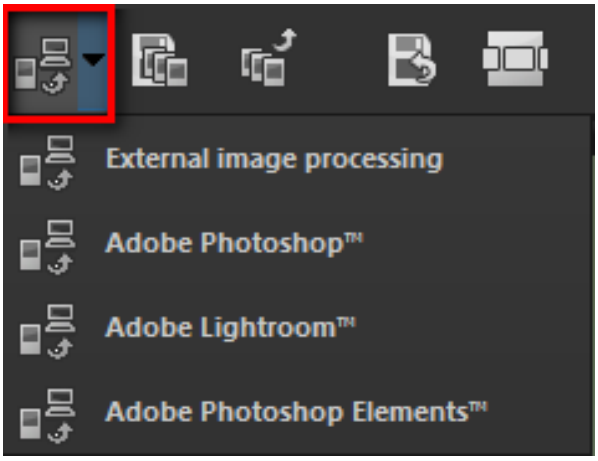
Click on the “Projects” symbol in the toolbar to open the image in a different program from the projects series. Use the drop-down menu beside the symbol to choose one of the programs that you already have installed on your computer.



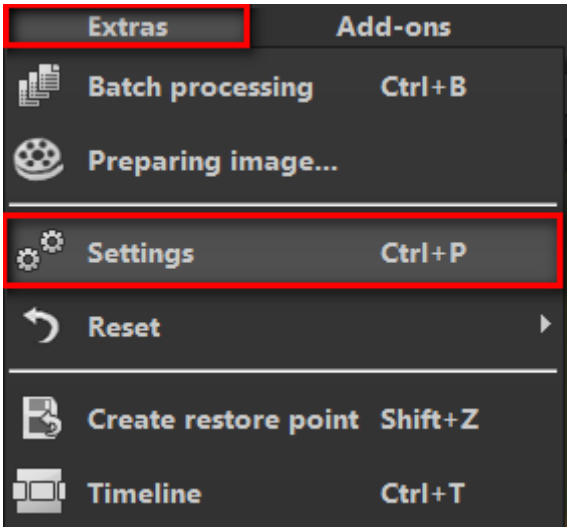
➢ Open in other photo-editing programs

To directly open the image in another photo editing program, such as Adobe Photoshop, click on the corresponding button in the symbol bar.

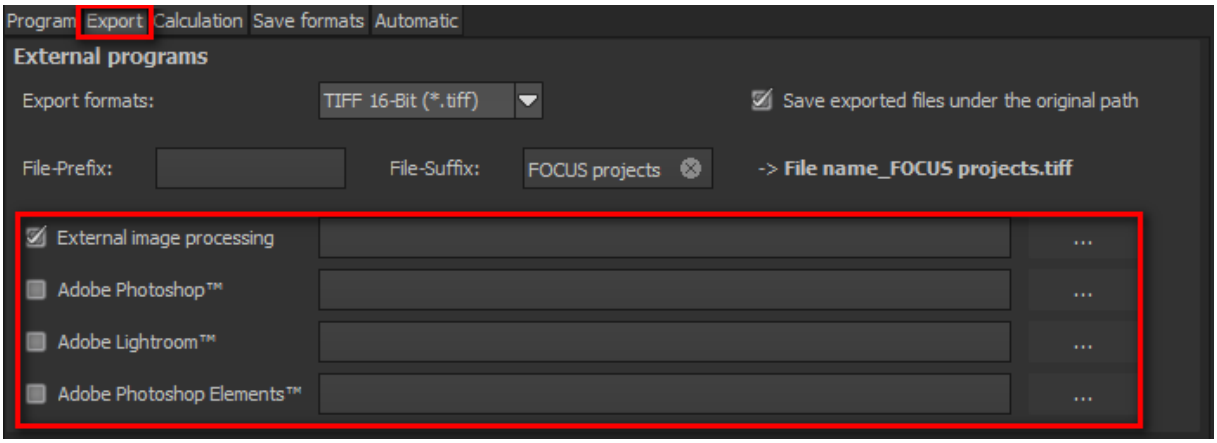
If necessary, go through the settings to show the path to the program.



Click on “Extras” in the menu and select “Settings” in the drop-down menu:



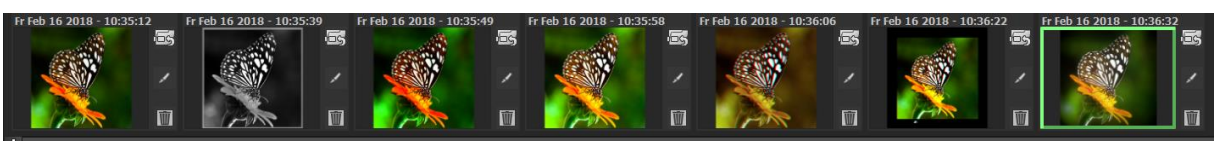
Next, click on the “Export” tab. You can enter the name of a photo editing program here, and save it for later as well.



- **Work with a timeline and restore points**

This option can be found in the symbol bar at the top edge of the screen:

“Create Restore Point” saves an in-between point of the current set-tings. You can now always return to this stage of your editing. You can save as many editing restore points as you like. The timeline displays the restore points and makes it possible to call up any phase with just a single click:



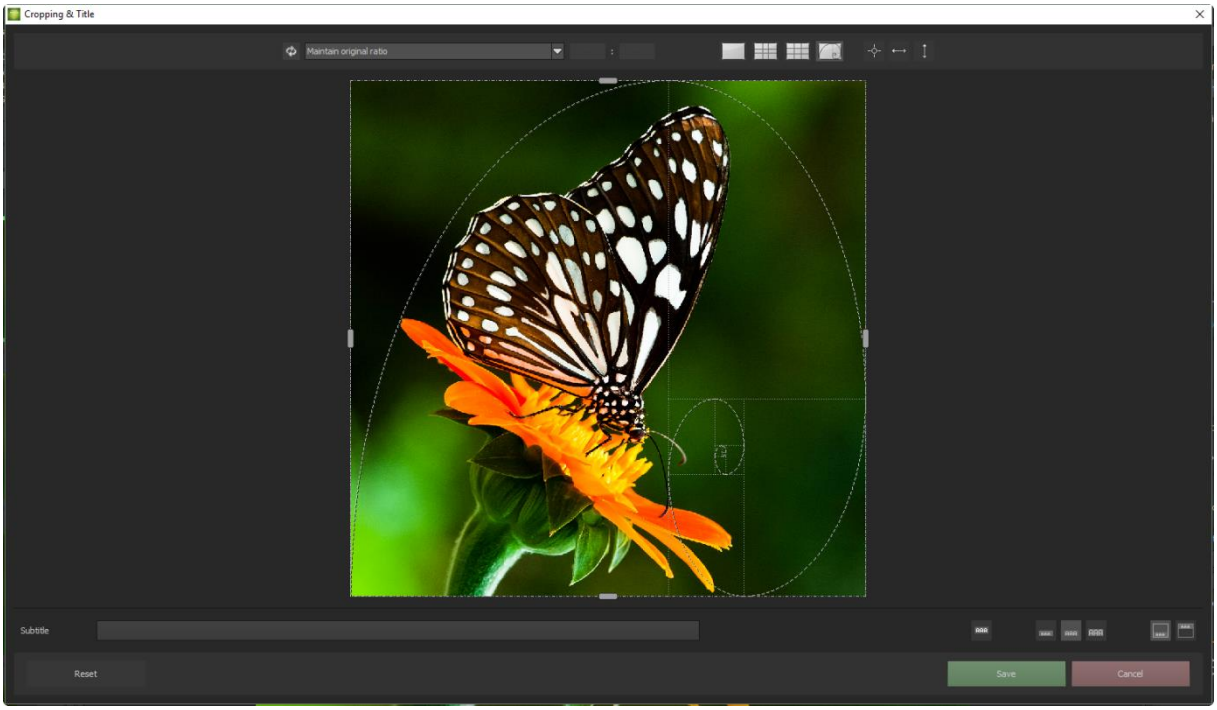
This function is especially useful when, for example, you are satisfied with an image, yet want to continue trying out different settings and effects. Simply set a restore point and carry on editing your picture. If you want to go back, simply click on your restore point in the timeline. If you click on you can add a note as a headline.

18. Selecting and Saving Sections of Images

To save a final image, click on the button in the toolbar, go through the file menu or use the corresponding keyboard shortcut (Ctrl+S).

➢ Cropping and captions

As soon as you have initiated to save a file, the cropping and caption window will open. If you would not like to crop or add a caption to your image, click on continue.



At the top are several practical aids for perfect image composition and cropping.

You can set the aspect ratio and activate guidelines like the rule of thirds, the golden section or the golden spiral. Practical is also the new photo centre display that you can obtain by simply clicking on this button.

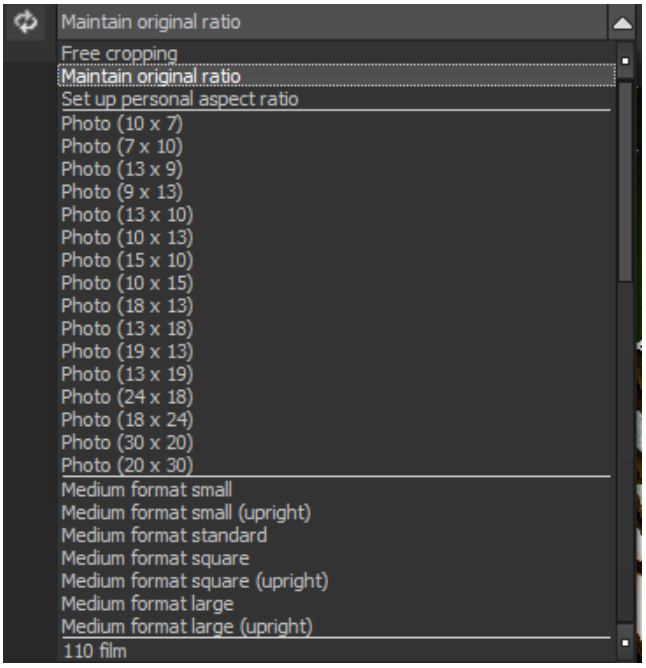
The centre of the window shows your final image. Fix the area to be saved by adjusting the corners and borders of the photo.

At the bottom is an option to enter a caption. You can determine the size, position and background for the text.

The size of the text will be automatically coordinated to the final cropping.

You can either crop free-handedly or use one of the 71 provided formats.

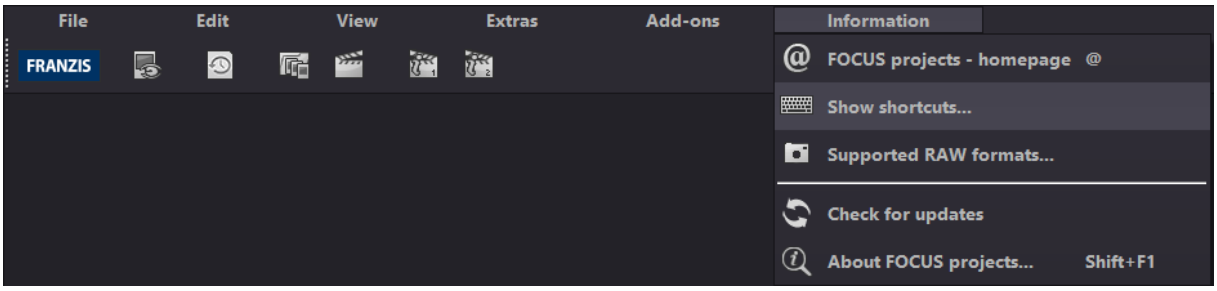
Please note: If you choose the cropping, e.g. 13 x 18, the final image will not be saved as 13 x 18 cm, rather as a ratio of 13 to 18.



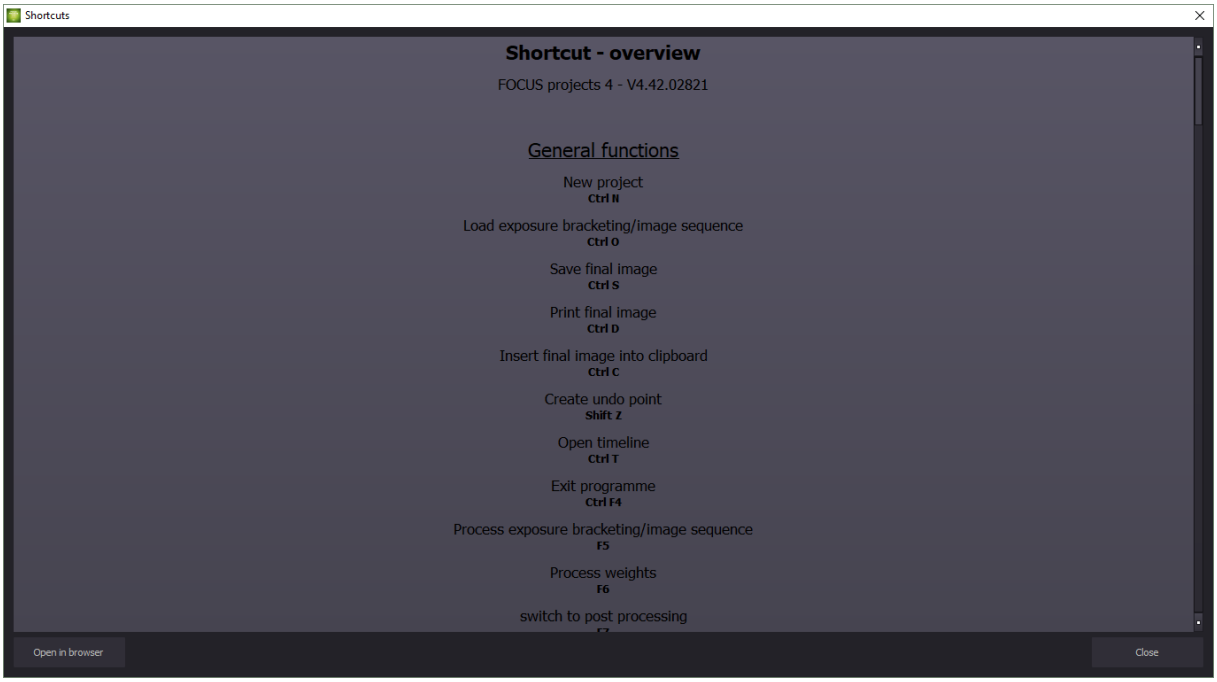
19. Keyboard Shortcuts

Overview of the integrated Keyboard shortcuts

In the main menu in the area of *information* you will find an overview of all available keyboard shortcuts.



Click on this item to open the overwiew:



In the overview you will be able to scroll through the different areas, where you can take shortcuts.

General:

Windows	Apple	
Ctrl N	cmd N	New Project
Ctrl O	cmd O	Load Exposure Bracketing/ Image Sequence
Ctrl S	cmd S	Save Image
Ctrl D	cmd D	Print Image
Ctrl C	cmd C	Insert Final Image Into Clipboard
Shift Z	Shift Z	Create Undo-Point
Ctrl T	cmd T	Open Timeline
Ctrl F4	cmd F4	Quit Program
F5	F5	Process Exposure Bracketing/ Image Sequence
F6	F6	Process Weights
F7	F7	Switch to Post Processing
Ctrl P	cmd P	Open Setting
@		Open Homepage
Shift F1	Shift F1	Open About Dialogue
Ctrl I	Ctrl I	Display Information
Ctrl E	cmd E	Display Exif Information
Ctrl H	cmd H	Display/ Hide Histogram
Ctrl F	cmd F	Display Full Image

Image Display Functions:

Windows	Apple	
Ctrl +	cmd +	Zoom in
Ctrl -	cmd -	Zoom out
Ctrl 0	cmd 0	Adapt to Screen
Ctrl 1	cmd 1	100% View
L	L	Lock Radar Window

History Browser:

Windows	Apple	
Page up	Page up	Previous Page
Page down	Page down	Next Page
Home	Home	To Start
End	End	To End
Cursor left	Cursor left	Previous Entry

Cursor right	Cursor right	Next Entry

Variation Browser:

Windows	**Apple**	
Ctrl +	cmd +	Zoom in
Ctrl -	cmd -	Zoom out
Cursor left	Cursor left	Move View to the Left
Cursor right	Cursor right	Move View to the Right
Cursor up	Cursor up	Move View Up
Cursor down	Cursor down	Move View Down
Ctrl 0	cmd 0	Display All
Space	Space	Move View around Centre
S	S	Select Entry
Del	Del	Delete Entry
X	X	Compress View
Home	Home	Reset View

Weight Painter:

Windows	**Apple**	
1	1	Select Red for Drawing
2	2	Select Green for Drawing
3	3	Select Blue for Drawing
Ö	Ö	Increase Brush Size
#	#	Reduce Brush Size

Sensitive Selective Drawing:

Windows	**Apple**	
Ctrl +	cmd +	Zoom in
Ctrl -	cmd -	Zoom out
Ctrl O	cmd O	100% View/ Switch Fitting
A	A	Activate Brush
Shift A	Shift A	Activate Limited Brush
S	S	Activate Erasing Brush
Shift S	Shift S	Activate Limited Erasing Brush
W	W	Activate Soft-focus Brush
E	E	Activate Mark Creation from the Image
D	D	Activate Filling Mode
F	F	Activate Filling Mode for the Brush

R	R	Activate Ray Mode for the Brush
1	1	Reduce Brush Size
2	2	Increase Brush Size
3	3	Reduce Opacity
4	4	Increase Opacity
5	5	Softer Contour Recognition
6	6	Sharper Contour Recognition
7	7	Reduce Softness
8	8	Increase Softness
Ctrl Z	cmd Z	Previous Step
M, Shift M	M, Shift M	Mask Display on/off

Scratch & Sensor Error Correction:

Windows	**Apple**	
Ctrl +	cmd +	Zoom in
Ctrl -	cmd -	Zoom out
Cursor left, Shift Cursor left, Ctrl Cursor left		Move Active Correction Area to the Left
Cursor right, Shift Cursor right, Ctrl Cursor right		Move Active Correction Area to the Right
Cursor up, Shift Cursor up, Ctrl Cursor up		Move Active Correction Area Up
Cursor down, Shift Cursor down, Ctrl Cursor down		Move Active Correction Area Down
Page up	Page up	Select Previous Correction Area
Page down	Page down	Select Next Correction Area
C	C	Activate all Correction Areas
N	N	Set New Correction Area
Del	Del	Delete Active Correction Area
+	+	Increase Active Correction Area
-	-	Reduce Aktive Correction Area

Selective Processing:

Windows	**Apple**	
Cursor left, Shift Cursor left, Ctrl Cursor left		Move Selective Area to the Left
Cursor right, Shift Cursor right, Ctrl Cursor right		Move Selective Area to the Right

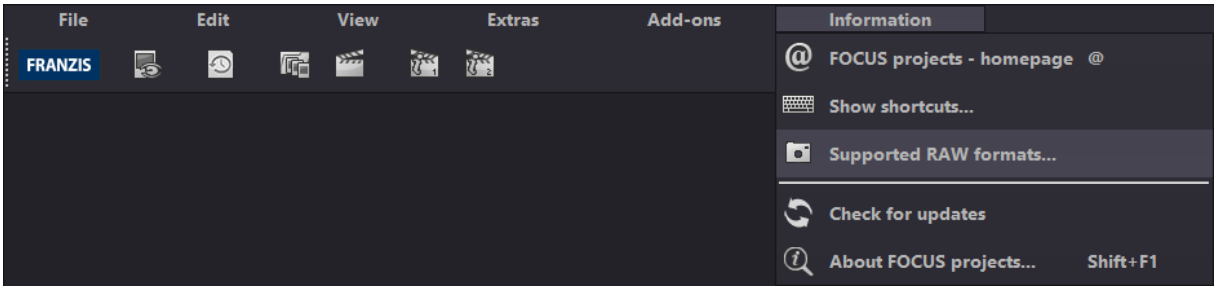
Cursor up, Shift Cursor up, Ctrl Cursor up		Move Selective Area Up
Cursor down, Shift Cursor down, Ctrl Cursor down		Move Selective Area Down
Page up	Page up	Select Previous Selective Area
Page down	Page down	Select Next Selective Area
Del	Del	Delete Active Selective Area
1	1	Do Not Display Mask
2	2	Display Mask of the Active Selective Area
3	3	Display Mask of All Selective Areas

Picture Cropping:

Cursor left, Shift Cursor left, Ctrl Cursor left	Move Cropping Area to the Left
Cursor right, Shift Cursor right, Ctrl Cursor right	Move Cropping Area to the Right
Cursor up, Shift Cursor up, Ctrl Cursor up	Move Cropping Area Upwards
Cursor down, Shift Cursor down, Ctrl Cursor down	Move Cropping Area Downwards

20. Integrated list of supported RAW formats

In the main menu in the area information you will find an integrated list of supporting camera RAW-formats sorted by manufacturer.



If you chose this menu item a camera RAW-format window will open.

In the top area of the window you will find a selection of choices, with which you will be able to filter the list for singular camera manufacturers. This way you will find your camera faster.

To have constant access to the supporting camera RAW- formats via a separate window, you can use the function „open in browser“(window bottom left), which will show the list in a standard browser. You will also be able to print the supporting RAW-formats from there.

Hotline/Support

Contact the **FRANZIS Customer Service Team** for questions about installation, problems or disruptions concerning this software product.

E-Mail: support@franzis.de

Telephone (Monday - Friday 12-18:00): +49 (0)180 30 02 644
(0,09 EUR per Minute from German Landines, mobile rates may vary)

Telefax: 0180 300 26 45 (0,09 EUR per Minute from German Landines, mobile rates may vary)

Please bear in mind that your inquiries can only be handled by the FRANZIS Customer Service Support Team. This is how we can continue to make lasting improvements in our service quality while answering your questions quickly and professionally.
Customer Service quick and easy:
Have important information concerning your PC system and product ready:

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- Product-**ISBN-Number (These can be found on the back side of the product packaging located above the bar code).**
- Operating System of your PC
- Information about your PC's Configuration

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