

NEAT projects 3 professional

User manual

Photographing famous sights and popular favorite motifs is fun. The anticipation of unique results can be quickly clouded, if people or passing cars are constantly blocking the main motif. However, you cannot avoid this with many motifs because it is in the nature of attractions to attract many people to look at or photograph them, and the squares of the streets in front of them are rarely free of traffic.

With **NEAT projects 3 professional**, you have the ideal solution ready: the program detects and removes all moving people, animals or cars from the picture and combines up to 500 shots in an amazingly short time to a perfect picture without disturbing tourists or other moving objects. With "Add motion" you can create fascinating image effects or combine sequences to create a motion sequence. Even when shooting without a tripod, the automatic image alignment ensures fast results.

In **NEAT projects 3 professional**, you can now also load in motion sequences from videos!

You can simply enjoy this software or use it interactively: You leave the automatic processes to the program and can look forward to the best possible result in seconds. Or you can selectively manipulate the process to adjust the result image to your individual ideas - everything is possible.

But that's not all: **NEAT projects 3 professional** is a complete image editing program with which you can optimize images, create creative image looks or retouch - problem solver and creative supporter of your image ideas in one program!

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1. Installation und Registration

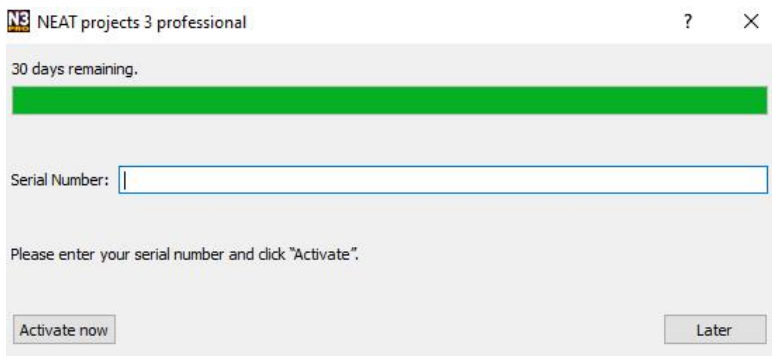
1.1 Activation

Activation Windows

Upon starting **NEAT projects 3 professional** for the first time, you will be prompted to activate the program. Proceed as follows:

Install **NEAT projects 3 professional** as described in the installation instructions.

Enter 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: NEAT projects 3 professional 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”.

1.2 Installing Adobe Lightroom Plug-ins

Adobe Lightroom Windows

It can often occur that Lightroom will not automatically install.

If so, continue as follows:

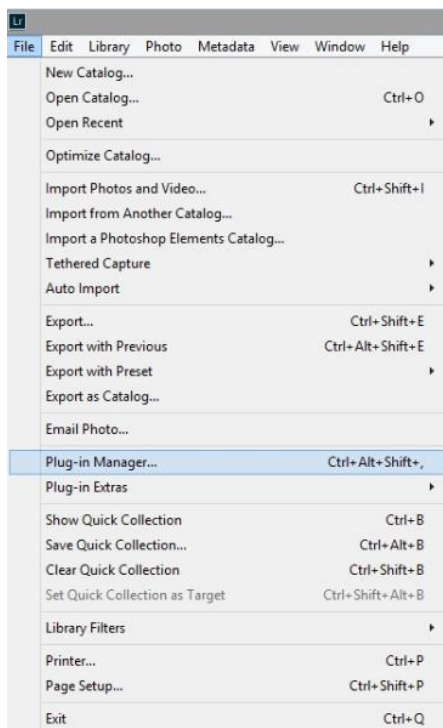
Copy the plug-in file “Lightroom Plug-in” from your CD/Download. You also can download the plug-in directly from our website <https://www.franzis.de/projects-software>.

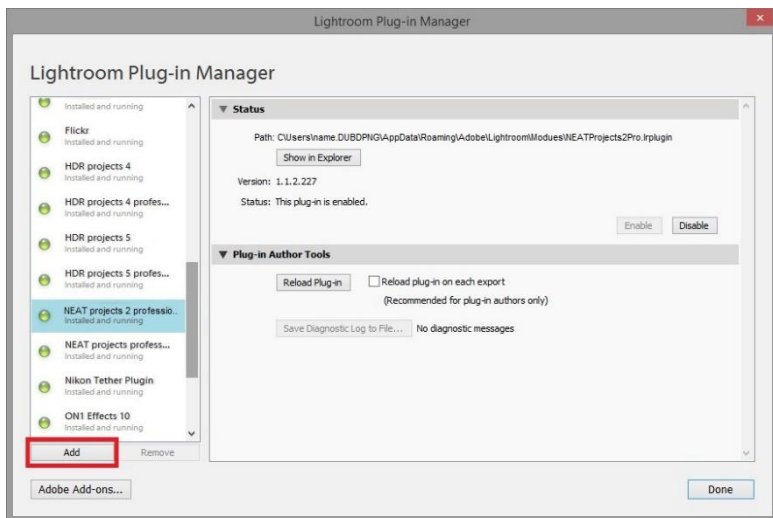
Paste the folder to a desired location on your PC. We recommend the same folder where the presets are saved:

C:\User\Username\NEAT projects 3 Pro

Start Lightroom and navigate to “File → Plug-in Manager”.

Click on “Add” in the plug-in manager.





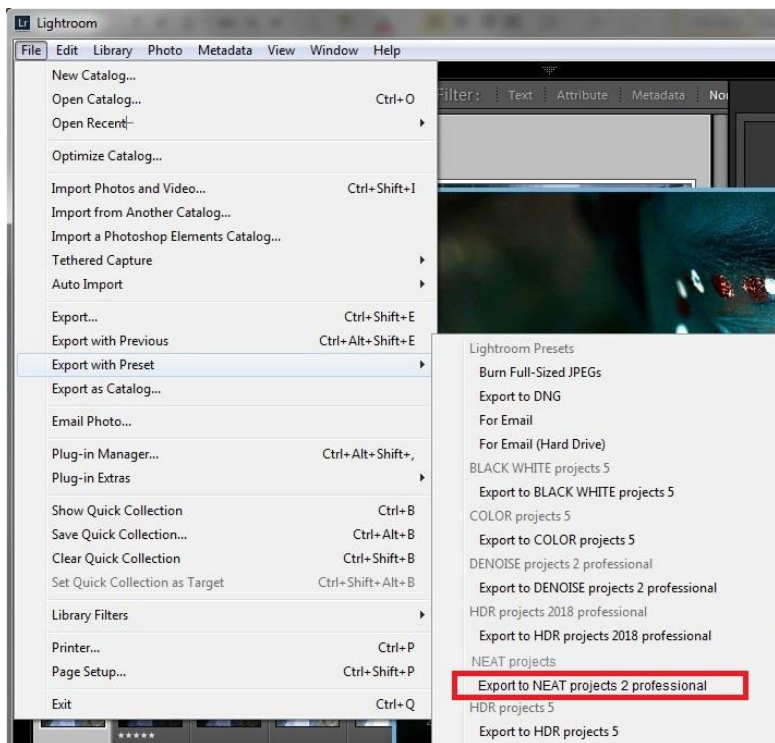
Select the corresponding Lightroom Plug-in (which you just copied to your PC) from **NEAT projects 3 professional** by going to “Select Folder” and then “Done”.

Click on “Select Folder” followed by “Done”.

In Lightroom, the plug-in can be found under “File” → “Export with guideline” → “Export to **NEAT projects 3 professional**”.

OR:

In Lightroom, right click directly on the image and select “Export” → “Export to **NEAT projects 3 professional**”.

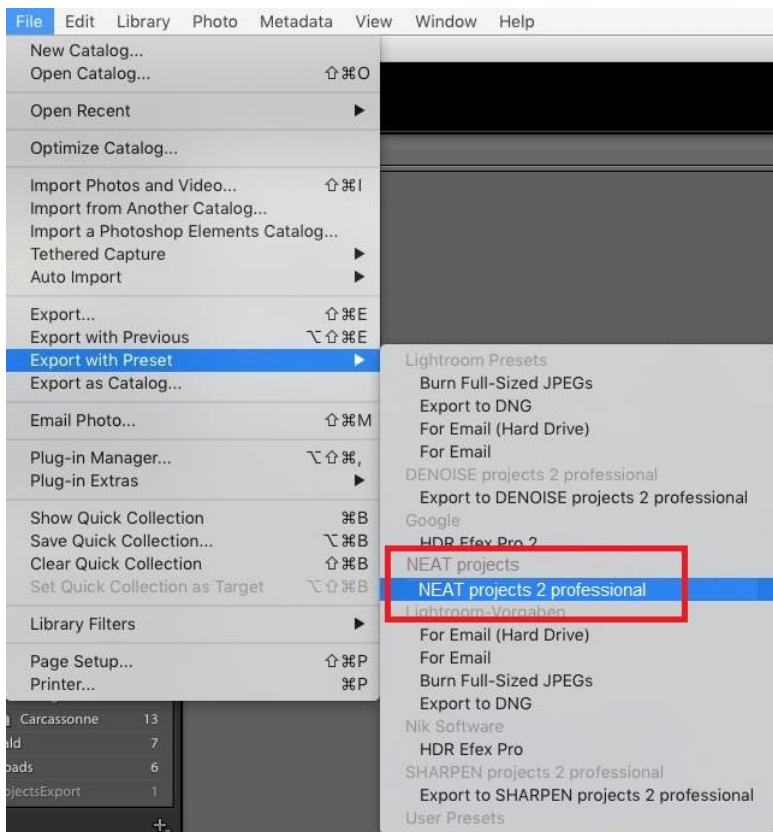


There are multiple ways to transfer an image from Lightroom to **NEAT projects 3 professional**.

“File” → “Export with guideline” → “Export to **NEAT projects 3 professional**”.

OR:

In Lightroom, right click directly on the image and select “Export” → “Export to **NEAT projects 3 professional**”.





Side note: Why isn't there a Photoshop Plug in?

NEAT projects 3 professional does not provide a Photoshop plug-in since the upload of image sequences (multiple images) is not supported in Photoshop. A total of at least three images is required in order for the program to accurately detect movements. The program only includes plug-ins for Adobe Lightroom which does allow for the upload of image sequences.

2. What's new?

NEAT projects 3 professional offers a variety of new features. Here is an overview of some of the most important developments:

- **Complete redesign of the user interface for 4k ultra HD**
- **New automatic analysis function for image divergences within the image sequence**
- **Load motion sequences from videos**
- **Extension to image sequences with up to 500 images**
- **New expert mode for creating your own presets with 90 different effects**
- **New color module for selective real-time color processing in layers**
- **New Virtual Detail module for motif-dependent creation of virtual micro details**
- **New Focus Peaking module for displaying the focused areas**
- **2 new preset categories Landscape and Architecture**
- **All presets have been revised**
- **Image preparation: New image alignment mode "Ultra"**
- **Selective drawing: Composing with 8 layers (previously 4)**
- **Selective drawing: Intelligent mode (Smart Mode) for the drawable effects**
- **Selective drawing: Boolean copy/paste for masks integrated**

- **Area protection with more than 100 variants in the modes: RAW module, Optimization Wizard, Grain module, Virtual micro details**
- **Selective drawing: Boolean copy/paste for masks integrated**
- **Grain module: Additional color spaces HSV/HSL**
- **Layer mappings: 31 (9 HSV, 9 HSL, 13 general) additional layer mappings in expert mode and selective drawing**
- **Scaling module when saving images with high-quality scaling method**
- **Sensor error correction: Extension of correction ranges to 500 (before 200)**
- **Sensor error correction: 5 selectable quality levels for determining the correction ranges**
- **RAW module: New category 'Color Filters'**
- **RAW module: Presets in all categories**
- **RAW module: New area 'Shooting data'**

New RAW formats: (now 1213 supported cameras/formats)

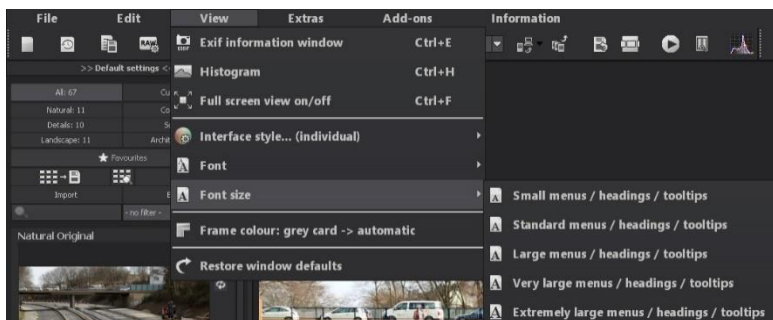
- > **Canon CR3**
- > **Panasonic 14-bit**
- > **Fujifilm** compressed/16bit
- **Canon:** PowerShot G5 X Mark II, G7 X Mark III, SX70 HS, EOS R, EOS RP, EOS 90D, EOS 250D, EOS M6 Mark II, EOS M50, EOS M200, EOS 1DX Mark III (lossless)
- **DJI:** Mavic Air, Air2, Osmo Action
- **Fujifilm:** GFX 100, X-A7, X-Pro3, X100V, X-T4 (uncompressed/lossless compressed), X-T200
- **GoPro:** Fusion, HERO5, HERO6, HERO7, HERO8

- **Casio** EX-ZR4100/5100
- **Hasselblad**: L1D-20c, X1D II 50C
- **Leica**: D-LUX7, Q-P, Q2, V-LUX5, C-Lux / CAM-DC25, SL2, M10 Monochrom
- **Nikon**: D780, Z50, P950
- **Olympus**: TG-6, E-M5 Mark III, E-PL10, E-M1 Mark III
- **Panasonic**: DC-FZ1000 II, DC-G90, DC-S1, DC-S1R, DC-S1H, DC-TZ95
- **PhaseOne**: IQ4 150MP
- **Ricoh**: GR III
- **Sony**: A7R IV, A9 II, ILCE-6100, ILCE-6600, RX0 II, RX100 VII
- **Zenit**: M

3. Configuring the User Interface

Adjustable font size for menus and headings

Provided in the program's main menu under "View" → „Font size“, this option lets you customize the font size of menu texts as well as in-program headings.

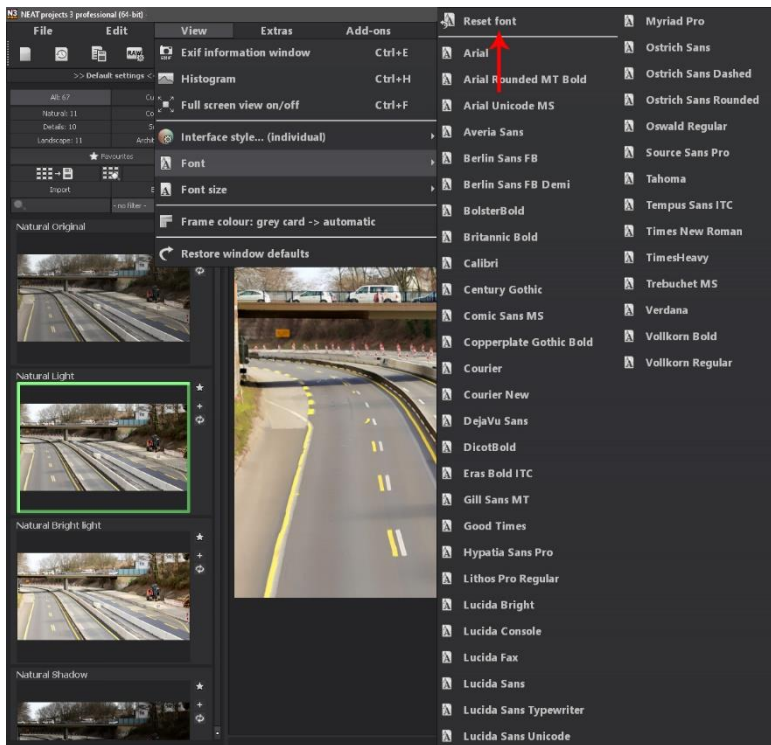


Font size settings can be adjusted directly at program runtime.

Users working on 4K monitors have the possibility to improve menu legibility by increasing the font size.

Selectable font

In **NEATS projects 3 professional** you can now select a font that suits you best. In "View" → "Font", you can choose the font that suits you best from all installed and compatible fonts.

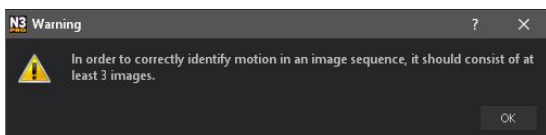


In “View” → “Font” → “Reset font”, you can also reset the selected font to the default font at any time.

4. Perfect pictures in no time

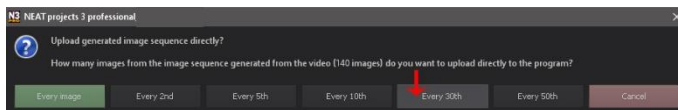
NEAT projects 3 professional ensures the best results. Of course, these results depend on the uploaded images. To ensure that the source material is as good as possible, a few tips or framework conditions are listed below that can be helpful when taking pictures:

- **You need at least 3 pictures for every captured motif:**



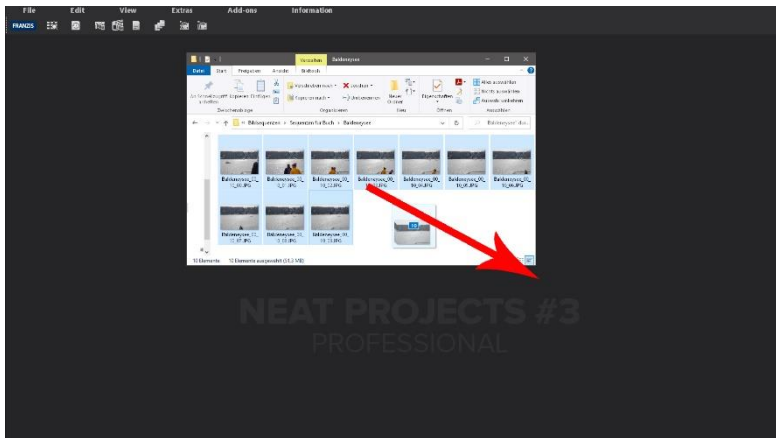
- With 2 images, the program cannot remove motion, because it cannot know which of the two images is the correct one.
- With 1 image there is no motion that can be eliminated, that would be a classic cropping.
- If you try to load less than 3 images, a warning message will be displayed.
- **A tripod is optimal** for image and video sequences, especially for longer sequences.
- **Freehand image or video sequences usually work very well** thanks to the automatic image alignment. Reference point: For a 10-second video, 300 frames are generated at 30 frames per second, 500 frames per second can be analyzed and merged.
- **The more (disruptive) motion there is in the image, the more frames will lead to an optimal result image.**
- Note: **If too many freehand images are taken per subject, an unwanted counter-effect with a tendency to blur can occur**, because the images are rarely taken completely free of wobble and are then no longer 100% on top of each other.

- **Between 3 and about 6 images are sufficient if there are very clear movements** in the image and e.g. a person, a car or an animal crosses the main subject.
- In the city, pedestrian zones and similar motifs, image sequences between 20 and 30 are good.
- **The interval between the images should be about 1 second** (e.g. pedestrians or cars on the highway), because shots taken very quickly one after the other make it difficult to differentiate the movements and tend to worsen the image result.

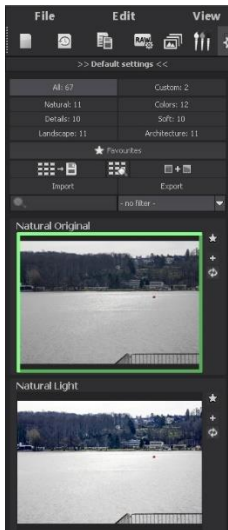


- For a video, this would mean that about every 30th frame is uploaded, which would correspond to an interval of about 1 second per frame.
- **The faster the movements in the image, the shorter the intervals between the captured images can be.**
- If you are in doubt whether more or fewer images are better, the rule is always: **more is better!**

Four clicks in **NEAT projects 3 professional** and you're done:



11. *Journal of the American Medical Association*, 2000; 283: 2686-2692.



c) Optimisation Assistant



d) Crop image, save, and you are done!

Just like that and you have finished editing in no time – or go the creative route with individual image adjustments, the RAW Module or selective painting: **NEAT projects 3 professional** offers the necessary tools for both.

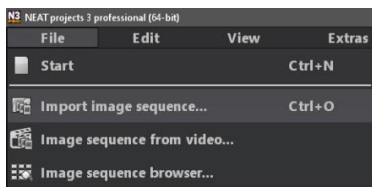
4.2 Video sequences

Video sequences cannot be dragged and dropped into the program, but via "File" → "Picture" sequence from video (see next chapter).

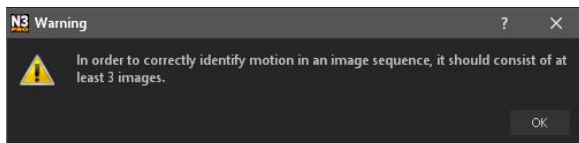
Note: In the chapters “Manual correction options” with the modules “Edit image sequences”, “Edit weights” and “RAW module” you can always make your individual optimizations or corrections of the result images!

5. Importing Images

5.1 Image sequences



You can also choose to upload images using the file menu.



When attempting to upload only one or two images, a notification will appear stating that an image sequence must include three images or more in order for the program to successfully complete motion detection.

Tip: If you later want to load one of your result images again, for example, to change it, to distort it or to use it as a basis image for composings, simply click “OK” and the single image will be imported. Now you can use all presets, modules etc. as with the image sequences!

The image sequence browser



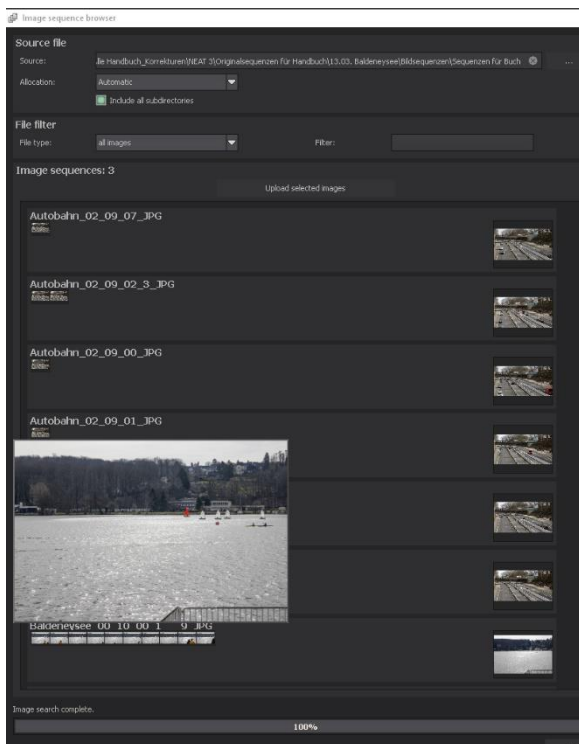
For a better overview of your image sequences, you can use the image sequence browser before uploading your image sequences.

Click on the corresponding symbol in the task bar. A preview window will open. Select your image folder as the „Source Folder”.

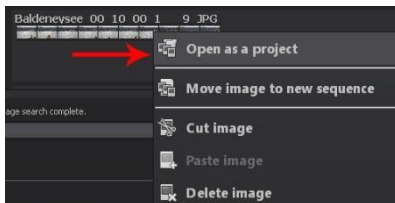
NEAT projects 3 professional will now display a preview image. Hover you mouse over the preview image to enlarge it.

The file type-filter is quite useful here. JPG series are often stored together in the same folder alongside RAW image. Enter RAW in the File Type field and only RAW images are displayed without duplicates.

The image search is complete once the progress bar has reached 100%.



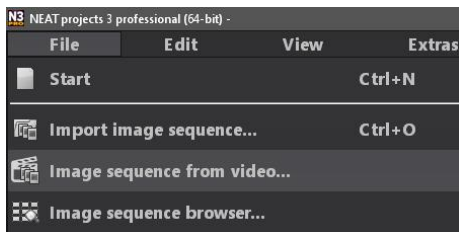
From this point on you will be able to upload the desired image sequence. Select the desired series with a right mouse click and choose the “Open as Project” option from within the context menu. Alternatively, double-clicking the image in Preview will also open the image.

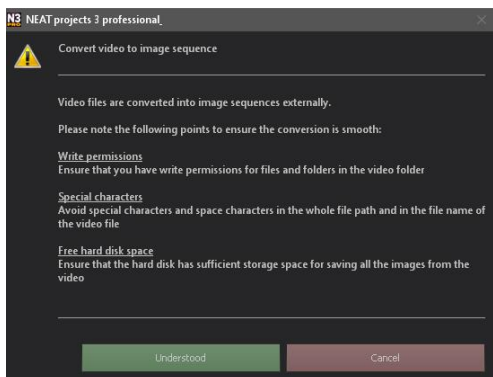


NEAT projects 3 professional uploads the images from your chosen sequence the same way as the simple Drag & Drop method. Now we can begin with post-processing.

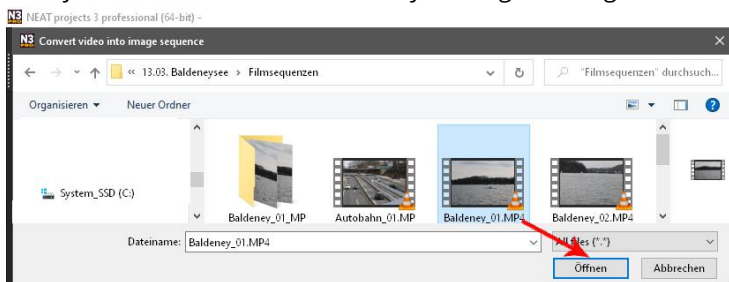
5.2 Video sequences

To load a video sequence or a movie file, select „File“ → „Image sequence from video“.

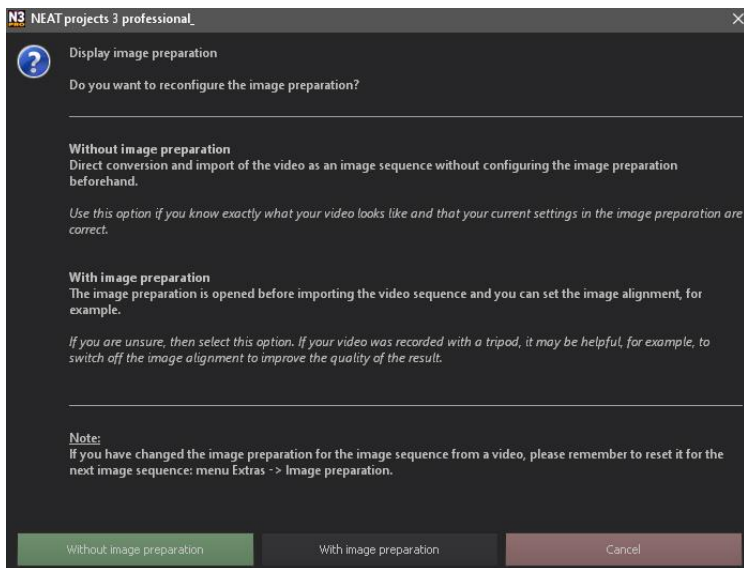




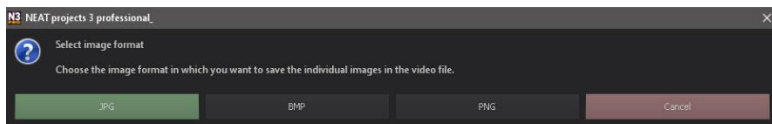
After that, several query windows will open, which you can either confirm/cancel or where you have to make decisions. In the upper window you confirm the information by clicking on the green button...,



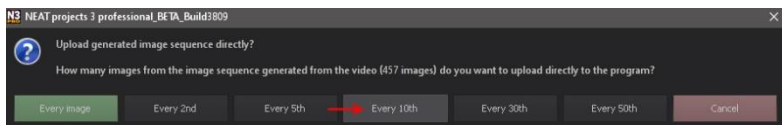
... upload your video file ...,



... and by clicking on the green button, another query opens...

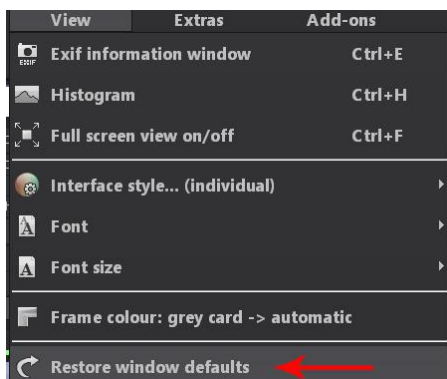


Here, you can choose from several file formats. If you want to keep the default format JPG, click on the green button. ...



... Now you have to decide: how many pictures for you image sequence do you want to upload (there are 457 images in the example? If you choose to upload every "Every 10th"...

You can drag and drop areas A), B) and D) of the workspace out of the interface by left clicking to the left or right of the buttons and holding down the mouse button.



To reset the workspace to its original state, select “View” → “Restore window defaults”.

7. 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 from video...

To open a movie file, click **Image Sequence from Video...** to browse for the desired file.

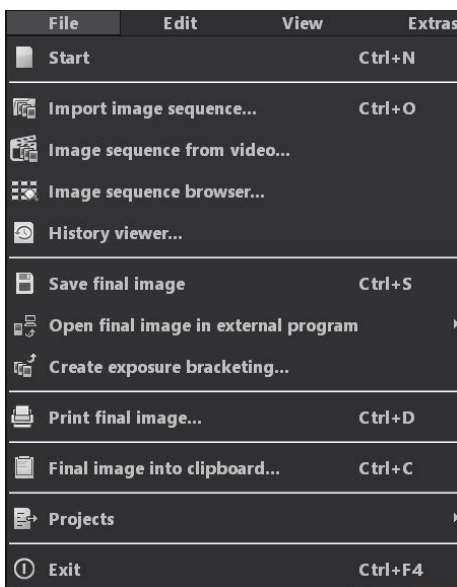
File → Image Sequence Browser...

Select your sequence folder from within the “Source Folder”. **NEAT projects 3 professional** 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 **NEAT projects 3 professional**. For this, simply click on **Open Final Image in External Program**.

File → Create Exposure Bracketing ...

Click here to create an exposure bracketing from your image. You can choose between three, five, seven, nine or eleven exposures.

File → Print Final Image...

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

File → Copy 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 **NEAT projects 3 professional** and would like to continue editing, open the file by clicking on **Projects**.

File → Exit

Click on **Exit** (or **Ctrl + F4**) to close **NEAT projects 3 professional**.

7.2 Edit

Edit → RAW Processing

Whenever you want to easily edit a photo, simply click on **RAW processing** to do things like alter colors in the photo or distort the image.

	Edit	View
	RAW processing	F4
	Edit image sequence	F5
	Edit weightings	F6
	Post-processing	F7

Edit → Edit Image Sequence

NEAT projects 3 professional utilizes a complex process to filter out all accurately exposed pixels and combine them into one image.

Edit → Edit Weightings

The Weight Painter is a tool used for manually editing individual images in a series.

Edit → Post-processing

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

7.3 View

View	Extras	Add-ons
	Exif information window	Ctrl+E
	Histogram	Ctrl+H
	Full screen view on/off	Ctrl+F
	Interface style... (individual)	
	Font	
	Font size	
	Frame colour: grey card -> automatic	
	Restore window defaults	

View → EXIF Information Window

This window displays (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... (individual)

Clicking on **Interface Style...** will allow you to alter the color scheme for **NEAT projects 3 professional**. The color scheme you have currently selected will appear in brackets.

View → Font...

Change the font according to your choice.

View → Font Size ...

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

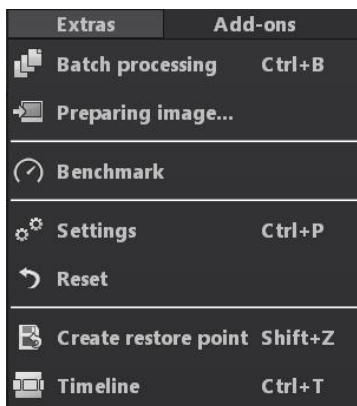
View → Frame Color: Grey Cart → automatic

If you click on **Frame Color: Grey Cart → automatic**, the program will set 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



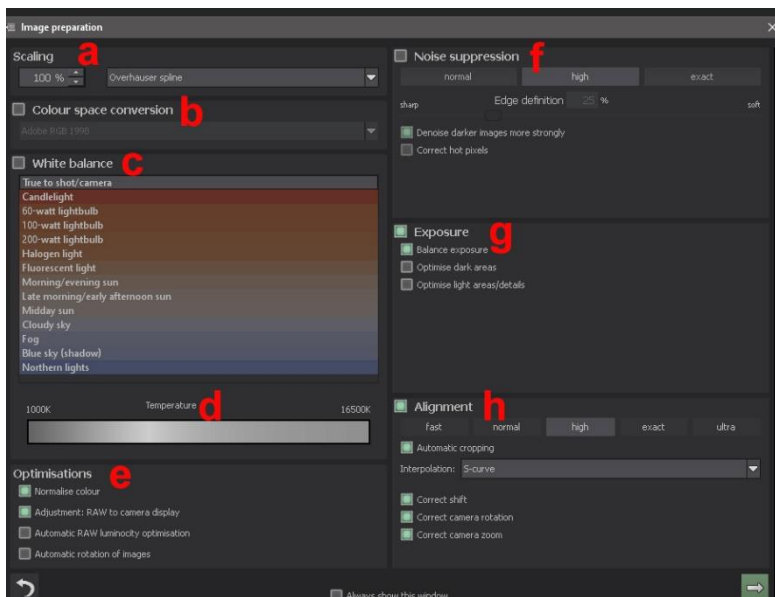
Extras → Batch Processing

Batch processing in **NEAT projects 3 professional** enables the automatic processing of multiple image sequences.

Extras → Preparing Image ...

Here you can precisely configure the program's settings.

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



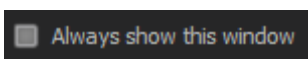
- a. **Scaling:** Upon uploading a bracketed series, images can be scaled anywhere from 25% to 900% using any one of the 6 available scaling processes. Tip: The further towards the bottom the procedure is found within the list, the better the quality and the longer the computation time.
- b. **Color space conversion:** advanced users can choose a color space here - for all other users, it is recommended to not make any adjustments, to avoid incorrect color rendering later.
- c. **White balance** corrects color 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 **color temperature** when you're already uploading. It is advised that you leave the setting on "default" and to regulate the color temperature later in post-processing.
- e. **Optimisations:** The **Color Normalisation** option automatically removes color spots present in RAW image files. This ensures that shadows within your image remain dark and lights stay bright. **Automatic Brilliance Optimisation** function can be activated for RAW file uploads in the RAW options section. Camera RAW formats often do not make use of all potential tone values. Automatic RAW Luminosity Optimization compensates for this by enhancing tonal values, resulting in the creation of a more comprehensive histogram for each RAW image. If the checkbox beside **Automatic Rotation of Images** is filled, images are corrected according to the orientation present in their Exif data.
- 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** can be used for editing images within an exposure bracket which have been incorrectly exposed and/or appear out of focus. Recommended for use when working with darker exposure brackets is the Shadow Optimisation Function. This function can be applied to easily eliminate color casts and further enhance lighter areas and details in bright exposure brackets.

- 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.

Check the option „Always Display this Window“ and the Image Preparation window will automatically open upon starting the program.

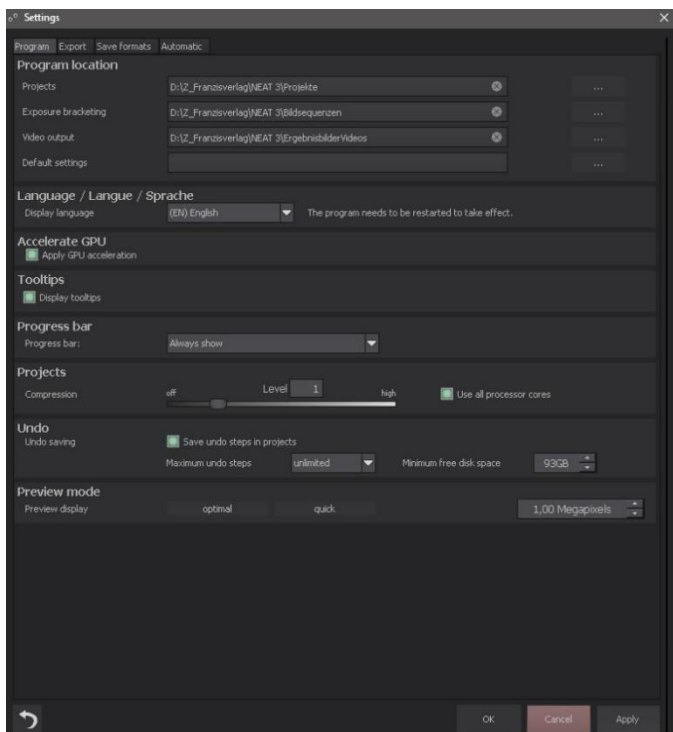
Extras → Benchmark



If you would like to know how quickly your PC can remove noise from your images, Benchmark is the function to choose. The programs will render five different images in real-time and provides you with an evaluation on a five-star scale.

Extras → Settings... (Ctrl + P)

Here you will find the various configuration options adaptable to your unique preferences offered in **NEAT projects 3 professional**.



Program: Program Location

Here you can determine in which folder projects, exposure bracketing/ photo series, final images and default settings will be saved.

Program: Language

Here you can change the **NEAT projects 3 professional** program language to either German, English or French.

Program: Accelerate GPU

Here you can choose to either activate or deactivate graphic card computing speed acceleration.

Program: Tooltips

Hovering your cursor long enough over specific tools or menu options will prompt the display of a short text offering an explanation of the function or tool. This is called Tooltip. Tooltips can also be deactivated here if preferred.

Program: Progress Bar

While the processing of effects in **NEAT projects 3 professional**, the progress will be displayed with the help of a progress bar. Here you can decide when and whether to display the progress bar.

Program: Projects

When selecting the compression level, you are deciding how much storage space will be allocated for each one of your projects. In other words, you are deciding on how quickly the storage is performed. A lower level saves the projects faster, a higher level reduces the amount of storage space available on your hard disc.

Program: Undo

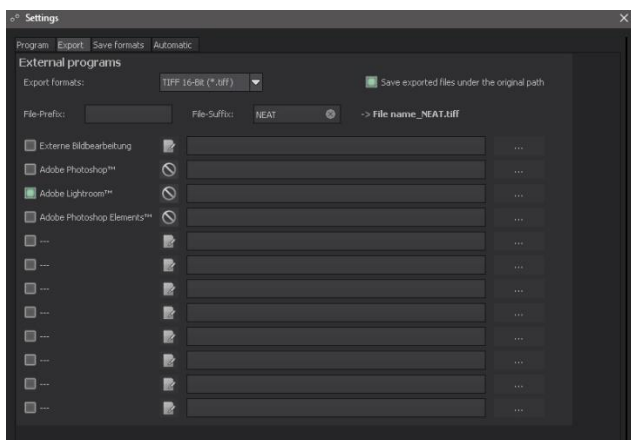
With the option “**save undo steps in projects**”, you can save all undo steps within the project file. The undo-steps will then be completely reproduced when the file is opened. This creates a significantly larger project file. Set the **maximum** number of **undo steps** (1, 5, 10, 20 or 50). If you do not wish to set a maximum, select “unlimited”.

The **minimum free disk space** specifies the amount of free space on your hard drive that will not be taken up by saving undo steps. This ensures the proper functioning of your operating software. By default, this is set to 10% of your hard disk capacity but can be increased or decreased accordingly.

Program: Preview Mode

In preview mode you can choose between the modes “optimal” and “quick”. With the “optimal” mode activated, the preview size is adapted to the size of the original image. It guarantees maximum preview quality. If the “quick” mode is activated, the preview size is reduced to half of that of the original image. This guarantees you the highest possible speed in preview mode. Moreover, you can set the size of your preview area in megapixels if you have not selected optimal or quick mode). Select a high value if you have a very fast computer.

Export

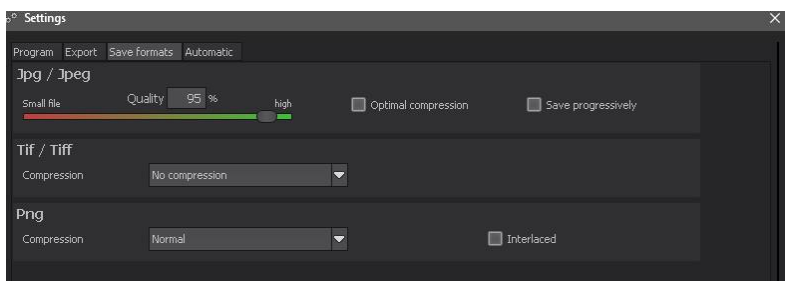


External Programs

Here you can choose in which format **NEAT projects 3 professional** will export images to external programs. You can specify as well which programs should be used for external image editing.

Navigate to the file in which the function is installed and select it.

Save formats



Jpg

Jpg or Jpeg is the most common and popular format for most cameras and image editing programs. Here you can control the quality as well as optimally compress the image. Compressed images with high quality look better but do require more storage space.

Tiff

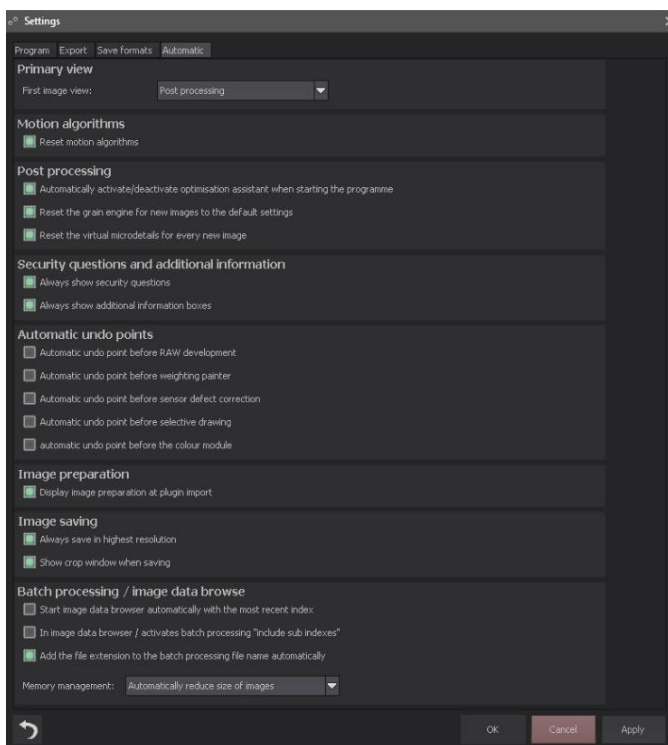
Here you can choose between different compression methods for your Tiff files.

Png

Png is popular for its graphics and digital visualization. Here you can choose from a number of compression methods.

Automatic: Primary View

Select whether the software should start in the post-processing or directly in the motion analysis after uploading image files.



Automatic: Motion Algorithms

Here you can activate the resetting of the motion algorithms when opening a new sequence.

Automatic: Post Processing

Post-processing automatically sets the corn engine back to its original settings with every newly started project. To use a fixed corn value in batch processing, set it in the program and then deactivate this option.

Automatic: Security Questions and Additional Information

Here you can choose whether or not to display security questions or additional information.

Automatic: Automatic Undo Points

Creates an automatic Undo-Point before RAW development, sensor correction or selective drawing. This creates a definitive starting point after uploading the image.

Automatic: Image Preparation

Displays the image preparation window when images are exported over a Plug-in.

Automatic: Image Saving

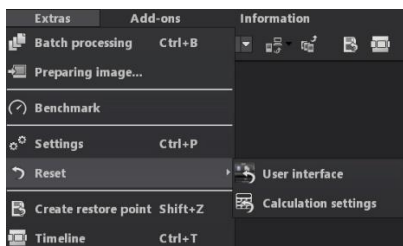
Activate the option “always save in highest resolution” and the processed image will automatically be saved in full resolution, even if the preview mode is active. Activate the option “show crop window when saving” and the crop window will automatically be displayed before image saving.

Automatic: Batch Processing/ Image Data Browser

Here you can activate the automatic loading with the last used directory when opening the image data browser. You also activate the automatic inclusion of subdirectories in the image data browser and batch processing.

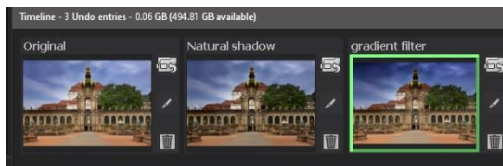
You can also prevent files from being overwritten by automatically adding the original file extension (e.g. jpg, tif,...) for the file name created in batch processing.

Extras → Reset



This returns the current user interface or Calculation settings 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.

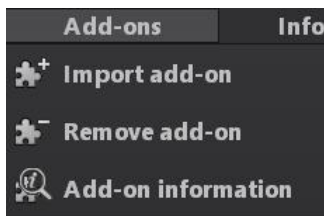
Extras → Timeline (Ctrl + T)

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

7.5 Add-ons

Add-ons → Import Add-on

With the help of Add-ons, you can now not only import Presets into **NEAT projects 3 professional** but also integrate new post-processing modules that give your presets an entirely new look.



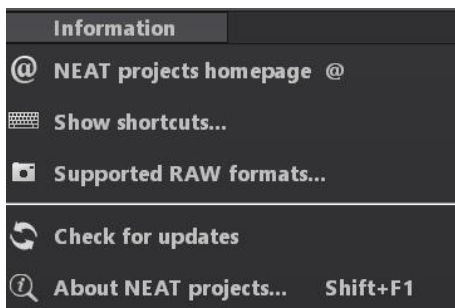
Add-ons → Remove Add-on

This button lets you remove add-ons.

Add-ons → Add-on Information

Here you are provided with a display of all information regarding currently active Add-ons

7.6 Information



Information → NEAT projects – Homepage

Click here to navigate to the **NEAT projects 3 professional** homepage.

Information → Show shortcuts ...

Here you will find all keyboard shortcuts available in **NEAT projects 3 professional**.

Information → Supported RAW Formats ...

A list of all cameras whose RAW Files are able to be opened in **NEAT projects 3 professional**.

Information → Check for Updates ...

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

Information → About NEAT projects (Shift + F1)

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

8. Tool Bar



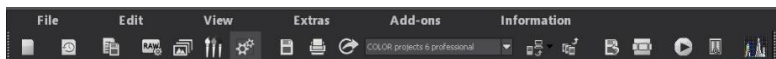
If you start the program (start screen), you will see a toolbar below the menus with the following functions (from left to right):

- Image sequence browser
- History viewer
- Load image sequence
- Image sequence from video
- Open project
- Batch processing
- Load sample 1
- Load sample 2



Once you have loaded an image sequence, the toolbar becomes "alive" and is divided into two areas:

The **left toolbar** shows the **control functions** of the program, and the **right toolbar** is used to **control the image view**.



The control functions (from left to right):

-  Start
-  History viewer
-  Save project
-  RAW processing
-  Edit exposure bracketing
-  Edit weightings
-  Post-processing
-  Save final image
-  Print final image
-  Exports image into the selected projects-family software
-  Open final image in external program
-  Create exposure sequences
-  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...



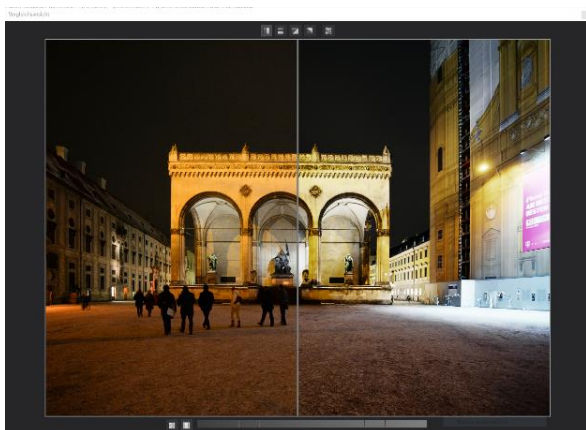
Image Sequence View

With the image sequence view you can see all sequences of your image at one glance.





Comparison View



Activates the left/right comparison



Activates the above/below comparison



Activates the upper left/ lower right comparison



Activates the lower right/upper left comparison



Switches before and after in the compare window



Activates or deactivates the luminance display



Switch between 3 different modes for the luminance display: “two selective areas for shadows and light areas”, “from area 1 to area 2” and “outside of area 1 and 2”.

Move the two luminance areas within the luminance bar from 0% (black) to 100% (white).

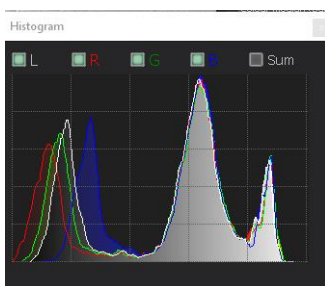


You can also dock the comparison view onto the sidebars below “default settings” or “finalise”.

Do you want a comparison to the original 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.

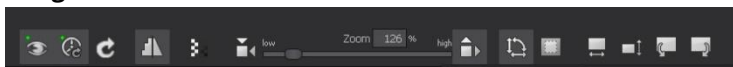


Histogram



The Histogram shows the distribution of tonal values within your image. The cumulative histogram shows how color and luminance elements are distributed across the image. A flat cumulative histogram shows a brighter image; a bulge in the curve indicates a much darker image. You can receive a large display by clicking on the histogram.

Image view control



Preview Mode

If 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 pre-set 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”:



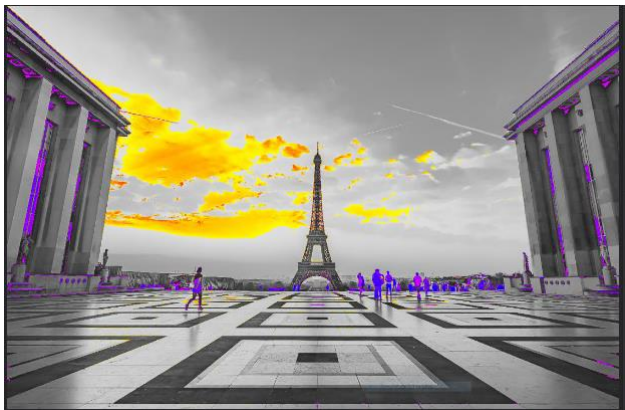
High-Quality Display

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 noticeable 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.



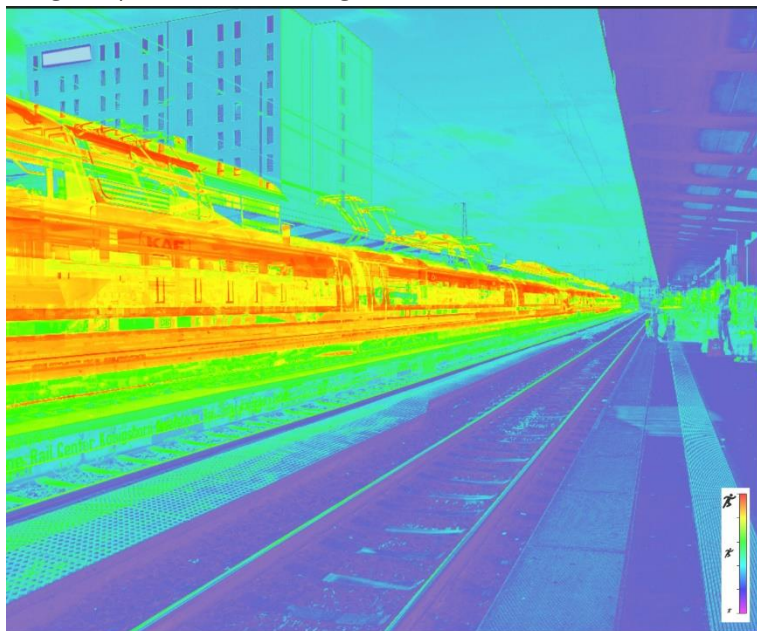
Depiction of border pixels in purple and orange tones.

If you like 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.



Motion map

You can click the Motion Map button when you switch to "Edit Image Sequence" or "Edit Weights".



The motion map provides you with a color display of all movements detected within your uploaded image sequence at a glance. Areas of the image containing a significant amount of motion will be depicted as yellow/red while portions with less will be marked blue/purple. Areas with less motions are displayed in green.

Tip: Check the motion map at any point while editing to get a quick overall impression of the image's movement.



Original Resolution Setting

With this button you will set the zoom factor back to its 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.



Additional functions

By clicking on this button, the additional functions below will be displayed.



Crop image data



Horizontal mirroring of the images



Vertical mirroring of the images

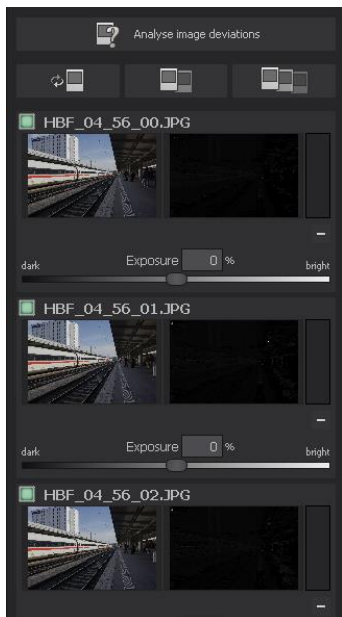


Rotate the image 90 degrees anti-clockwise



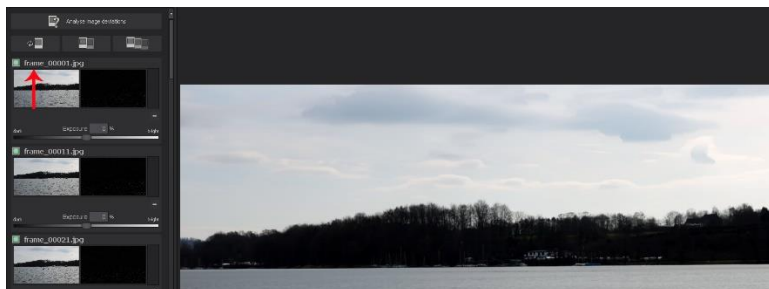
Rotate the image 90 degrees clockwise

By clicking the "Edit image sequence" button, the resulting image of the invited image sequence or video sequence will be displayed in the center.

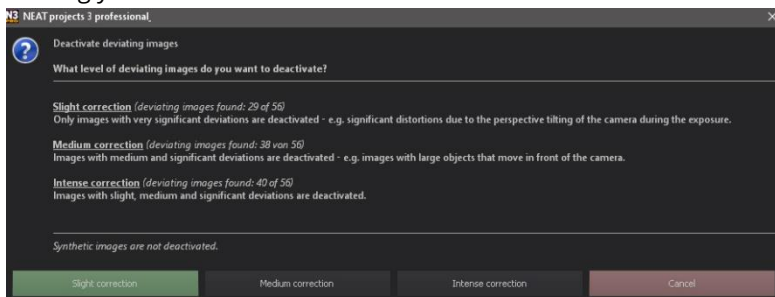


On the left-hand side, all images of an image sequence (the example shows 56) are listed. The green square above every image that the images are activated and included in the calculation.

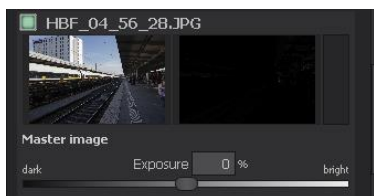
Note:



All options in the "Edit image sequence and weightings" modules apply equally to image and movie sequences. For loaded movie/video sequences, the individual frame names are displayed accordingly.



With clicking on the button „Analyze image deviations“, you will be informed of ...

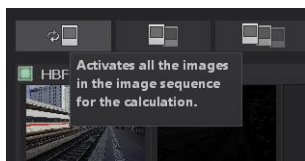


...the number of images that deviate from the master image and the level of deviation (slight or intense).

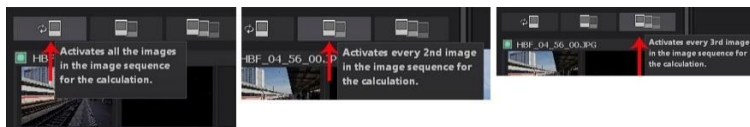
The master image serves as the reference image for all image alignments and differences in brightness, and, therefore, defines the analysis of the deviations.

It is up to you to decide whether you want the deviating images with slight to intense correction to be deactivated.

When shooting with a tripod, always click the "Cancel" button or skip this option because all deviations only show movements such as passing cars, people or discrepancies in brightness which are intentional just like in the example which was shot with a tripod.



Reset: In case you are not satisfied with the results after the correction, you can reset the correction with selecting "Activates all the images in the image sequence".



You are free to choose: The first button is selected by default and activates **all images for calculating**, the middle button activates **every second image** (every second image is marked green), and the button to the right activates **every third image** (every third image is marked green). Selecting the middle button or the one the right can accelerate calculations, but be careful: In some cases, this can lead to changes for the worse in image quality.



If you click on every image one by one, you can see the movements in every picture.

The example above shows the preview. Here, you can see a train passing by in one of the images, but it is not being displayed in the final image – it was removed by the correction.

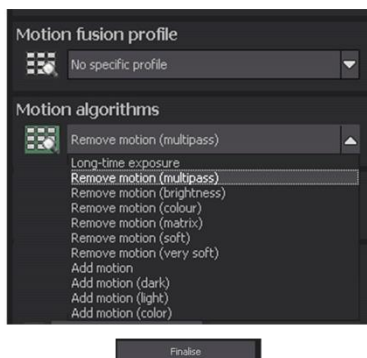
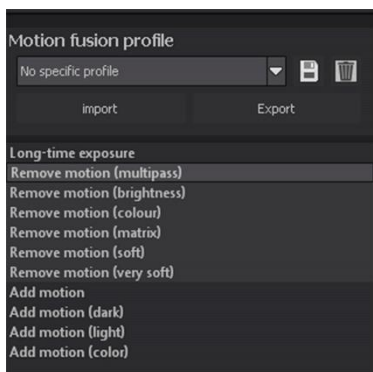
Under the image, you can adjust brightness with the slider.

If you do not want to include an image into the calculation, you can click on the green square above the image. Green means that the image is activated and included into the calculation.



The mask next to the preview visualizes which areas are included in the calculation and how much (brighter areas are included more).

9.2 Motion algorithms



The motion algorithms on the right are the fastest correction or optimization options for your image sequence. **They are identical with the algorithms in finalizing mode.** It does not matter where you correct your images since the corrections will be applied simultaneously.

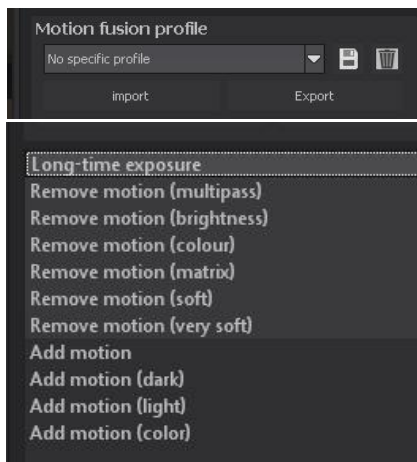
If you are satisfied with the results after loading an image sequence and want to try out different variations or effects by trying out various motion algorithms, the Finalize mode is the fastest mode for this, because the result image is displayed automatically there.

If you want to correct images as a whole or selectively, or apply effects, editing will be more productive here.

Choose from any of the eleven Motion Recognition algorithms and compare their effects in Post Processing.

Tip: Double-clicking sets an algorithm back to its standard value.

In the following, selected motion algorithms are listed in order to visualize modifications and ways to correct your images.



Long-time exposure: This process determines the average for every pixel in a shot to simulate a type of long exposure.

Before applying the algorithm:



After applying the algorithm:

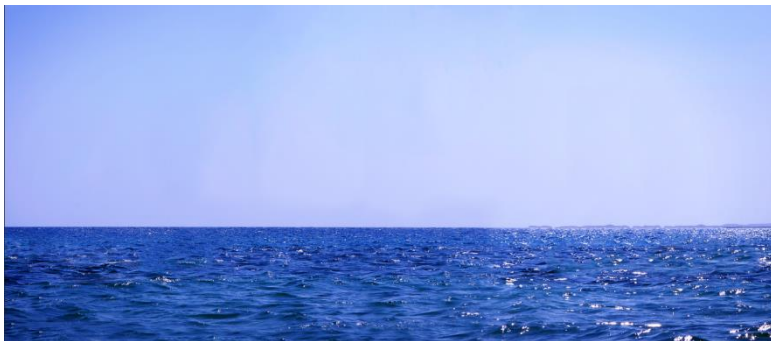


Remove Motion (Multipass): The motion is determined through a flexible median mask based on color channels and brightness of individual pixels. Since this process is well suited to most image sequences, it has been set as the standard.

Before using the algorithm:



After using the algorithm:



Remove Motion (Brightness): Pixel brightness is the single component of this calculation, which makes it appropriate for black & white sequences.

Before using the algorithm:



After using the algorithm:



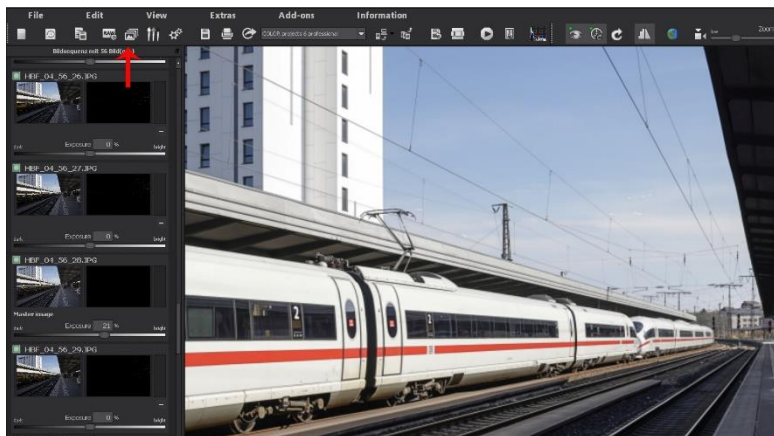
Remove Motion (Color): This technique is exclusively based on pixel color and is best suited to particularly colorful sequences.

Before using the algorithm:



After using the algorithm:





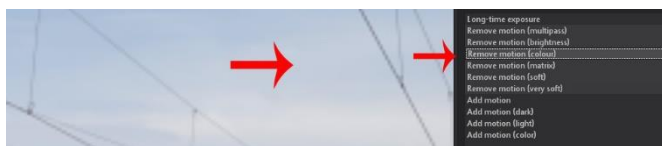
Example 2:

If you enhance the sky here, ...



... the algorithm “Multipass” shows some errors.

When switching to “Remove motion (color)”,...



...the errors are gone, and the sky is back to its natural self.

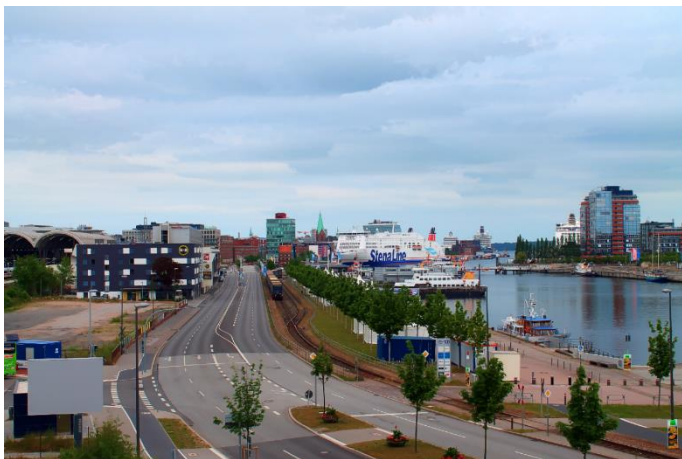
If you encounter this or other kinds of errors, it is very helpful to try out different motion algorithms!

Remove Motion (Matrix): The matrix process uses a congruence matrix rather than a median mask allowing it to identify fine movements and differentiating it from other algorithms.

Before applying the algorithm:



After applying the algorithm:



Remove Motion (Soft): The moving objects are removed by means of median calculation, which is most suitable for images with water surfaces or running water.

Before applying the algorithm:



After applying the algorithm:



Remove Motion (Very Soft): The moving objects are removed by means of a standard deviation calculation, which is most suitable for images with moving clouds.

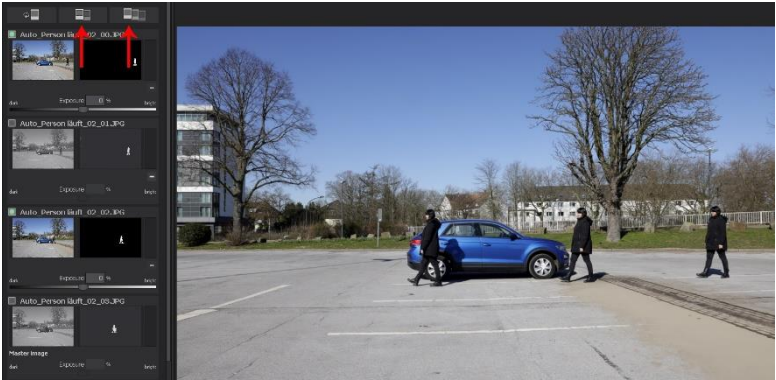
Add Motion: The opposite of motion removal. All motion in the sequence will be determined and added based on pixel brightness.

You can generate stunning results with this algorithm!

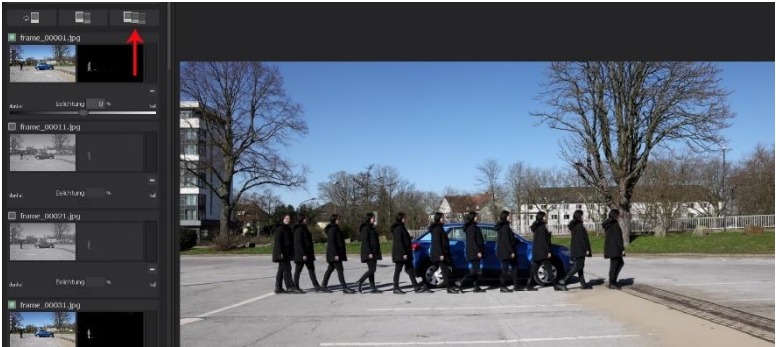
Before using the algorithm:



After using the algorithm:



Variations: With clicking the buttons “Every 2nd or 3rd image”, you can reduce how many pictures are added...



...or the number of frames in a movie sequence (every 3rd was selected here).



Example 2 (Add motions): The added rotor blades almost seem to be a work of art.

Add Motion (Dark): Accentuates every type of dark motion and adds them up.

Before using the algorithm:



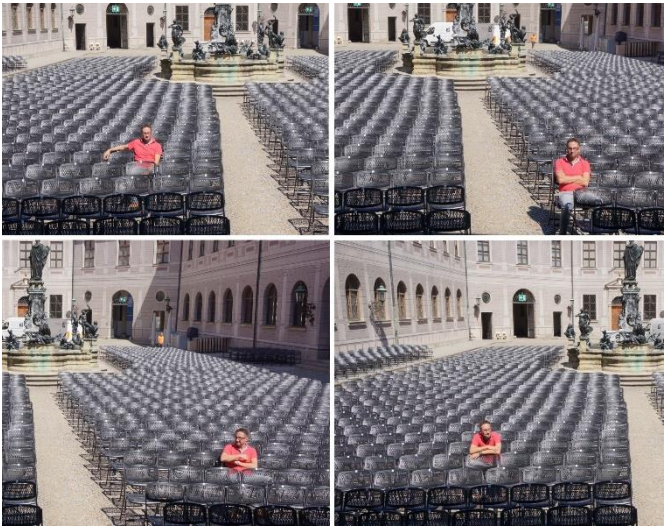
After using the algorithm:



Add Motion (Light): Accentuates every form of light motion and adds them up.

Add Motion (Color): Accentuates all types of color-intensive movement and summates progress.

Before using the algorithm:



After using the algorithm:



Manual Readjustment of Motion Algorithms

Most algorithms can still be manually "fine-tuned" by the sliders below which are automatically displayed when activated. No automatic intervention is activated which is usually not even necessary.

An interactive explanation of the controllers is displayed when the mouse is hovered over them.

Radius

If the radius is set higher, the contours will be correspondingly larger. With smaller values, they will be correspondingly smaller or finer.

Smoothing

Experimenting with the smoothing slider can lead to better results e.g. for long time exposures.

Motion

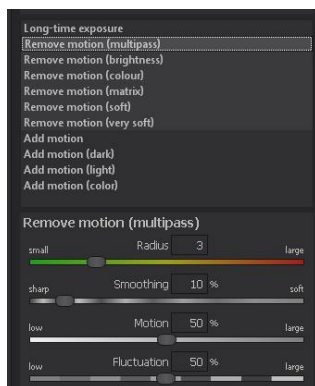
Readjusts the sequence's motion intensity: The more or faster the motions in the image sequence, the higher the motion detection should be to make the artifact areas smaller.

For low-motion image sequences, the slider should be dragged to the left towards "low".

Fluctuation

The settings strongly depend on the motifs and their differences in brightness during the motions.

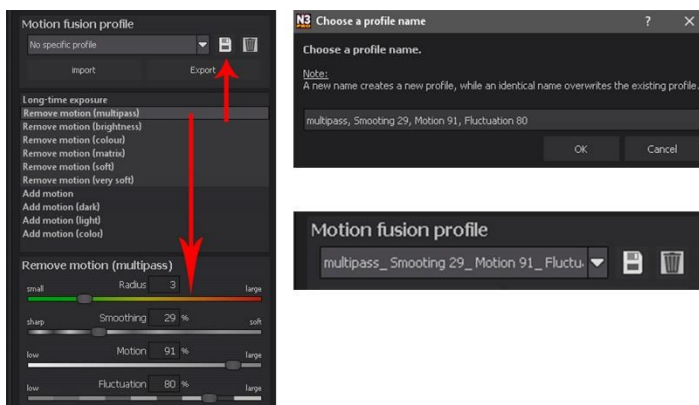
For instance, when a dark freight train passes in front of a bright ICE, the brightness difference or fluctuation is high, and the image becomes clearer at higher slider settings.



If the slider is moved to the left, smaller differences in movement will also be detected. This leads to more artifacts because the slider setting no longer matches the motion which is faster in reality.

The following applies to the movement and fluctuation controls in particular: the faster the movements and the greater the differences in brightness, the more sensible it is to correct to the right in the direction of "high" and vice versa.

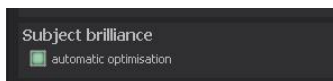
Saving Your Profiles



Once you have found a combination of a motion fusion profile and individual controller settings that you also want to use for other image sequences, click on the "Save current algorithm settings as new profile" button, enter a descriptive name in the dialog box that then opens, and confirm your entries by clicking "OK". You can call up this profile in the future in the same way as all other profiles.

If you want to delete the active profile, click on the waste bin.

Subject brilliance



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

Contrast range

The contrast range of an image is made up of the division between the brightest area of a photo, for example a photo taken pointed directly at the sun, and the darkest area so in the shade areas of the image.

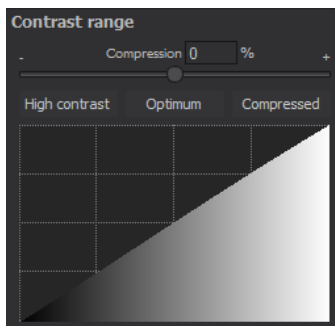
The brightest area of an image has a value of 5 (the value 1 would mean a white pixel in the image) and the darkest area in the HDR image has a value of 0.01.

If you now divide 5 by 0.01, the resulting contrast range of $5/0.01 = 500$. This means that the proportion between the brightest to the darkest area of the image is 500 to 1.

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

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 optimization of the contrast range:

High-contrast: Creates a high-contrast image – one with very deep shadows and very bright lights.

Optimal: Creates a well-balanced image.

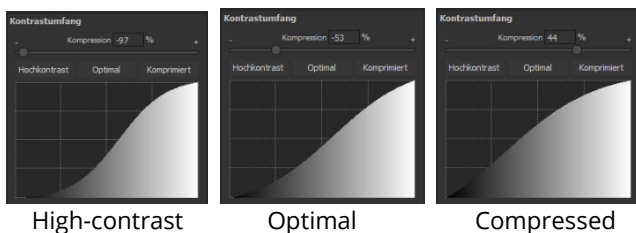
Compressed: Creates an image with a small contrast range. This can be helpful with contrast rich bracketing series, since it helps to bring out further details in tone mapping.

As soon as you confirm the automatic modus, you will be able to see first-hand how the best values for your current HDR image are selected.

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

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

Curve display of the distribution of the brightness value:





In the example above, we can see how the same HDR image with the optimization “high-contrast” (above image) and the second with the optimization “compressed” (bottom image) are handled.

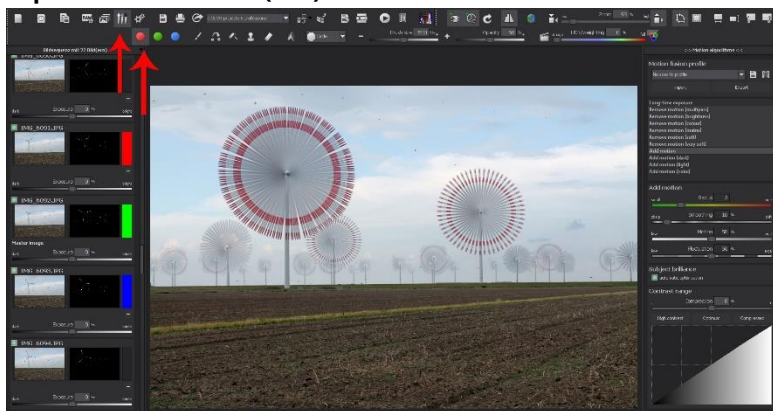
9.3 Edit weightings

The weighting painters play a special and important role in this program because they can easily, quickly, and selectively correct or influence selected areas of the image.



A click on the "Edit weightings" button displays another bar with all options for selective interventions and analysis options in addition to the "Edit image sequence" interface (both buttons are colored in gray).

Exposure Series View (left):



The individual images in a series are assigned the colors red, green and blue. When the bracketing has more than 3 exposures, the master image will be set as green and the next active neighboring 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 color and choose the respective color in the paint symbol bar. Tick on the top left of the image to exclude it from or include it in a set being calculated.

Important Tools of the Painter:

Increase weighting



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

Blurring



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

Delete weighting



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

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.

Reduce weighting



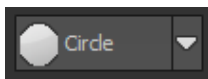
Draw on the selected area to reduce the weighting of this portion of the image.

Delete all



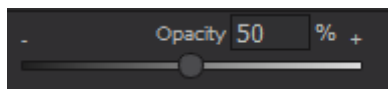
Warning: This function deletes all of the drawn weightings and returns to the initial settings.

Brush form



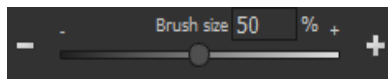
With numerous new brushes, you will find the right form for your selected area.

Opacity



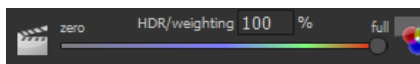
Adjust the opacity of the brush.

Brush size



Adjust the size of the brush.

HDR-image/ weighting:



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

Effective and Efficient Working with Painters

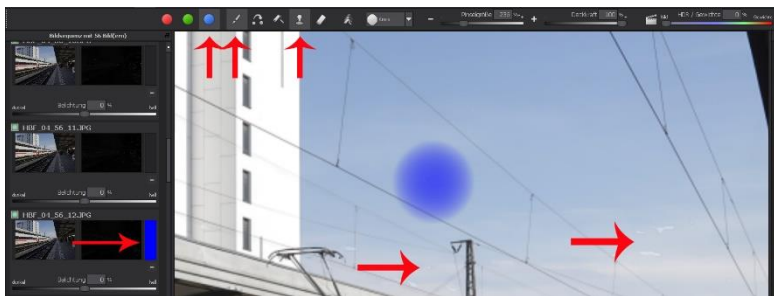


Image 1: Correcting the sky in "Remove Motion (Multipass)".

In the chapter "Edit Image Sequence" the unpleasant spots in the sky were successfully corrected by choosing a different motion profile ("Remove Motion - Color"). This does not work in every case, but it always does with the weighting painters:

The procedure for image sequences in which certain parts of the image are to be changed in all frames is always the same and means that the overpainted parts of the image are excluded from the calculations:

- Selection of an image in which the selected area or areas meet your requirements.
- A click to the right of the black mask selects a weighting color and displays it (blue in the example).

Note: The colors red, green, blue do not matter. The advantage is that 3 colors, i.e. image parts, can be corrected simultaneously in different images of the series!

- !Select the same color at the top of the toolbar.
- Selection of the appropriate tool (Increase Brush/Weighting): Changes affect this image and increase the weighting, the weightings of the other images remain.
- !Additional choice of the stamp mode, so that all single images are taken into account.
- Select a brush size and opacity (100% in the example) and

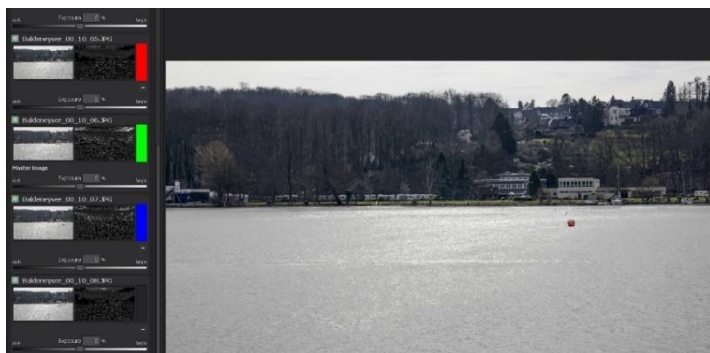


paint over the desired parts of the image - this does not have to be exact!

The result is impressive. In the mask, the lighter areas visualize the changed weights (the lighter, the more the repaintings are taken into account).

Example 2: Passing boats on a lake

The "Remove Motion (Multipass)" fusion produces a very good result - all sailboats and rowboats are removed and the lake looks very calm and smooth.



Quick overview and evaluation in the image sequence player



If you open the image sequence player and start playback, the entire image sequence is played, which can be stopped at any point. The file name is displayed when you move the mouse over it which is helpful for finding the image on the left side.

As you play it, it becomes clear that the lake became too smooth due to the fusion, because the program reacts to movements and cannot know that the wave motions are intentional!

If you like this, you can switch directly to post-processing, a desired selective correction works as in the first image example.

Unwanted and wanted effects

Tip: If you choose a picture in this or similar motifs in which there is a lot of water without boats or other elements that move, then the correction with the Painters will be easier. If you accidentally paint over parts of the image where boats are moving, as in the image example, the boat will be visible again at the painted-over spot!



You can also use this for intentional effects, for example, to only place the rowboats into the picture!

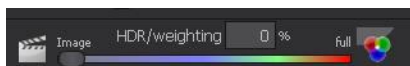


In case you want to protect further parts of the image, select another image and paint over the desired part of the image with the displayed color.



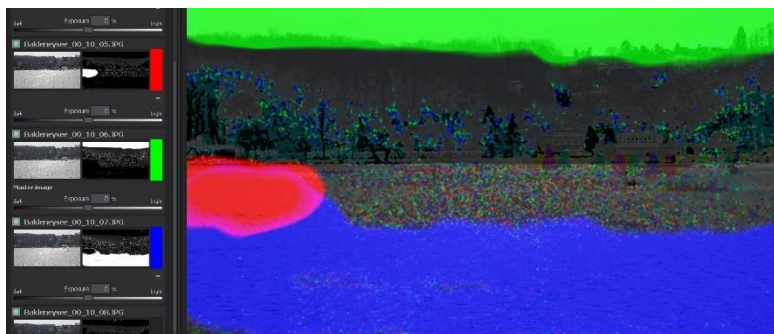
The result (shown here after switching to post-processing with the "Enhance Natural/Highlights" preset compared to the uncorrected fusion: The waves have regained their original roughness, the passing clouds have been replaced by a single image.

Further Analyzing Options

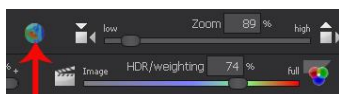


HDR/Weightings

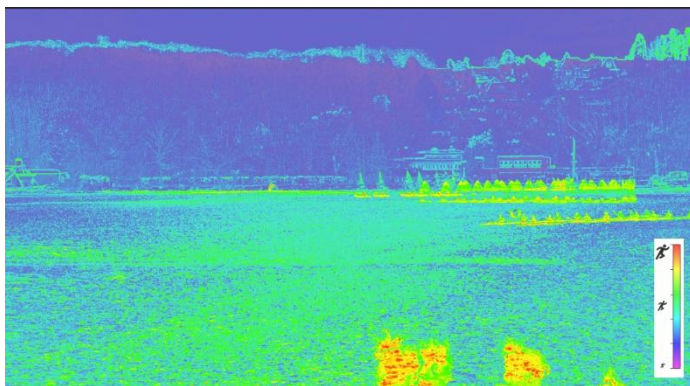
Here you can adjust the display smoothly between the image...



... and the weighting image.



Motion Map

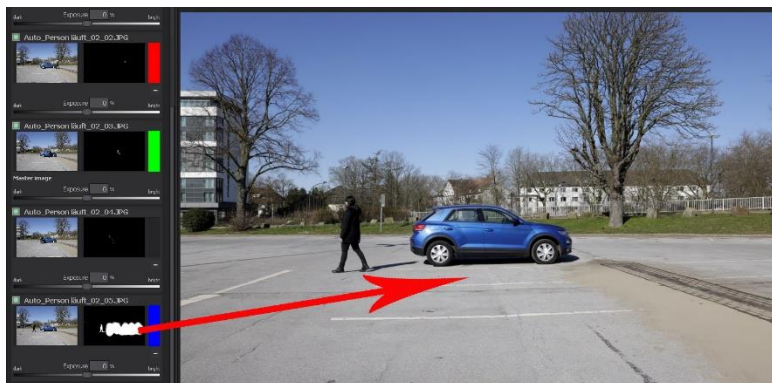


The motion map visualizes motions within an image sequence. Purple to blue indicate smaller movements, while green indicates medium movements and yellow to red strong movements.

Example 3: Isolating single motifs

The result image illustrates well which effects can be achieved with "Add Motion".

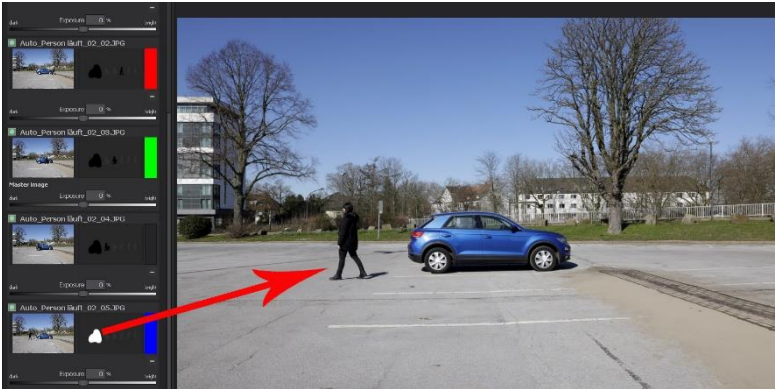
For example, if you want to isolate the person on the very left, ...



...use either a combination of Brush or Stamp in this profile to exclude all other persons...

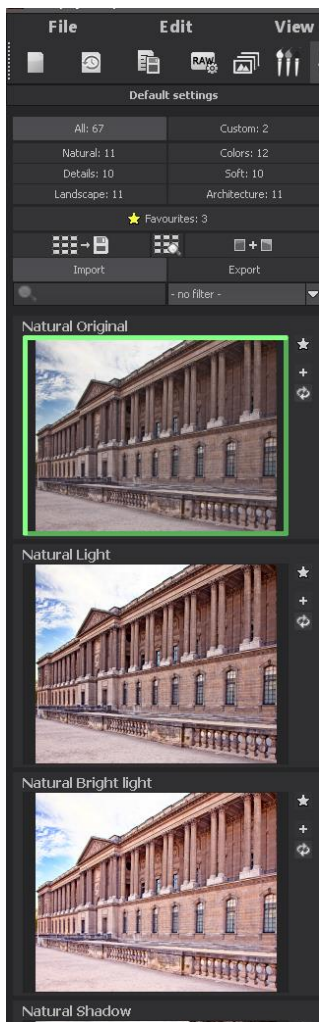


...or you can also use the same tool combination with the fusion "Add Motion (Multipass)"...



... and just paint in the person. The result is very convincing in both cases.

10. Post-Processing: Presets



Directly after uploading your images you will find yourself in post-processing. Here you can begin 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 – „Natural“, „Colors“, „Details“, „Soft“, „Landscape“ and „Architecture“ with the quantity of presets in the appropriate category.

To begin, we've chosen the “Natural Original” 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.

NEAT projects 3 professional isn't about image looks, but preliminary presets. 65 different effects make your image lighter, darker, more vivid in color, and so on.

Image with „Natural Bright Light“.

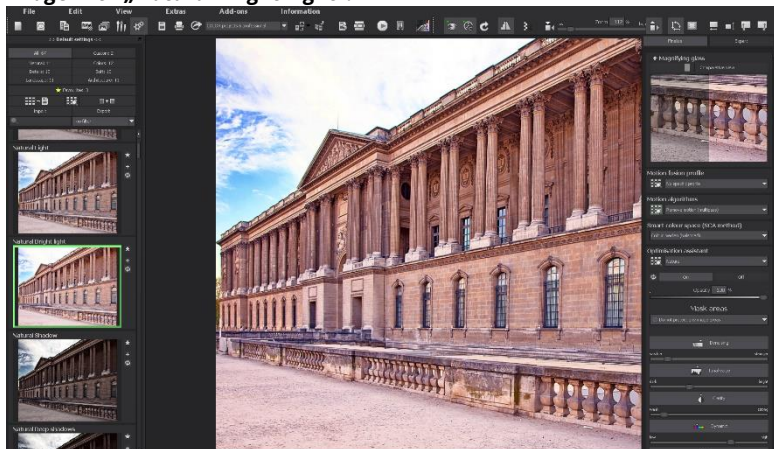
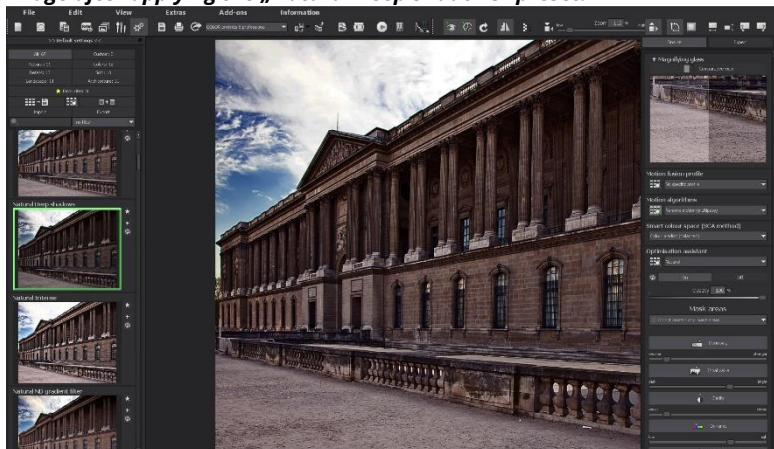
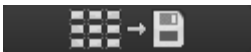


Image after applying the „Natural Deep Shadows“ preset.



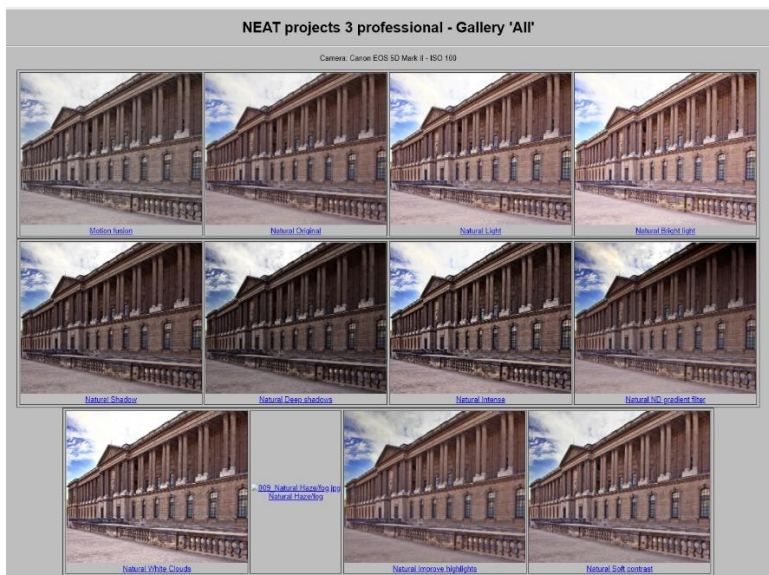
All 65 **NEAT projects 3 professional** presets at one glance. The bar “default settings” can be easily detached and adjusted to the desired size.

a) Preview Gallery



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

Now **NEAT projects 3 professional** constructs 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 favorite presets would look when printed.

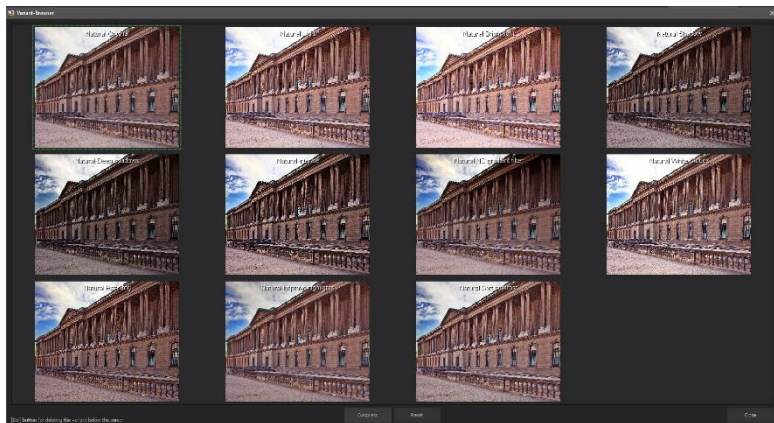
b) The Variation Browser



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

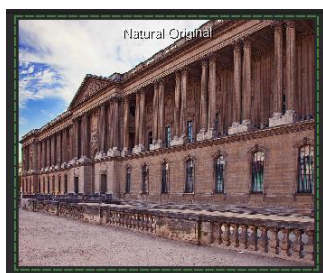
The corresponding short cuts you can find under “Menu”/ “Information / Short cuts”.



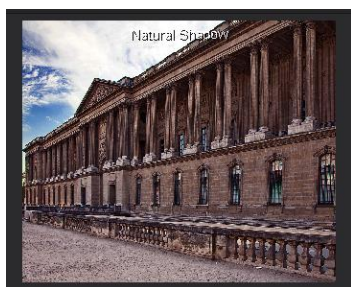
Click on the symbol and **NEAT projects 3 professional** will show you the entire preview gallery of that chosen category. Zoom in on the variant that you want to compare and set a reference image. This reference image you will be able to put on any image **through a left click** of the mouse. You can 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 Original” 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 „Natural Shadow“ 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 adjustment of the relevant program settings will be carried out automatically.

Tip:

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

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”.

**c) Combine Presets**

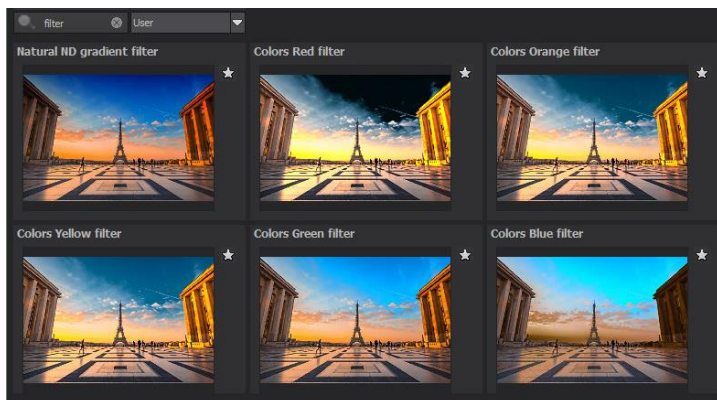
To merge two looks together use the “Combine default presets” button directly under the categories. These new presets will be saved under “Custom”. It’s that easy to expand your numerous options and accumulate new ideas!

d) Import/Export of Presets

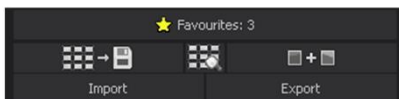
Presets from earlier versions can be easily imported. Do you want to exchange all of your presets with a friend or just secure all of your treasures? Use the practical export function.

e) 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 “filter” will be shown, for example “Gradient filter” or “Colors Red filter”. This makes the search a lot easier.



f) Name Favourites



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

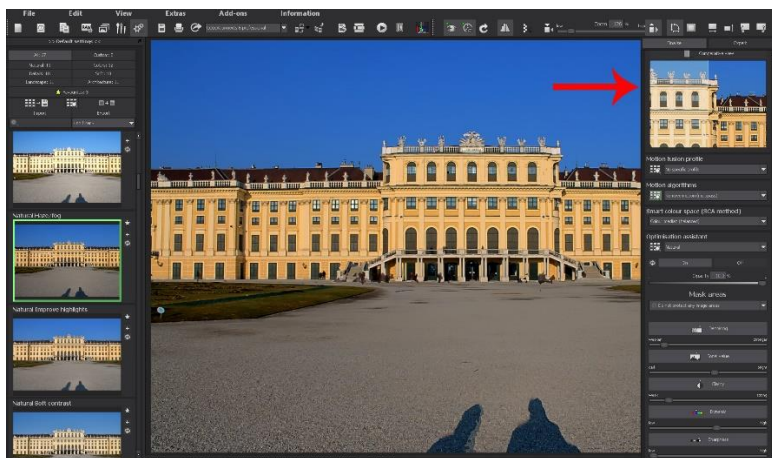
11. Post-Processing: Finalising

Now that you have understood the most important part of post-processing, let's continue with fine-tuning, which can be found on the right side of the screen under "Finalise".

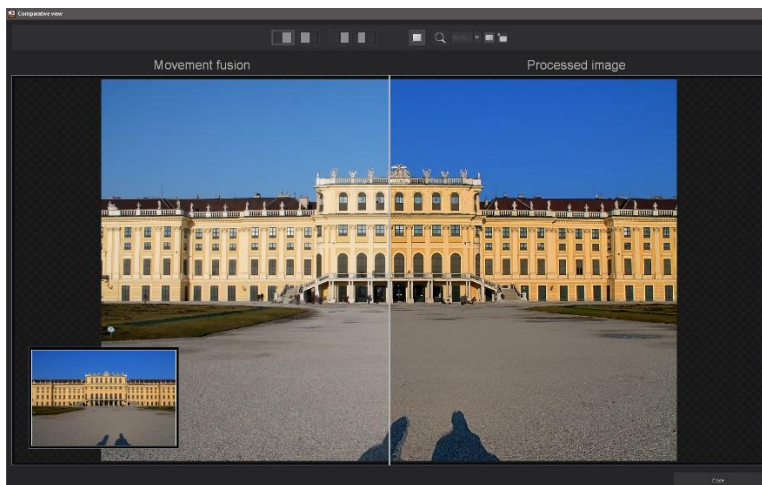


11.1 The Magnifying Glass

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 comparing your edited image and the original image. It simultaneously gives you the opportunity to examine the comparison through the magnifier display.

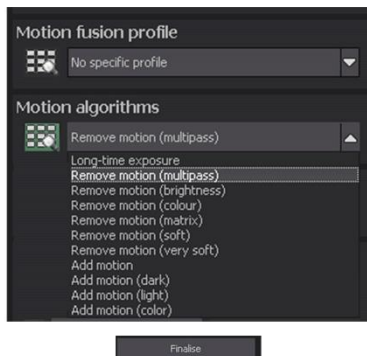
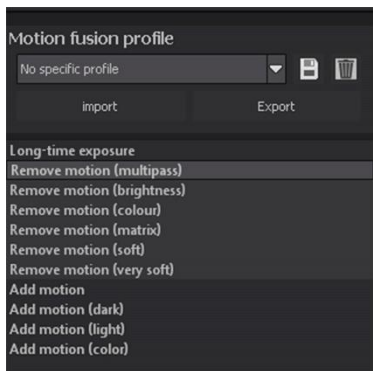


To keep the magnifying glass on a specific point, press down on the "L" key, while you move the mouse over the screen. To free the fixated area of the magnifying glass, press down on the "L" key once more.



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

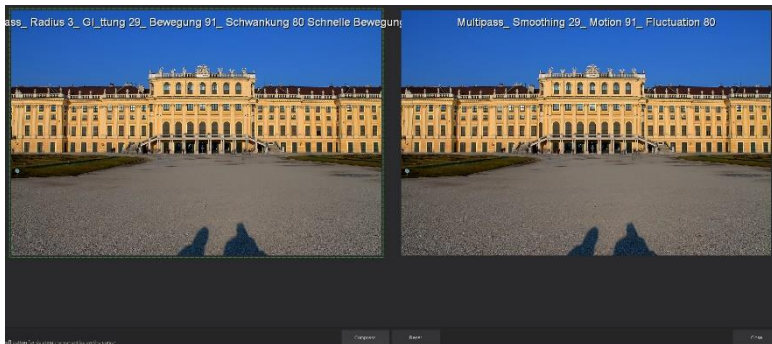
11.2 Fusion Profiles, Motion Algorithms



In Chapter 9 (Manual corrections), the motion algorithms and individually created fusion profiles have been described in detail with the remark that they are identical to those in the Finalize mode.



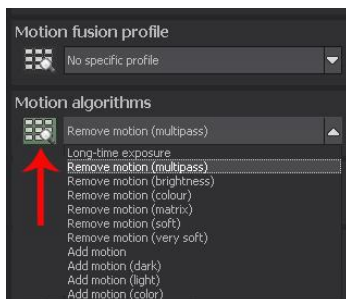
In case no personal profiles have been created, "No specific profile" will be displayed, otherwise the individual profile(s) will be listed...



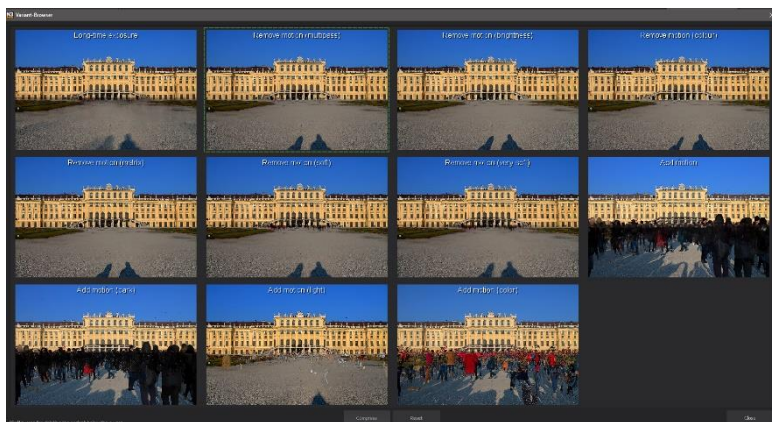
... and can be displayed with click on the control of the variation browser.

A click on the button of the variant browser near the motion algorithms

...



... shows all motion profiles.



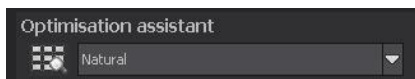
11.3 Intelligent Color Space (SCA method)



The SCA method (Smart color space Adaption) activates the intelligent color space in all calculations of the software and creates higher detail structures in the colors while increasing calculation times. Select one of the methods and decide where you want to put your preference.

Tip: With “Supersampling” you will get exceptional details and saturated colors and stark color variations around contrast edges.

11.4 Opimization Assistant



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

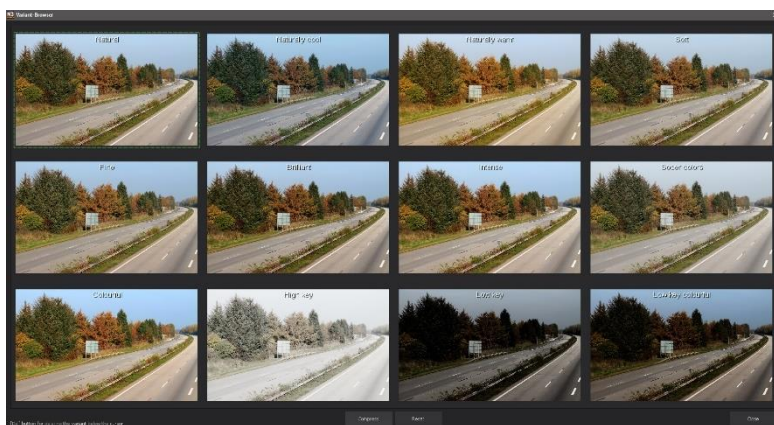
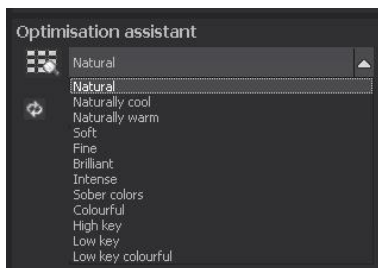
When the preset is activated, **denoising**, **tonal value**, **clarity**, **dynamic** and **sharpness** settings can all be adjusted by sliding the control to the left or right. The result can be seen live.

The optimization assistant is intelligent; it remembers the values you’ve previously entered and applies the same settings to the next image in the same way but adapting the result to the new motif.



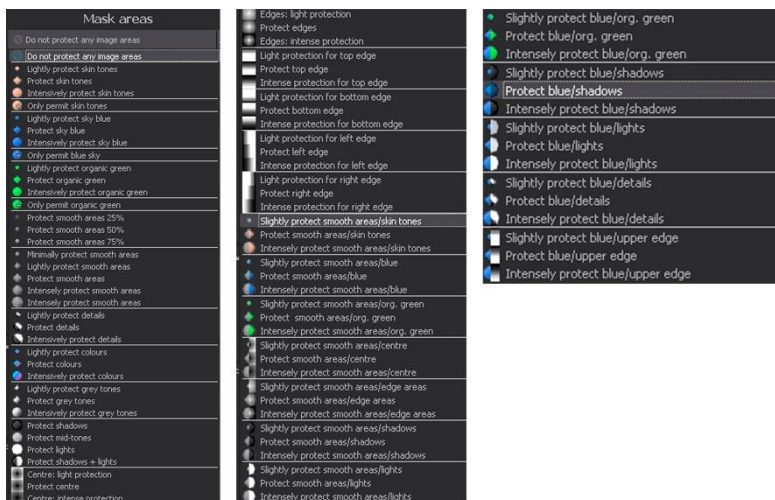
If you would like to edit without the assistant, you can simply turn it off. If you would like to turn off the values that have been “learned” so far, click on the button.

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



The browser for the optimization assistant provides an overview over all of the available looks and makes choosing easier.

Mask Areas



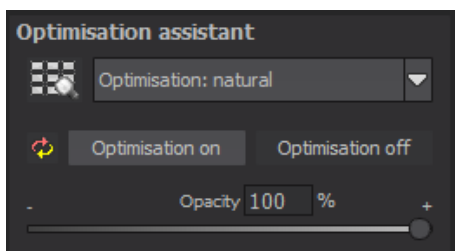
Many options are offered here to mask or protect certain image areas in the Optimization Wizard. Within a masking area like skin tones you can still determine gradations in the intensity of the protection.

The Opacity Regulator of the Optimization Assistant

The opacity regulator in the optimization assistant activates itself automatically as soon as one optimization is activated. The opacity regulator works on every effect that optimizes the image as well as the optimizing pre-settings.

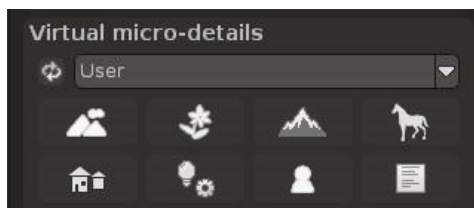
Tip:

Set the optimisation presetting to “High-Key” and adjust the opacity slide control to a value between 40-60%.



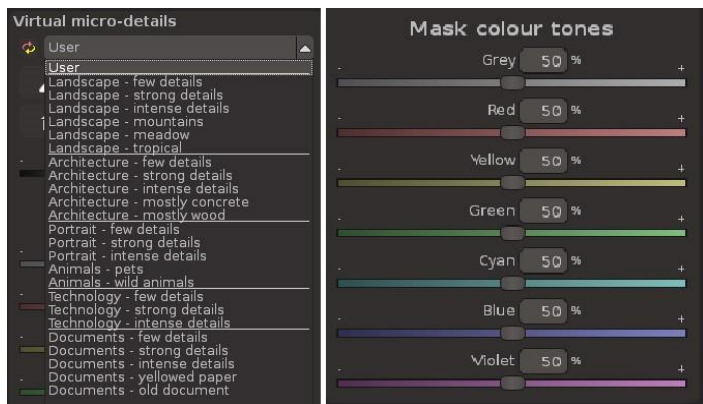
Pro Tip: Remember that the preset specifications and Optimisation Assistant are added together. If you select the „Natural Shadow“ preset and the „naturally cool“ optimisation, you will get a darker image with a cooler color mood. Not to worry, you can quickly change back to the “Natural” optimisation and have the familiar look of the preset again. On the other hand, you can compile new creative ideas and jump between intense, unsaturated and high and low key looks lightning fast.

11.5 Virtual Micro-Details



This module creates virtual micro details.

Virtual means that details are "calculated in" depending on the selected category, which could be in the image (i.e. seem plausible), but are actually not present in the original. The individual categories - e.g. "Landscape" and "Mountains" can be combined if required.



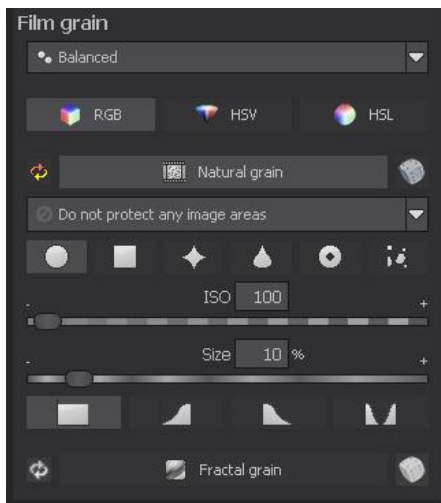
By clicking on a category or the arrow to the right of "User", color tones in the image - e.g. green lawn or blue sky - can be given greater or lesser consideration. The same applies to the differentiations in the categories.



With the combination of 2 categories (landscape/architecture) and the emphasis on the colors gray, yellow, green and blue, the sculpture, lawn, gravel ground and sky have become much livelier.

This way, any somewhat dull image can be enhanced individually without looking unnatural or overdone.

11.6 Granulation module



Especially with black and white portraits or product photos, it often makes sense to add a "good" kind of noise. This allows you to achieve a more "refined" look for many subjects.

With fractal grain, you can create exciting or dramatic image moods, among other things.

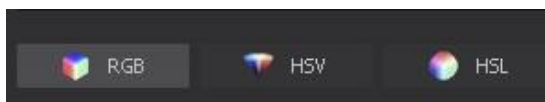
In addition, trying out the different options makes sense for almost all subjects.

Choosing the Granulation

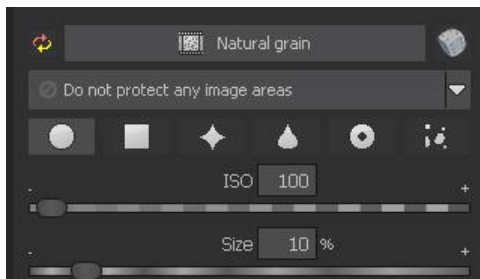


Here, you can choose the type of granulation.

Choosing the Color Space



The RGB color space offers a more regularly calculated granulation, the HSV color less intense granulation, and the HSL color space more intense granulation.



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.

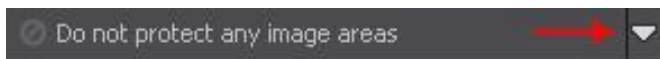


Lights & Shadows: Both receive natural film grain.



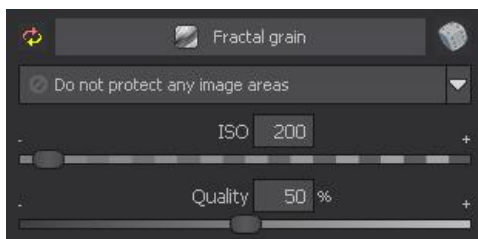
A Click on the button creates a new random distribution of grain and therefore a whole new look.

Protect Image Areas



The options to protect selected image areas can be accessed by clicking on the arrow symbol and are identical to the corresponding modules, e.g. in the Optimization Wizard.

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

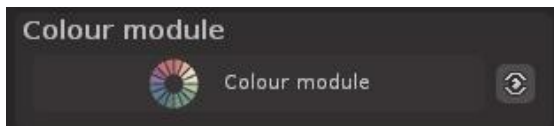
Determines the accuracy of the calculation (number of iterations for the fractal algorithm) of the fractal granulation.

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

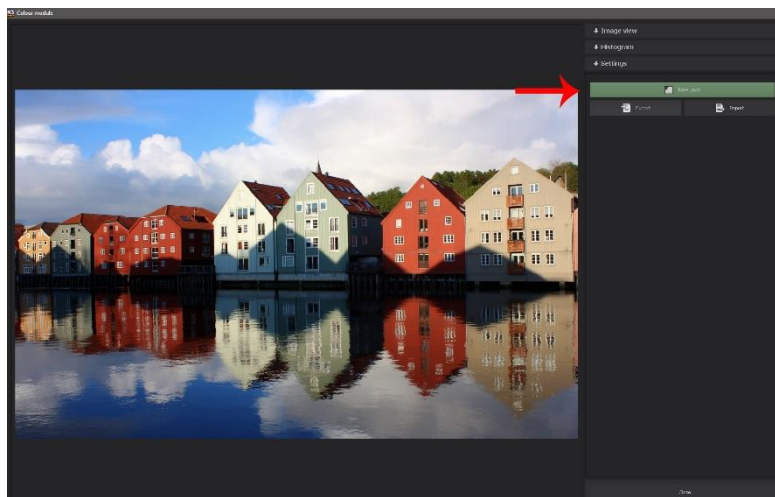


A click on the button creates a new random distribution of grain and therefore a whole new look.

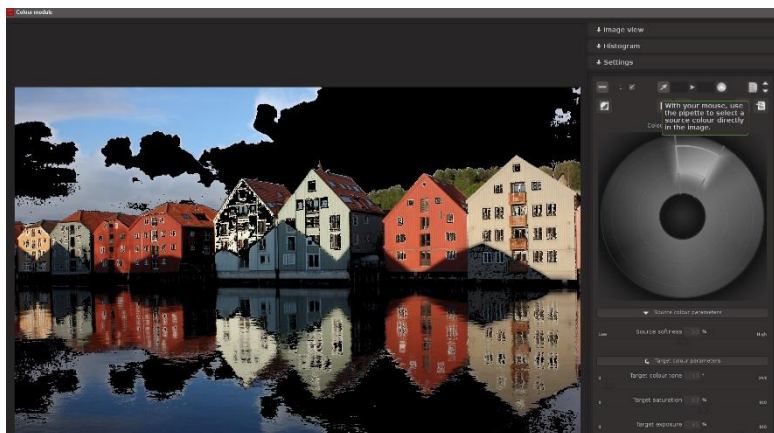
11.7 Color Module



In this module, you can edit colors selectively, e.g. recolor, intensify, saturate, or desaturate.



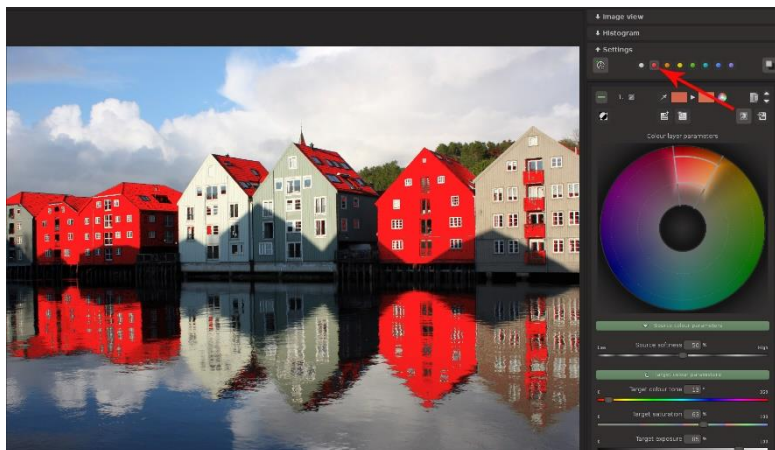
To do this, select a new color layer by clicking on the green button...,



... then use the eyedropper in the interface that opens to select a color that you want to change. The black areas in the image are colors such as white clouds (colorless), which cannot be changed.



The color selection range is displayed in the color circle.



If you open the settings, the selected areas are visualized by clicking on the eye symbol and selecting any mask color.



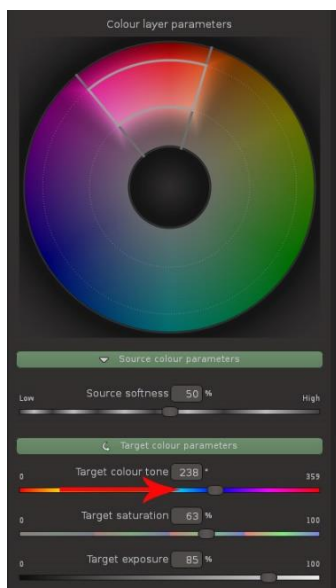
You can change the color selection using the handles in the color circle:

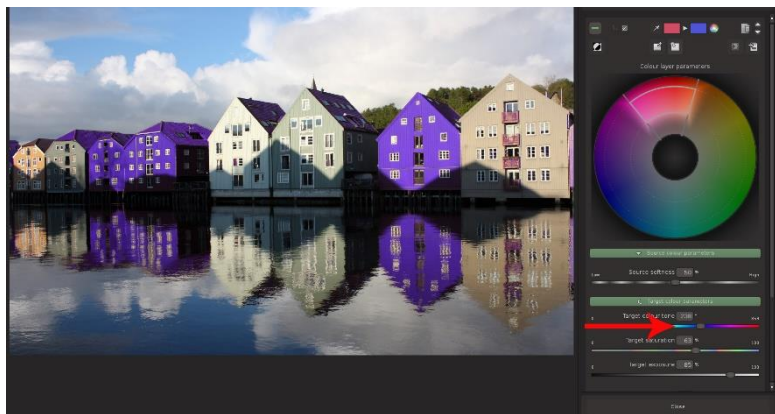
Dragging the handles to the left or right of the selected color selection expands or narrows the colors. The graphic shows that expanding by green colors would include the green trees in the recoloring.

Pulling inward: Less saturated areas are included.

Pulling outward: More saturated areas are included.

If the selected color range meets your expectations, use the sliders to define a new target color, brightness, saturation or other parameters.

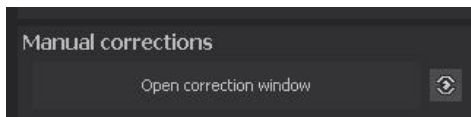




You can create up to 10 new color layers.

Use the "Close" button to return to the Finalize mode.

11.8 Removal of Scratch and Sensor Errors



The Scratch and Sensor Error Correction function is a powerful tool used for improving those unsightly areas in your photographs.

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.

Beneath the Quality tab (10), five new quality modes open up for the automatic search of corresponding areas. These quality levels allow you to scale how precisely the automatic search for corresponding areas should run.

(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.

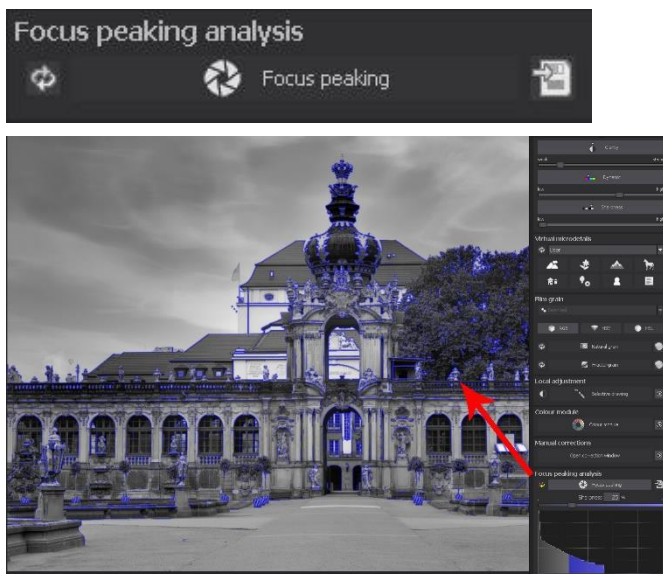


The sensor spot corrector marks all of the patches and determines a source within the image that can be used as a substitute.

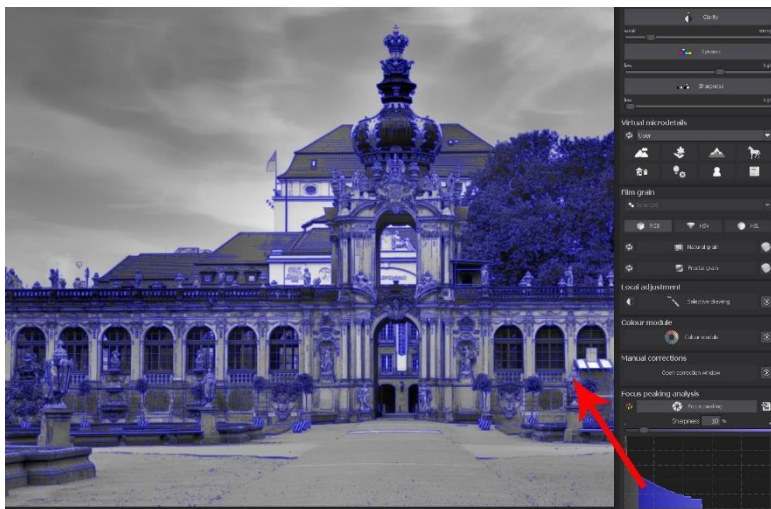


Successful sensor spot correction.

11.9 Focus Peaking Analysis



The Focus Peaking module analyzes the image and visualizes the sharp (more precisely: pixel-wise contrasty) areas as soon as you click on the “Focus Peaking” button.



It is exceptional that the sharpness limits can be expanded or narrowed and the distribution of image sharpness per pixel can be visually traced in the "sharpness histogram".

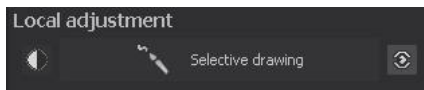


For example, in the case of narrowing (slider to the right, in the example 35), only the very sharp areas are displayed (the blue portion in the "sharpness histogram" is very small), thus providing a very precise overview of the sharpness progression or the frequency of displayed sharpness in an image.

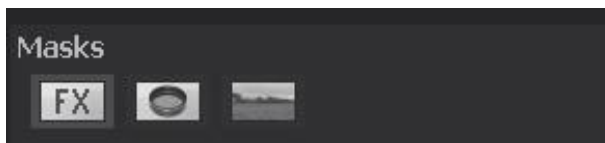
In the example, the "soft" pixels, which represent the smoother areas without details, are clearly in the majority.

By clicking on the button on the right, this sharpness mask can also be saved.

12. Local Adjustments/Selective Drawing



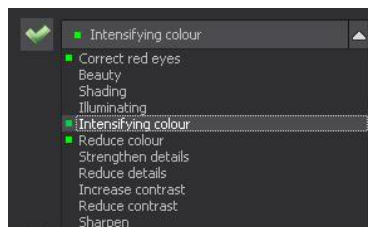
The selective drawing tool from **NEAT projects 3 professional** deserves very special attention.



With the 3 masks (from left to right) Effects (FX), Color Filters and Composing you can edit entire images or image sections (Effect Masks), influence colors in the image (Color Filter Masks) or realise creative new ideas in 8 Composing Masks.

12.1 Effect Masks (FX)

Firstly, this tool selectively edits chosen areas without complicated masks done by hand, like other photo editing programs. **NEAT projects 3 professional** includes a 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 has skimmed over are saved as a mask. These easily and precisely set masks serve as the basis for 11 important image enhancements: „Show original image“, „Shading“, „Illuminating“, „Intensifying color“, „Reduce Color“, „Strengthen Details“, „Reduce Details“ und „Sharpen“, etc. ...



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

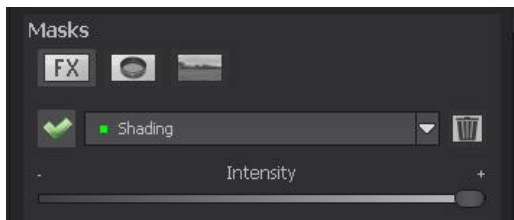
How it all works is probably easiest to explain with an example. Open the selective drawing window (post-processing, finalize – bottom right). Our example is a single RAW file of a rocky coast. The picture's color details are already well edited. Now we want to slightly darken the rocks without taking away the morning mood; the sky and water should not be darkened.



a) 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

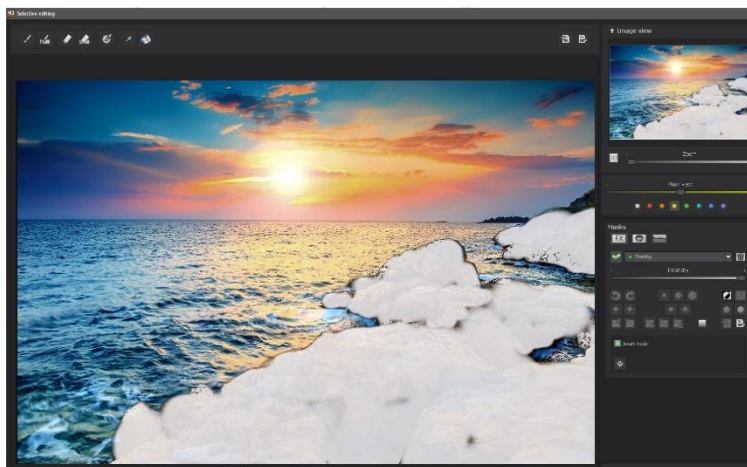


4. Run the mouse over the contours without clicking. You can decide and correct the brush size afterwards.



The brush size has been changed to per mille, which allows for even finer adjustment, and the circle indicator around the brush is now exactly centered.

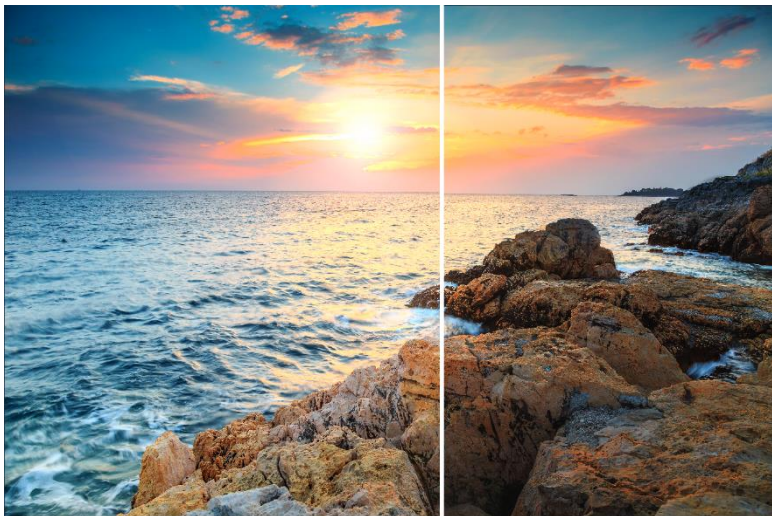
5. Now look at the mask display. The object where the borders were automatically recognised is now depicted. Click and hold, and then trace your mouse along the edges of your chosen object until it is completely selected. In the blink of an eye, we will see the effect as well as the overlying mask.



6. Once fully selected, blend the mask out by moving the mask intensity control to the left or clicking the key „M“.



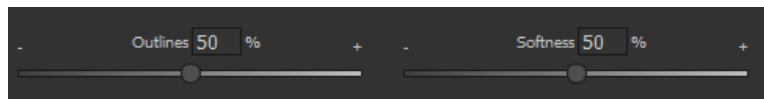
7. You will now see only the effect that is darker rocks - our objective was "Shading". Now you can adjust the intensity of the effect by sliding the control towards the + or -, according to your preferred strength. Done: The Rocks are darker while the sky and water remain untouched by the editing.
8. Click on "Close". You will be returned to post-processing and the selective change will be applied.



The rocks on the right are significantly brighter after the selective correction. The sky and sea still have the same tone values as before.

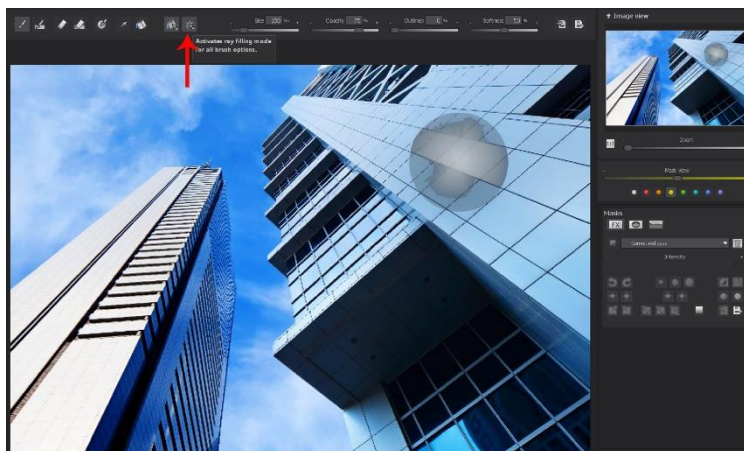
9. Use your quickly made mask for a further effect. Go back to the selective drawing. Our selective mask has remained.
10. Click on  and copy the mask to the clipboard. Switch the mask to “Sharpen” and use the  to paste the mask back again. Now you have only sharpened the rocks; other parts of the image were remain untouched.
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 fix 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 .

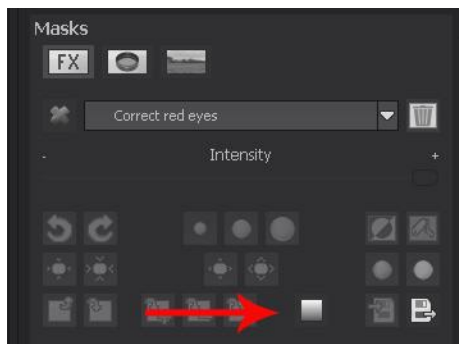
Ray filling mode  is very precise and favoured for smaller objects, geometric forms or subjects with straight lines, like in our example here.



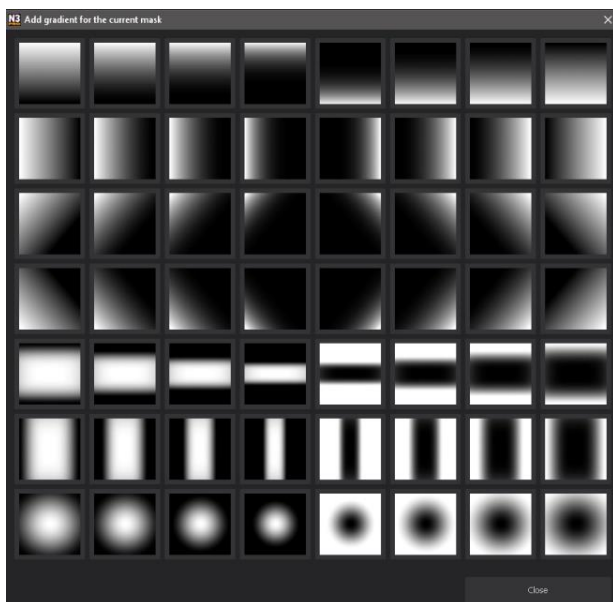
With ray filling mode you can mask just the walls of the skyscraper while the window surfaces are not selected.

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.

New in NEAT projects 3 professional is a history browser. Contrary to other gradient selections in the expert mode, which seem to be identical at first sight, here the mask is generated directly into the image and the "gradient masks" are combinable. This means that you can, for instance, protect the right and left edges or other image areas from the previously applied image effects if you have selected "Show original image" for the effect masks!



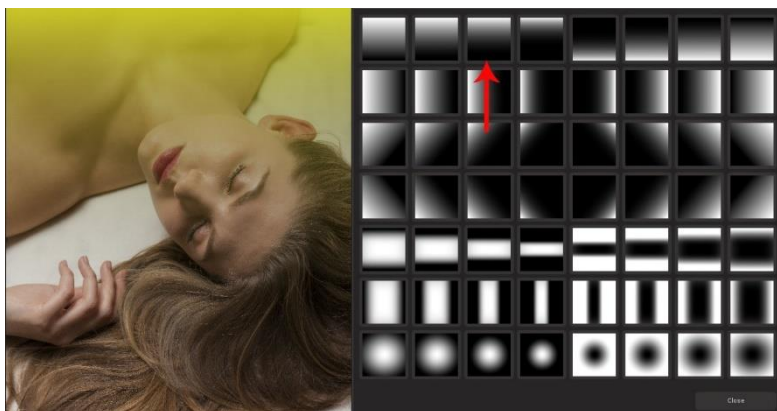
When you click on this button a window opens where you can choose the gradients.



Here you can select the gradient(s) to include the desired areas of the image in the masking.

White means: The original image without effects is 100% faded in again.

Black means: The mask has no effect.



The visible mask visualizes the gradient: The previously set effect parameters are completely withdrawn in the upper part of the image and then slowly faded in.

b) Functions and Possibilities in Selective Drawing

> Optional Mask Colors

For the presentation of the mask as well as the brush, choose one of the ready-made colors.



The display will be immediately adjusted to your desired color.

> Selective Drawing – Creating Masks

Masks can also be created from a color or brightness.

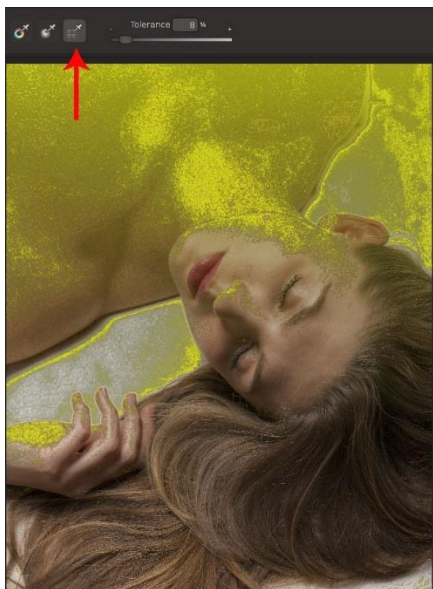


With the button **(1)** you activate the “Create Mask” modus. You will find yourself in the standard mode “Create Mask out of Color” **(2)**. If you want to create the mask out of a brightness, chose the **(3)** button.

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

Tip:

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

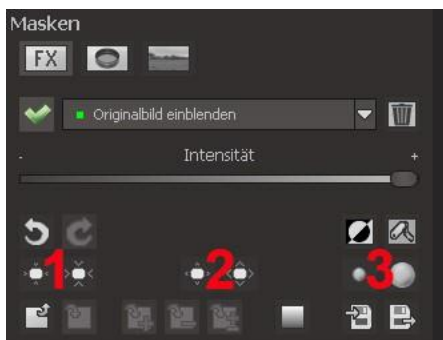


Use the button (4) to select a contour thickness or details and combine it with the gradient mask(s), for example, as in the graphic. If you move the eyedropper over the smooth skin areas, as in the example, these are excluded from the calculation; if you move the eyedropper over detailed areas such as the hair, these are protected.

This way you can quickly and individually optimize general edits of the entire image by combining different masks and, if required, also expand or narrow these masks with the brush!

> Global Mask Functions

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



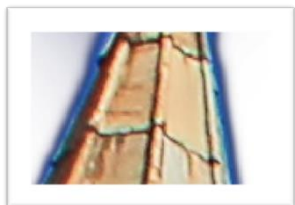
Reducing the entire mask outline



becomes



1. Increasing the entire mask outline



becomes



2. Soft-focus effect on the entire mask



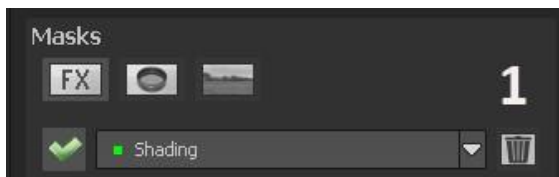
With global functions there are two buttons – the left button fulfils the function with a lower effect while the one on the right with a bigger effect.

> Multiple Undo- and Redo for Brush Functions

Click the left arrow once or more to go back one or more brush strokes, or the right arrow to jump forward one or more brush strokes.

> 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 wastepaper button **(1)**.

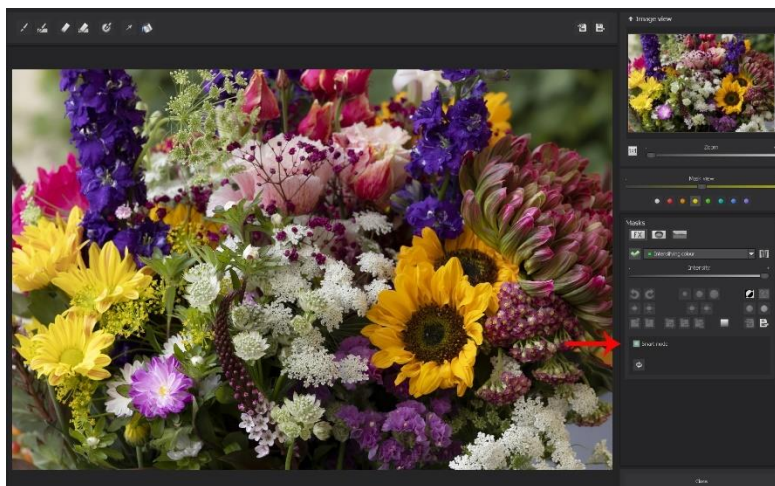


After clicking on the button, a security query will follow, so that no important work can be lost by accident.

> Adaptation of automatic masks onto the “Distortion correction” of the RAW module

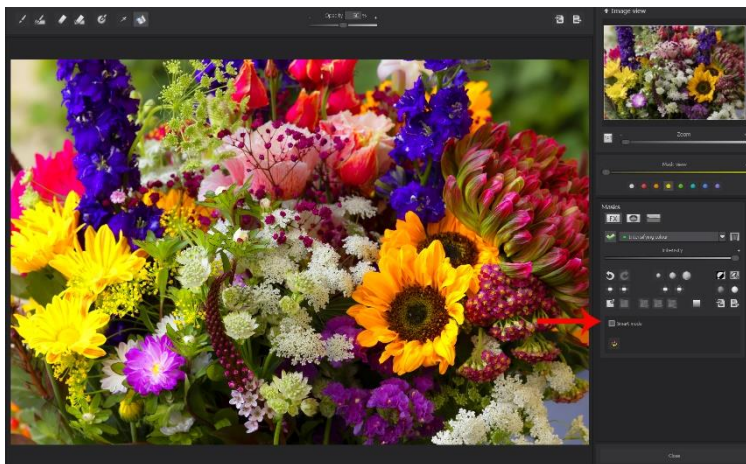
Selective drawing works directly with the RAW module. This includes the “Distortion correction” that is part of the RAW module and that is applied completely automatically on several drawn masks.

> Smart Mode for Effects which can be drawn

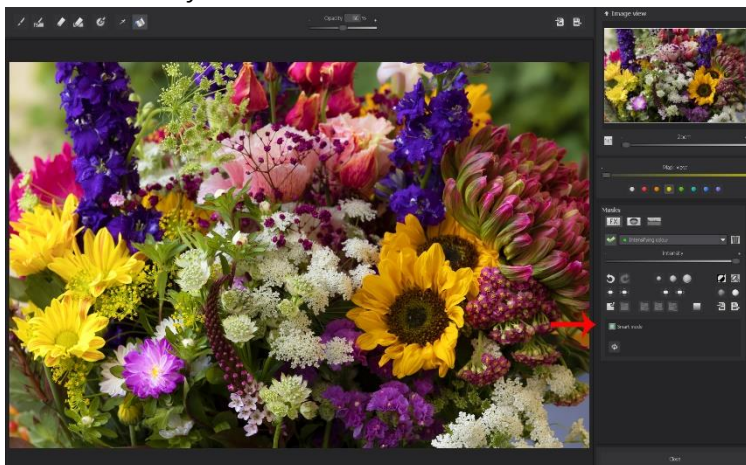


If you choose an effect, e.g. “Intensify Color” as in the example, the Smart Mode will be activated. It is also possible to deactivate it.

This mode adjusts the impact of the selected effect to the uploaded image and prevents that, for instance, a color intensification will be applied without differentiation and with the same intensity on the image.



If you deactivate the Intelligent mode, as in the example, you will see much too colorful and over-saturated colors that can be corrected with the Intensity slider.



The activated Smart Mode differentiates depending on the subject: in highly saturated areas the effect is less effective, in less saturated areas it is more effective.

Thus, for all effects, this mode ensures that the original is analyzed, and the resulting image usually does not need further manual correction.

12.2 Color Filters of Selective Drawing



Next to the effect masks, you can find the color filter masks. Click on the drop-down menu to choose one of the following filters: red, orange, yellow, yellow-green, green, cyan, blue and violet.

Color filters work like the color filters on cameras. They absorb certain colors, filter them out or let the other colors through. The filter module is a tool that lets you enhance or reduce certain colors, make them brighter or darker, and correct or even alienate image content.



Original

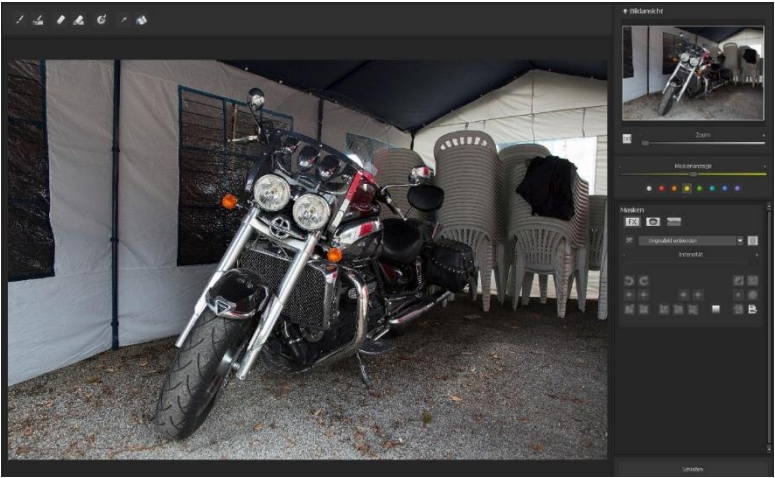


For instance, the red filter absorbs the color red , strongly darkens blue colors like the sky and brightens red/orange tones.

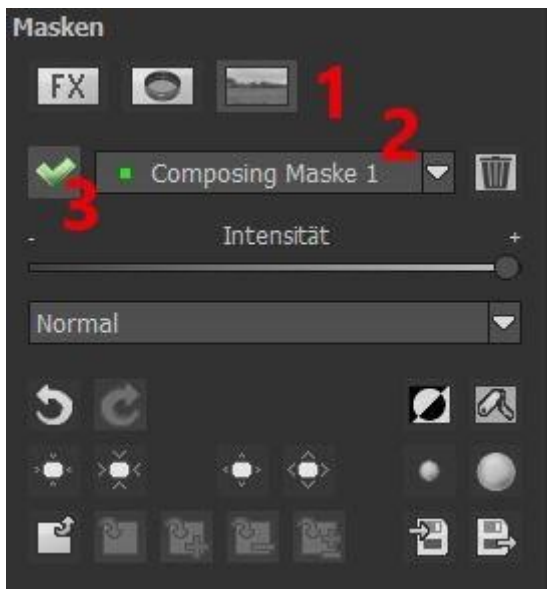


The blue filter lightens blue tones, making them appear more radiant, and darkens red tones.

12.3 Composing Mode



Composing module: On the left the uploaded original, on the right the preview thumbnail, masks and parameters.

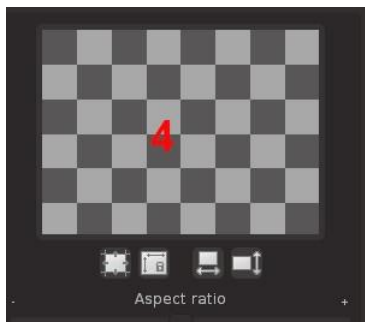


In the Composing mode of selective drawing, you have the opportunity to build up to 8 levels of images into your current motif.

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.



With a click into the chessboard pattern **(4)**, you can upload any image you wish to create the next level with.

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 are 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 of 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.

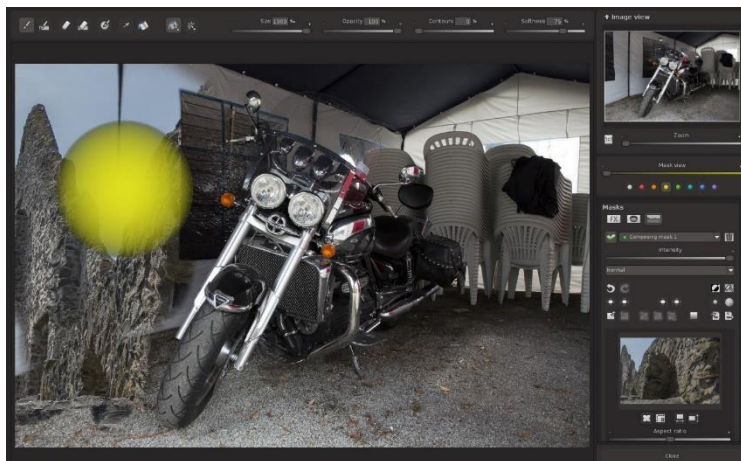
Zoom: Choose the size of that image level by zooming in or out

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

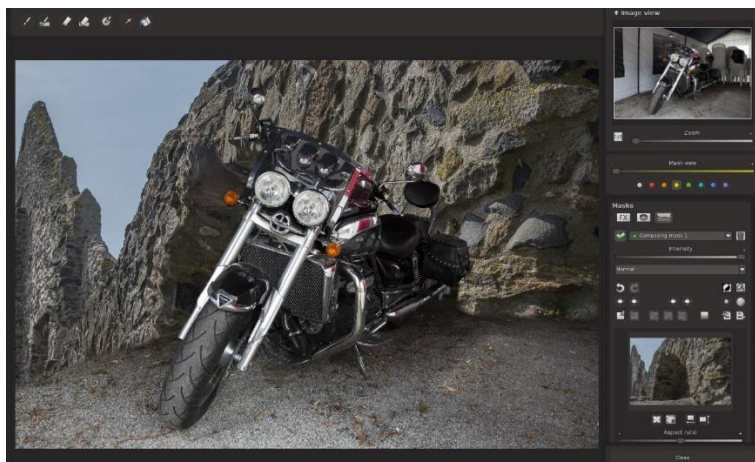
Shifting vertically: Move the image of that level up or down.

Exposure to light: Exposure levels in your current image may not always match those of the image level. Here you can adapt the exposure and darken or brighten the images however you want until they match.

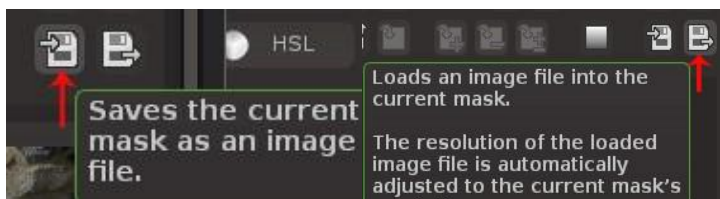
Using the **Contrast** and **Color** sliders, you can further adjust your composed image next to the exposure that it blends in even better with your original image and the overall image looks even more realistic.



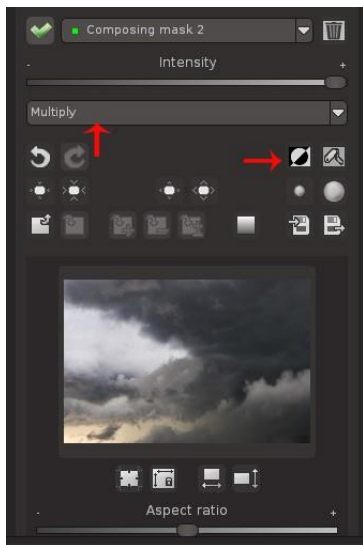
With drawing mode (brush) activated, you can now paint/blend in the new background as desired.



You have now created your first composing.



Save the generated mask in a folder of your choice under a descriptive name. You can access your saved mask again at any time.



If you want to add more atmosphere to the composing, you could load in a dark sky in Composing mask 2, for example.

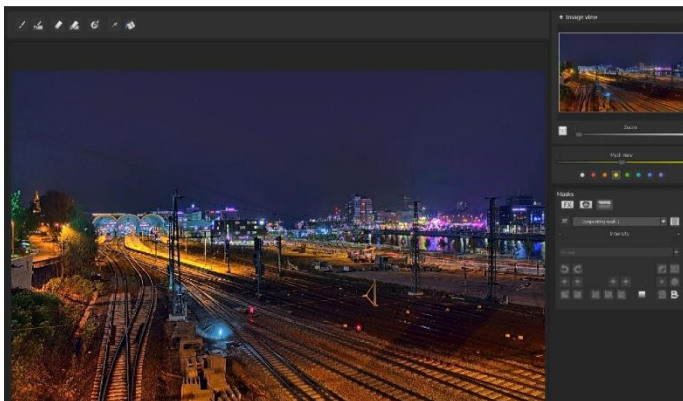
Click **Invert current mask** to invert it. The sky covers the whole image now.

Set the calculation mode to **Multiply** and you get the 2nd composing below without any further painting. If wanted, you can use the eraser to lighten the dark areas a bit.



With this module you can realise your image ideas.

Composing example 2



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



...quickly transformed into an eyecatcher with the help of the composing module.

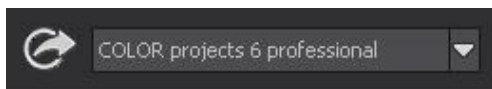
13. Workflow

13.1 Edit final image further in an external program

NEAT projects 3 professional offers interaction with external programs. After successfully completing your initial edits, this lets you continue to make further changes in another image editing program of your choice.

a) Open in other projects programs

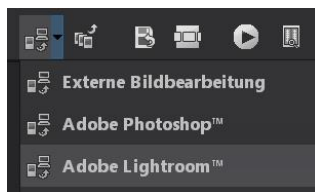
Click on the “Projects” symbol in the toolbar to open the image in a different program from the projects series. Use the drop-down menu beside the symbol to choose one of the programs that you already have installed on your computer.

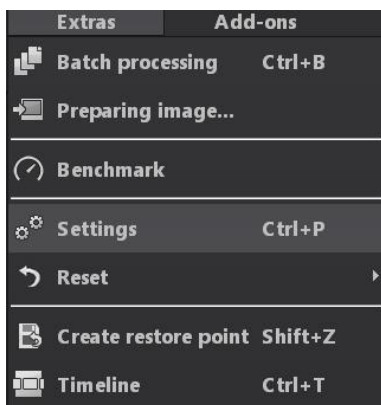


b) Open in other photo-editing programs

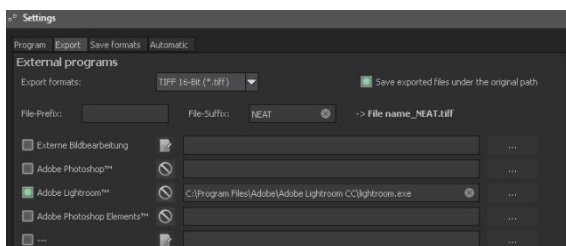
To directly open the image in another photo editing program (such as Adobe Photoshop), click on the corresponding button in the symbol bar.

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.

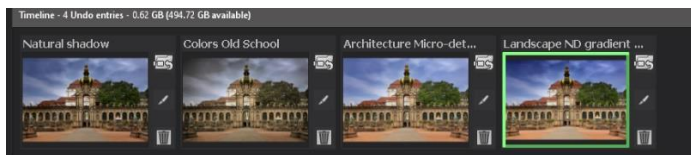


13.2 Work with Timeline and Restore Points

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



“Create Restore Point” saves an in-between point of the current settings. 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 for testing the outcomes of additional effects and settings on your image. 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. Click on  and you can add a note as a headline.

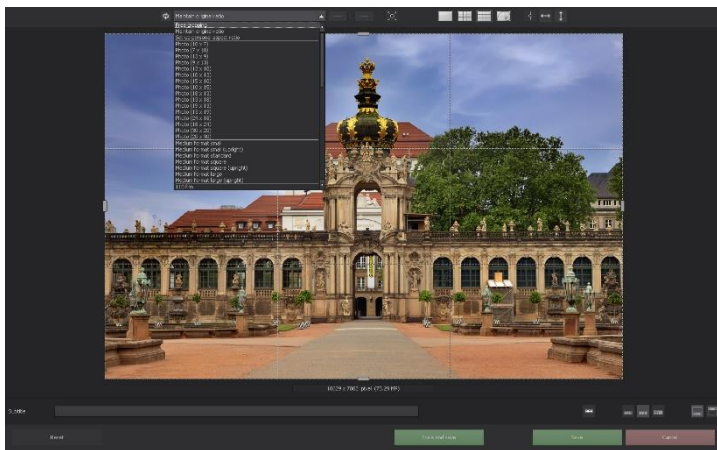
13.3 Selecting and Saving Sections of Images



Save final images using the buttons in the toolbar, from the file menu or use the corresponding keyboard shortcut (Ctrl+S).

Cropping and captions

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



At the top of your screen, you will find 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

The center 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.

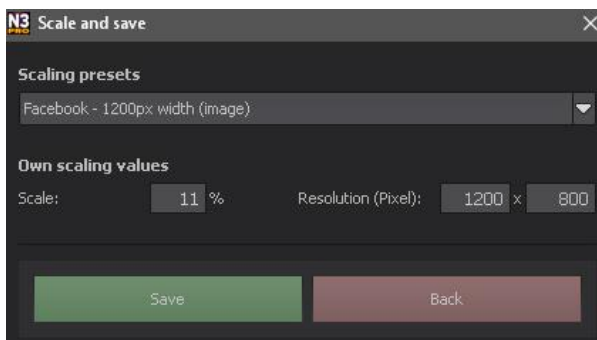
The size of the text will be automatically coordinated to the final cropping.

You can either crop free-hand or make use one of the 71 provided formats

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

You will also find the "Scale and Save" button at the bottom. With this option you can choose between 30 different templates for various online platforms such as Facebook, Instagram, YouTube, etc. or simply

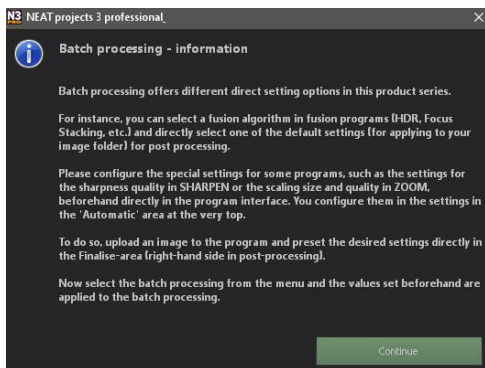
specify your own scaling values (scaling in percent and resolution in pixels).



As soon as the image has been cropped and captioned, confirm the save and the following window will prompt you to select a file format and name your file.

14. Batch Processing

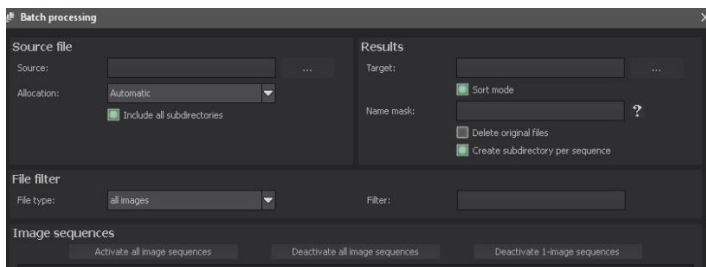
NEAT projects 3 professional batch processing allows for automatic processing of multiple bracketing series. The function can be found in the drop-down menu for **Extras** in the menu bar or by clicking the corresponding symbol on the start screen.



First, choose the source folder where the image sequences are located. The files can also be mixed, since the system will automatically recognise and sort the bracketing series vs single shots. The “Include all subdirectories” checkbox not only searches through all of the selected folders, but also all subfolders and their further subfolders.

14.1 Batch Processing: Renaming and sorting

In the area of the target folder, you will be able to activate the “sort mode”. You set thereby the batch processing in the renaming and sort mode.



As soon as the sortation mode is active, new push buttons will appear.

File name filter:

Here you can insert a file name for renaming the image.

Note: To sort your image data into the data carrier without renaming, simply leave the file name empty.

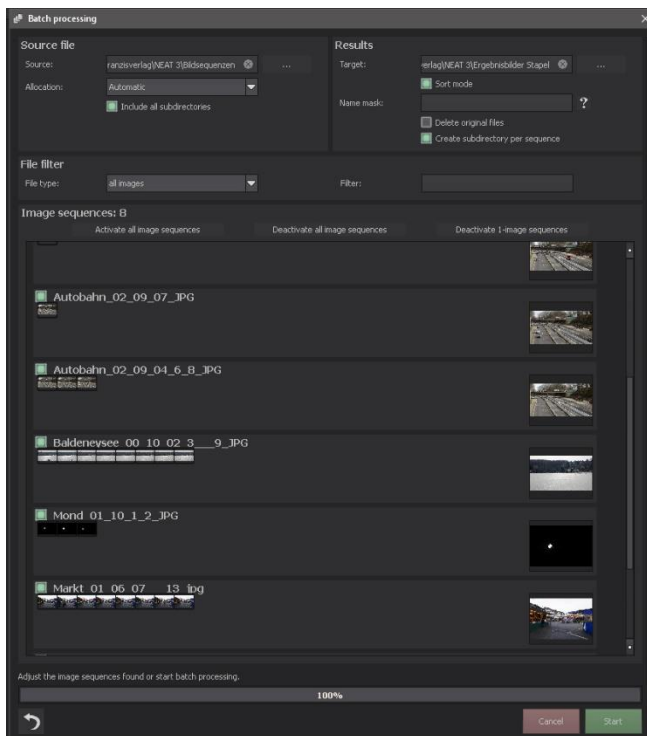
Deleting the original file

This option you should only use if you are absolutely sure that your insertions are correct.

The original data of the image will then be deleted. Only the newly changed sortation and names will remain, the original data of the image will then have been deleted.

Install a subdirectory per sequence:

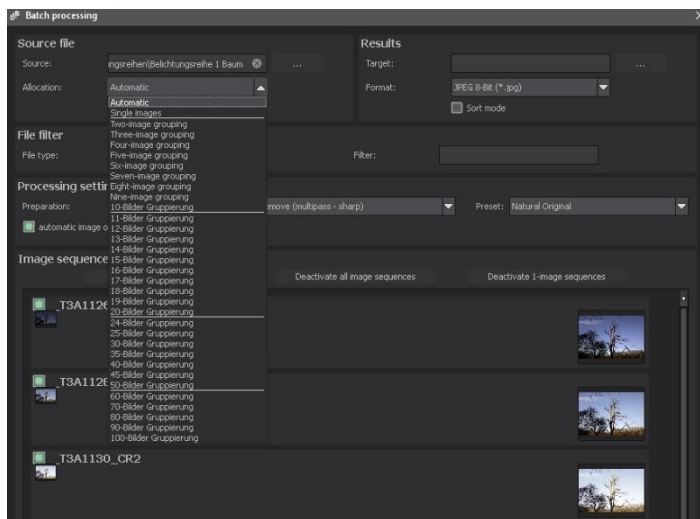
When this function is active, every bracketing series gets its own sub-directory.



Note: Remember that looking through folders with several subfolders can require a lot of time.

14.2 Allocation and automatic bracketing recognition

This feature takes on all of the work for you. Now you can choose between different modes:



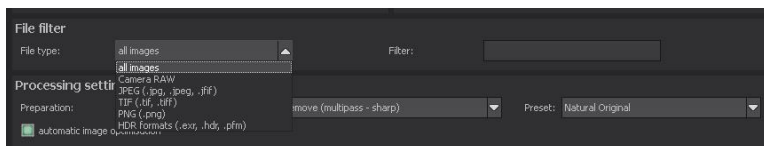
Automatic allocation: Loads all of the images and based on the images' content, locates those that belong to an exposure bracketing series. The brightness as well as the coverage are compared, which results in very good automatic recognition.

Individual images: The "Individual images" option sorts every image into its own bracketing series. This setting is very well suited for editing image sequences, for example, those generated from footage.

2 images to 9 image groupings: Select this option if you have taken HDR films or are certain that the bracketing series in your folder all contain the same number of shots. The file names for the final images

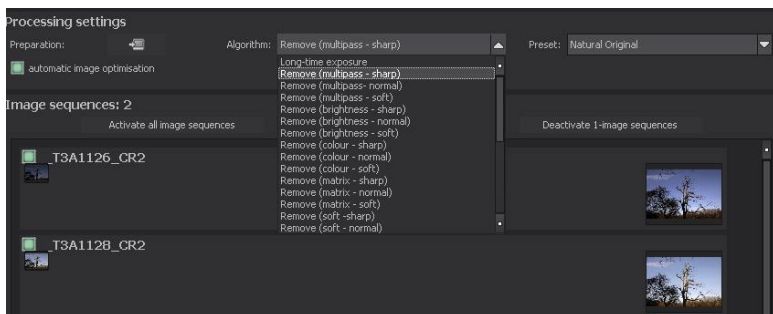
will automatically be successive, so that the edited images can be directly used in a video editing program.

Results: Here you can set where the resulting images of the batch processing will be saved. Select the corresponding folder with the “Target directory (. . .)” button or enter the name of the folder directly into the text box.



Format: You can choose from nine different formats to save your resulting images. With .jpg, .tif and .png, there are two 8-bit formats (LDR) and four 16-bit formats (HDR). JPG images are always the highest quality and TIF files are saved uncompressed and without defects.

For further web editing, the final images can be saved in Open EXR as well as in Portable Floatmap and Radiance RGBE.



14.3 Processing Settings

Select the settings for the image generation here. These apply to all of the bracketing series in the batch processing.

Image Preparation: Allows you to change all RAW processing and image orientation settings of the current batch processing.

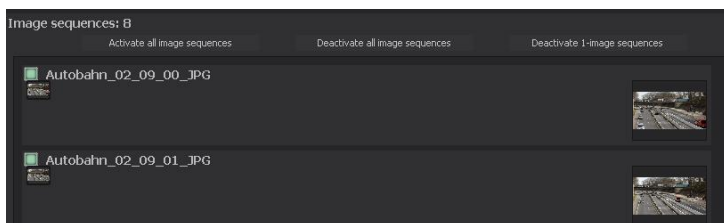
Algorithm: Select the movement preset for batch processing.

Post-Processing: The presets contain all post-processing presets, including all of the presets from your "Custom" category that you designed yourself. You can also choose a special preset before batch processing and apply it to multiple bracketing series.

Note: Apple computers systematically open this dialog before the batch processing window.

14.4 Image sequence view

Here you will find information about the located bracketing exposure series.



At the top of the display is the number of listed bracketing series. Directly below it are three buttons for global activation and deactivation of series.

Activate all exposure bracketing: Activate all corresponding bracketing series for the calculation. (Standard setting)

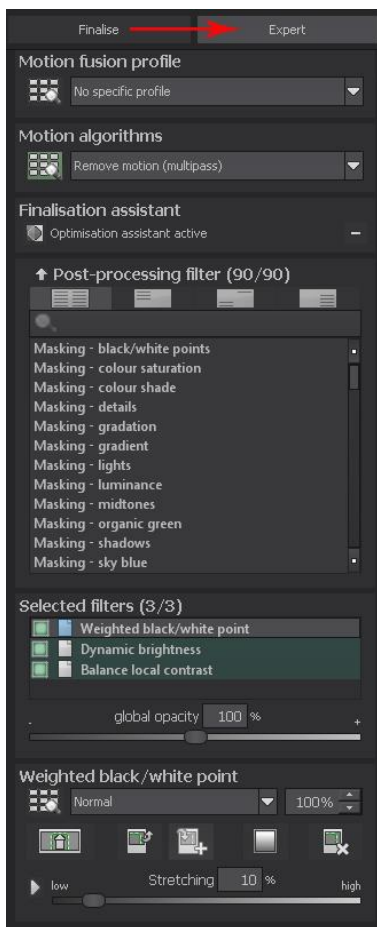
Deactivate all exposure bracketing: Deactivates all assigned exposure bracketing for the calculation.

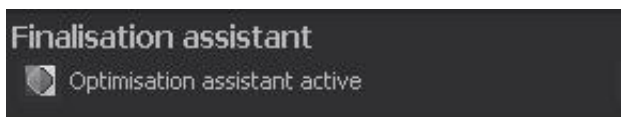
Remove single images: Removes all exposure bracketing for single images from the calculation and display. You can use this option if the

program develops a very bright or very dark image incorrectly, or if you have taken photos that should not be processed by macro.

15. Expert Mode

The expert mode is divided into different areas. Below the motion fusion profiles and the motion algorithms is the finalization assistant.



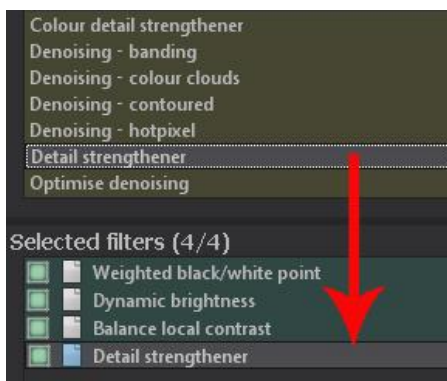


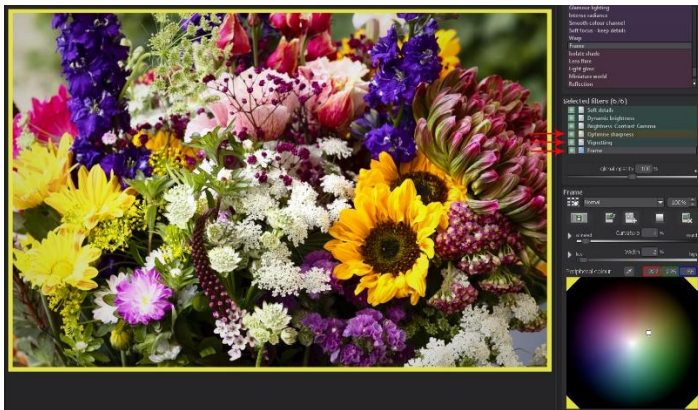
This shows you the functions active in the "Finalizing" area when you click on the button.

Below that, you can find a list of all available post-processing effects.



Double-click to add one or any number of additional effects to the currently selected effects at the bottom of the list.





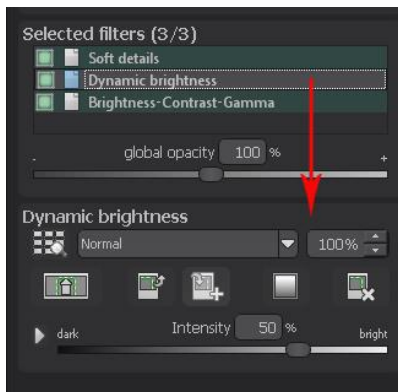
Example: In the selected preset "Landscape brilliant" 3 more effects are added to the default ones to change the image according to your wishes: "Optimize sharpness", "Vignetting", "Frame".

The colored circulating arrows next to the preset show that you have either made changes to the parameters of the default effects or added more effects. Clicking in the icon restores the default settings of the preset.



To change the values of an effect in the list of selected effects, select it with a left click. The corresponding parameter area for the selected effect will then immediately appear directly below the list.

Here you can adjust the settings for the spreading method with the corresponding opacity, the setting of the effect intensity, colors, positions, and much more. Note also the possibilities of the context menu in the list of selected effects.



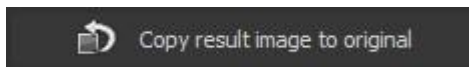
To get a better feel for these values, you can either review the tooltips or click through some of the presets and see how the effects and their parameters change.

Smart Mask filter: The selected effects are calculated from top to bottom. This means that the order of the effects within the list can have a significant impact on your resulting image.



For example, if you activate the Masking Highlights effect, it always ends up at the bottom of the list of selected effects and has no effect because masking only impacts effects that are below it. If you drag it to the top position with the mouse button pressed, all subsequent effects will only affect the highlights in 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 very effective way of setting effect parameters is the real-time preview.



When you click on these, the value range of the corresponding value is scrolled through once forwards and backwards. If you have found a setting that suits you, simply press the "ESC" key and the value will be accepted immediately.



Selective Editing

All effects except masks affect the whole image. If you want to change the effect as a whole, you can do this, for example, via the opacity of an individual effect or via the "Global opacity", which affects all selected effects.



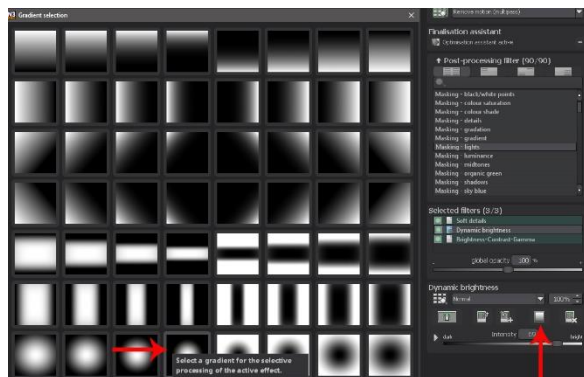
Selective, i.e. selected image areas, can be selected with the 5 buttons (from left to right) and adjusted to your liking:

- Opens the selective editing view of the currently selected effect.
- Copies the selective areas to the clipboard.
- Pastes the selective areas from the clipboard into the currently selected effect.
- Displays the selection of pre-made selective gradients.
- Deletes all selective areas of the currently selected effect.

Example: you want to apply the Dynamic Brightness effect only to the center of the image:

Activate the effect by clicking on it.





Click on the "Select gradient" button to display the dialog box with all the gradients. Select the desired gradient by clicking on it and you will see in the resulting image that the brightness decreases from the center of the image to the edges.



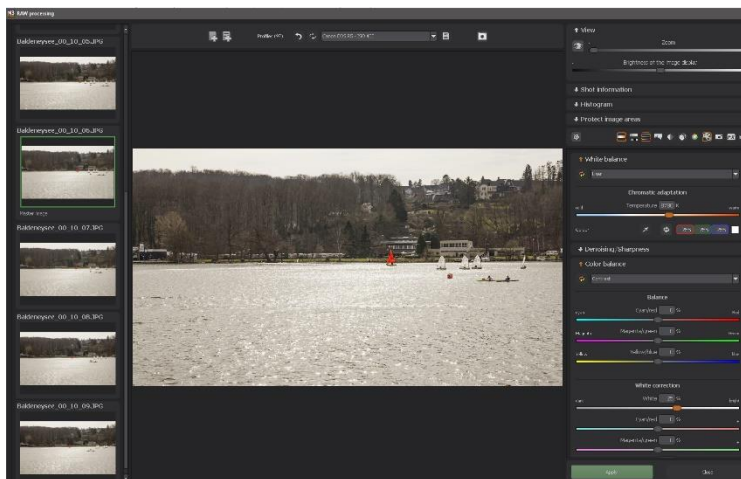
Before



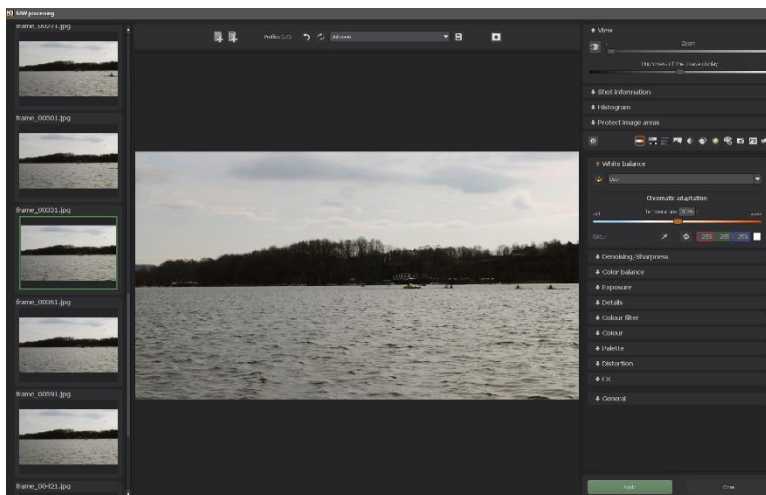
After: The focus lays on the center of the picture, the structures at the edges are clearer, and the symbol confirms that selective editing was applied.

Note: In the gradients, white means the effect is 100% effective and black means the effect has no impact.

16. RAW Image Processing



In the integrated RAW module, you can edit uploaded image sequences, ...



... movie sequences, or single images.

Here, various tools for denoising/sharpening, illumination, color, details, and a tool for distortion correction are provided.

In this RAW module, you only have to make changes once, since any change made will be applied automatically on the whole sequence.

The orange arrows indicate where changes were made.

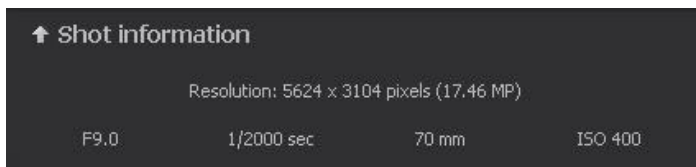
> Zoom and brightness

Located in the upper right corner are the controls for zoom and brightness of the image display.



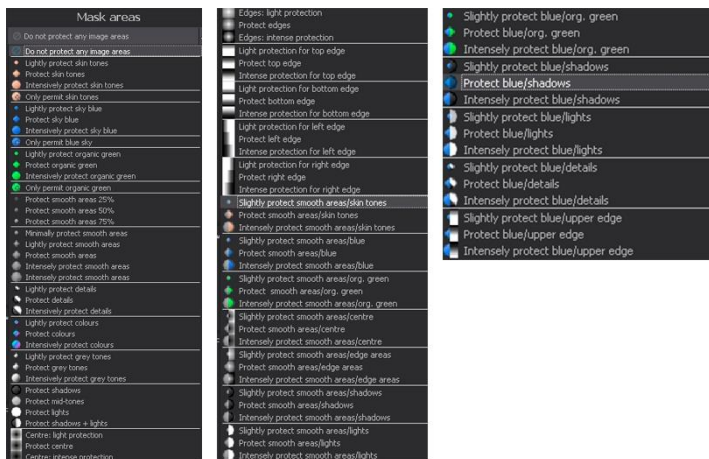
Note: The Image Display Brightness setting does not change the brightness of your image, but only the display, for example to be able to see the effect of image denoising in darker areas.

> Area shot information



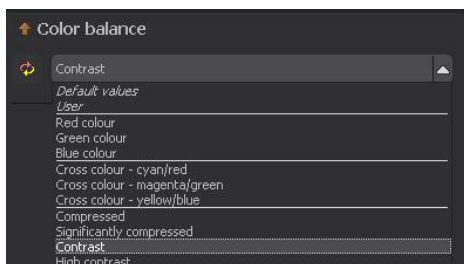
Here, you can see the setting of an uploaded image: resolution, F number, focal length, and Iso number.

>Area protection



Area protection is identical with the module “Mask areas” in the optimization assistant and can be applied differently with every selected category.

> Presets



In all categories, you can now also choose Presets which can help you achieve your visions and ideas for your creative projects.

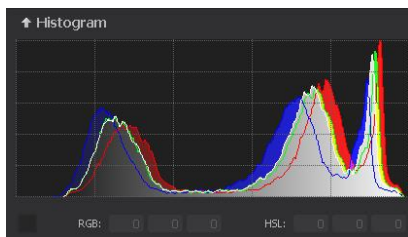
> Resetting the category

Every category can through a click on the reset-button (bottom left) be reset to its original state without influencing the settings of the other categories.



> Overview over the most important functions found in the RAW module

Histogram



The Histogram can be found underneath the slide controls.

RGB: Display of image RGB values at your cursor's location within the image.

HSL: Display of image HSL values at your cursor's location within the image.

Note: HSL stands for Hue, Saturation and Lightness.

> An overview of the most important RAW functions:

White balance: Here you can regulate the color temperature. Use the pipette to select a white balancing color directly from the image.

Denoising/ Sharpness: This feature regulates the image's noise and sharpness. Control the quality and different types of noise such as color noise, banding or hot pixels.

Color balance/ white balance: Here it's all about color and black/white correction. Modify the general color mood and neutralise white and black - the icing on the cake for professional color correction.

Exposure: Influence lights, shadows, contrast and brightness in the final image. With the new dynamic brightness, you can adapt the light to the contents of each image individually.

Structure: Details, Micro Details, and Soft Details are each matched in shadows, highlights, or mid-tones.

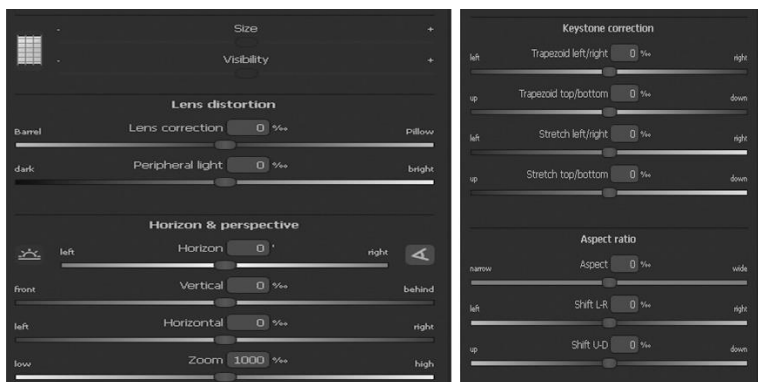
Color filters: Here you can influence, strengthen or desaturate individual colors from red to violet.

Color: These color settings are all about the luminosity of lights and shadows. You can even reduce the presence of unwanted chromatic aberrations.

These light diffraction corrections allow you to purposefully remove the chromatic aberrations of a certain color. Thereby a lens curve will be calculated backwards on top of the color channel.

Palate: Adjust the saturation of individual colors.

Distortion:



Take a closer look. These mighty tools can straighten out the horizon, correct camera angles and lens errors. Use “Autofit” to automatically trim any awkward borders.

The reference grid can be adapted in the distance between the grids as well as in its transparency. This is how you will always have the maximum overview when you are correcting your settings.

> Kategorie FX:

FX category:

This category provides some special effects, such as a haze & fog correction, highlight rescue, sepia and film grain, and different gradients.

Pro Tip:

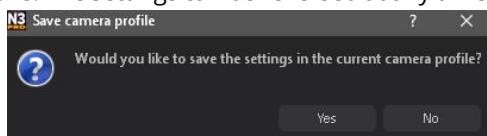
In a landscape shot, set the Gradient Top slider to a dark value to create a neutral density (ND) gradient filter.



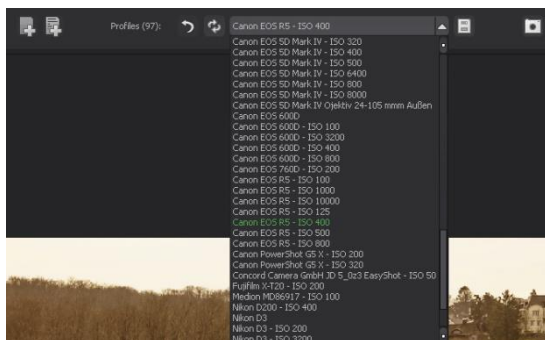
If you have conducted the settings in RAW mode, click on “apply”.



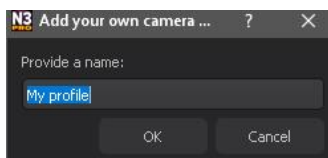
If you save your settings in the camera profile, you will save a lot of time for future photographs. The settings can be reversed at any time.



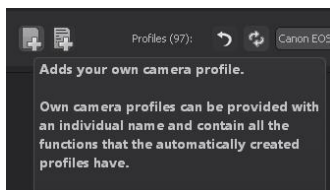
> Individual Camera Profiles



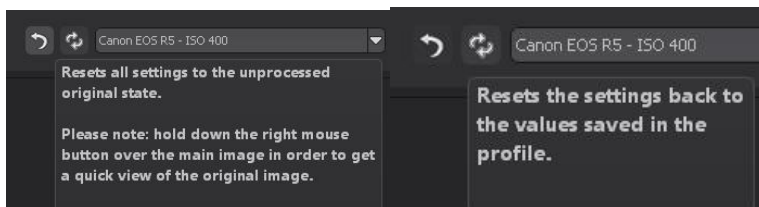
You also have the possibility to create your own individual camera profile.



Click on the left button to add your own camera profile. The button next to it saves an individual profile with the currently set values.



To do this, click on Individual camera profiles can be given their own name and contain all the same functions as profiles created automatically. If you would like to delete or rename your camera profile, click on the profile from within the dropdown options list with the right mouse button.

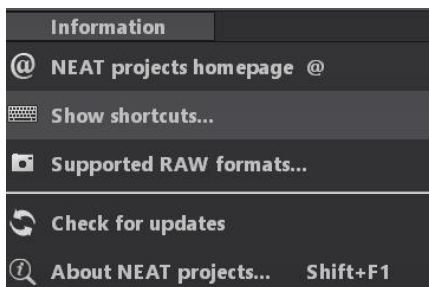


Clicking the left button resets your changes to the unedited state, clicking the right button resets them to the values saved in the profile.

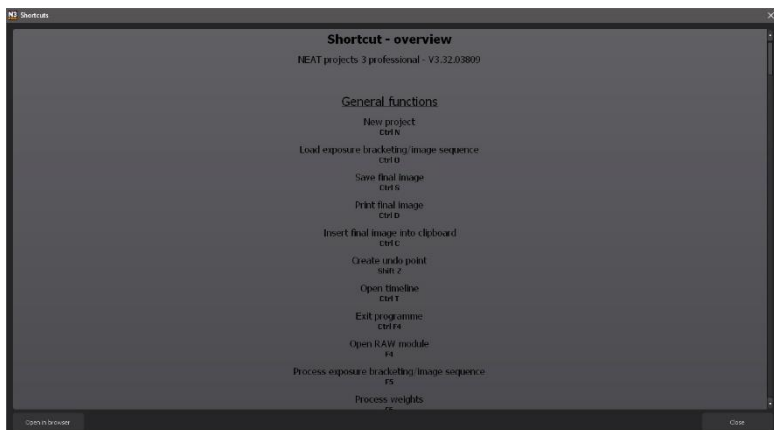
17. Keyboard Shortcuts

Overview of the integrated Keyboard shortcuts

An overview of keyboard shortcuts can be found in the main menu in the „Information“ section.

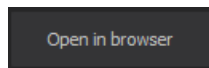


Click on this item to open the overview:



In the overview you will be able to scroll through the different areas where shortcuts are available.

At the bottom you will find the button “Open in browser”. It saves the shortcuts as .html file and opens it in the default browser.



Shortcut - overview

NEAT projects 3 professional

General functions

New project

Ctrl N

Load exposure bracketing/image sequence

Ctrl O

Save final image

Ctrl S

Print final image

Ctrl D

Insert final image into clipboard

Ctrl C

Create undo point

Shift Z

Open timeline

Ctrl T

Exit programme

Ctrl F4

Open RAW module

F4

Process exposure bracketing/image sequence

F5

Process weights

F6

switch to post processing

F7

Open setting

Ctrl P

Open batch processing

Ctrl B

Open homepage

@

Open about dialogue

Shift F1

Display Exif information

Ctrl E

Display/hide histogram

Ctrl H

Display full image

Ctrl F

Image display functions

zoom in

Ctrl +

zoom out

Ctrl -

Adapt to screen

Ctrl 0

100% view

Ctrl 1

Real-time mode on/off

R

Lock radar window

L

RAW development

zoom in
Ctrl +

zoom out
Ctrl -

History browser

Previous page
Page up

Next page
Page down

to start
Home

to end
End

Previous entry
Cursor left

Next entry
Cursor right

Variation browser

zoom in
Ctrl +

zoom out
Ctrl -

Move view to the left
Cursor left

Move view to the right
Cursor right

Move view up

Cursor up

Move view down

Cursor down

Display all

Ctrl 0

Move view around centre

Space

Select entry

S

Delete entry

Del

Compress view

X

Reset view

Home

Weight painter

Select red for drawing

1

Select green for drawing

2

Select blue for drawing

3

Increase brush size

Ö

Reduce brush size

#

Sensitive selective drawing

zoom in

Ctrl +

zoom out

Ctrl -

100% view/switch fitting

Ctrl 0

Activate brush

A

Activate limited brush

Shift A

Activate erasing brush

S

Activate limited erasing brush

Shift S

Activate soft-focus brush

W

Activate mark creation from the image

E

Activate filling mode

D

Activate filling mode for the brush

F

Activate ray mode for the brush

R

Reduce brush size

1

Increase brush size

2

Reduce brush size significantly

Shift 1

Increase brush size significantly

Shift 2

Reduce opacity

3

Increase opacity

4

Softer contour recognition

5

Sharper contour recognition

6

Reduce softness

7

Increase softness

8

Previous step

Ctrl Z

Mask display on/off

M, Shift M

Scratch & sensor error correction

zoom in

Ctrl +

zoom out

Ctrl -

Move active correction area to the left

Cursor left, Shift Cursor left, Ctrl Cursor left

Move the active correction area to the right

Cursor right, Shift Cursor right, Ctrl Cursor right

Move the active correction area up

Cursor up, Shift Cursor up, Ctrl Cursor up

Move the active correction area down

Cursor down, Shift Cursor down, Ctrl Cursor down

Select previous correction area

Page up

Select next correction area

Page down

Activate all correction areas

C

Set new correction area

N

Delete active correction area

Del

Increase active correction area

+

Reduce active correction area

-

Selective processing

Move selective area to the left

Cursor left, Shift Cursor left, Ctrl Cursor left

Move selective area to the right

Cursor right, Shift Cursor right, Ctrl Cursor right

Move selective area up

Cursor up, Shift Cursor up, Ctrl Cursor up

Move selective area down

Cursor down, Shift Cursor down, Ctrl Cursor down

Select previous selective area

Page up

Select next selective area

Page down

Delete active selective area

Del

Do not display mask

1

Display mask of the active selective area

2

Display mask of all selective areas

3

Colour module

Zoom in

Ctrl +

Zoom out

Ctrl -

100% view

Ctrl 0

Create new layer

N

Delete active layer

Del

Select layer 1

1

Select layer 2

2

Select layer 3

3

~

Select layer 4

4

Select layer 5

5

Select layer 6

6

Select layer 7

7

Select layer 8

8

Select layer 9

9

Select layer 10

0

Move active layer up

Cursor up

Move active layer down

Cursor down

Select selection colour

S

Select target colour

D

Reverse colour selection

I

Show active colour selection as mask

M

Save layer mask as image

Ctrl S

Copy layer parameters onto the clipboard

Ctrl C

Enter layer parameters from the clipboard

Ctrl V

Reset layer to original state

R

Picture cropping

Move cropping area to left

Cursor left, Shift Cursor left, Ctrl Cursor left

Move cropping area to right

Cursor right, Shift Cursor right, Ctrl Cursor right

Move cropping area upwards

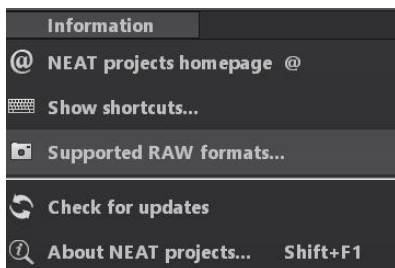
Cursor up, Shift Cursor up, Ctrl Cursor up

Move cropping area downwards

Cursor down, Shift Cursor down, Ctrl Cursor down

18. Integrated list of supported RAW formats

Located in the main menu under „Information“ is an integrated list of supported camera RAW formats sorted by manufacturer.



Selecting this menu option will open the Camera RAW Formats Window.



At the top of the window you will find a drop-down selection for filtering the list according to camera manufacturer. 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.

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