
AcceleratedVision
RAW-Modul/RAW Development
SHARPEN
HDR
NEAT
DENOISE
FOCUS
LUT
COLOR
ZOOM
BLACK & WHITE
EMOTION
ANALOG
DIVE
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Guide to the basic functions of all programmes

RAW development

The RAW module is practically an independent image editing programme and, thanks to its integration into the respective programme software, enables even more individual image variations, because you retain complete control over your raw data before post-processing and can carry out preparatory image editing.

When switching to the RAW module, you will see your photo exactly as it comes out of the camera, e.g. in colour in the BLACK & WHITE program, if the image was taken in this way. The same applies to exposure series, image sequences or stacks.

Of course, you can switch to the RAW module not only with Camera RAW files, but with all 'raw' file formats that the software accepts, i.e. all common ones such as JPG, TIFF and many others.

As a rule, it is advisable to make the desired changes in the RAW module before making any automatic or manual changes. This is particularly useful, for example, for necessary image alignments, rotations, lens corrections or if converging lines are to be corrected.

However, you can also switch here after each editing step in order to subsequently influence the image mood or make other corrections. All changes are immediately applied synchronously to individual images, the entire loaded exposure series, image sequence or stack.

When switching to post-processing, the current resulting image in the RAW module is the 'new original image' and all changes made are applied to all modules in post-processing.

The RAW module is only offered in the Professional versions.

Note: In addition and complementary to this guide, you will find numerous videos with explanations on selected topics or modules such as Installation, Selective drawing, Expert mode, Replace sky and many more via Extras/Video instructions.

Note: Clicking on the hyperlink in the table of contents leads to the corresponding topic, clicking on this heading leads back to the table of contents.

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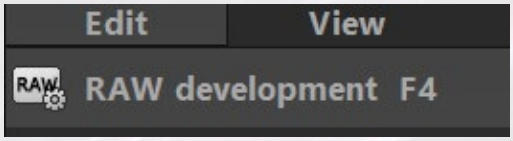
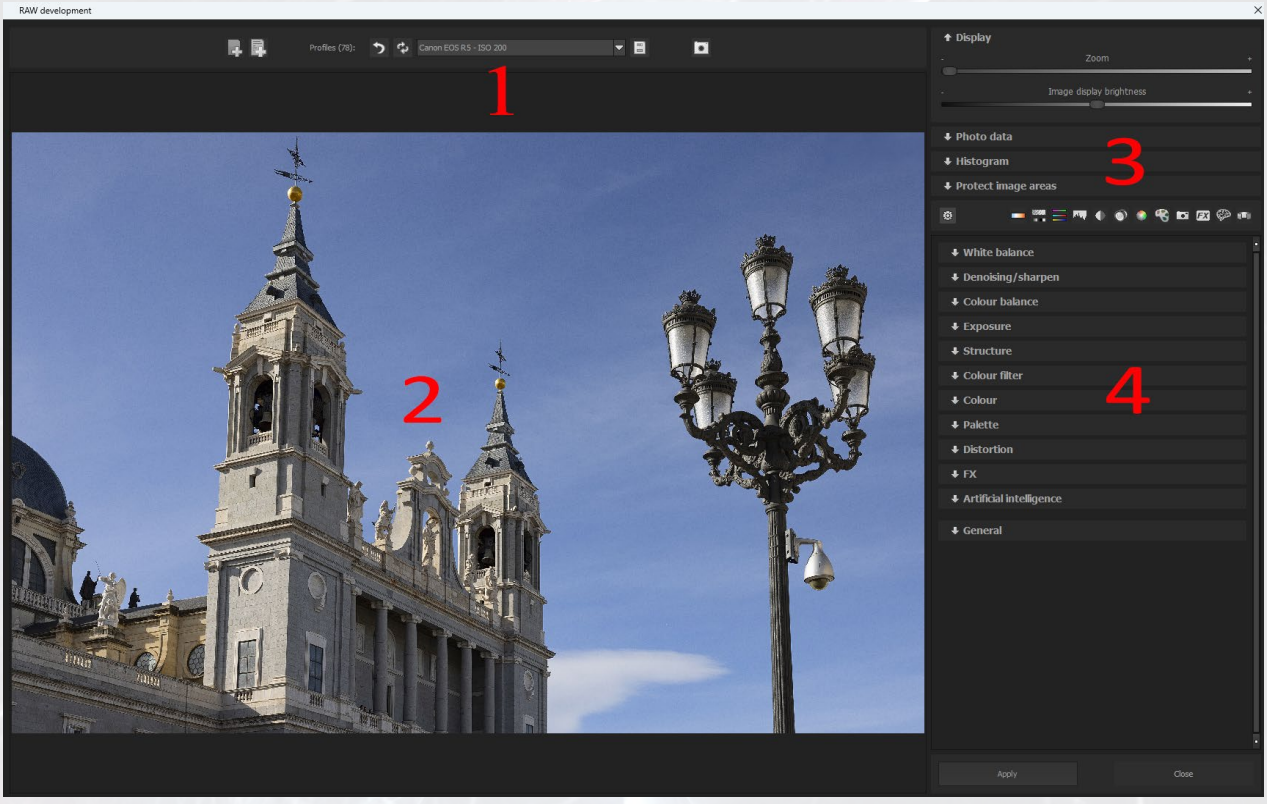
1. Overview RAW development window/Single image



In post-processing, click on the **RAW development button** (left) or in the Edit/**RAW development** menu bar (right) to switch to the editing window of the same name in the RAW module**.**

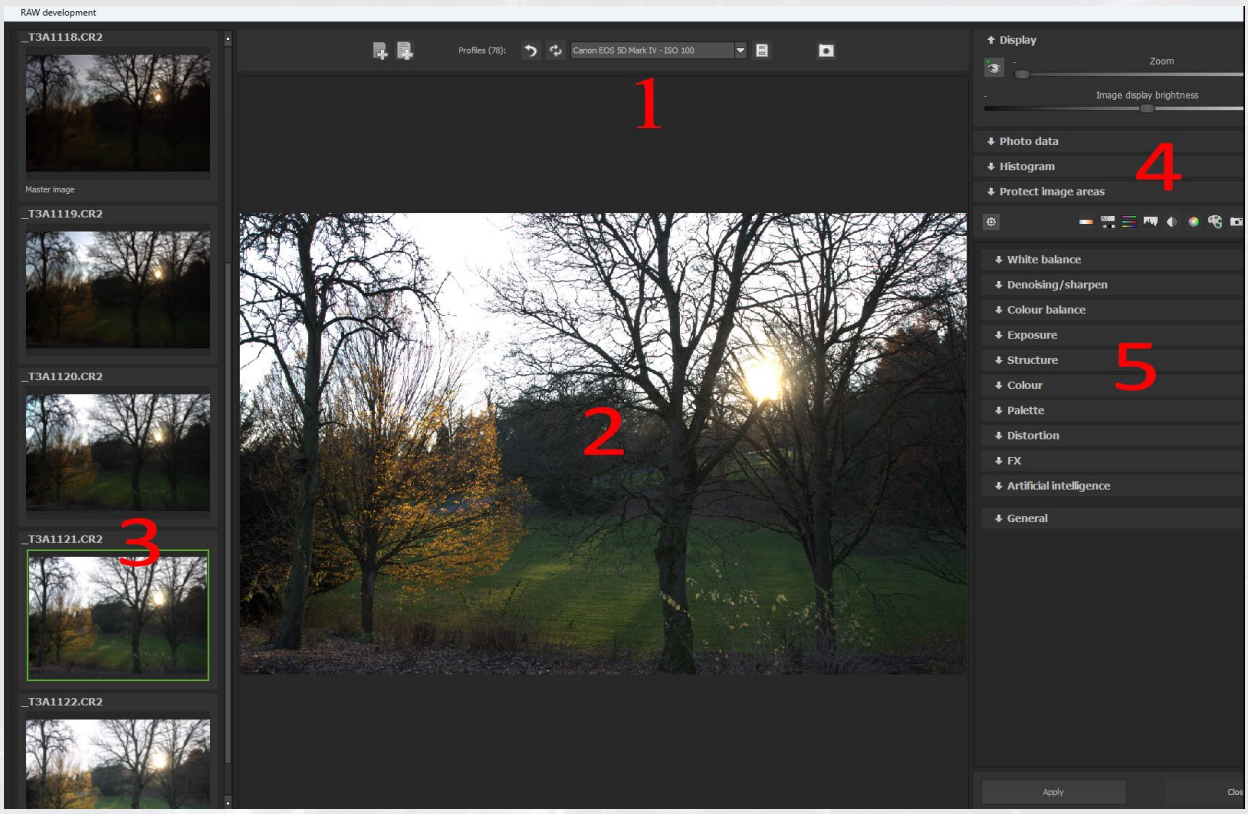


The editing window is divided into four main areas for single images and five main areas for exposure series or image sequences.

Single image editing window:

1. The **camera profile** of the loaded image file and all previously used profiles
2. The **image view**
3. The **general area**
4. All **editing categories** that display the corresponding content by clicking on the arrow.

2. Overview RAW window/Image sequences



Exposure bracketing in the HDR programme

If you have loaded an exposure bracket in the HDR programme and switch to the RAW module, you will see the customised editing window.

The editing window is divided into four main areas for single images and five main areas for exposure series or image sequences.

Exposure bracketing editing window:

1. The **camera profile** of the loaded bracketing and all previously used profiles
2. The **image view**
3. The **individual images of the exposure series**
4. **General area**
5. **All processing categories**

On the left-hand side, all the images in the exposure series are listed one below the other. The darkest image of the exposure series is at the top, the brightest at the bottom. Outlined in green is the master image, which the programme assumes is closest to the 'correct' exposure or the average value.

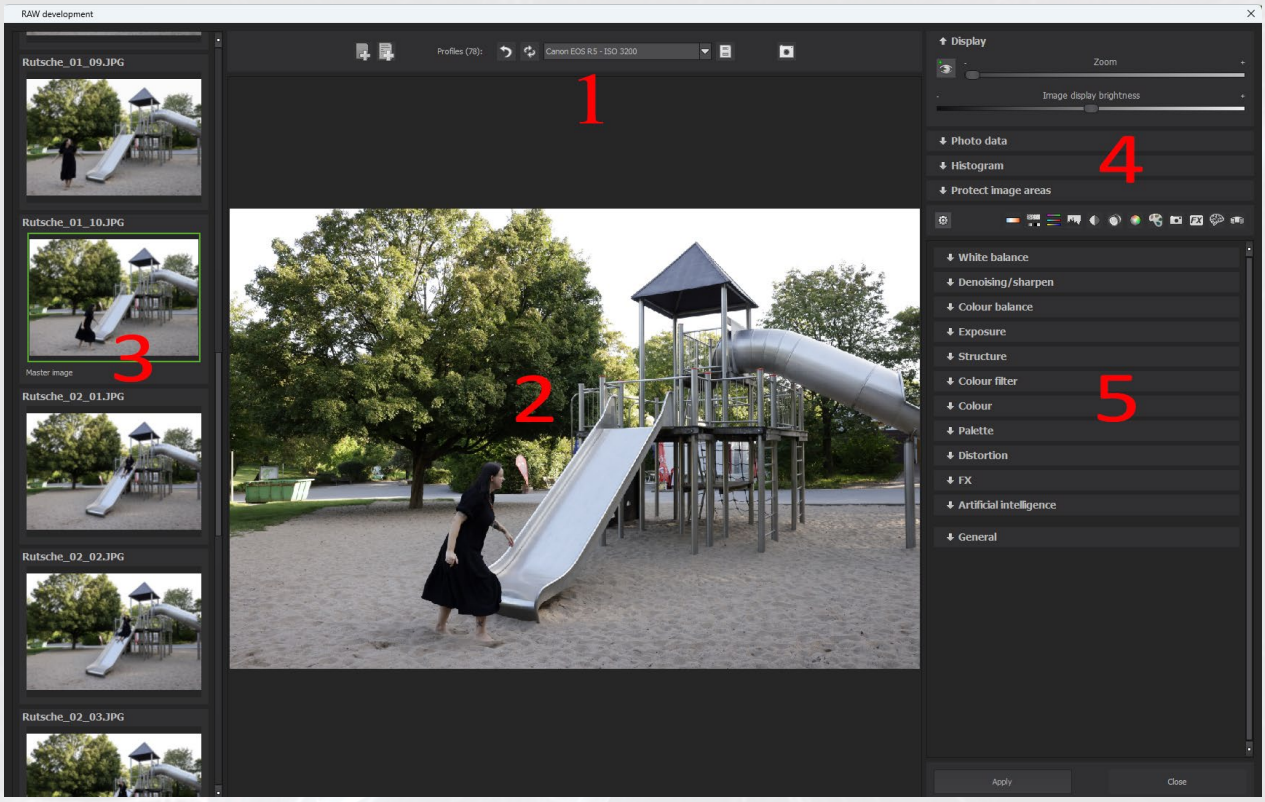


Image sequences/stacks in FOCUS and NEAT

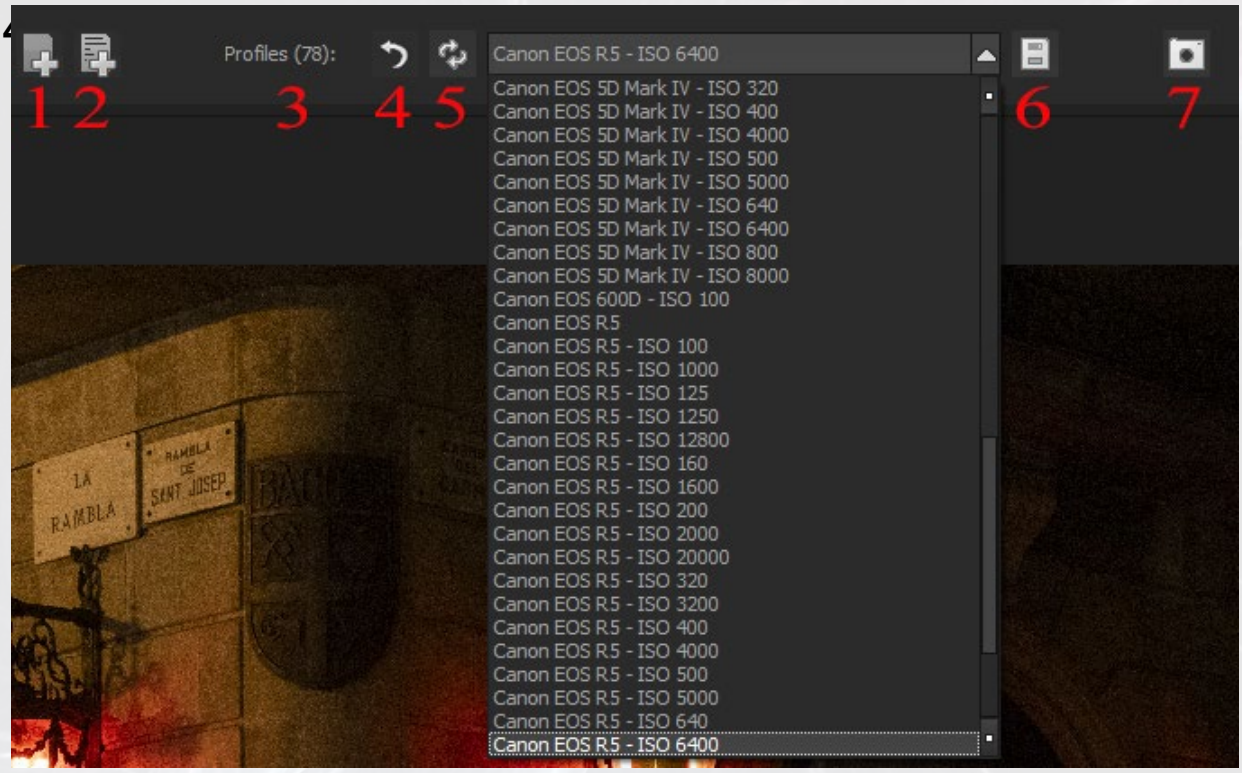
If you have loaded an image sequence/stack in the FOCUS programme or an image sequence in the NEAT programme as in the image example and switch to the RAW module, you will also see the customised editing window here.

Image sequence/stack editing window using NEAT as an example

1. The **camera profile** of the loaded exposure series
2. The **image view**
3. The **individual images** of the image sequence
4. **General area**
5. **All processing categories**

On the left-hand side, all the images in the image sequence are listed one below the other. The first image of the image sequence is at the top, the last one at the bottom. The master image, the middle image of a loaded sequence, is outlined in green in both programmes.
As with the presets, the image view changes to a preview image with every click. All changes made are immediately applied synchronously to all images in a sequence or stack.

3. Profile area



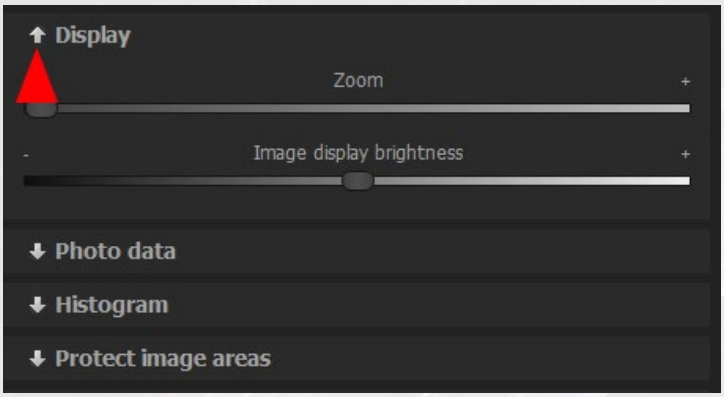
When opening the RAW module, each Accelerated Vision programme determines the camera and ISO value with which an image was photographed (in the example Canon EOS R5 at ISO 6400).
If the camera and ISO are recognised, a profile is automatically created and named after the camera and ISO.
The next time the RAW module is opened, the camera and ISO number with which the image was photographed is checked again. If a profile with these values is found, this profile is automatically selected and applied; if no camera profile is recognised, Unknown is displayed (bottom entry); you can also create your own profiles manually, name them, save settings in them and call them up again. This allows you to create specific profiles to implement your editing style quickly and easily with any programme.

All profiles can be used in every RAW module of an image processing programme of an Accelerated Vision image processing programme.

The buttons provide the following information and options:

1. Adds your **own camera profile with selected name** and all functions.
2. Adds your **own camera profile with the current values**.
3. Displays the **number of camera profiles listed**.
4. Resets development settings to **the unprocessed initial state**.
5. Resets settings to the values **saved in the profile**.
6. **Saves the settings** in the currently selected camera profile**.**
7. Selects the **camera profile associated with the image** if you have tried others.

4. General area



At the top right-hand side, you will see the area with selected information on the loaded image or an image sequence and **Protect image areas**. Click on the arrow in front of an area to expand it and show the associated parameters or information window. Click again to collapse the area.

Display: In this area, the parameters are the **zoom slider**, which is used to set the image view to the desired size, and the **brightness of the image display**, which does not trigger any editing and therefore has no effect on the image result.

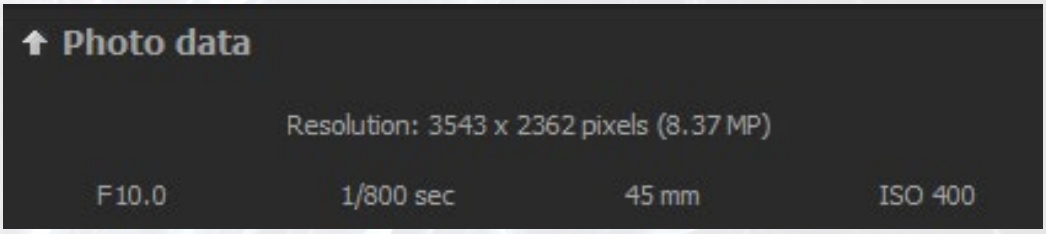
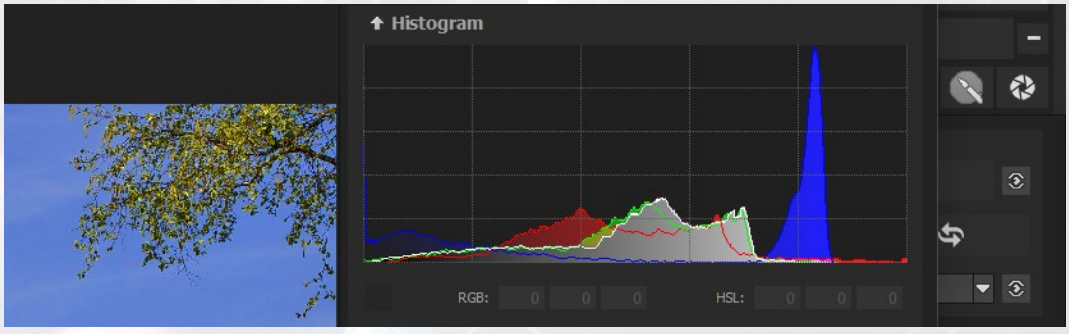


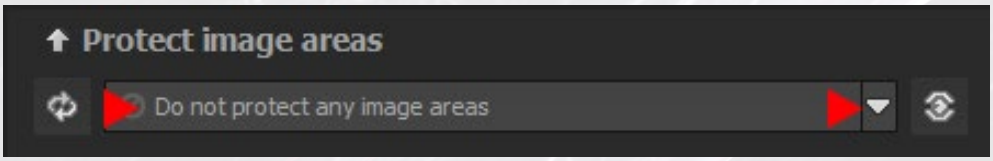
Photo data: In addition to the resolution in pixels and MP (from left to right), the Aperture number (F), exposure time, focal length and ISO number are displayed here.



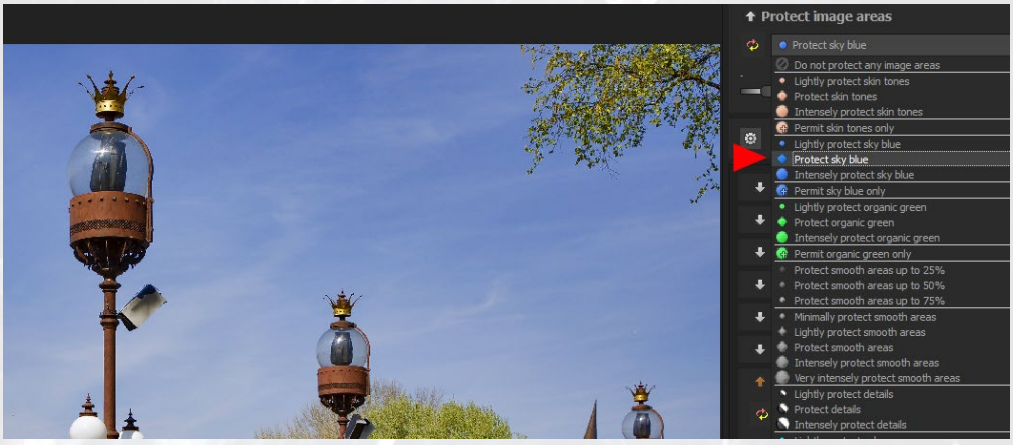
Histogram: For better analysis and adjustment of the image file, the histogram display shows the distribution of the three colour channels and the luminanceas a curve. Below the curve display, the colour of the pixel under the mouse cursor is displayed as RGB values and as HSL values.

5. Protect image areas

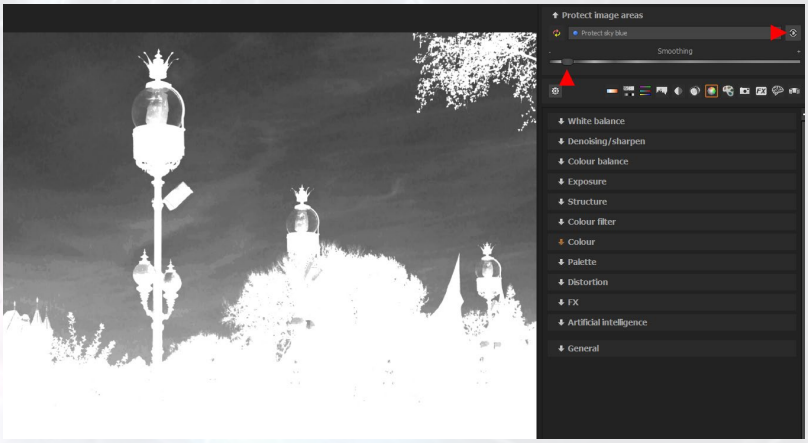
Masks are important in image processing and are often indispensable for targeted editing. The ‘Protect image areas’ masks integrated in the RAW module are identical to those offered in post-processing. The more than one hundred masks offered also include combinations of different individual masks, e.g.individual masks, e.g. ‘Protect skin tones and original green’. If required, the masks can also be smoothed to achieve a better fit.



Click on the ‘**Do not protect any image areas**’ button or the small arrow...



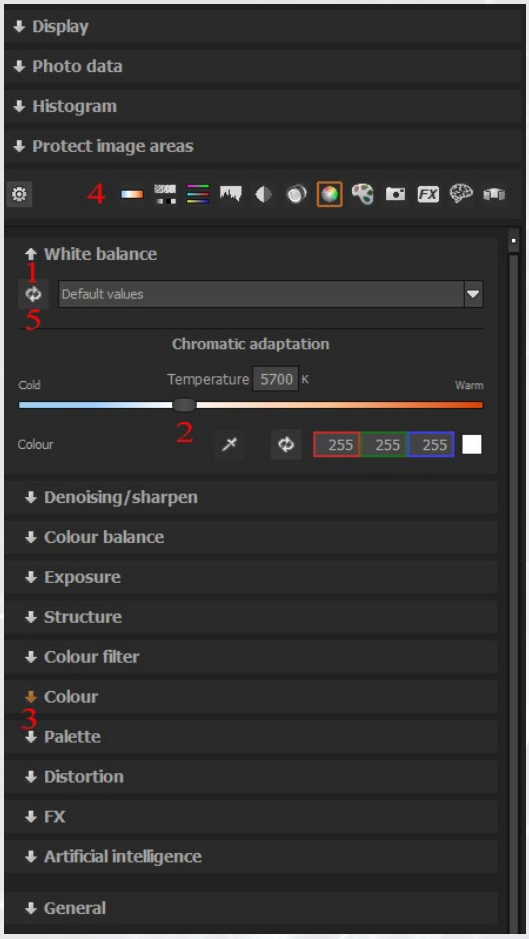
... all area protection masks are displayed, which are activated by clicking in a desired protection area. **The selected area protection applies across all areas for all changes made.**

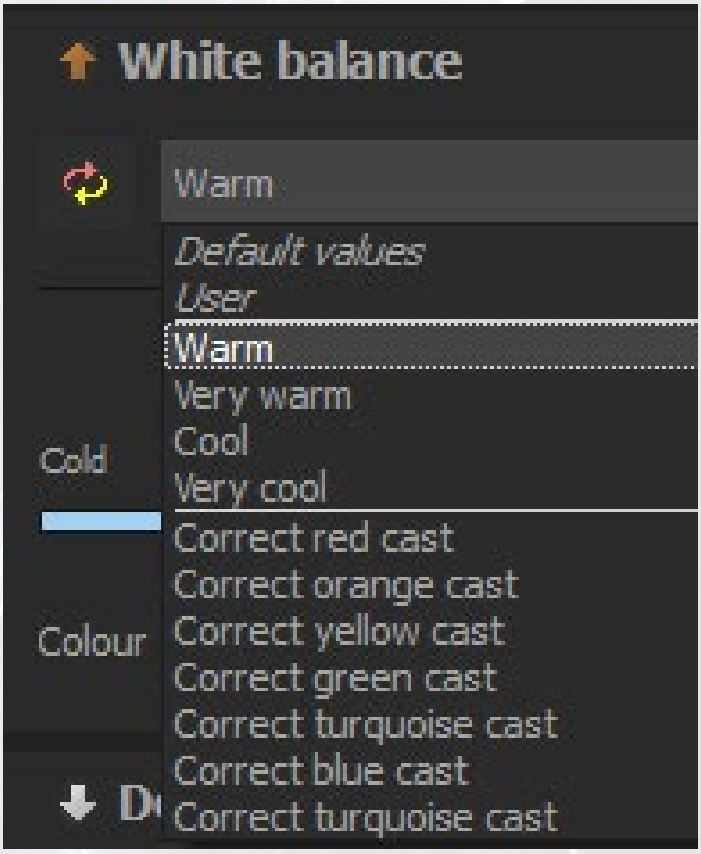


Click on the button on the right with the mask symbol to display the mask associated with the selected area protection. All dark areas - the blue sky in the example image - are protected from changes, all light to white displays are processed ‘unfiltered’. The mask can be smoothed as desired using the smoothing slider to make the transitions from ‘unprotected’ to ‘protected’ softer and smoother.

6. Processing categories - Systematics

The highlight of the RAW module is the editing categories. The content surprises with a very wide range of options for influencing, optimising, correcting or distorting images and invites you to try things out and experiment.





Each category can be expanded and collapsed by clicking on the small arrow (**1**).

After expanding, all parameters of the selected category are displayed (**2**).

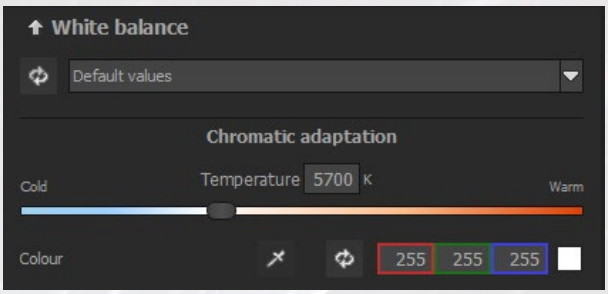
If parameters are changed within a category, the arrow changes colour from white to orange (**3**). **Double-click on a slider button** to reset it to the default value.

Above the categories, a desired category can be selected in a filter bar (**4**), then only the parameters of this category are displayed and all other categories are hidden, which makes the overview easier.

Click on **Default values** (**5**) or the arrow to display the list of all presets that can be clicked on in the selected category (in the example **Warm** in the **White balance** category) to directly change the image look as desired. Another **click on the coloured arrows** around the presets resets all the development settings to the default values.

7. White balance

The white balance is an important tool for adjusting the colour temperature or determining an individual image look. Using the slider or the input field for the temperature, the colour temperature can be continuously adjusted to suit individual preferences. Or you can try out a preset from the selection list.

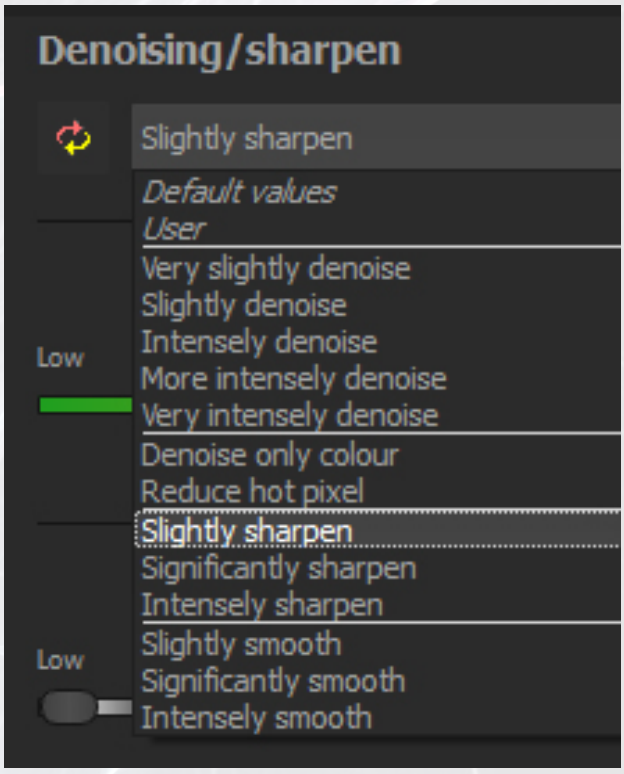


The preset colour temperature of 5700 Kelvin corresponds approximately to ‘normal’ sunlight.

If you move the slider to the left towards **blue** (colour) or **cold** (temperature), the image appears ‘**cooler**’ (top), to the right towards **orange/red** (colour) or **warm** (temperature), the image appears ‘**warmer**’ (bottom). This allows you to quickly determine a colour mood or make a white balance with the **pipette and get a white balance** colour directly from the image.

8. Denoising/SHARPEN

This category combines 2 opposing processes: Denoising and sharpening.



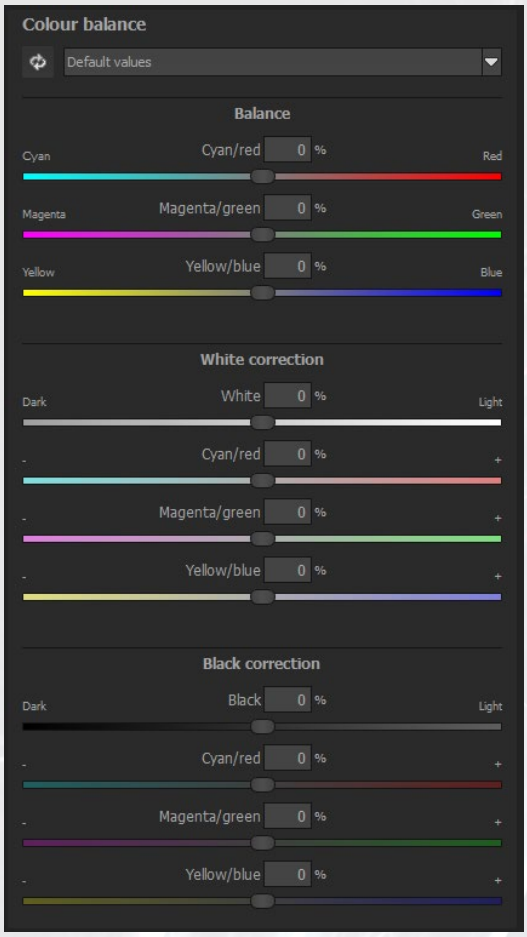
The preset selection logically refers to both methods.

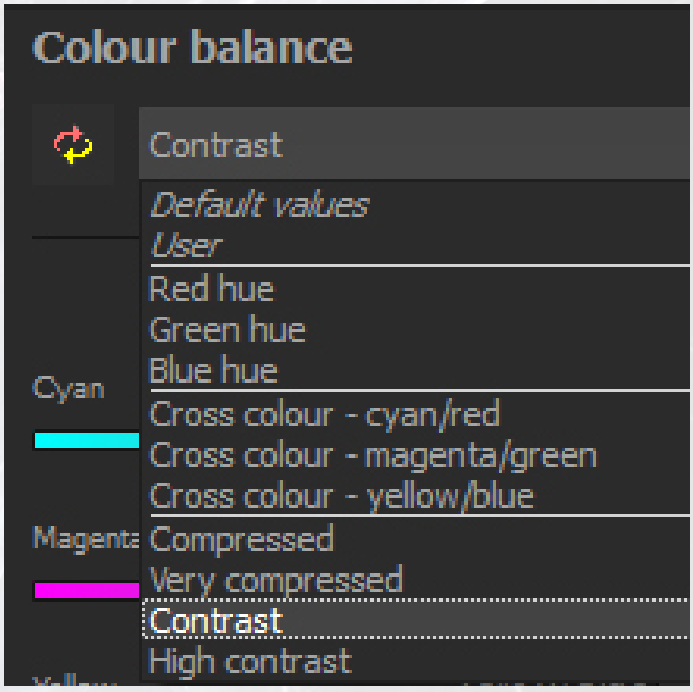
If you use the specialists **DENOISE** or **SHARPEN** for these problem solutions, you are of course in better hands there. In all other programmes, these parameters offer very good and differentiated improvements for the 'new' original image in post-processing.

The first slider, Quality, refers to both denoising and sharpening, for which there is only one slider. As a rule, a high quality level produces better results with the small disadvantage of a longer processing time.
The 'general' **denoising control** effectively solves most problems with noisy images caused by the image sensor at high ISO values. Since denoising always means a loss of image detail, there is no objectively correct control setting, but rather a compromise between effective denoising and loss of image detail.

The other controls are very effective at eliminating special interference such as **colour noise** or **hot pixels**. The information on the interactive buttons is helpful for selecting the correct parameters.

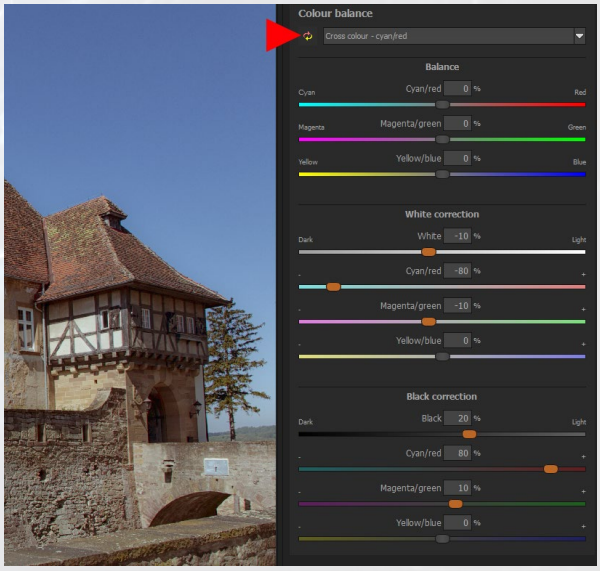
9. Colour balance





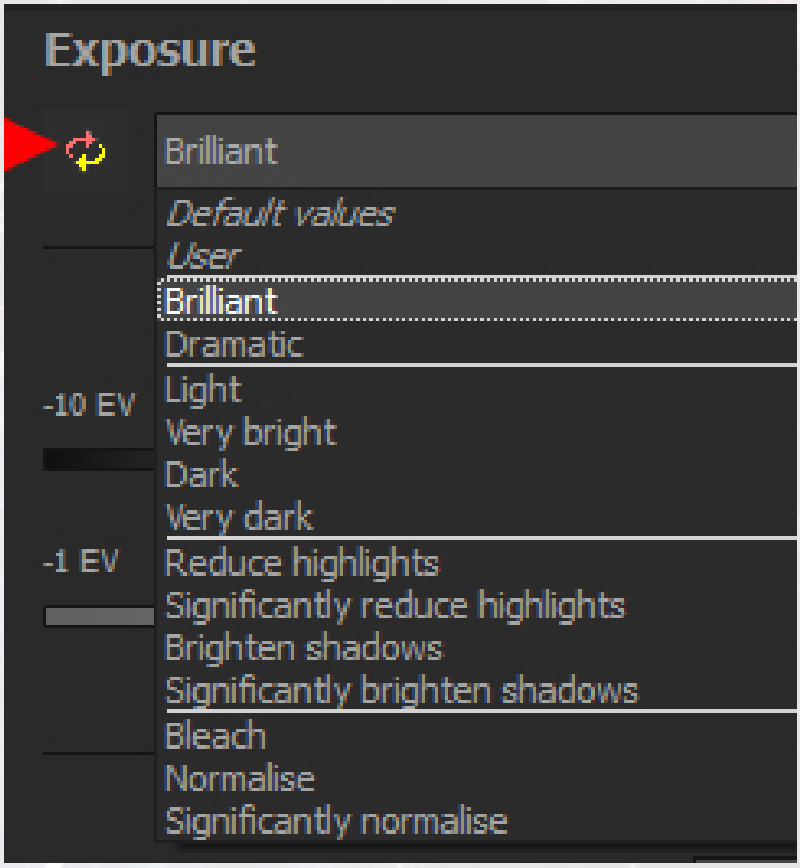
In this category you can compensate for **colour casts** by shifting the colour balance between the complementary pairs **yellow/red**, **magenta/green** and **yellow/blue**.

A special feature is that, in addition to the general colour balance, there is also one for **light areas only (white correction)** and one for **dark areas only (black correction.** This allows you to remove colour casts that only occur in the shadows, for example, without affecting the rest of the image.



In addition to the correction options, you can change an image in a creative artistic direction by shifting the colour balance. In the example with the preset **Cross Colour - Cyan/Red**, all changed slider settings are displayed in parallel with the new image look, visible on the orange-coloured slider buttons.

10. Exposure

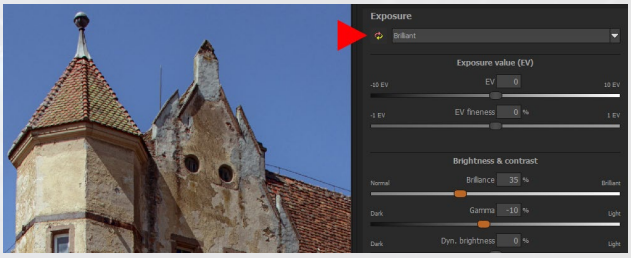


In this category, you can lighten or darken a loaded image file with numerous parameters, either overall or differentiated according to highlights and shadows.

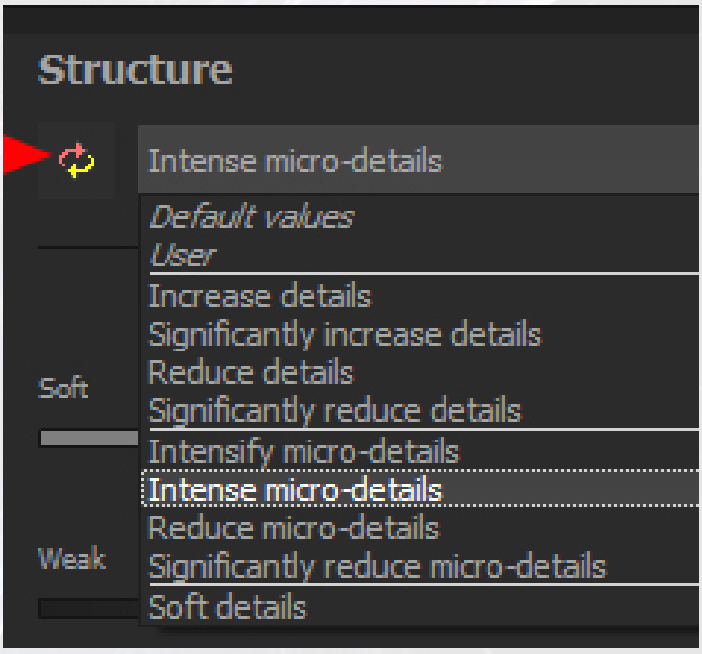
For example, the '**EV**' (Exposure Value) slider, which can be set from -10 to +10, and '**EV Fineness**', which can be used to precisely adjust the exposure in 1% increments within an aperture value of -1 EV and 1 EV, have an overall effect**.**

The **dynamic brightness** control, which adapts the changes in brightness to the respective image content, is differentiated and particularly effective: If the image is darkened, the light areas of the image are darkened significantly more than the dark areas. When brightening, the dark areas of the image are brightened more effectively and to a greater extent than the brighter areas in the original.

The presets also transform every motif into different image moods such as **Brilliant** (image example) or **Dramatic** with a single click.



11. Structure

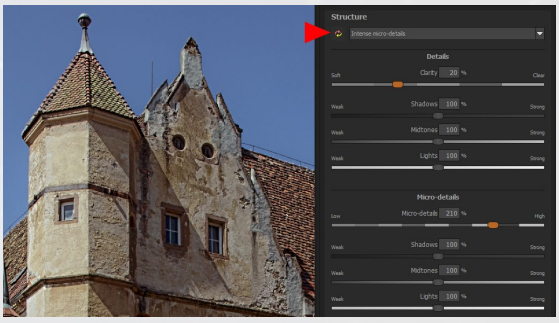


Structures give motifs their own characteristics and uniqueness. In this category, you can easily customise textures to suit your image motif.

Details: In this section, you can edit general, larger details. The **Clarity parameter** is used to adjust the greater contrasts in the entire image, thereby emphasising details better or reducing them slightly if contours are too dominant.

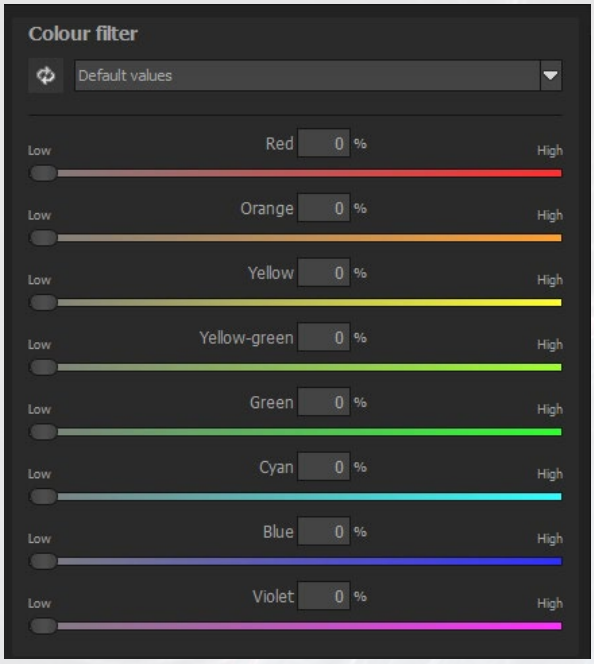
Micro details: In this section, the smaller contrasts are amplified or attenuated using the controls. Micro details are the finest details in images. Especially in portraits, these are often emphasised more strongly in order to emphasise the character of a face in particular.

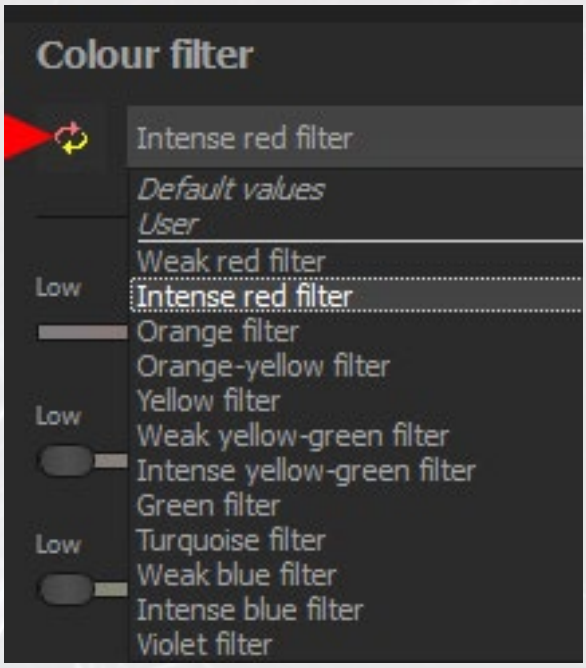
Soft details: In this section, the greater contrasts are enhanced or attenuated with a soft mask in the image. This creates an overall softer change in detail.



The presets offer very quick detail and structure reductions or enhancements such as intense micro details in the image example

12. Colour filter



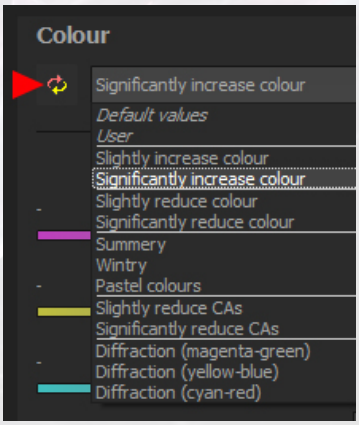


Colour filters work like colour filters for cameras. They absorb certain colours or filter them out and let the other colours through.

You can use colour filters to enhance or reduce certain colours, make them brighter or darker and thus correct or distort the image.

The colour filter selected in the example from the Intense red filter presets brightens red or orange colours and darkens blue and green colours, which can be used for a dramatic sky, for example.

13. Colour



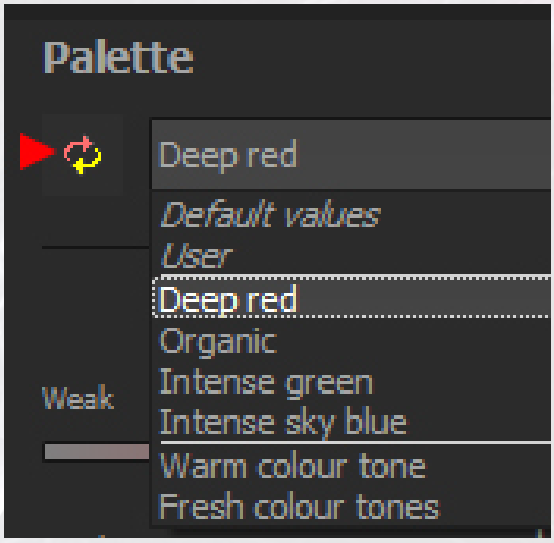
In this category you can make extensive colour adjustments and corrections. Lenses often have the problem of chromatic aberration.aberration. These are coloured contours that become increasingly stronger towards the edge of the image. You can effectively reduce this with **colour aberration correction**.

Colour dynamics and **luminosity intensify** colour effects or reduce them to the point of complete desaturation, right down to a grey scale image.
Colour effects such as Bleach Bypass are suitable for an 'artistic' image look; each **colour channel** can be individually adjusted to the image.

As usual, various presets can be selected directly via the selection list.

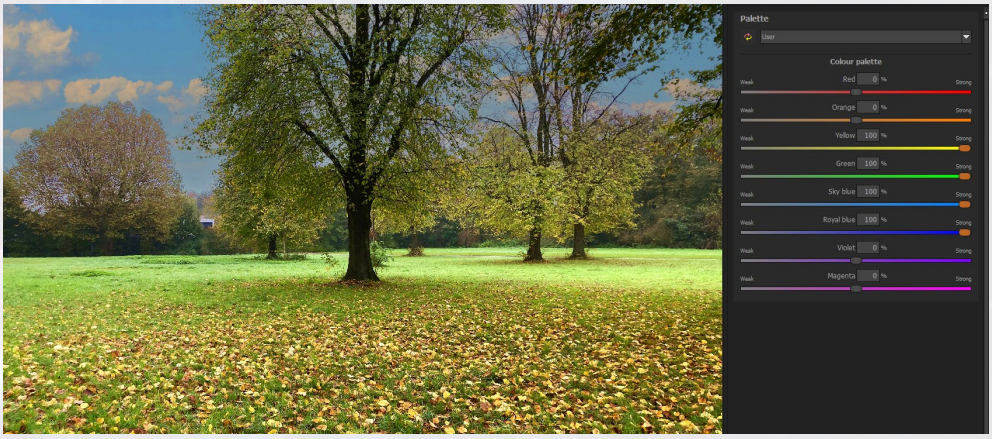
In the example of **significantly increase colour**, the two slider changes for colour dynamics and luminosity ensure strong, **intense** and **bright colours**, which can of course be manually readjusted if necessary.

14. Palette



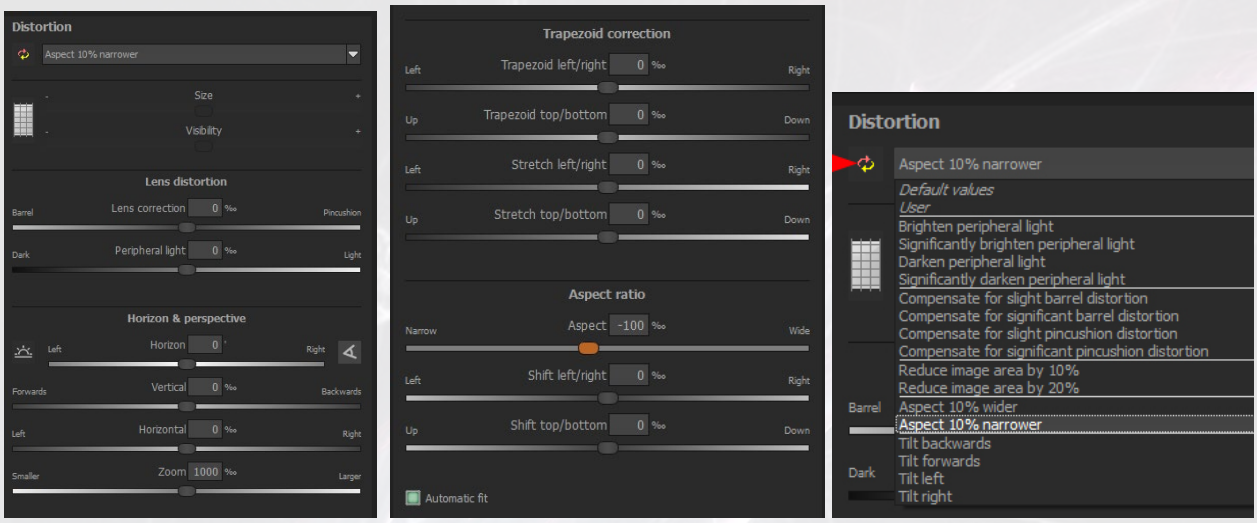
In this category, you can selectively increase or decrease **the saturation of different colour ranges**.
If you want to edit green grass, for example, change the slider for green and yellow, as grass also has a yellow component, whereas skin tones would be predominantly orange.

In the example, the colours of the water, the leaves and the sky should be enhanced.

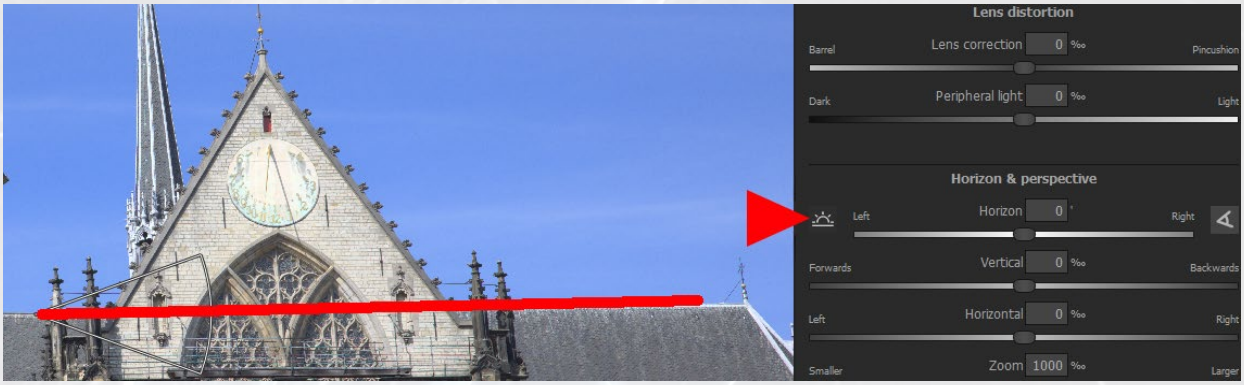


The sliders for the colours green, yellow, sky blue and royal blue are positioned on the right for better demonstration and make the colours appear much more intense and 'lively'.

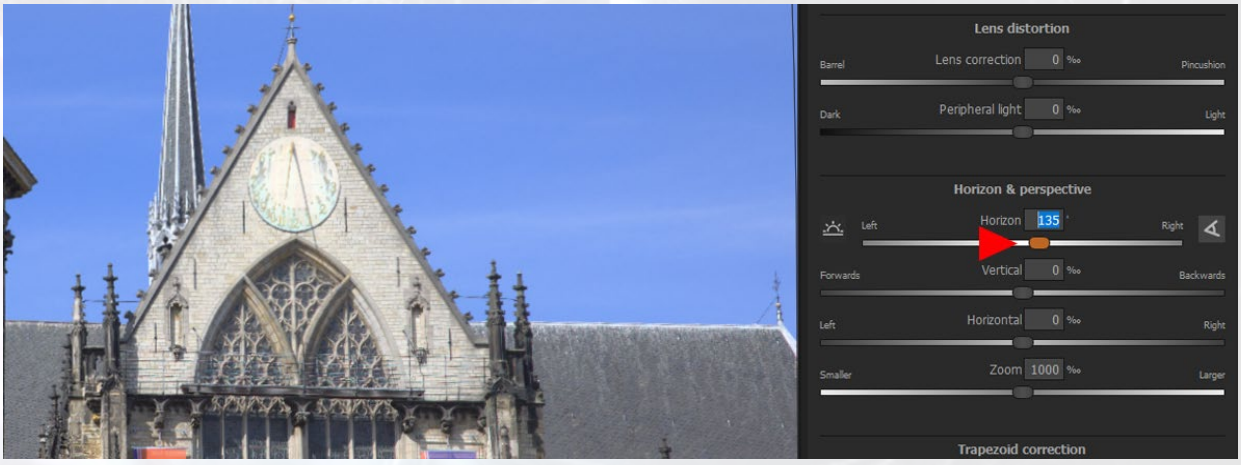
15. Distorsion



In this category, you can quickly and effectively correct or eliminate imaging errors and problems such as crooked images and converging lines.

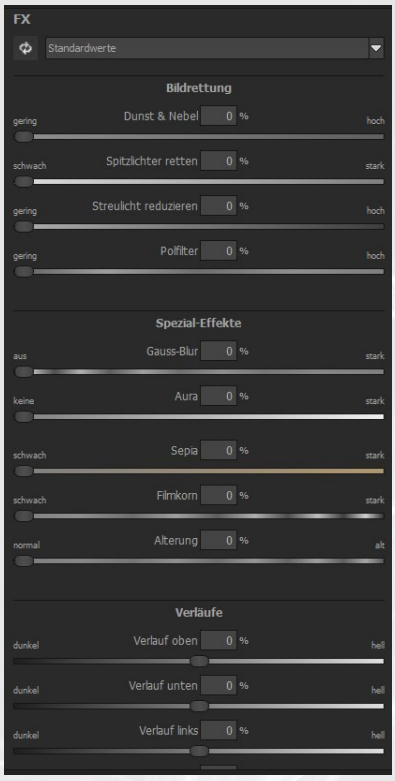


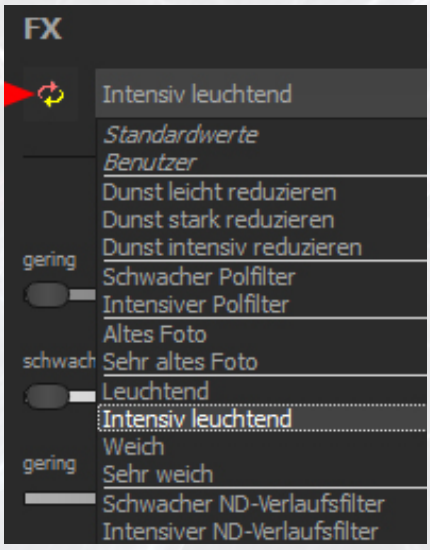
Aligning an image: Click on the symbol with the sun and use the mouse to draw a line along the horizon or another horizontal or vertical orientation line.



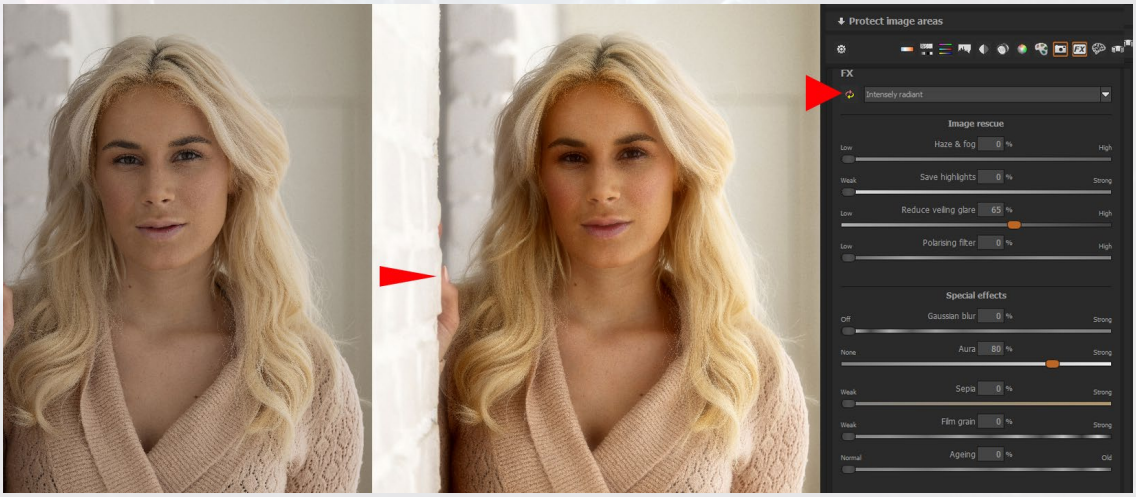
If you release the mouse button, the image is aligned in a flash and the changed angle is displayed. For example, if you select the preset **Aspect 10% narrower**, an object or person will be proportionally ‘slimmed down’ by this percentage.

16. FX-effects

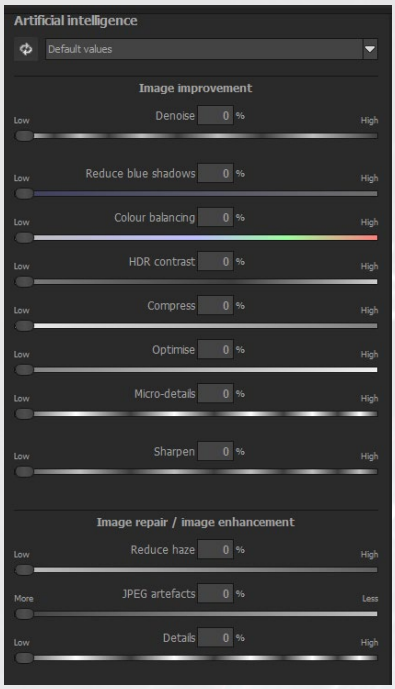


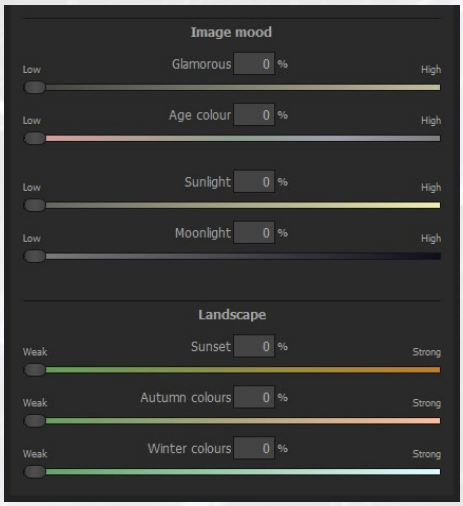


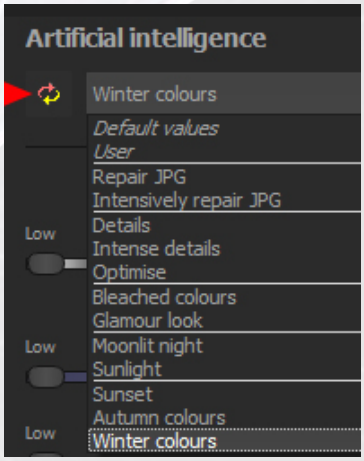
In this category you will find filters for different problem solutions or creative image ideas:
Image rescue: Use controls such as haze & fog or highlight rescue to improve the quality of images taken in hazy or cloudy weather.
Special effects: With effects such as **Gaussian blur**, **sepia** or **ageing**, you can quickly create an image style of your choice.
Gradients: With gradients from the top, bottom, left or right, you can define areas of the image that are faded in smoothly and specify whether they should appear darker or lighter towards the edges. This can be used to make landscape shots in particular more exciting and enhance them.
Presets: Here you can select presets from all three areas, such as Intensely bright in the image example and the displayed (orange-coloured) or other parameters can be individually readjusted if required.



17. Artificial Intelligence



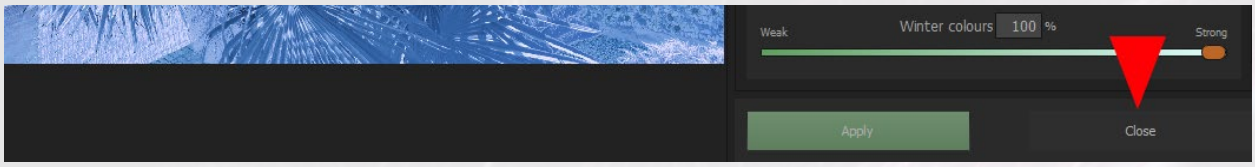




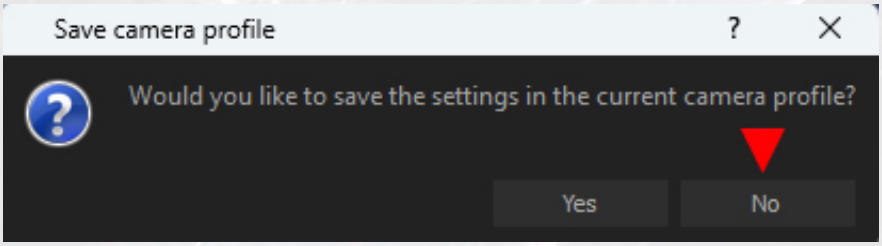
All filters that work with neural networks (AI) are summarised in this category. This makes it easier to differentiate between them, because some filters such as 'Denoise' can be found both in the "Denoise/Sharpen" category and in this section, AI-supported.
'Artificial intelligence' is divided into very different areas such as

- **Image improvement** with exciting parameters such as HDR contrast,
- **Image repair** with parameters such as details, which not only enhance existing image details but also expand them,
- **Image mood**, where, for example, sunlight or a moon mood can be continuously faded into the picture
- **Landscape**, which also conjures up very realistic image moods, especially in landscape shots, which can also be selected directly via the presets: Sunset, autumn colours and winter colours

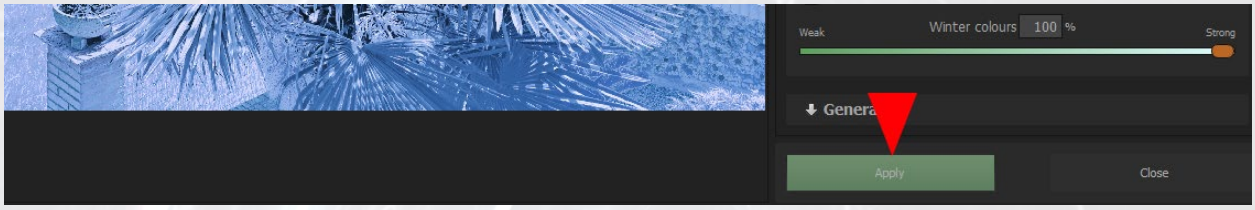
18. Switch to post-processing – options



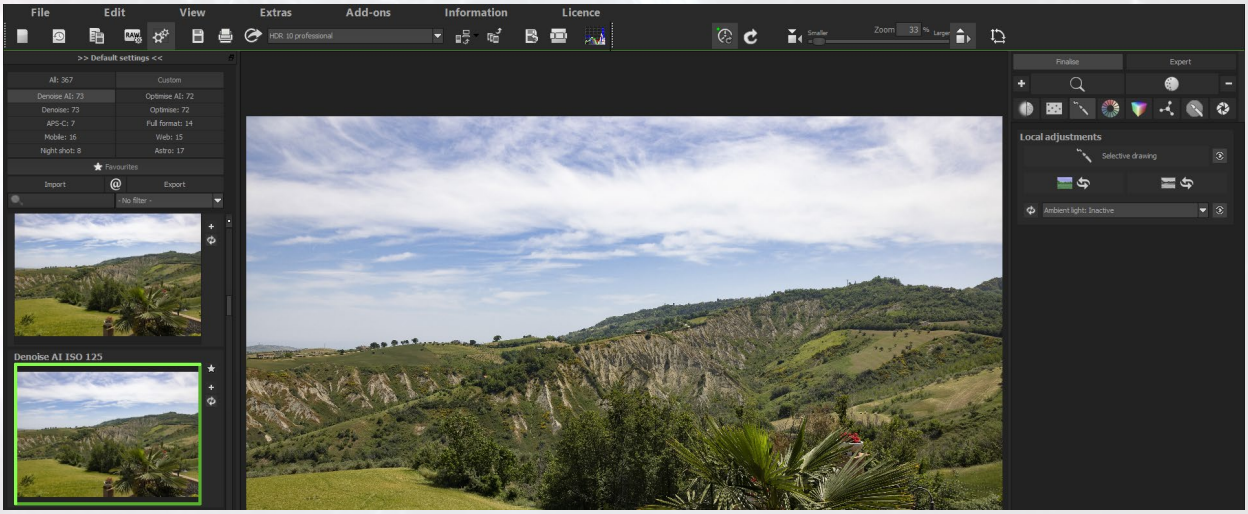
If you want to **discard** the changes made in the RAW module before switching to post-processing, click **Close**.



In the dialogue window that then opens, you will be asked whether you want to save the settings in the current camera profile. As a rule, you will decide in favour of **No** and the RAW editing window will immediately switch to the 'normal' post-processing interface.

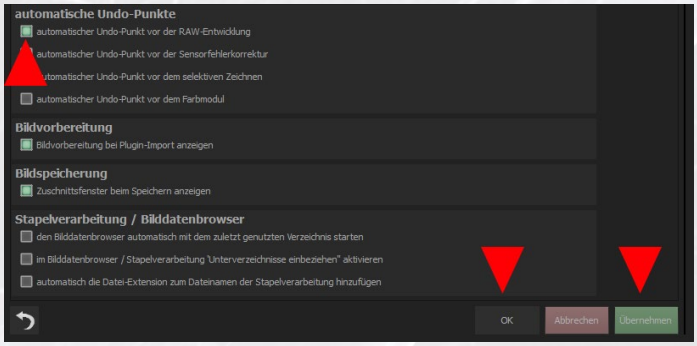


If you decide to **transfer** the edits to post-processing, as in the example with the landscape image mood **Winter colours**, click on the **green Apply button**. In the identical dialogue window, select **No** again and the editing window will immediately switch back to post-processing and the last preset displayed here before switching to RAW.

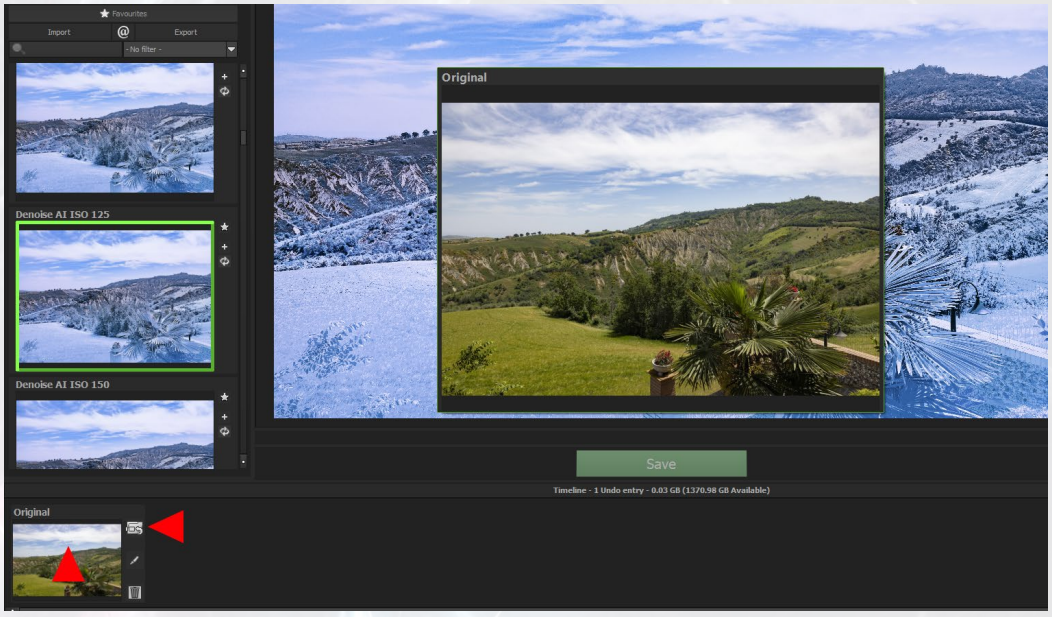


19. Set undo point before switching to RAW module

The processed image in the RAW module is the new ‘original’ in post-processing with the consequence that a right-click in the image cannot show the ‘old’ original. If you still want to see a comparison with this original image and retain the freedom to continue working with this image, save the image with an UNDO point before switching to the RAW module. As this step makes sense in any case, you can automate this intermediate step.



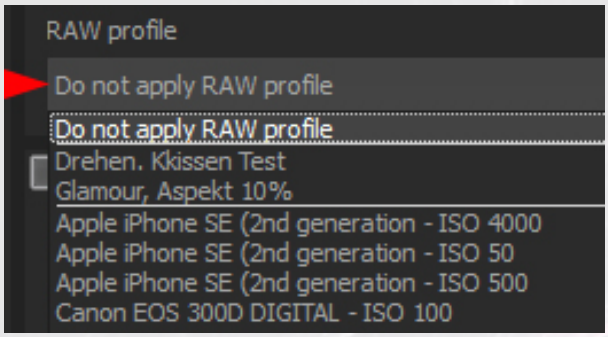
Activate the **automatic undo point before RAW development** in the Extras/Settings/Automatics menu by clicking in the grey box in front of it, which then turns green, and confirm the activation with **Apply** and **OK**, now an undo point is saved in the timeline before each switch to the RAW module.

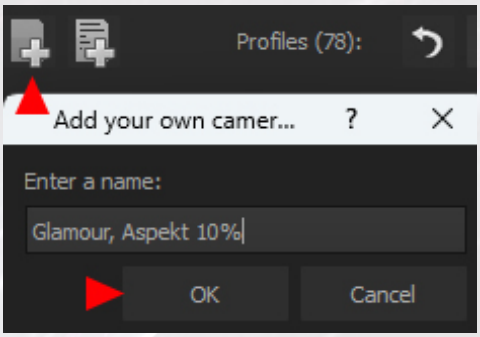


After returning to post-processing, you can always compare the last selected preset or the last editing status by moving the mouse over the thumbnail in the timeline. Click on the button at the top right to call up this editing status again.

The timeline can be hidden and shown again via **Extras/Timeline**.

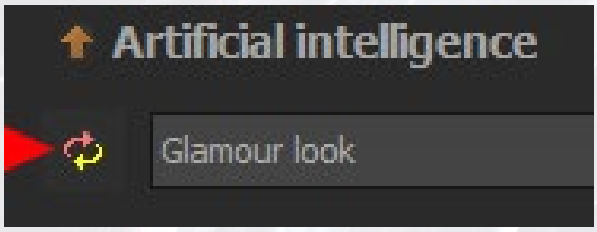
20. Use individual RAW profiles for multiple images

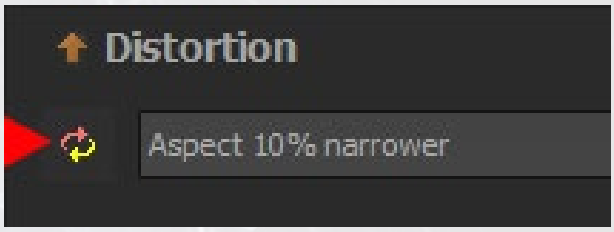




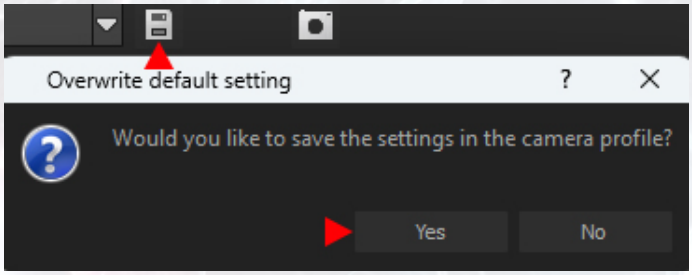
If you like processing in RAW so much that you want to apply it identically to several image files without having to switch to the RAW module again and again, there is an option under Extras/Image preparation to use saved RAW profiles for 'serial processing' and, if required, also for **batch processing**.

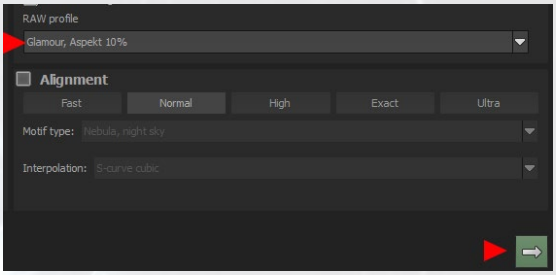
Step 1: After switching to the RAW module, click on the Add your own camera profile button, assign a 'descriptive' name in the dialogue window that then opens and confirm everything with OK (graphic on the right).





Step 2: Select the desired settings in one or more categories, in the example the presets **Glamour Look** and **Aspect 10%** narrower.





Step 3: Click on the **Save settings to current camera profile button** to save your settings (graphic on the left). You then return to post-processing as usual via Apply.

Step 4: In the image preparation, select the newly created profile **Glamour, Aspect 10%** and confirm your selection by clicking on the green **Apply settings** button (Graphic right).

Note: You can now load as many images as you like and automatically apply the selected profile to them. If you open **Extras/Image preparation** again, the profile is reset to **Do not apply RAW profile**. The same applies when you close the programme.