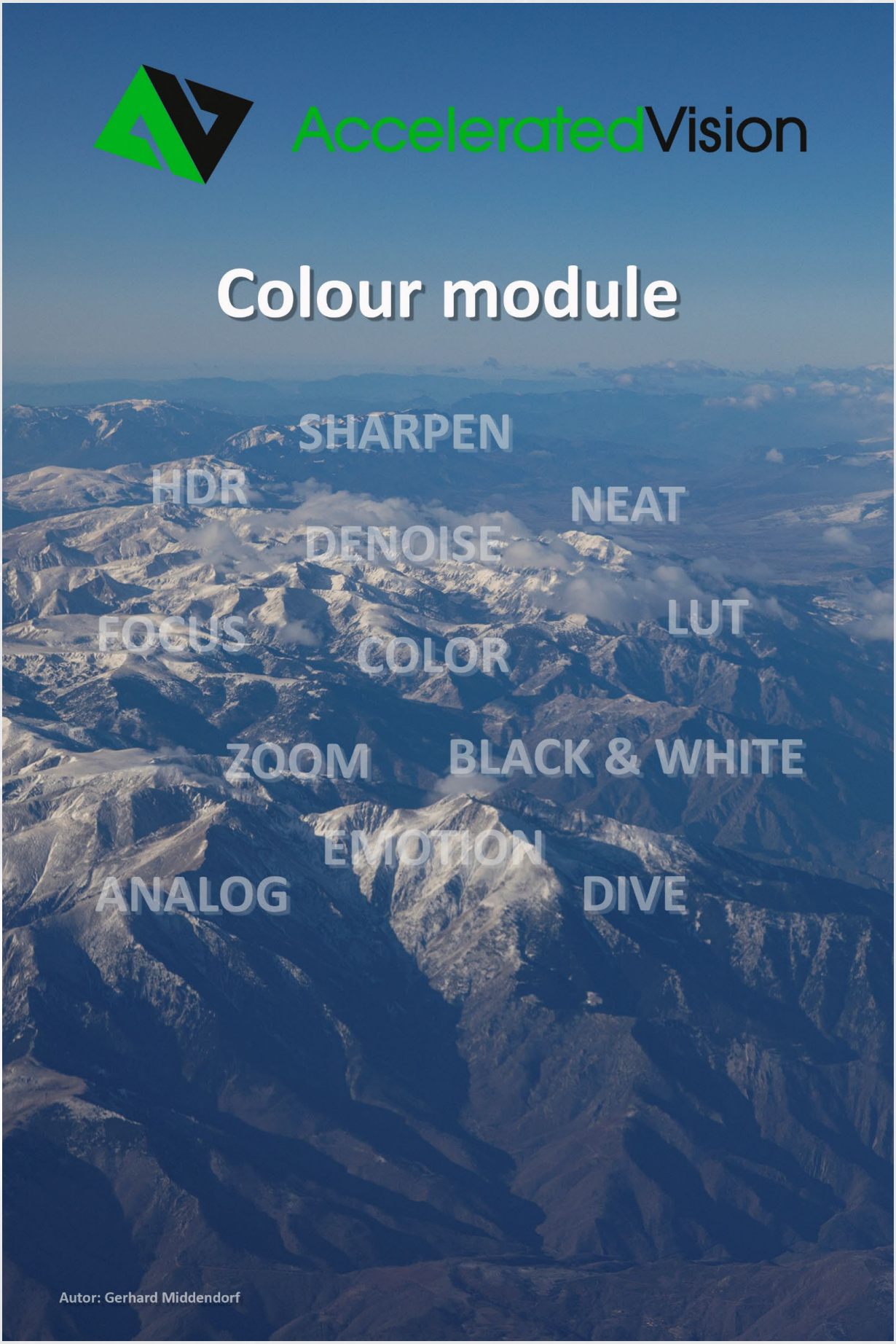
AcceleratedVision
Colour module
SHARPEN
HDR
NEAT
DENOISE
FOCUS
LUT
COLOR
ZOOM
BLACK & WHITE
EMOTION
ANALOG
DIVE
Autor: Gerhard Middendorf

Guide to the basic functions of all programmes

Colour module

In the colour module, you become your own colour director. Here you can easily select colour areas, choose specific ones and then adjust or recolour them.

This customised processing can be carried out on one or, if required, up to 10 different levels and displayed in real time.

This impressive module is offered in almost every program.

The user interface and operation of the editing window is the same in all programmes and makes it easy to find your way around when switching.

COLOR has been used as an example for this guide.

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11. ‘Take along’ masks to other colour levels
12. Create eye-catchers with an inverted mask
13. Saving and importing masks
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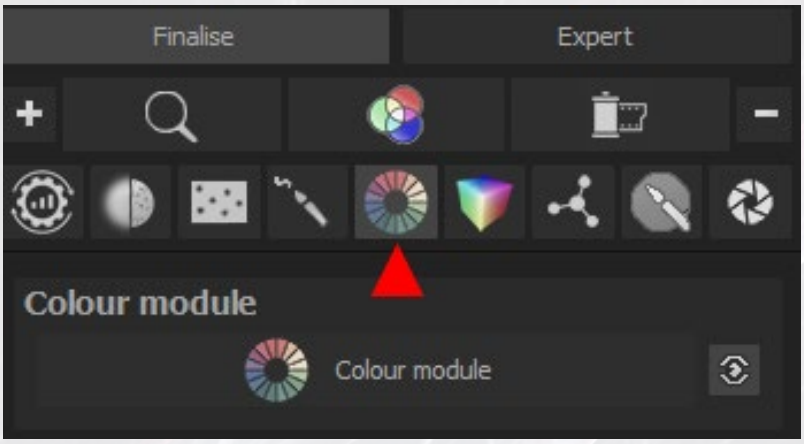
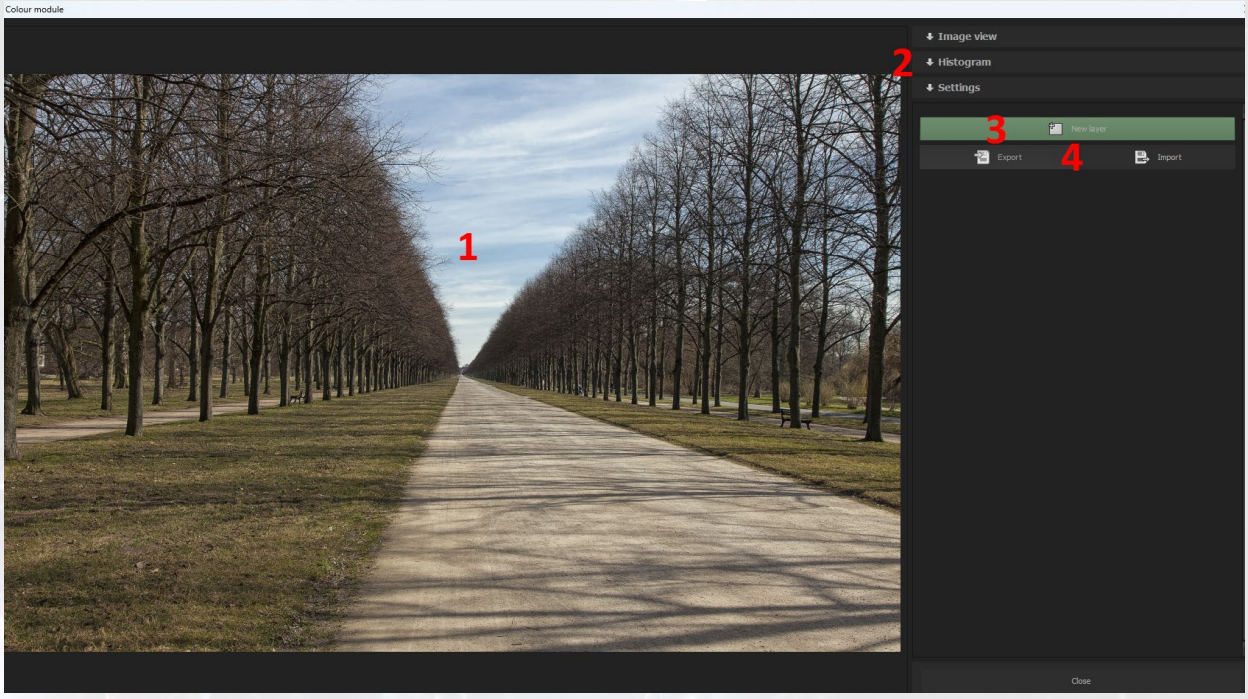
1. Overview window colour module



Click on the **colour circle symbol** in the toolbar to display the **colour module** button.



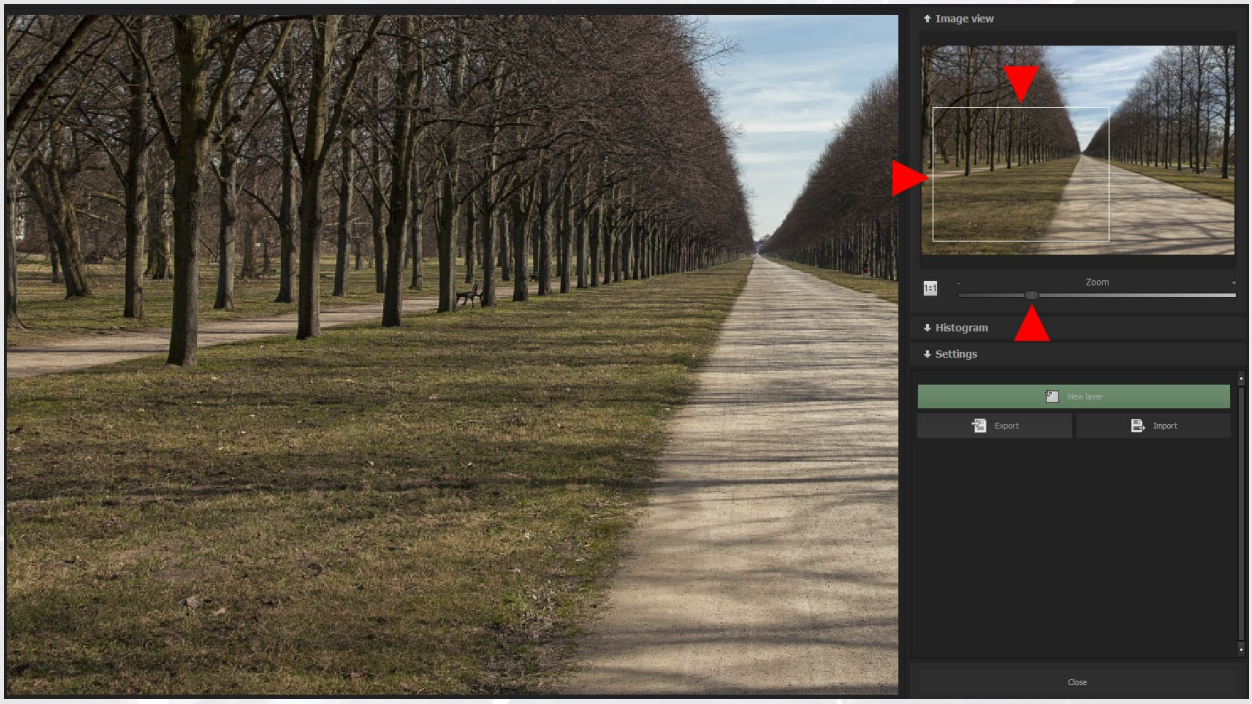
Click the **Colour module** button again to switch to the editing window with the large image area and the viewing and editing options on the right-hand side:

1. **Image area**
2. Auxiliary displays with **image vi**ew, **histogram**, **settings**.
3. **Colour layers**
4. **Export/import** the settings of all colour levels to a file or from a file.

2. Displays: Image view, histogram, settings

You can use the auxiliary displays for additional image information or, as with the **image view**, for more precise positioning in order to optimise the workflow. Click on the small arrow in front of the name to expand the display.

Image view

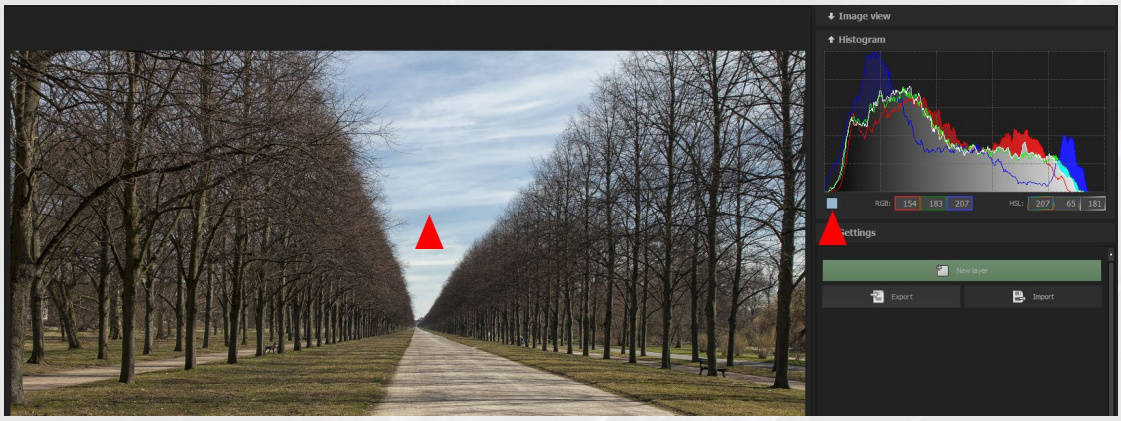


Enlarge image view: By default, you always see the image view in the '1 : 1 view' as in the previous chapter.
It can be enlarged continuously to the right using the **zoom slider**. Scrolling up and down with the mouse wheel either in the image or on the right in the overview image has the same effect.
Move image section: By holding the mouse button in the image, you can move the enlarged view so that the desired colour adjustments or recolouring can be determined more easily and precisely.

White position frame: The white position frame in the overview image 'moves' and shows the changed image section, which can be zoomed in or out even further using the mouse wheel.

Precise centring: By clicking on a desired point in the image in the overview I mage, e.g. in the lawn, tree leaves, sky or pavement, the view is centred even more precisely on this point in the image and can be hit exactly with the pipette in the next editing step.

Histogram



The histogram shows the **brightness distribution** and the distribution of the **red**, **green** and **blue** channels in the image.
The dark tones are visualised on the left, the light tones on the right and the medium tones in the middle.
In the image example, the higher curve in the left part of the image shows that the dark tonal values dominate somewhat due to the many trees.
The histogram display has **RGB** (red, green, blue) values and **HSL** (**h**ue = colour tone, **s**aturation = saturation, **l**ightness = colour brightness) values at the bottom, which are displayed according to the position over which the mouse pointer is located in the editing view. The colour over which the mouse hovers is also displayed in the checkbox, light blue in the image example.

Settings

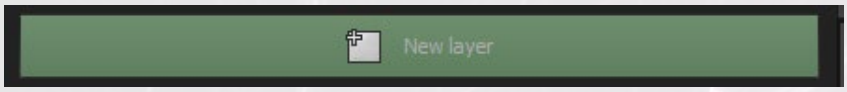
If you expand **Settings**, you can change 3 default settings here if required:

1. Clicking the button deactivates the **real-time editing** and the small green light turns grey. This deactivation only makes sense in exceptional cases if the processing is not running smoothly and is ‘jerky’. Click again to reactivate the real-time calculation.

2. **Mask colour display:** Use the pipette to define a source colour in the images that you would like to change. This colour representation of the masked areas is set to white by default and can be changed here as required.

3. **Visualisation of non-selectable areas:** Very dark to black and very light to white areas of the image cannot be manipulated and are coloured white or black accordingly. Click on this button to reverse these two colours.

3. Show new level with editing options



Click on the green button **New layer** …

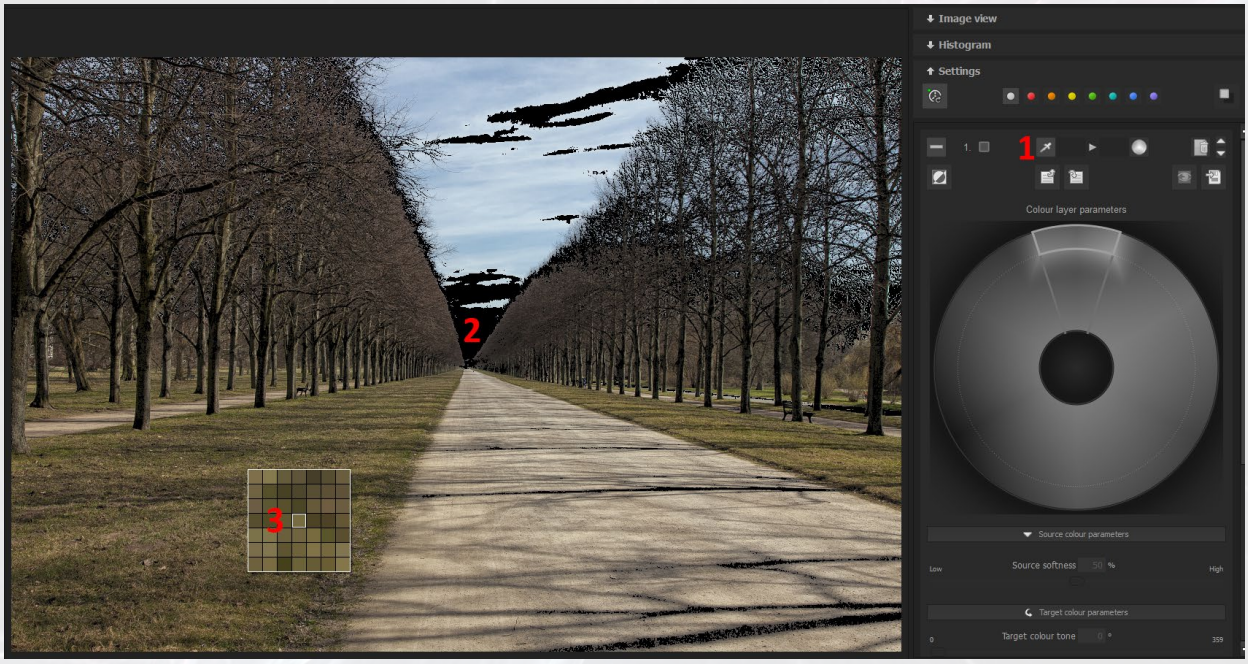
… an inactive layer with all parameters and options is displayed, which only becomes active and 'comes to life' when you select a source colour in the image that you want to manipulate in the top line of the parameters using the **pipette**.

The right-hand 'editing page' is divided into several blocks:

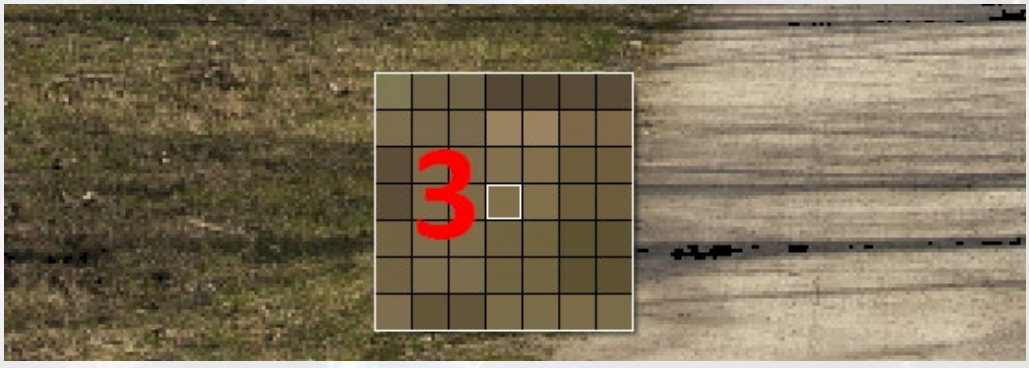
1. **Parameters** and memory options of the **colour level.**
2. **Colour wheel.**
3. Parameter of the **source colour**.
4. Parameters of the **target colour**.
5. Option to open **further new levels**.
6. **Export/import** options.
7. **Close** button to return to finalise mode.

4. Select and display the source colour with the pipette

Example 1: The brown lawn areas should be adapted to the healthy green of the rest of the lawn. This can be done quickly and intuitively:



Step 1: Select source colour: Click on the **pipette symbol** (**1**) to activate it, the mouse pointer is given an eyedropper symbol **and some areas in the image are displayed in black** (**2**). For other image motifs, this can also be **white** or both colours. These displays represent image areas that are too dark or too light, **contain no usable colour information** and therefore cannot be selected.



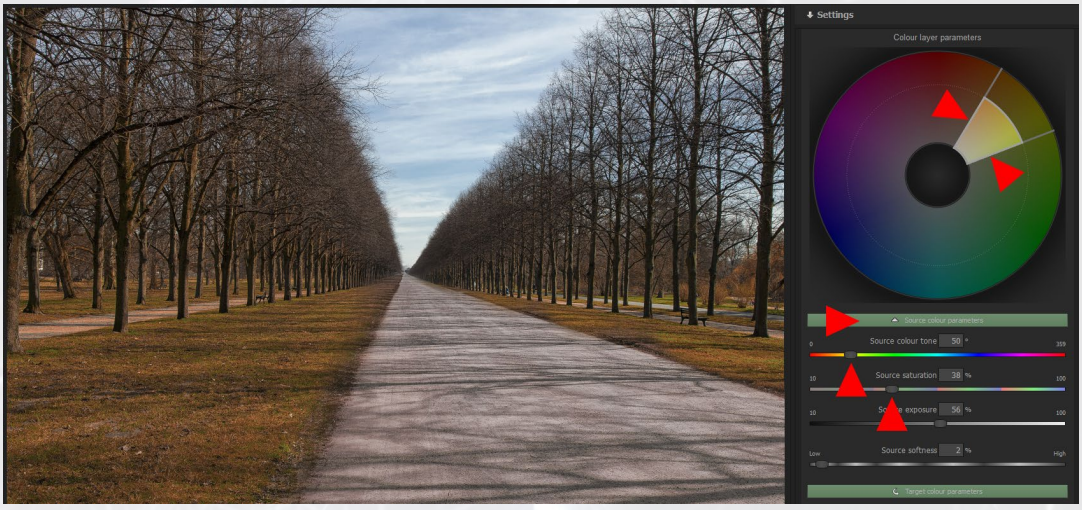
If you now move the mouse in the image to select the desired area, a **magnifying glass** (**3**) is displayed next to the pipette, with which you can easily find and select the colour area that you want to change. The small white square shows the exact colour selected, in the example a light brown.
Note: As the selected source colour can still be influenced many times in the colour wheel, exact colour determination is not so important.

5. Display and visualise source colour

By clicking on the selected source colour, it is selected and displayed both in the **colour circle** and in the **rectangle** next to the pipette symbol (**1**). If you move the mouse over the rectangle, the corresponding RGB values are displayed. The **target colour** (**2**) is displayed in the **rectangle next to the source colour**, which is of course identical to the source colour before a new selection is made.

Show/hide mask: Click on the **eye symbol** (**3**) to display the selected area as a mask, in the example with the default mask colour **white**. This colour can be changed under **Settings** if required. This mask display is a very good help when assessing all selected areas of the selected colour and 'neighbouring colours'.

Use the **Source softness** slider to determine whether the mask and thus the transitions of the source colour should be softer at the transitions (slider to the right) or, as in the example, reduced more precisely to the source colour (slider to the left).



Parameters for the source colour: If required, the source colour can also be manipulated: Click on the **Source colour parameters** button to expand additional parameters, which can be collapsed again with a further click.
In the image example, the preset value of '**38**' for the **Source colour tone** parameter has been changed to a higher value of '**50**': Parallel to the changed value, the selected segment shifts slightly downwards in the colour circle. If a lower value were selected, it would move upwards. The preset value of the **Source saturation** parameter has been changed from '**52**' to '**33**': The inner segment for the **colour saturation** has been shifted towards the centre (black circle) in parallel with the change in image look towards the **autumn mood**, which is explained in more detail in the parameter influences in the next chapter.
Double-click on a parameter to reset the changed value to the default value.

6. Change selection area

The selection area can be changed individually before or after selecting a target colour via the **parameters of the target colour** or directly and intuitively in the **colour wheel**. The displayed mask is shown here for better visualisation.

Segment customisation with 4 handles: Clicking on the segment or one of the handles lightens them and allows them to be moved or dragged.

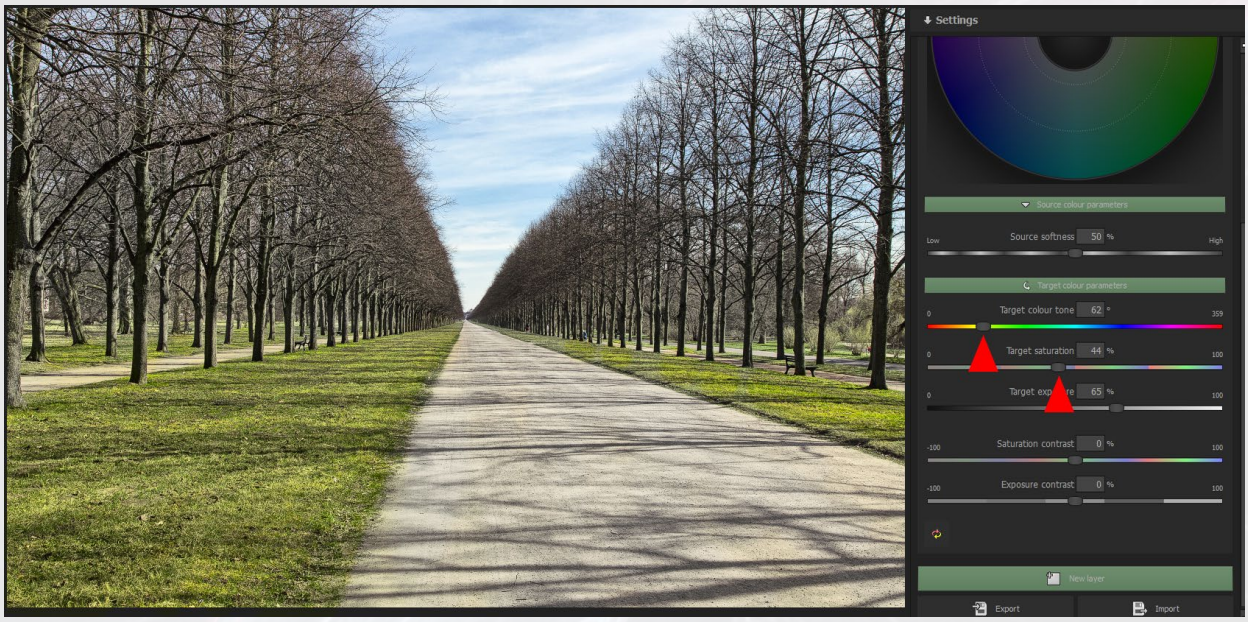
Move colour segment: The **entire selected colour segment** is moved in all directions by holding down the mouse button in the light segment area.

Expand colour angle: Click on the **outer handles** and drag to **expand** or **narrow** the colour angle. If it is expanded as shown in the graphic, the 'neighbouring colours' are taken into account to a greater extent; if it is narrowed, it may be the case in the image example that the slightly different coloured leaves than the light brown selected are not taken into account when recolouring, which may be intentional in other cases.

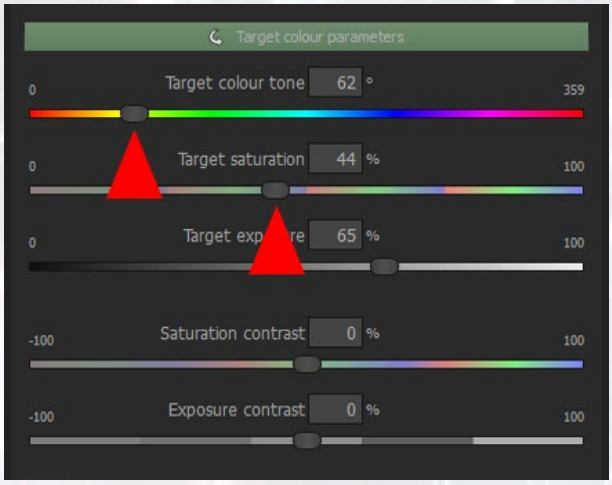
Vary the selected area using the colour saturation: If you drag the inner handles, the saturation of the colour selection changes: **Less saturated** areas are selected towards the centre (black circle) and **more saturated** areas are selected towards the outside, as shown in the graphic.

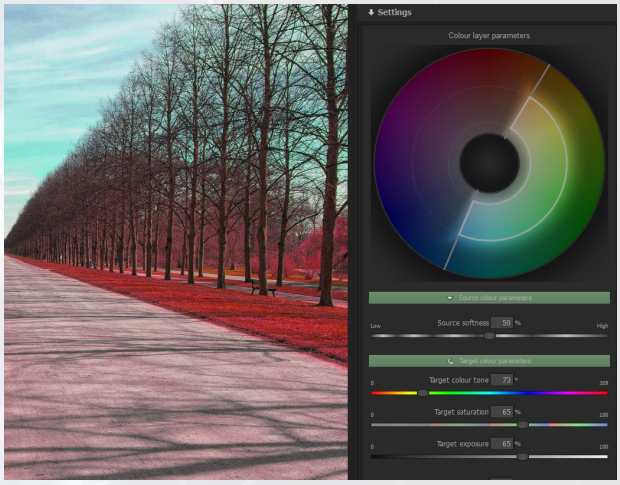
7. Select target colour and adjust if required

Select the **desired target colour** using the target colour parameters.



The decisive parameter for defining a new colour tone is **Target colour tone**: Use the slider to define the desired target colour, which in the example image is a slightly richer green than the original green of the lawn. You can follow the effect live and correct it if necessary.



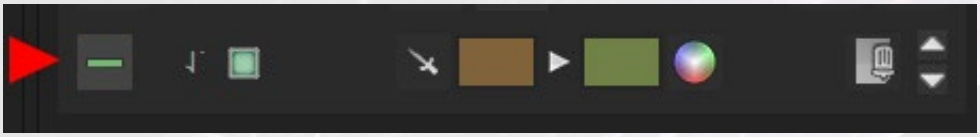


The other parameters **Target saturation**, **Target exposure**, **Saturation contrast** and **Exposure contrast** can be used to correct the intensity of the colour or the colour mood as desired.

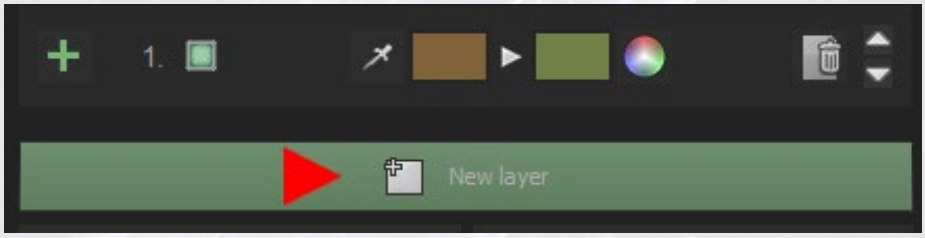
Of course, you can also intuitively adjust the target colour in the **colour wheel** as described above or quickly experiment with creative fantasy recolouring as shown in the graphic on the right.

8. Create New Layer

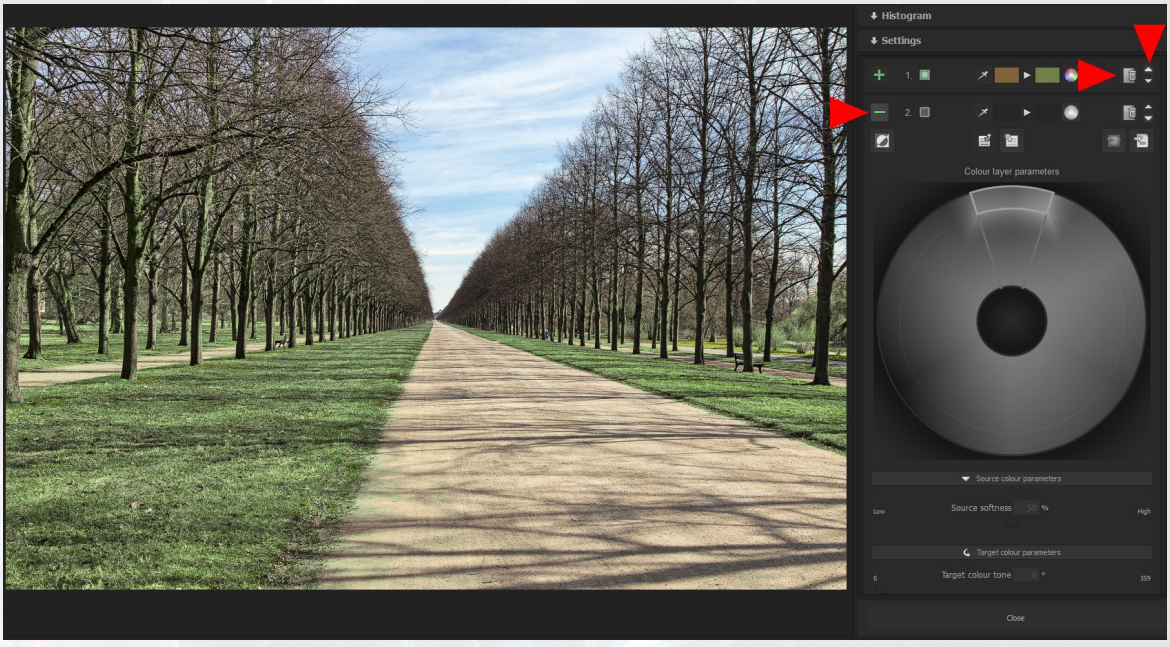
If required, you can manipulate other colours in the image motif in additional layers, e.g. make the colour of the sky more intense.



If you are satisfied with the 'intermediate result' of the first change to the lawn, click on the **minus** sign to close the layer...



... and select by clicking on **New layer** ....

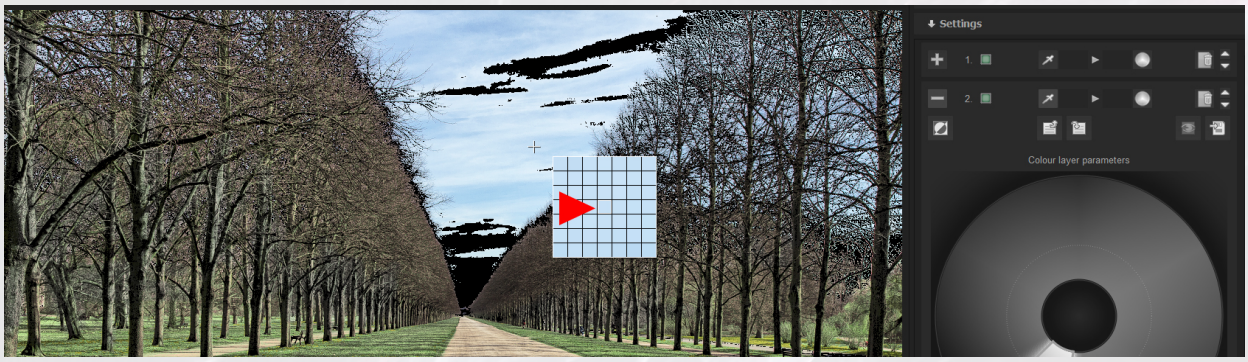


... the 2nd colour layer, which is below the first and is inactive again. The source and target colours of this layer are still shown in layer 1 for orientation.
Deleting the layer: Click on the **recycle bin icon** to delete the layer.
Move layers: The layer hierarchy can be swapped or changed by clicking on the up or down arrow next to the recycle bin symbol: Arrow down moves the layer one position down, arrow up moves it one position up.

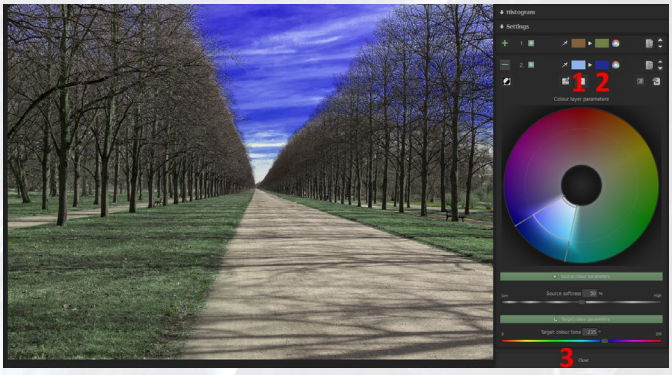
This change to the level hierarchy can have a significant influence on the overall effect, which you can try out if necessary.

9. Change/intensify sky colour in 2nd layer

The procedure is identical to recolouring the lawn:

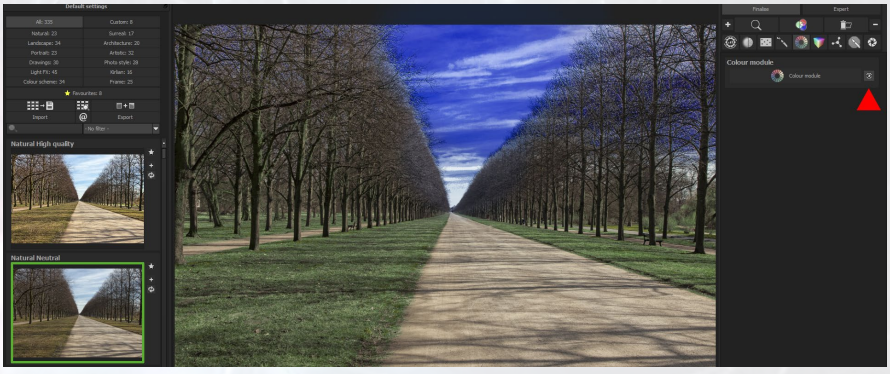


Step 1: Select the **source colour** (**1**), in the example a colour from the sky.



Step 2: You select a **target colour** and decide whether the colour of the sky should be recoloured or intensified.
In the example, a **darker blue** has been selected as the target colour (**2**) and the target saturation has been increased.

Return to finalise mode: If you are satisfied with the new image look, click on **Close** (**3**) ...

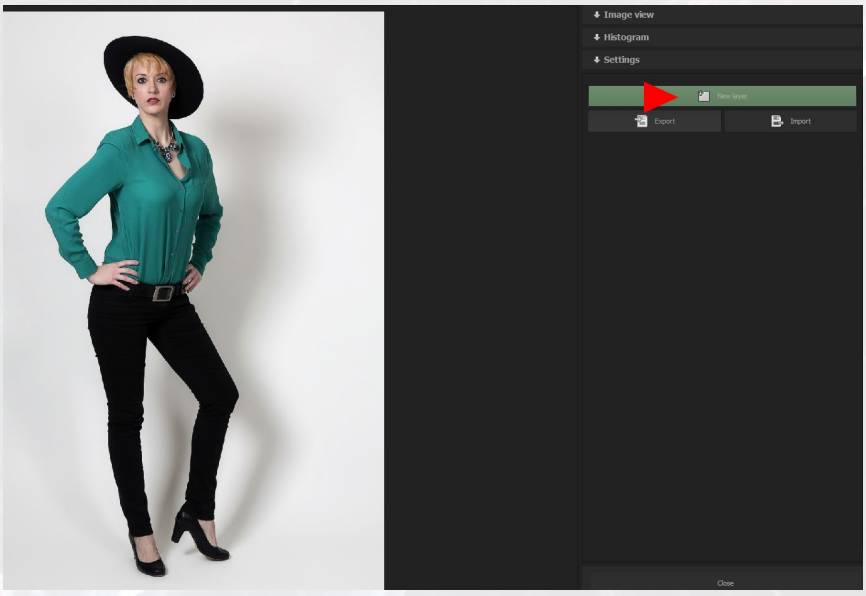


... and can hide and show editing by clicking on the **eye symbol**.

Note: If you save the **project**, all changes are saved in the colour module and can be extended or corrected when reopening if necessary.

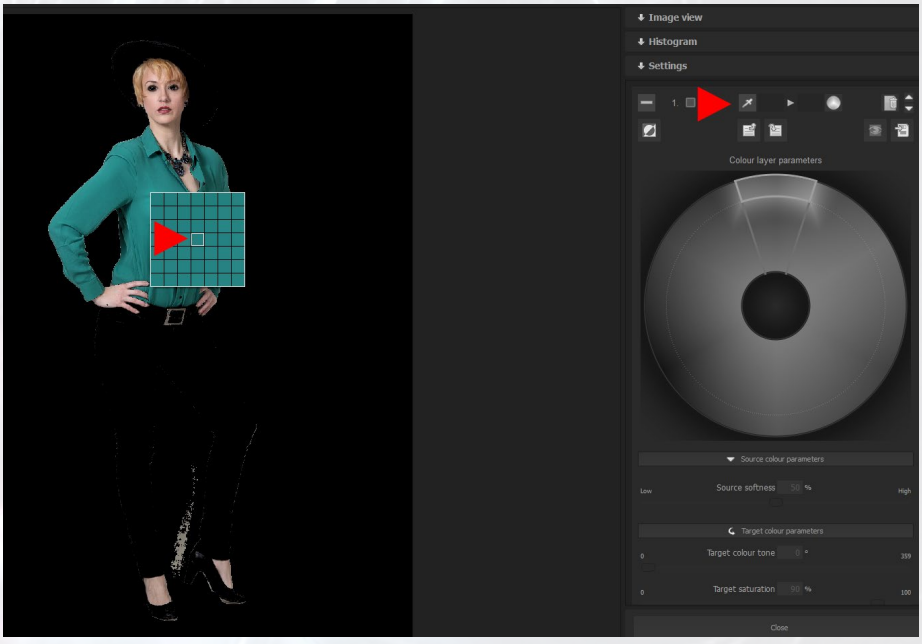
10. Flash workflow: recolouring in just a few seconds

The following image example shows that colour adjustments or radical recolouring work very quickly. The fine adjustments explained in the previous chapters also generally lead to a convincing result very quickly.



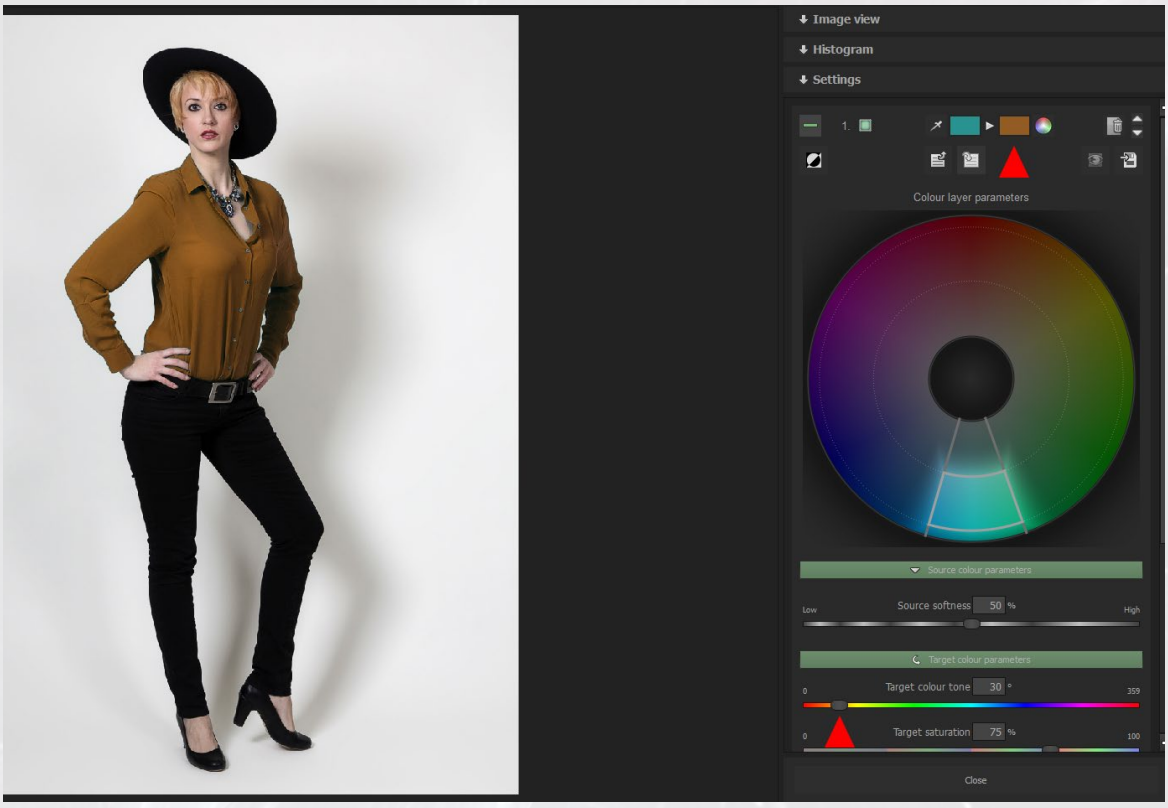
Example 2: The green blouse is to be recoloured with variations.

Step 1: Select colour layer: After switching to the colour module, click on **New layer** to make the inactive layer 1 visible.



Step 2: Select source colour: Click on the pipette symbol and use the pixel magnifier to select the source colour to be recoloured, in the example Green. The black and light areas again visualise the parts of the image without colour information that cannot be selected.

Step 3: Determine new target colour - done!

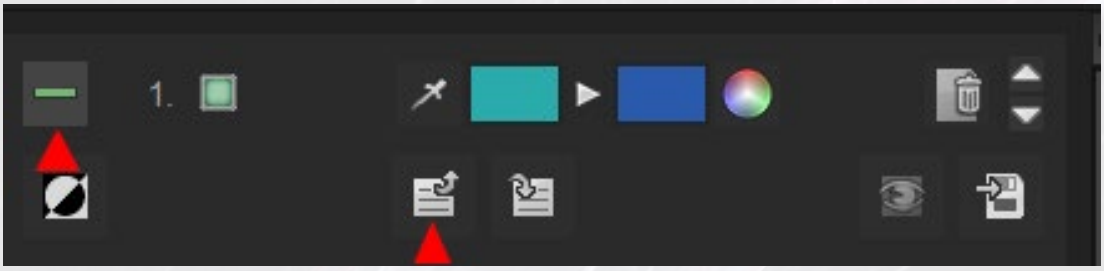


Use the **Target colour** slider to define the new colour tone, in this example a brown tone. If necessary, adjust the mask using the colour wheel or the parameters of the target colour, but this was not necessary here.

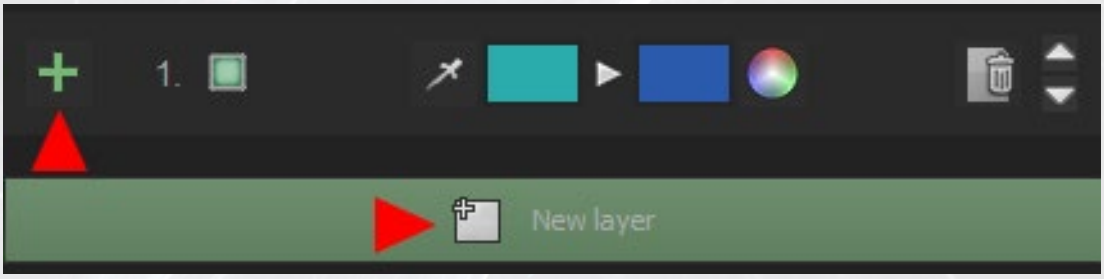
This allows you to quickly create different colour variations in the same or several colour layers (next chapter) using the **Target colour** slider.

11. ‘Take along’ masks to other colour levels

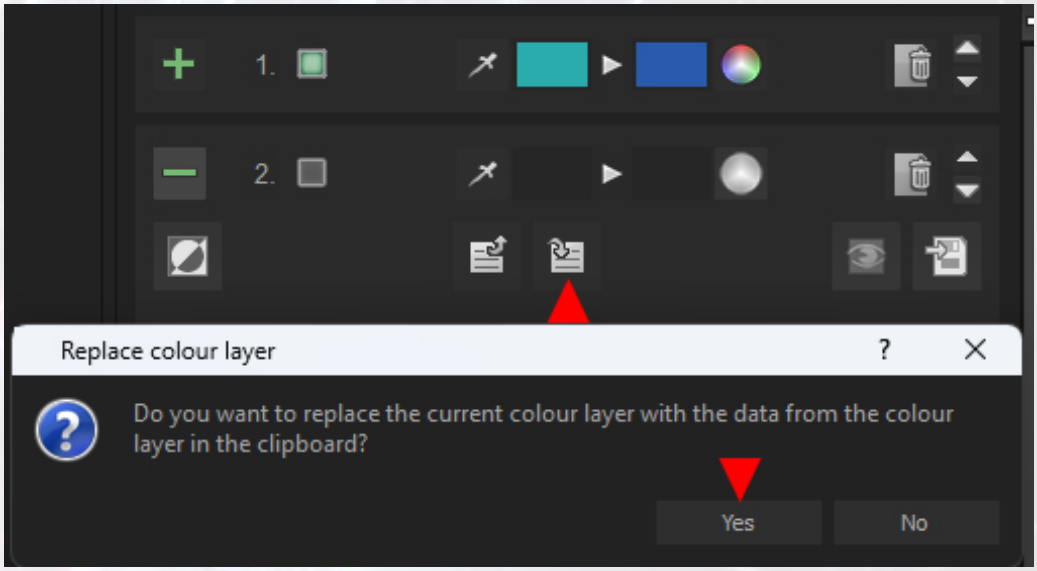
If you want to recolour not in one, but in several colour layers with the identical mask and all parameter settings in order to be able to call up a specific colour variant again and again as required, there is a simple solution.



Step 1: Copy parameters to the clipboard: Click on the button with the up arrow to copy the current screen with all parameter settings to the clipboard.



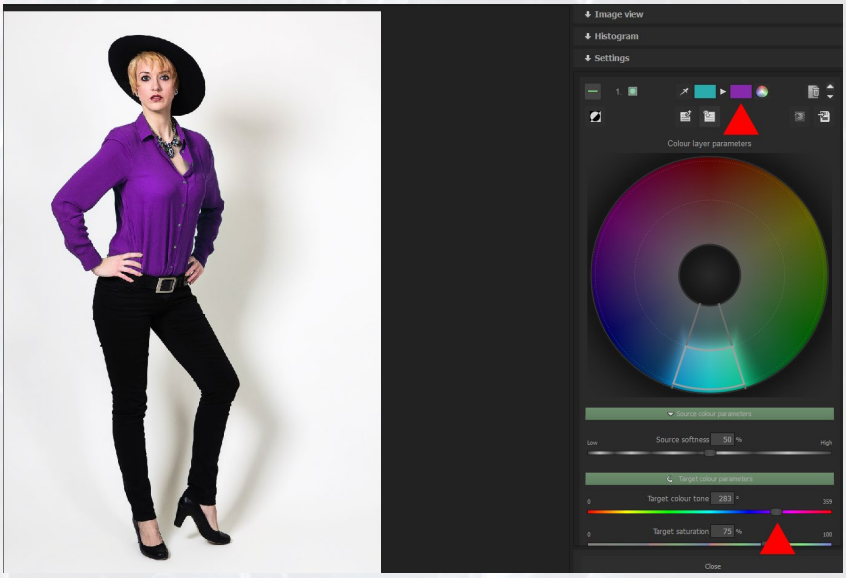
Step 2: Select a new colour layer: Click on the minus sign to collapse the current layer and the minus sign becomes a plus sign. Click on **New layer** to open the new colour layer.



Step 3: Paste the parameters: Click on the button with the down arrow to display a prompt asking whether the current level should be replaced with the data from the clipboard. Confirm this with **Yes.**

Step 4: Activate top level

The newly selected colour layer, in the example colour layer 2, is always below the last active layer, which is also visualised by the greyed-out minus sign. If you change colours and other parameters on this layer in the same mask, these changes are covered by the colour layer above and become invisible. This is different for colour manipulations in different parts of the image, as in the example with the recolouring of the sky, where the masks did not overlap.
You can move the layers up or down at any time after all editing steps by clicking on the arrows next to the wastebasket symbol to make the desired colour layer visible.
In this case, it makes sense to make the changes in the top colour **layer 1**, as all changes are then immediately visible live and layer 2 retains the original source and target colours. Click on the **plus** sign to activate colour **layer 1**.



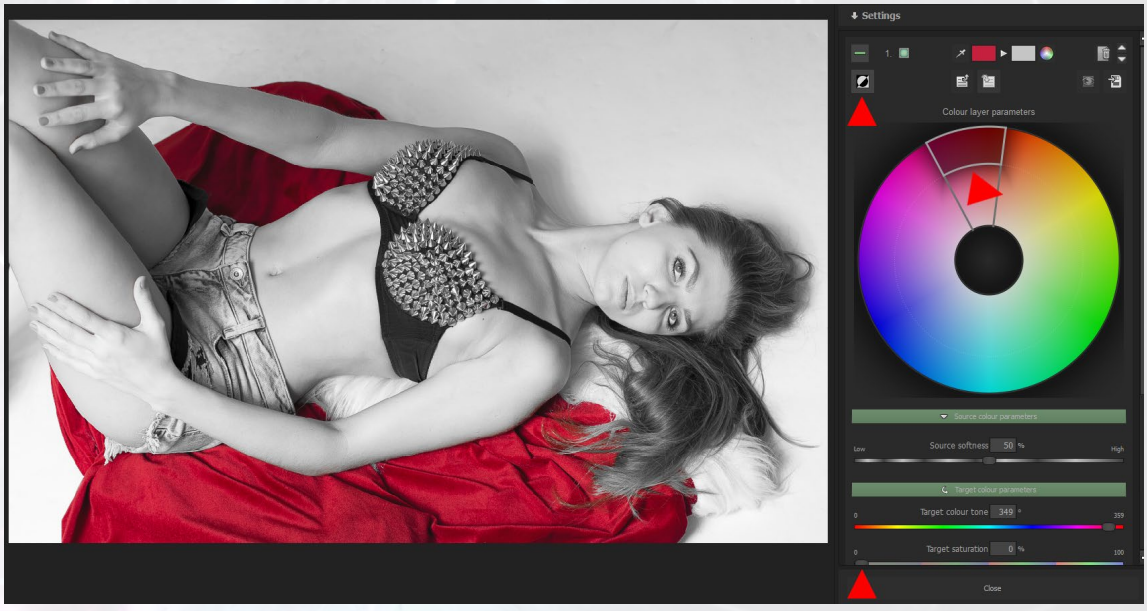
Step 5: Determine new target colour: Use the **Target colour** slider to determine the desired colour tone as usual, in the example violet, which is immediately displayed in the rectangle next to the source colour tone and replaces the previous colour live in the image.

By clicking on the **minus sign**, all active layers are displayed with the respective source and target colours and can be moved in the hierarchy using the arrow keys and thus made visible.

12. Create eye-catchers with an inverted mask

If you have defined a source colour and do not want to manipulate this colour but all other colours in the image, you can do this very quickly by inverting the mask. For example, you can quickly create a **colour key effect** with one colour and desaturated colours, a greyscale image.

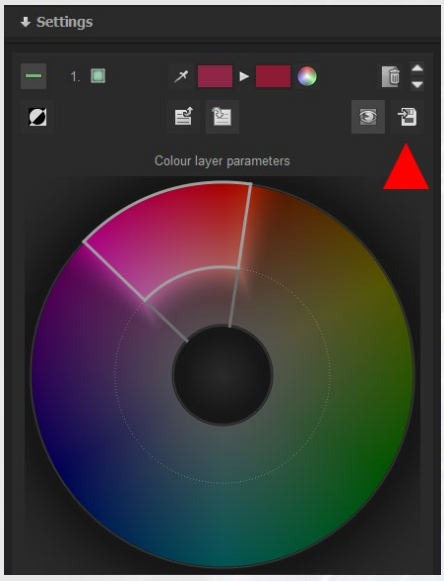
The first steps are identical to those in the previous image examples: Click on **New layer** to open the inactive colour layer and use the pipette and pixel magnifier to determine the **source colour**, in this example **red**.

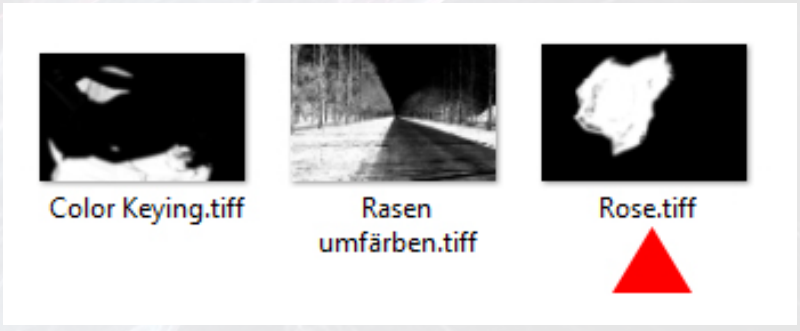


Click on the button with the white and black semicircle to invert the mask. All colours except red are now masked. If you now drag the **target saturation** slider all the way to the left, you have created an eye-catcher in a flash. The only correction was to move the lower, inner handle upwards to remove the remaining red from the lips by shifting the saturation.

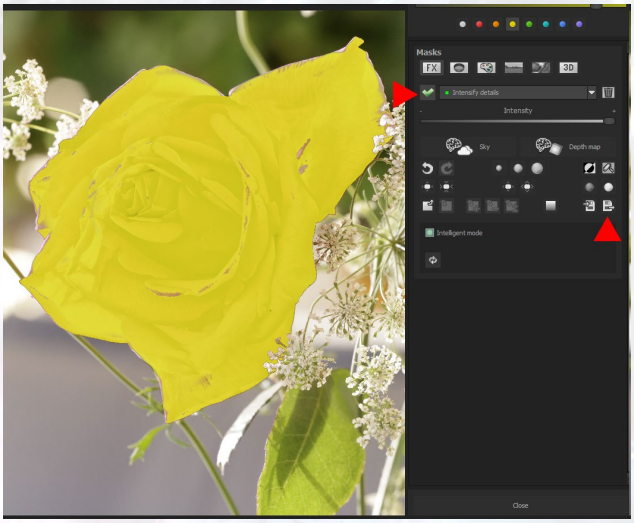
13. Saving and importing masks

Masks that are determined by the source colour can be saved and used as required, e.g. in **selective drawing**.





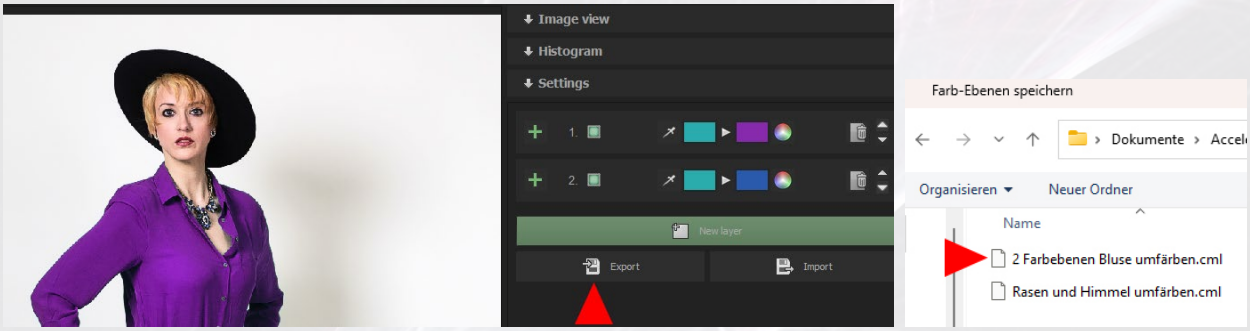
Example of detail enhancement: The rose is to be recoloured in the colour module and the details slightly enhanced. In the **Selective drawing** module, you can use the mask created in the colour module and save time.
The mask has been created as usual by selecting the source colour. Click on the **button next to the eye symbol** to select the folder in which the masks are to be saved. All masks have the file extension **.tiff** and can be imported in all mask areas.



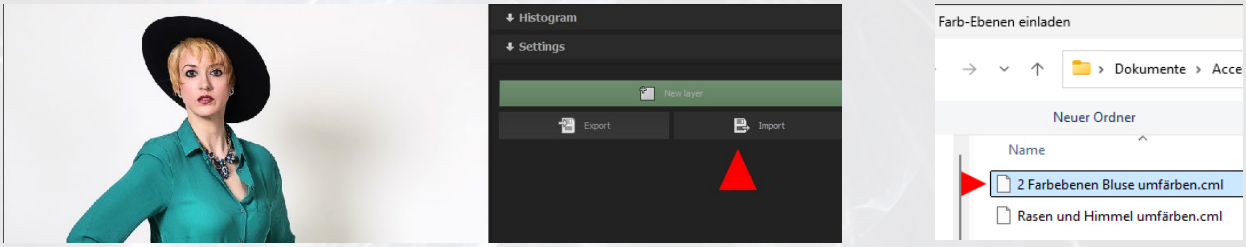
In the **Selective drawing** module, select **Intensify details** in the FX masks in the image example, double-click on **the button on the right** in the bottom row in the same folder to import the mask (graphic on the left) and see the desired result immediately after hiding the mask display. This procedure works in the same way in all mask areas.

14. Export, import masks with settings

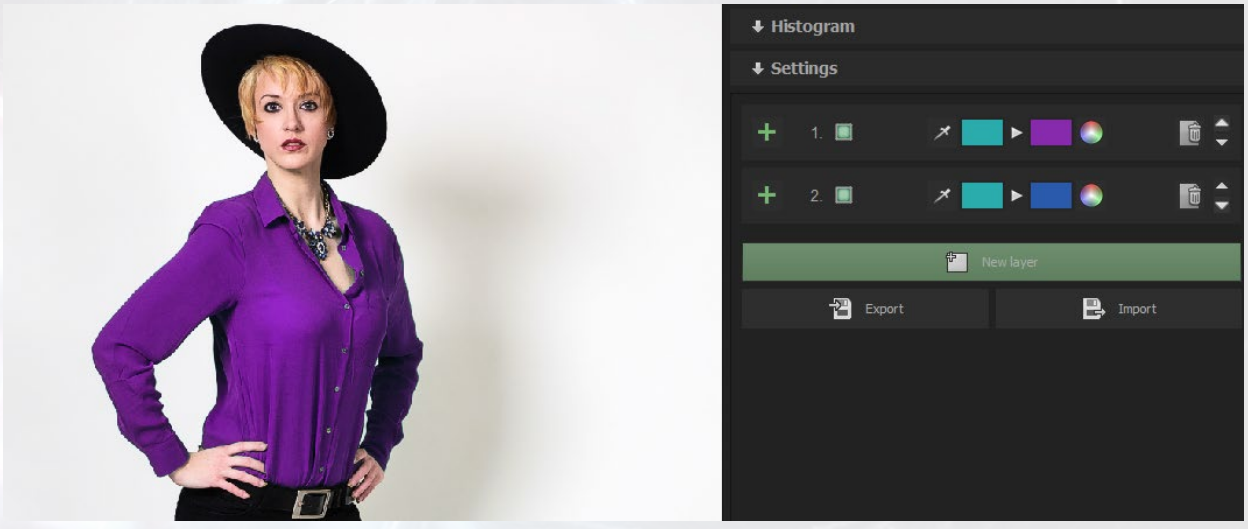
Masks do not have any colour information or parameter settings; if you want to save the masks with the settings of **all** colour layers in a file, e.g. to make them available to other program users, select the **export** and **import** options.



In this example from the flash workflow, both colour layers are to be exported with all parameter settings so that they can be called up again later if required.
Export: Click on the **Export** button to select a folder in which these files with the extension **.cml** are saved.



Import: You or another user load the original file and switch to the colour module, click on **Import** and load the saved file by double-clicking on it.



If required, you can now create further layers and try out additional colour variants.
Note: If you do not want to pass the file on to other users, you can also **save everything as a project** and call it up again later.