

# **HDR projects 4**

User Manual

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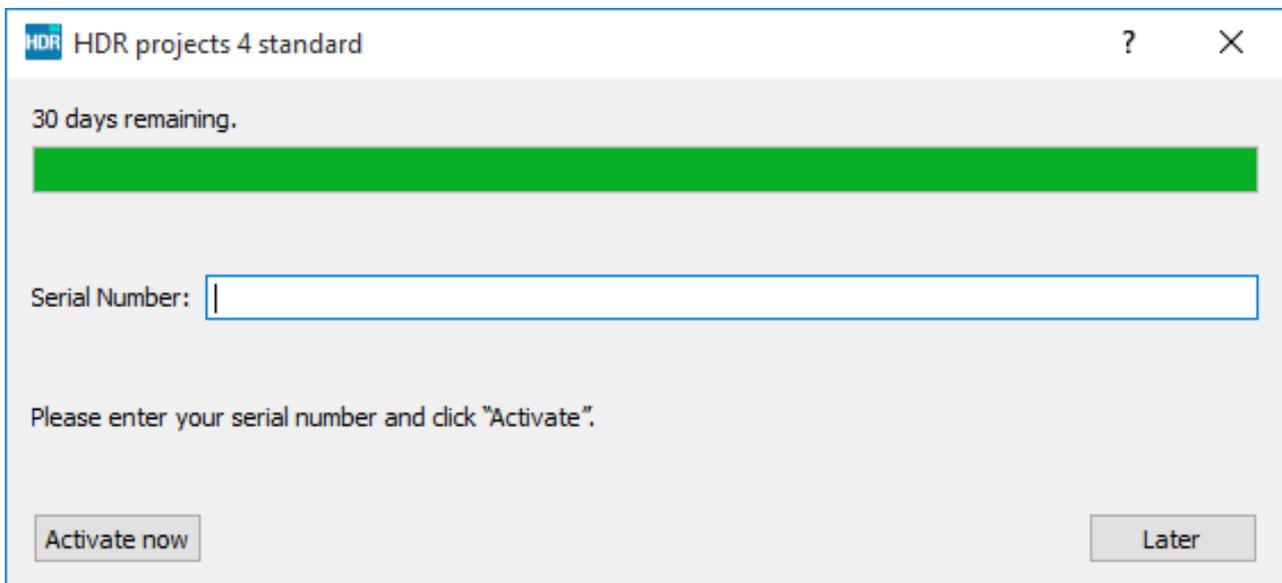
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## 1. Activation

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

Install **HDR projects 4** as described by the installation wizard.

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



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

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

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

## 2. Fascinating High Dynamic Range Photography

Even the most modern digital cameras have a limited dynamic range. Drastic lighting contrasts exhibit this restriction easily, such as with a photo taken indoors looking outside, like in the first example shot. You either have a properly lit interior, where the surrounding park behind the arches are far too bright, or an image with an adequately lit park, but with an interior that is far too dark.

HDR technology, short for **High Dynamic Range**, clears up this problem by generating images with an extremely large dynamic range, unmatched by monitor displays or prints.

The idea is simple - several images with varying exposure times are assembled into one image. In our example, three shots are fused: an image with a longer exposure time to capture the dark details inside the pavilion, a short exposure shot where the park behind the pavilion is correctly lit, as well as an exposure exactly in the middle.



The combined result is a single image containing all of the light, mid-tone and shadow detail. **HDR projects 4** does the work for you. The capable program merges the bracketing exposure images and uses tone mapping to establish a photo fit for printing and screen displays.



*The combined image contains all of the details of the pavilion and park, properly lit just as we saw the scene with our own eyes.*

In the next few pages we will show you how quickly you can create fascinating images with **HDR projects 4** and what you can achieve with its immense range of functions.

An obvious case for **HDR projects 4** - an evening scene with lanterns can only be captured naturally using HDR technology. Otherwise, the dark surroundings would not be capturable with the bright lights. A camera sensor's range of contrast is very limited when compared to that of the human eye.





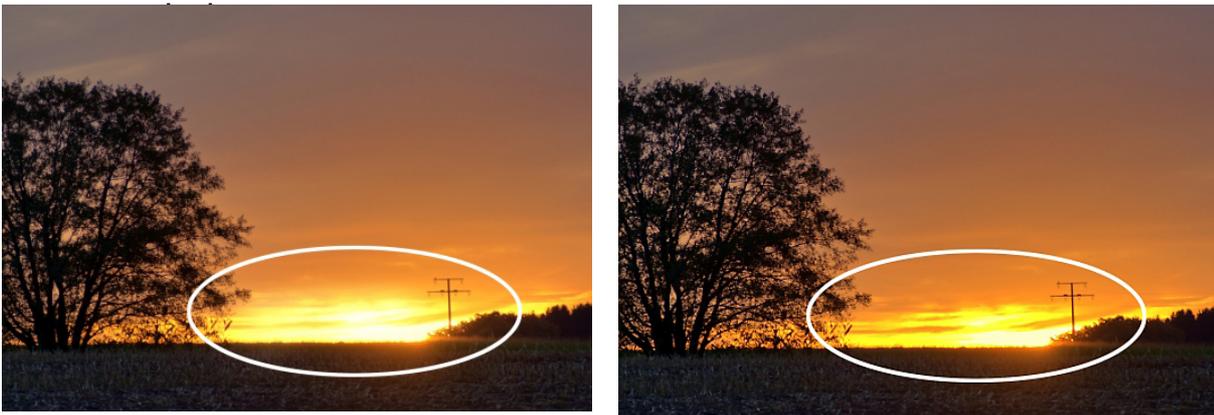
***All of the details are realistically depicted in the fused photo.***

Tip: Always capture your bracketing series with different exposure times, not just with different blending values. Merging the images requires an identical depth of focus for all of the individual shots.

### 3. What's New?

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

- ✓ New plugin for Lightroom (all versions from LR3 to LR CC)
- ✓ New Ultra HDR technology for fusing bracketing series: Ultra HDR processes up to 30 intermediate images between two photos with 64-bit precision. The result speaks for itself, and clearly shows a more detailed picture, especially in difficult situations, for example when shooting directly against the



***The strength of Ultra HDR can be seen in sensitive situations: the sunlight in the image on the right is significantly more detailed and less overexposed.***

This highly precise calculation system can be applied to specific types of motives: daylight, landscape, twilight, architecture, interior, night-time and mixed light.

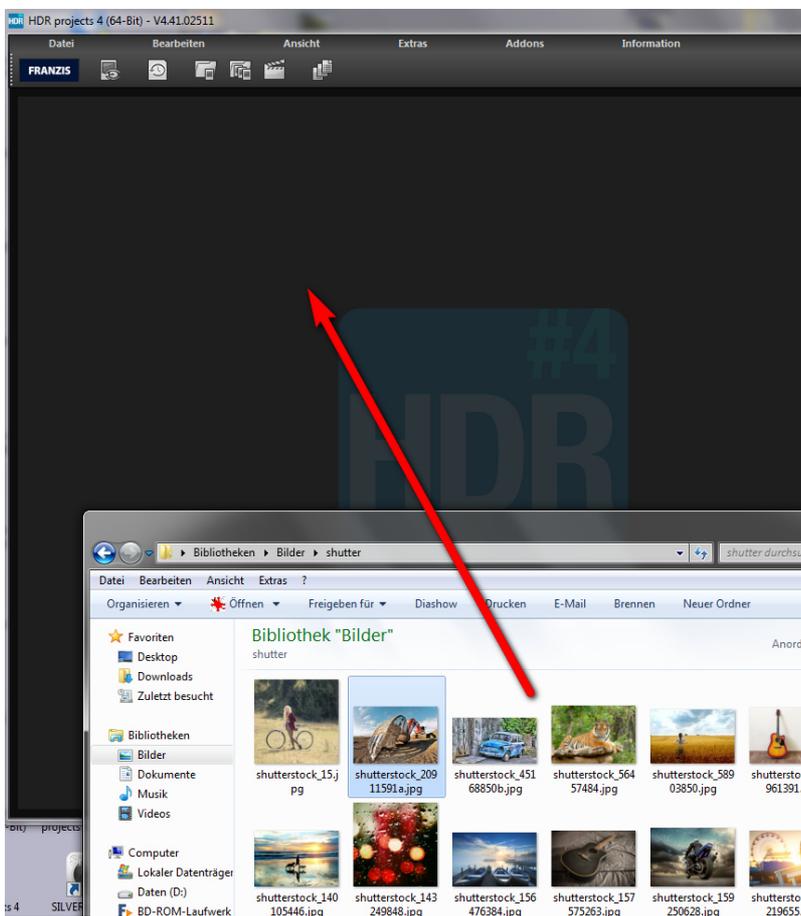
- ✓ Highlight: selective drawing tools for seven effects with intelligent automatic border recognition
- ✓ Additional selective editing for every post-processing effect

- ✓ New interactive ghost image removal with four different types of settings for landscape, architecture, life forms and sports
- ✓ A history browser shows all edited bracketing and projects, instantly selectable with a single click
- ✓ The intelligent Optimisation Assistant can now be used for eight finely tuned optimisation variations, from natural to brilliant to low-key
- ✓ Completely newly developed tone mapping category “Colour Fidelity” for extremely natural colour rendering through tone compression. The preset category “Shine” has also been added, which uses glow/shine effects to enhance images
- ✓ 34 different layer-blending modes for every post-processing effect
- ✓ 7 new effect and high-end tools for new creative possibilities from noise removal to mirroring to aura
- ✓ 82 new and optimised presets with gallery functions
- ✓ Certain presets can now be saved in select categories
- ✓ RAW module: developments in black & white corrections and additional high-quality noise removal methods
- ✓ Customise program features - configure saving formats and automatic settings.
- ✓ Image tailoring with 71 format templates and new help tools like the golden spiral, the golden cut and the rule of thirds as guidelines
- ✓ Optimisation of HDR as well as post-processing engines
- ✓ Two-fold speed increase and more

## 4. HDR Photos Done Quickly

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

1. Load Images
2. HDR Preparation
3. Post-Processing Preset Selection
4. Optimisation Assistant
5. Select Image Detail and Save

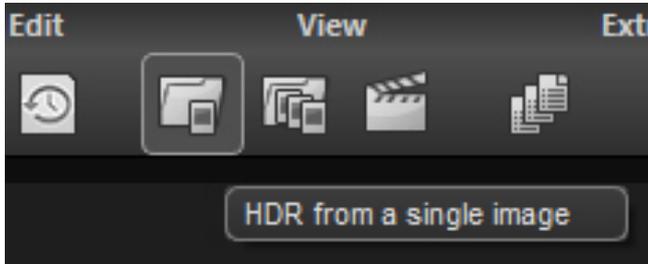


***You can simply drag and drop your images or bracketing series onto the start screen***

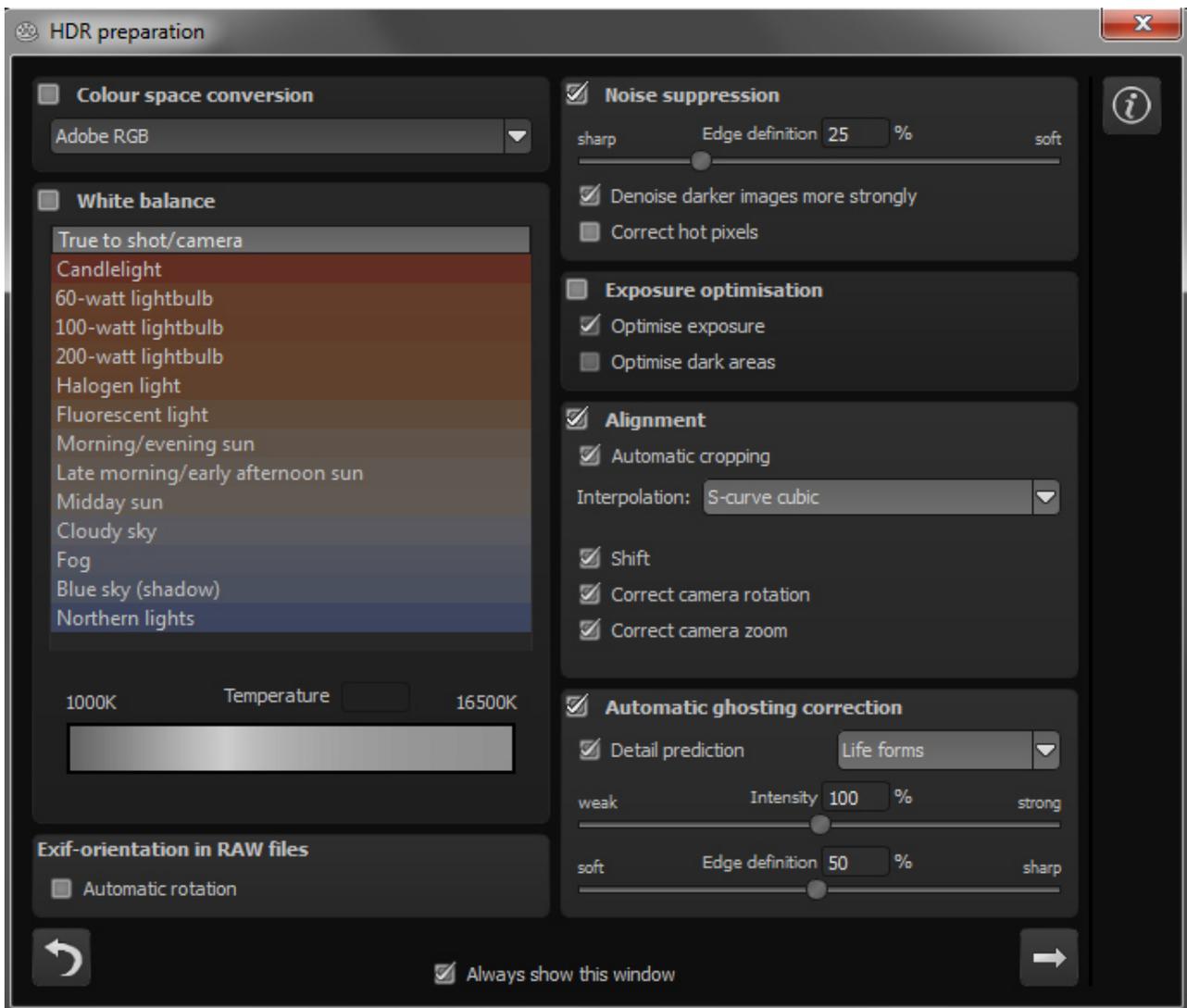
How to get the results you want, and fast - the elaborated presets and looks, individual image adaption and selected drawing allow you to also go the creative route. ***HDR projects 4*** offers both options.

## 5. Importing Image Material

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



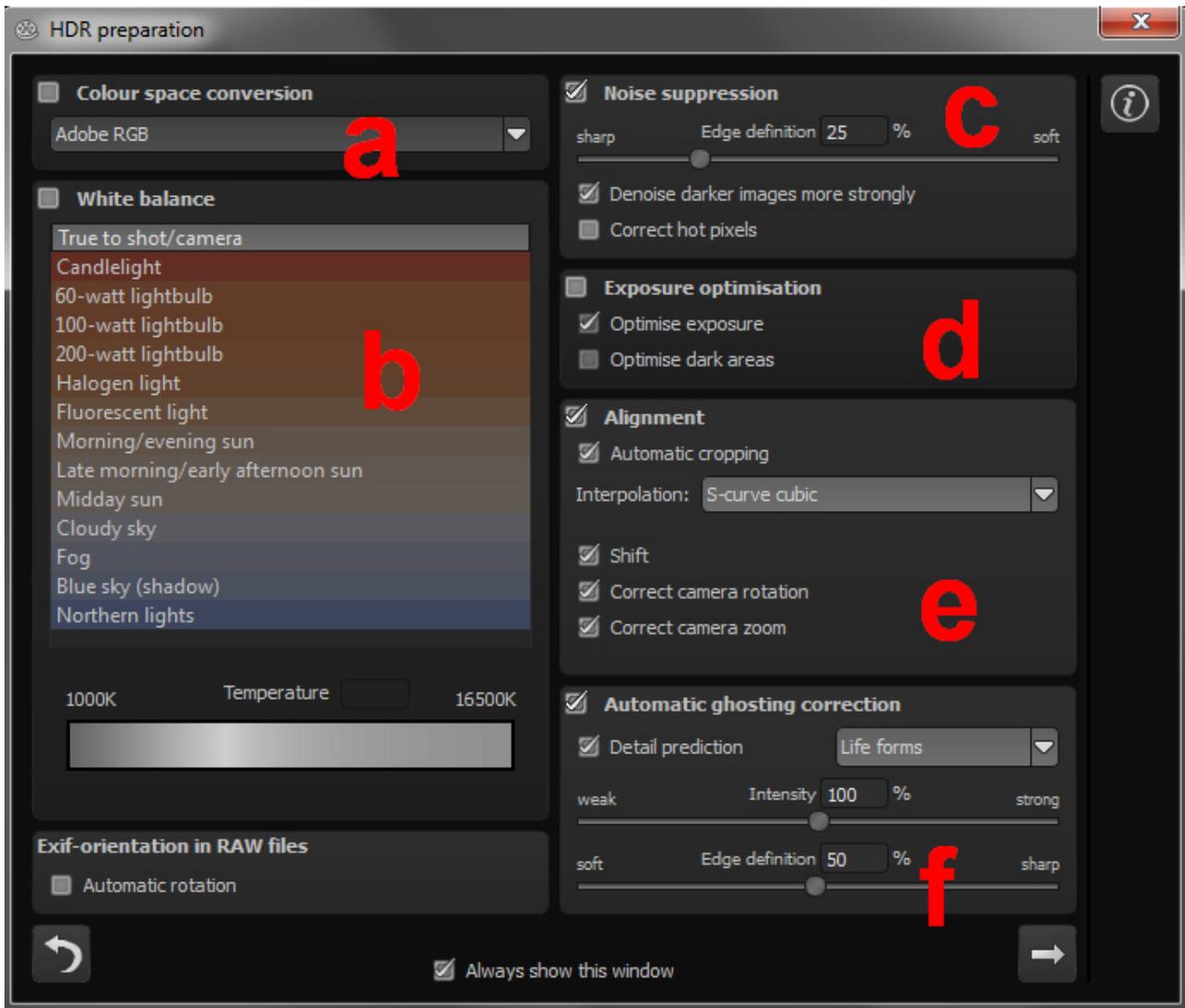
The HDR preparation dialog will open as soon as an image or a bracketing series has been selected or dragged and dropped into the program.



## 6. HDR Preparation

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. Colour space conversion: advanced users can choose a colour space here - for all other users, it is recommended to not make any adjustments, to avoid incorrect colour rendering later.

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

c. Denoise: 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.

d. Exposure optimisation: can be chosen if an image in a bracketing series is improperly lit and/or blurry, and must therefore be supplemented by the program. With a dark bracketing series, it is recommended to use the "Optimise dark areas" function to remove any colour casts. Light areas and details can also be optimised for bright bracketing series.

e. 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.

f. Automatic ghosting correction: **HDR projects 4** uses a highly precise ghosting removal to filter out subjects and people moving within the bracketing series. Without correction the people or vehicles in the final image would appear half transparent several times and create a complete jumble.



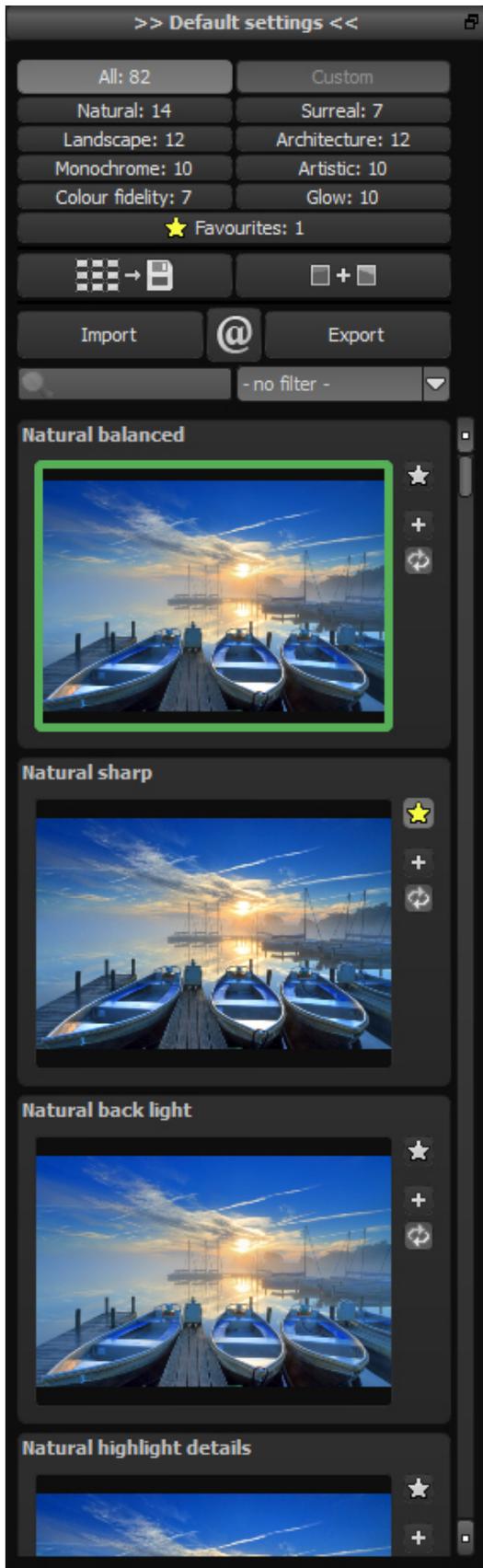
***Fusing the images without ghosting removal. People are always on the move in a busy train station! Without correction, ghosting always occurs with multiples exposures.***

The detailed process illustrates a special procedure. It attempts to predict movement within the bracketing in order to remove the ghosting more accurately. New in version 4 are the intelligent settings for life forms, landscape, architecture and sports. The “Life forms” corrector is perfect here.

## 7. Post-Processing: Presets



A change from previous versions, we are starting directly with post-processing after uploading the images. Here we can control the picture's tone mapping and edit the results with filters and effects.



**Left side of the post-processing screen:** the presets show the breakdown of the live preview in categories - "All", "Natural", "Landscape", "Monochrome", "Colour fidelity", "Custom", "Surreal", "Architecture", "Artistic", and "Glow" with the quantity of presets in the appropriate category.

To begin, we've chosen the "Natural balanced" preset. Clicking on the preview image applies the effect to the image in real time, which will then be displayed in the middle of the screen. Discover the wide variety of different looks by clicking on the 82 different presets. You will be amazed by the intriguing styles in the artistic section!

# HDR projects 4 – User Manual



**Image with “Natural balanced” preset**



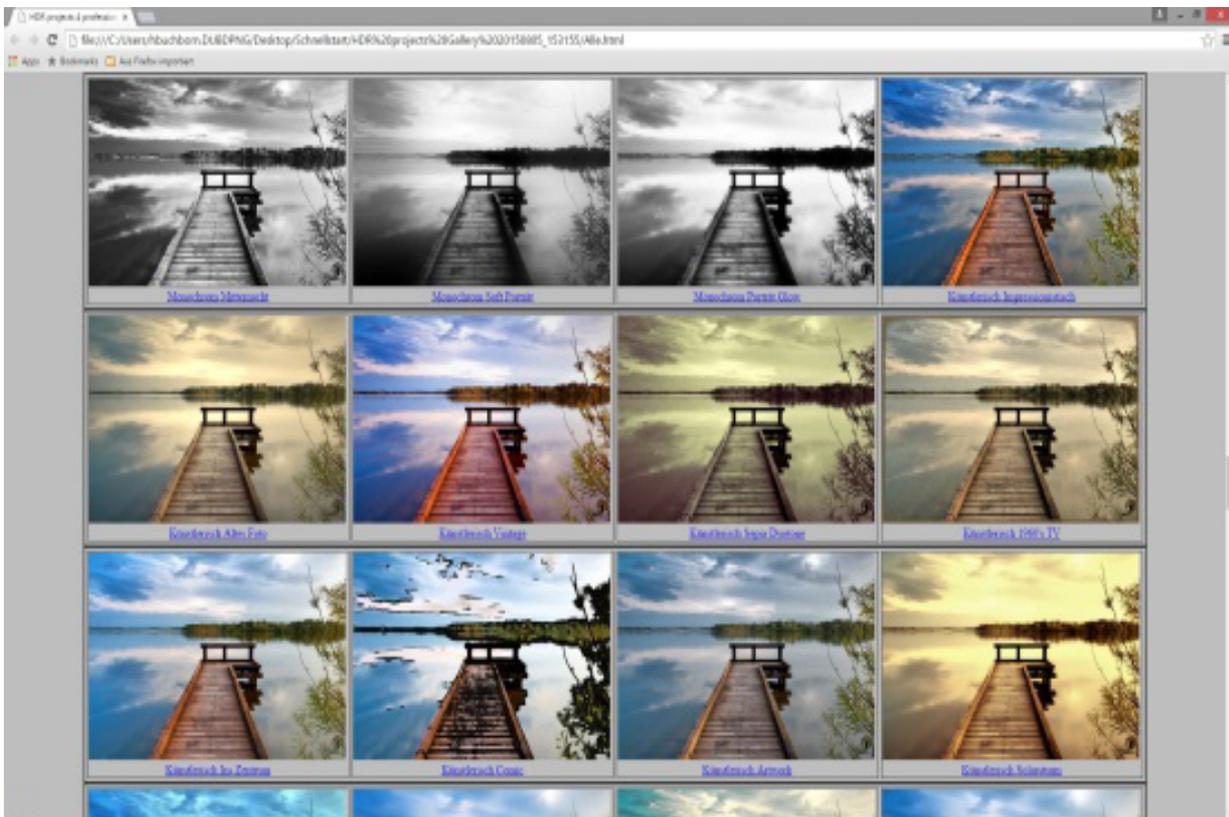
**Image after applying the “Artistic old photo” preset**

All 82 **HDR projects 4** presets at a single glance. The “Presets” section can be separated from the rest of the interface by clicking on the “Default settings” bar, which then allows you to adjust the size of the window as you like.

➤ **Preview Gallery**



Would you like to see all the previews for the loaded image or series? Click on the “All” category.



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

➤ **Comparison View**



Do you want a comparison to the HDR image without tone mapping? Simply right click on the middle of the image to see the before/after result. A quick check on the editing process is available at any time. For an extensive overview with selectable areas and luminance display, click on the symbol bar.



➤ **Preview Mode**



When this option is activated, the result image will appear as a small preview size. If this option is deactivated, the picture will appear in its true size. Please note that processing the preview can take longer when this feature is deactivated.

➤ **Real Time Processing**



When activated, all of the changes that you have made to the preset settings will be immediately applied to the image and you will see the outcome of your adjustments directly.

➤ **High-Quality Display**

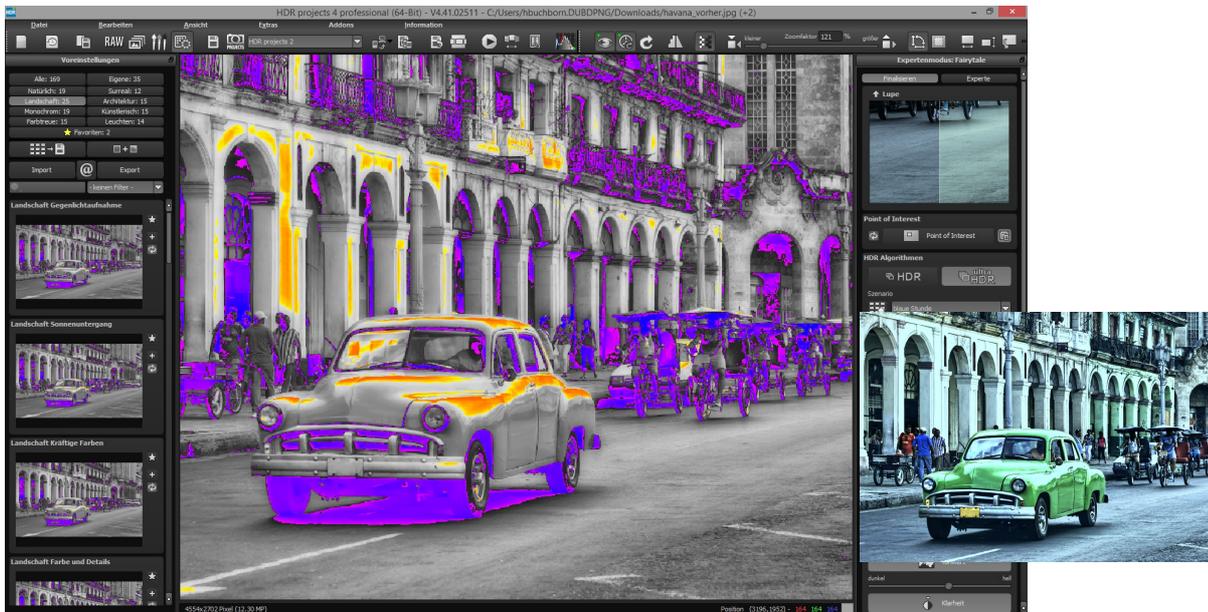


Activate this option to see the preview image in high-resolution. If the preview is set at 100%, there will be no difference. If you zoom in on a section of the photo however, there is a noticeable difference in quality.

➤ **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 dark blue and orange tones***

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

➤ **Combine Presets**

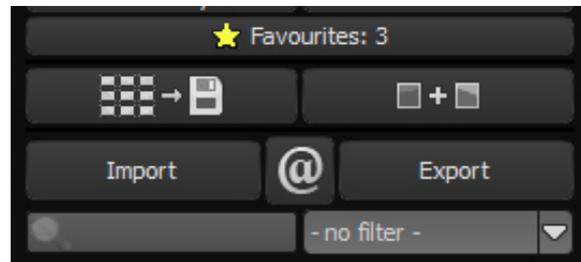


To merge two looks together use the “Combine default presets” button directly under the categories. These new presets will be saved under "Custom". It's that easy to expand your numerous options and accumulate new ideas!

➤ **Name Favourites**



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



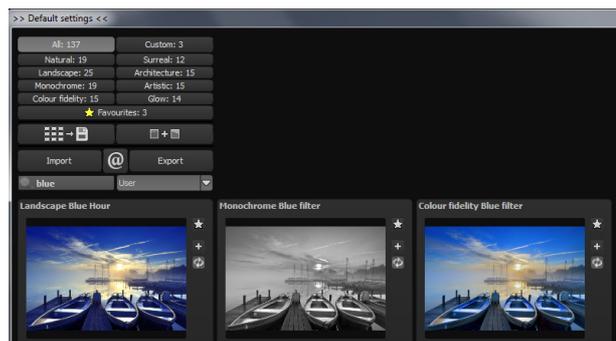
➤ **Import/Export from Presets**



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

➤ **Filter Presets**

Locating presets can be difficult when you have imported presets or created many additional looks. For example, enter “blue” into the search bar and only presets relating to “blue” will be shown.



## 8. Post-Processing: Finalise



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

### ➤ HDR and Ultra HDR



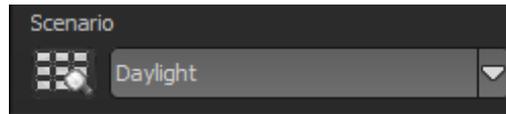
Ultra HDR processes up to 30 intermediate images between two photos with 64-bit precision. The result speaks for itself, and clearly shows a more detailed picture, especially in difficult situations, for example when shooting directly against the light. These settings can be accessed in post-processing at any time. See chapter 3 "What is new?" for examples.

### ➤ HDR Algorithms

Here a mathematical equation is used to determine the weighting of each individual exposure in a series - pixel for pixel. Every algorithm has a different effect depending on the bracketing and subject. There is no right or wrong here, rather your originality is in command. Test your bracketing series with different algorithms and see how they affect your photos.

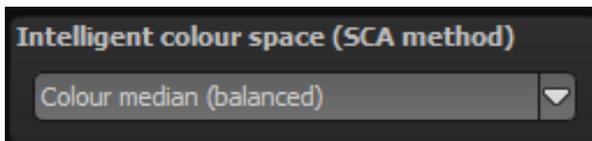
Tip: The HDR algorithm "Entropy", in most cases, will yield a finely tuned and detailed result in all tone values.

➤ **Scenarios**



Additionally, the HDR fusions can be influenced by different scenarios. If you would like to adjust your result to a certain lighting, select one of the following seven scenarios: "Daylight", "Landscape", "Twilight", "Architecture", "Interior", "Night-time" and "Mixed Light". The scenario option has an overview of all of the possibilities that can be directly applied with just one click.

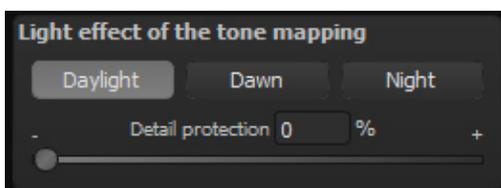
➤ **Intelligent Colour Space (SCA Processing)**



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

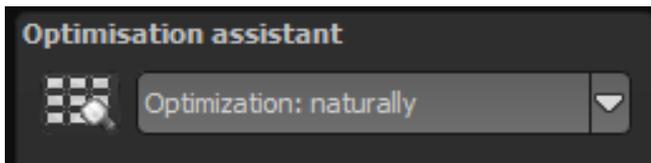
Tip: With "Supersampling" you will get exceptional details and saturated colours!

➤ **Tone Mapping Light Effect**



Adjust your image to whichever time of day you prefer. By applying "Night", the image will be brightened, to adjust the light accordingly. The control allows you to protect certain details and regulate the daylight, dawn or night settings further.

## ➤ Optimisation Assistant

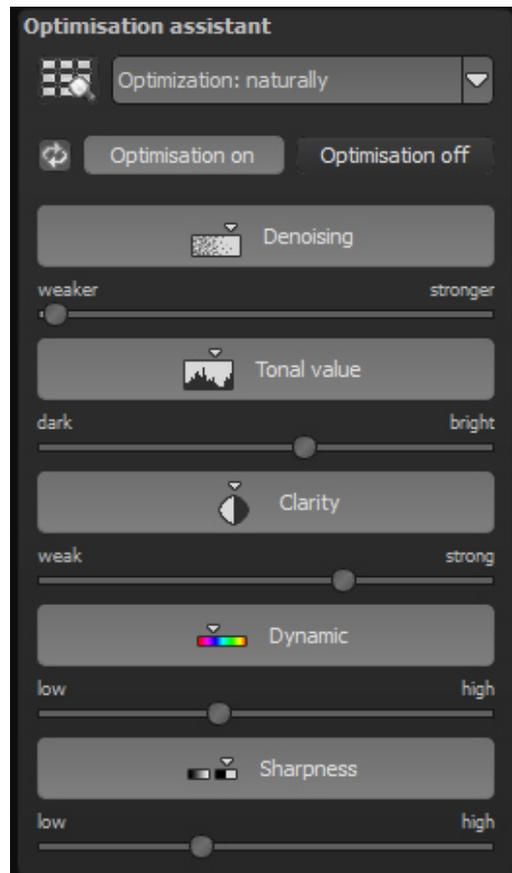


The optimisation assistant is a very efficient tool for fast, fascinating results. When the preset is activated, denoising, tonal value, clarity, dynamic and sharpness settings can all be adjusted by sliding the control to the left or right. The result can be seen live. The optimisation assistant is intelligent; it remembers the values you entered, and applies the same settings to the next image in the same way, but tuning the result to the new motif.

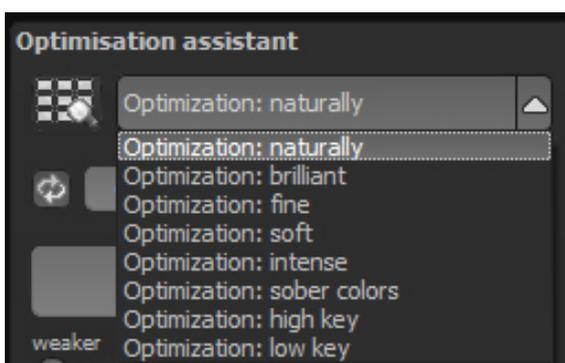
If you would like to edit without the assistant, you can simply turn it off. If you would like to turn off the values that have been “learned” so far, click



on the

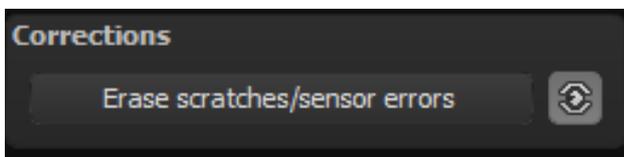


Additionally, the assistant can be given optimising specifications for an entire image style: choose between natural, brilliant, fine, soft, intense, sober colours, high key and low key.



Pro Tip: Remember that the preset specifications and Optimisation Assistant are added together. If you select the “Surreal powerful colours” preset and the “Intense” optimisation, you will get strong, saturated colours and dramatic contrast. Not to worry, you can quickly change back to the “Natural” optimisation and have the familiar look of the “Surreal powerful colours” again. On the other hand, you can compile new creative ideas and jump between intense, un-saturated and high and low key looks lightning fast.

### ➤ **Scratch and Sensor Errors**

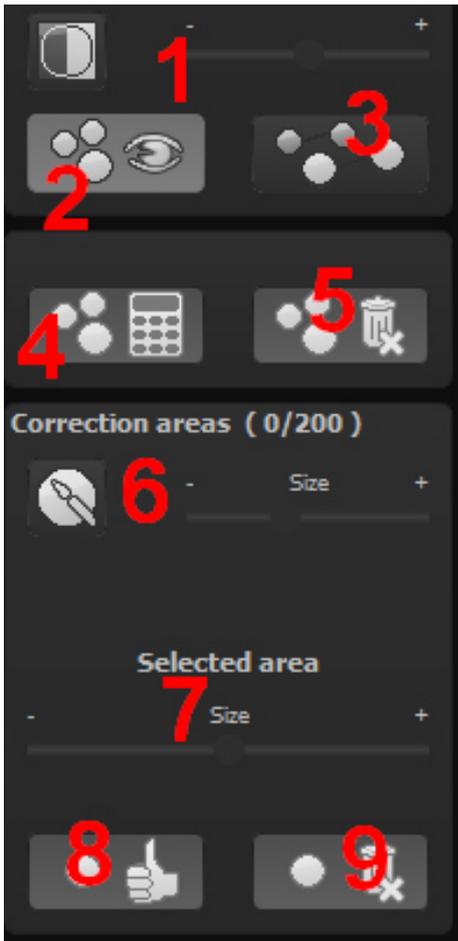


Micro-contrast enhancement used in HDR photography unfortunately shows every unwanted sensor imperfection that every photographer, despite internal camera sensor cleaning, knows and dreads. Don't stress - just eliminate them! With the easy to apply correction function from **HDR projects 4**, it can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

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

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

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. Even when the corrections are still active, even if they have been blended in. Hiding is solely to enable a before and

after comparison.

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

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

**(5)** deletes the added corrections.

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

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

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

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



***The sensor spots are circled in red***

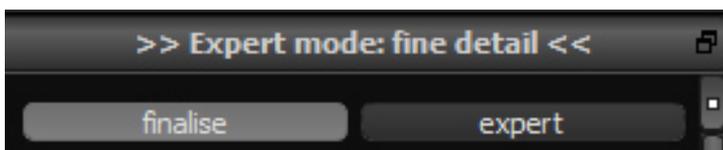


***The sensor spot corrector marks all of the patches and determines a source within the image that can be used as a substitute.***



***Successful sensor spot correction.***

### ➤ **Post-Processing Expert Mode**



The Post-Processing expert mode can be found on the right side of the screen. Here you can configure all post-processing, try new effects, adjust a selected preset or construct a completely new preset to meet your desires.

## Overview of the Tools:

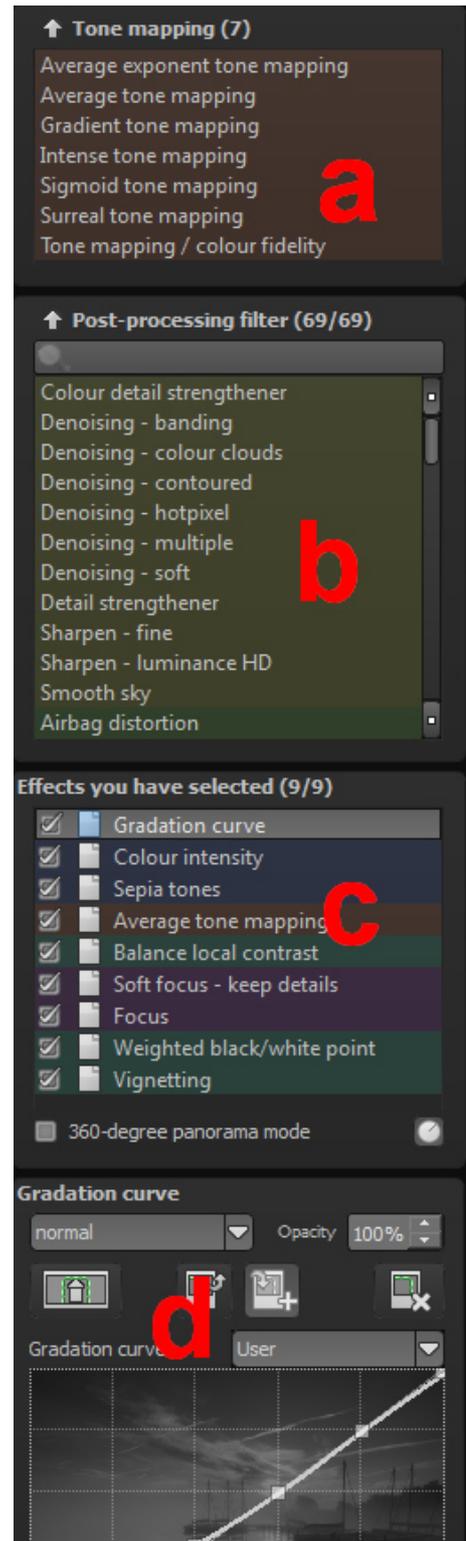
- a) Tone Mapping Algorithms
- b) Post-Processing Effects
- c) Selected Tone Mapping and Effects
- d) Settings for Selected Effects

### ➤ a) Types of Tone Mapping (7)

Tone mapping algorithms compromise the dynamic range of images with strong contrast down to a presentable range and serve to improve the quality of the image. **HDR projects 4** offers 7 different algorithm options, that can be applied individually or combined.

Simply double click on the entry to add the tone mapping to your selected filter.

All tone mapping works by compressing the local tone values and contains an integrated detail enhancer for macro and micro details.



***Tone Mapping Colour Fidelity:***

The newly developed colour fidelity processing works with maximum precision for colours in tone compression and is exceptionally suited to shots with intense colours.

***Tone Mapping Gradient:***

The tone mapping gradient algorithm has a substantial effect and is well suited to subjects with weak colours and high contrast.

***Tone Mapping Intense:***

Intense tone mapping works with a high bandwidth of tone compression and therefore can be very effective for both dark and light bracketing series.

***Tone Mapping Middle Values:***

Tone mapping middle values is a very stable process and suitable for almost every subject.

***Tone Mapping Middle Value Exponents:***

This effect is stable and works best for dark areas. It is especially well suited to tunnel and archway shots.

***Tone Mapping Sigmoid:***

The sigmoid function is specialised for scaling brightness of motives with drastic highlights.

## ***Tone Mapping Surreal:***

A very intense feature and therefore a good basis for extreme HDR images.

### ➤ **b) Post-Processing Effects (69)**

The list includes 69 different post-processing effects that can be freely applied and combined.

The effects are divided into six categories, each with a corresponding background colour.

**Yellow:** border effects

**Green:** geometric effects

**Turquoise:** exposure effects

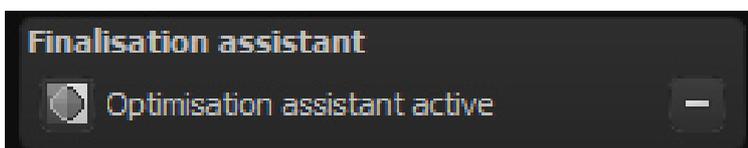
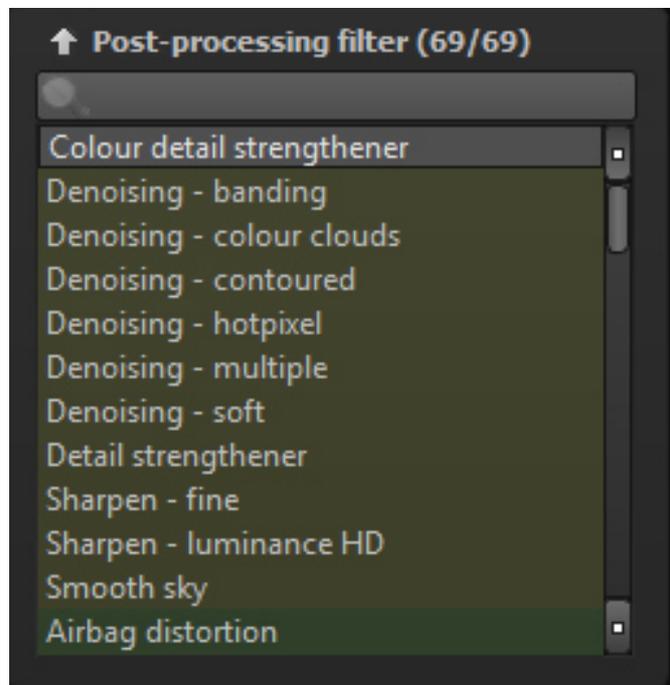
**Blue:** colour effects

**Purple:** diffusing effects

**Pink:** artistic effects

Tip: If you are looking for a certain effect and know its

name or part thereof, you can save time by using the search bar.



When you are applying new post-processing effects, check to see if the optimising assistant is active. If it is, please remember that effects will act differently, and sometimes more extreme. When constructing or enhancing a preset, it is best to turn it off. (Button above tone mapping).

Overview of Post-Processing filters (69)		
Colour detail Strengtheners	Gradation curve	Manual white balance
Denoising - banding	Greyscale conversion	Negative
Denoising - colour clouds	Manual black/white point	Photo reflector
Denoising - contoured	Peripheral light distribution	polar filter
Denoising - hotpixel	Soft contrast	Reduce chromatic aberrations
Denoising - multiple	Soft details	Sepia tones
Denoising - soft	Veiling glare	Aura
Detail strengthener	Vignetting	Focus
Sharpen - fine	Weighted black/white point	Glamour lighting
Sharpen - luminance HD	White & Black correction	Smooth colour tone
Smooth sky	Adjust colours	Soft focus - keep details
Airbag distortion	Automatic local white balance	Comic style
Correct perspective	Balance local colour contrast	Frame
Lens correction	Colour balance	Isolate shade
Rotation and zoom	Colour filter	Miniature world
Add film grain	Colour gradient	Pencil drawing
Adjust light/shadow	Colour intensity	Posterize
Automatic black/white point	Colour light/shadow	Remove shade
Balance local contrast	Colour palette	Soft relief
Bleach bypass	Colour temperature	Solariser
Brightness progression	Colours-Saturation-Exposure	Underwater
Brightness-Contrast-Gamma	Display original image	Wave distortion
Dynamic brightness	Fade	Wax image

### ➤ c) Select Effects

Have you found an effect that you would like to try out? Simply double click on it in the post-processing effect list.

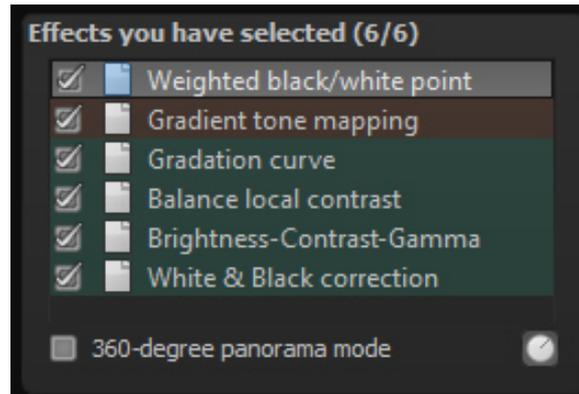
The effect will now be shown in the block below called "Effects you have selected".

The block of selected effects is the heart of the tone mapping and post-processing area. It includes all of the post-processing effects and the settings for each individual effect.

The filters in the example are automatically applied one after the other to the HDR image and lead to the result tone mapping image.

- To temporarily deactivate an effect, simply click on the box beside the effect's name and remove the checkmark.

- Double clicking on an effect removes it from the list.

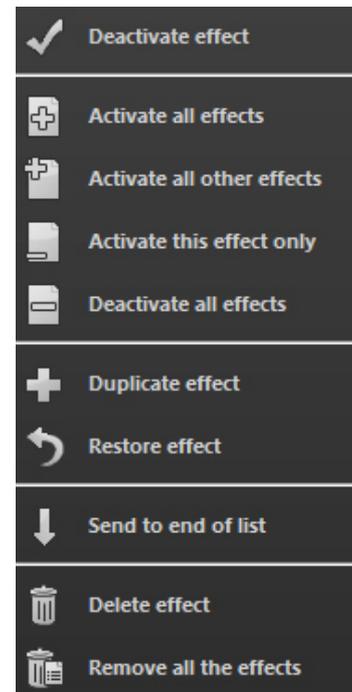


- Effects can be sorted at will by dragging and dropping them up or down the list.

- Tip: The order of the effects within the list can have a substantial effect on the resulting image. It's worth playing with!

- Activate the 360° panorama mode in the bottom left box to prepare your images for a perfect panorama stitching. The images will be optimised, so that no borders can be seen when the panorama is assembled.

- The context menu for the effects you have selected has numerous functions that allow you to activate, deactivate, move or duplicated effects.

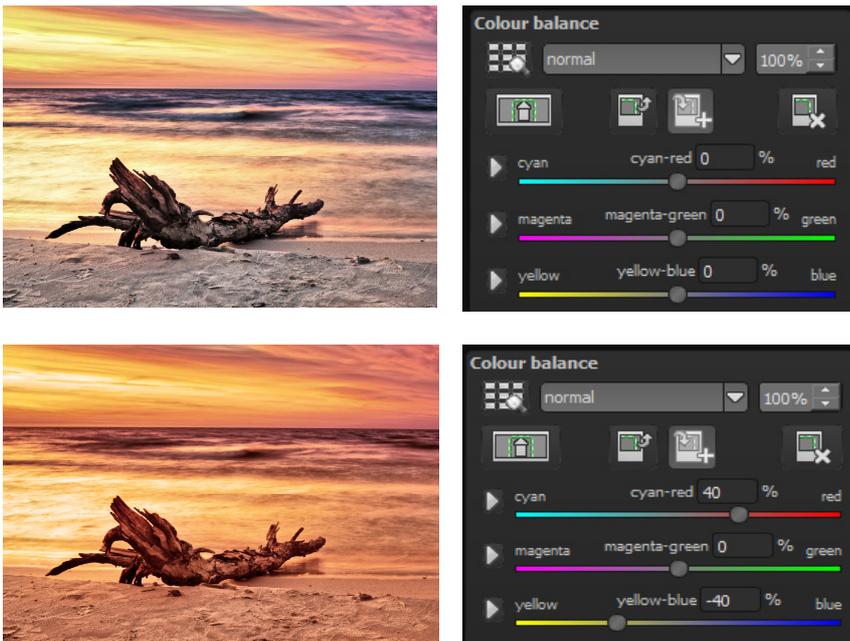


#### ➤ **d) Settings for Selected Effects**

Settings for the selected effects can be found directly below the block for the effects you have selected. The parameters for the currently selected effects will always be shown here.

The available settings and options change depending on the effect you click on. There are sliders, gradation and mask curves, colours and pipettes etc. Alternatively, a numerical value can be entered into the box above the slider.

In the example, we see the parameters for “Colour Balance”, which consists of three controls for balance: cyan-red, magenta-green and yellow-blue. Sliding the controls instantly adjusts the image. The adjustments will be immediately portrayed in the result image. You will also see a colour flow within the controls, which will give you a direct indication of how the new value will affect the photo.

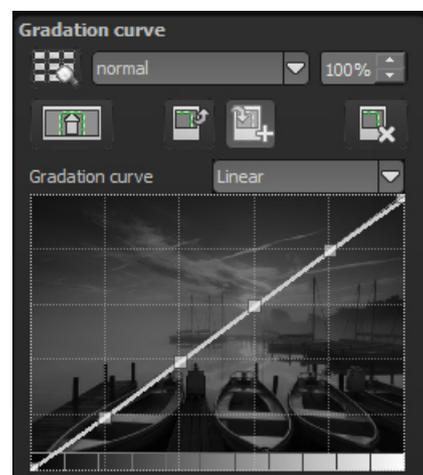


***Adjusting the cyan-red and yellow-blue values creates a significantly warmer feeling for the image.***

### ➤ Example Mask Curves

This curve regulates the intensity of the effect for particular bright areas of the image.

When you pull a point downwards, pixels with this brightness will be impacted less by this specific effect, and vice versa.

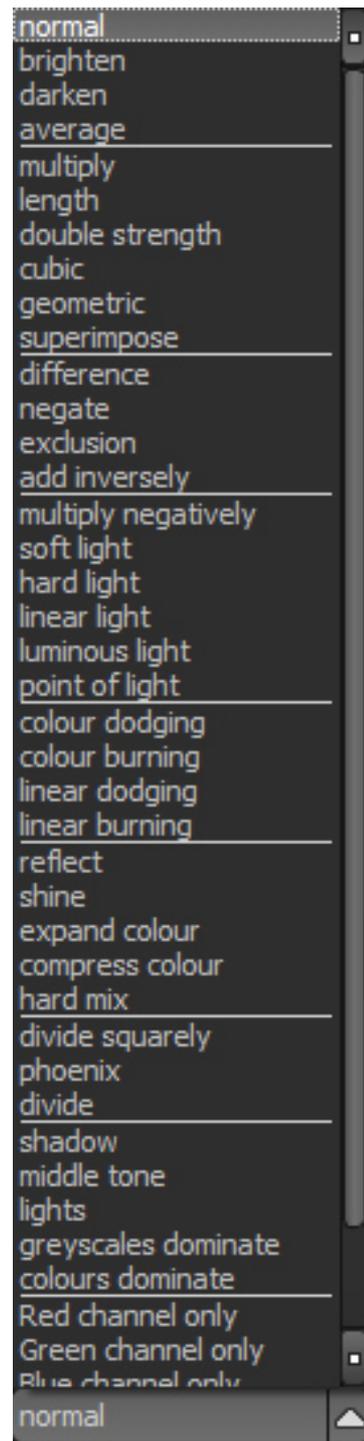


For the gradation curve in this example, it means that the lights in the picture will be brightened, and the dark roots will be darkened in order to create a striking contrast. This is how mask curves give you the opportunity to selectively influence images.

During the editing, the preview behind the mask curve immediately shows the effect's intensity from black (no effect) to white (full effect).

➤ **Layer Processing Methods**

These features determine the way that an applied effect appears on a layer. Effects can thus be enhanced or reduced, and looks can even be completely changed, which opens up a plethora of opportunities to play with. To apply processing methods, click on the drop down menu beginning with "Normal".



➤ **Selective Editing**

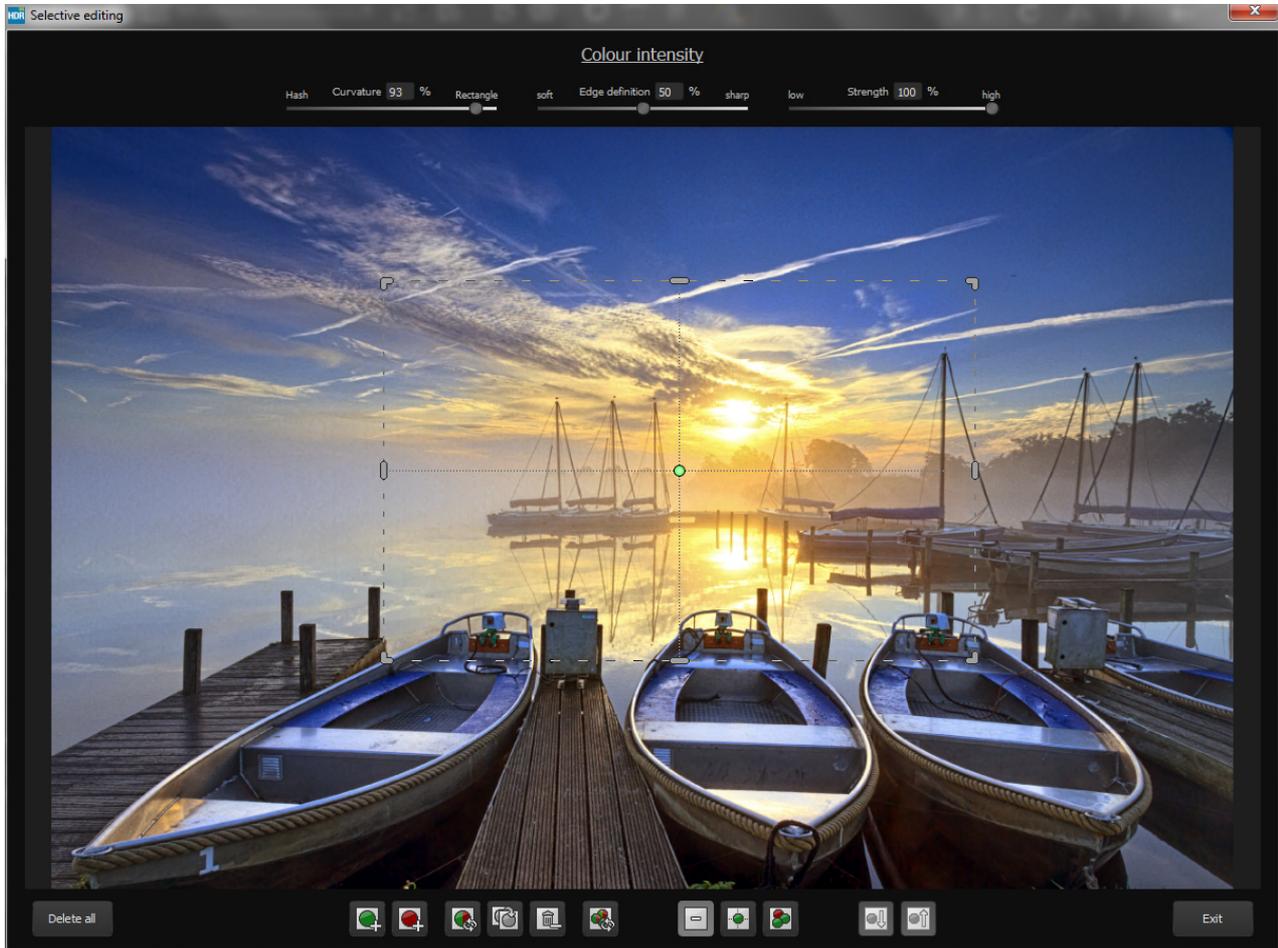


For every single one of the 69 post-processing effects it is possible to apply the selected effect to only a certain area.

Furthermore, specified areas of an image can be influenced at different intensities by different effects.

The selective editing can be controlled in the parameter area of each effect and you can open the accompanying window with the button at the far left.

At the bottom of this window there are three blocks with six, three and two buttons.



*The example clearly shows that the “Colour Intensity” effect has only been applied to the selected section. Since the edge definition is only set to 95%, this area is almost rectangular.*

**6 Block:** add, remove, duplicate, flip and delete the selected areas

**3 Block:** various display modes for the resulting intensity of the effect

**2 Block:** choice of selected surfaces, very practical if the specified areas are very small or overlapping

You can add up to 32 amplifying (positive) or reducing (negative) areas for the current effect. The size and position can be determined

directly in the image, optionally in the corners or on the sides of the area.

The roundness of the rectangle as well as the sharpness and severity of the selected area can be adjusted with the three controls at the top of the window.

The result will always be instantly displayed upon releasing the mouse button.

### ➤ **Overview of Certain Keyboard Shortcuts**

**Cursor Buttons:** move the current, active, selected area

**Ctrl/Alt + Cursor:** fast movement of the current, active, selected area

**1,2,3:** switch the display mode

**Delete:** deletes the current, active, selected area

**Esc:** closes the window

Upon closing the window, the chosen effect will only be applied to the selected area and displayed in the middle of the screen.

You can transfer other effects to the selected area with the “Copy”



and “Paste” buttons, without having to retrace the selection again.



This button deletes all selected areas for the active filter, of course with a confirmation prompt first.

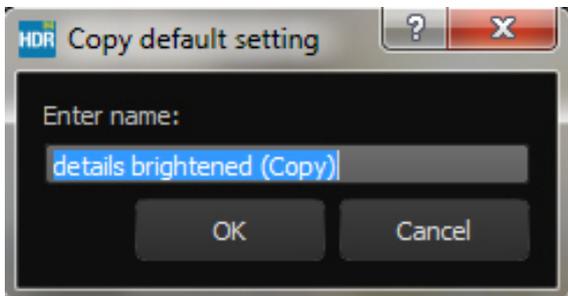
➤ **Custom Presets**

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

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

Clicking  saves all of the changes in a new preset. A dialog box will open where you can

enter a new name for your preset or confirm the suggested one. The system will name it "Copy".



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

Let's switch now to the "Custom" preset category.

**Here we can find our first custom preset.**

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

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

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

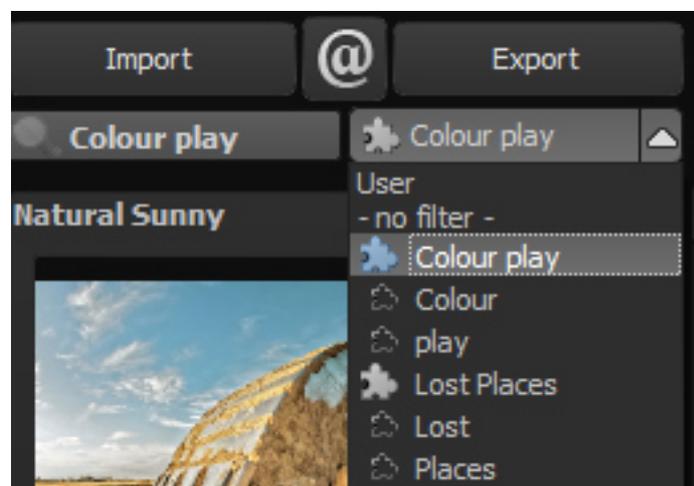
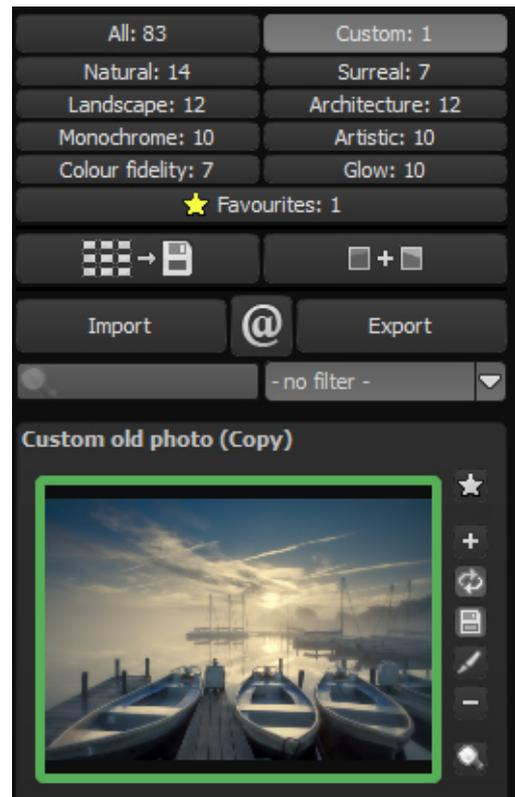
 Reset the most recently changed settings for the newest preset.

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

 Change the preset's name.

 You can also delete your custom preset entirely.

 Use this to enter a search filter. For example, enter the search filter "colour play", and subsequently type the term into the search filter bar directly under "Import". All presets with this search filter will be displayed. You can enter the names of places you've holidayed and all of the presets that you used for those specific holiday photos will then be easy to find and to apply to other pictures. The filter drop down menu to the right already contains "colour play", and you can simply select it from the entered search filters.



## 9. HDR Generation and Bracketing Editing

What happens in actual HDR image generation in ***HDR projects 4***, before post-processing has made the image printable and suitable for display on monitors?

In a bracketing series, every individual image area contains a various number of pixels that are either under or over exposed. Let's assume that every section of the photo is correctly exposed in at least one of the images in the series.

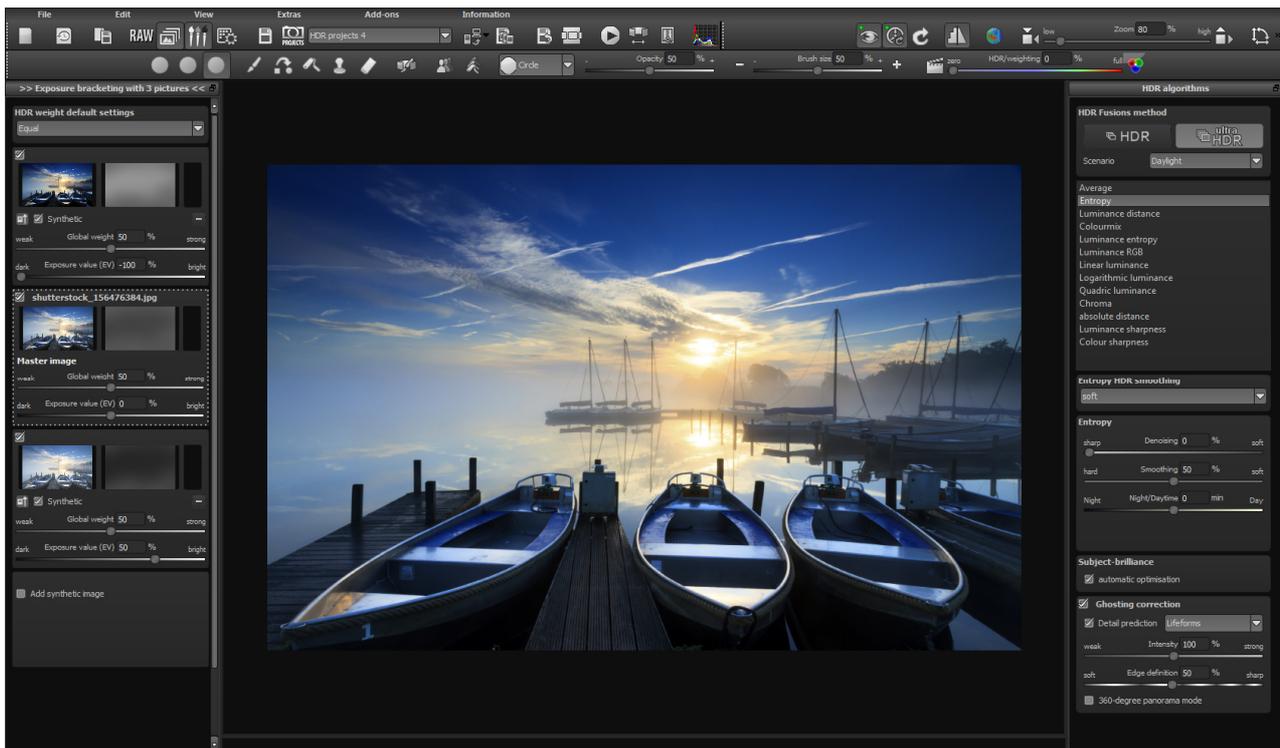
***HDR projects 4*** uses a complex process to correctly filter out all of the accurately lit pixels and assemble them into one complete image. The process is determined by mathematical commands - the algorithms. Various algorithms influence different HDR results, which depend on the final brightness of the series of images.

The software professionally takes over this process for us. We simply have to attend to the result and decide which outcome is most visually pleasing to us and which HDR image we would like to edit further.

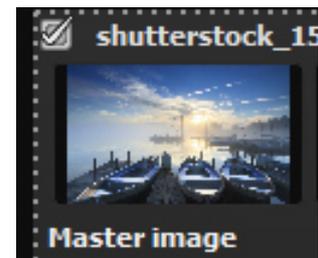
### ➤ HDR Weighting



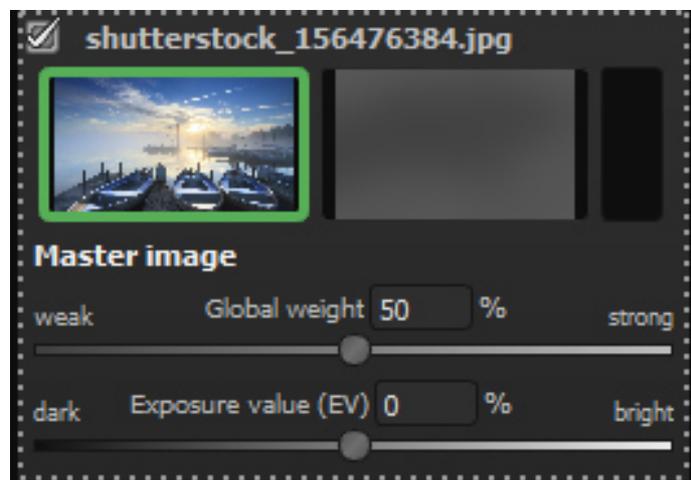
From post-processing in ***HDR projects 4***, transfer to HDR generation with this button. We see the work area on the left hand side for HDR weighting, and HDR algorithms on the right. Your HDR picture will always be displayed in the middle of the screen while editing. At the moment the image doesn't look all that spectacular, but remember that the monitor cannot yet properly show what was actually calculated.



a. The checkbox at the top left allows you to exclude or activate an image from the series for the HDR processing. If you remove a bright picture from the series, the HDR image will be darker in the midtones in certain areas and vice versa.

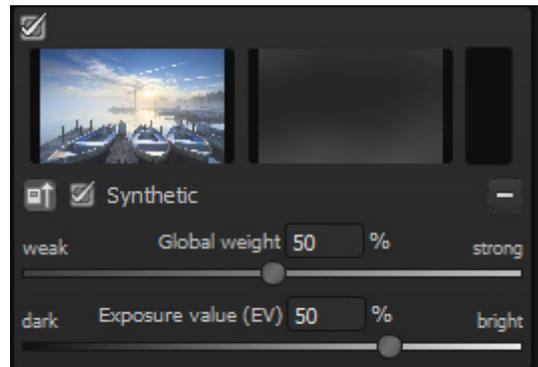


b. Directly below is the miniature view of the single bracketing exposure. Left click to display the image at full size. Another left click on the mini-picture will return the HDR final image.



c. To the right of the colour view is the HDR weighting matrix for the particular image of the series. **Bright pixels** indicate that this area will have a significant influence on the resulting HDR image. **Dark pixels** indicate that this shot will have little influence on the final HDR photo.

d. The minus button  under the weighting colour removes an image from the loaded bracketing series. It is only possible to delete exposures that are above or below the master image. The master image itself cannot be removed and has no minus symbol.



e. The button to the left under the bracketing preview image selects a new master image. You will clearly see a significant difference in the brightness distribution of the HDR fusion.



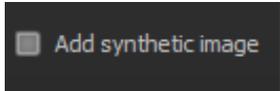
### ➤ Synthetic Bracketing

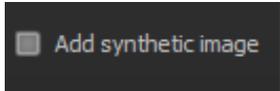
With help from this exceptional technique, gaps in bracketing series can be filled.

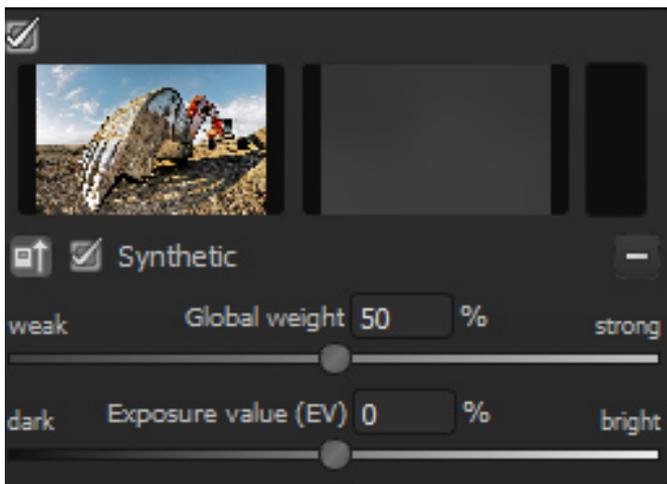
Let's suppose, and this is no individual case, that the longest exposure of a series came out somewhat blurry. Click to remove the image from the series and let the system generate a synthetic bright image for you. All of the shots in the series are already sharp.

This technique can also be used for manufacturing an HDR image out of a single picture. Two synthetic exposures will be generated for an uploaded single image, one with reduced exposure time and one

with increased exposure time. An additional image will be synthesised when only two bracketing images are uploaded so that there are always at least three photos available in a bracketing series.



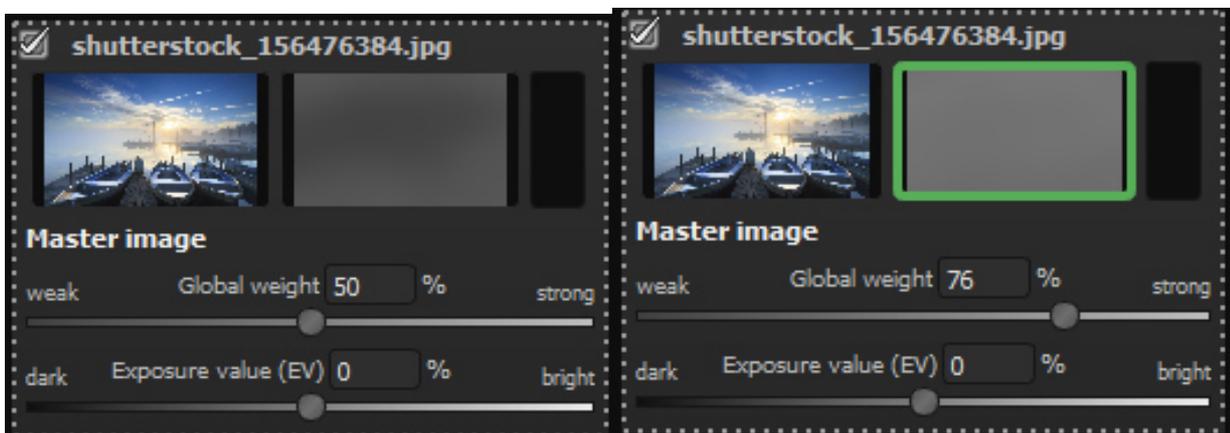
Click on  and add another synthetic image to the series. The original image will always be used as the master image. New images will be labelled as "Synthetic".



➤ **Global weight & Exposure value (EV)**

For every exposure in bracketing series, synthetic or real, there are two controls that are very influential on the HDR process:

- Global weight
- Exposure value (EV)



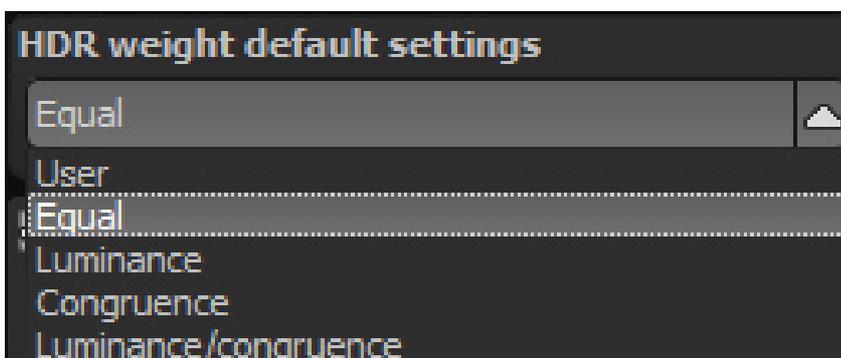
The example shows the master image directly after being loaded. The weighting and exposure controls are in the middle. The window to the right of the preview shows how the image is represented in the HDR fusion. Sliding the global weight to the right, raising it, increases the proportion of this image in the final HDR fusion. This can also be recognised through a brighter weighting matrix. Here “Bright” does not mean that the image will become brighter, rather that the shot will compose a greater portion of the HDR fusion. The result can become brighter or darker.

The picture will become brighter once you adjust the exposure control underneath towards “Bright”. This adjustment can be applied to each image in the bracketing series and therefore have a substantial impact on the HDR fusion.

### ➤ **Global Weight**

Above the actual bracketing series are the presets for global weight called HDR weight default settings.

You can choose an automatic setting for global weight from four algorithms with these presets:



**Equal:** all of the weight will be set to the middle position, and every exposure of the bracketing will be equally represented

**Luminance:** sets all global weight to an average brightness (luminance) that corresponds to each respective image in the series

**Congruence:** sets all global weight to a value corresponding to the average amount the bracketing images cover the master image

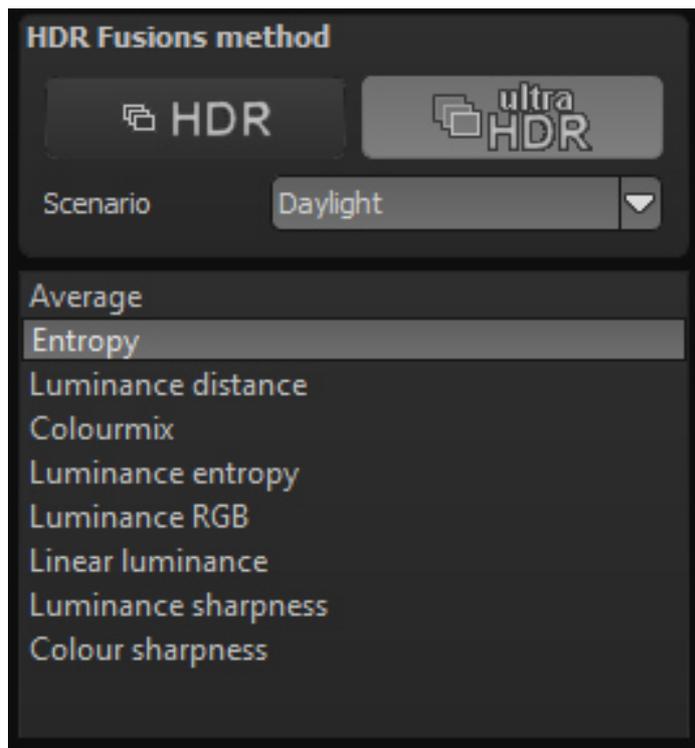
**Luminance/congruence:** sets all global weight to a value corresponding to the average brightness in relationship to the average coverage by the bracketing images

Pro Tip: Choosing a congruence setting can, for some bracketing, lead to less ghost images.

➤ **HDR Algorithms**

The HDR algorithms can be found together with the setting controls at the right side of the user interface.

HDR algorithms are mathematical procedures that determine the weight of individual images from a bracketing series pixel for pixel. (See HDR Weight) Every algorithm affects the final HDR result differently



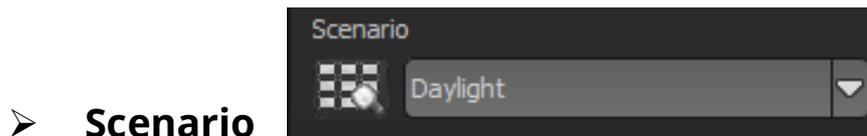
and, depending on the motif, more or less intensely.

➤ **HDR/Ultra HDR**



New Ultra HDR technology for fusing bracketing series: Ultra HDR processes up to 30 intermediate images between two photos with

64-bit precision. The result speaks for itself, and clearly shows a more detailed picture, especially in difficult situations, for example when shooting directly against the light. See chapter 3 “What's New?” for examples. These settings can be accessed in post-processing at any time.



HDR fusions can also be influenced by different scenarios. If you would like to adjust your result to a certain lighting, select one of the following seven scenarios: “Daylight”, “Landscape”, “Twilight”, “Architecture”, “Interior”, “Night-time” and “Mixed light”. The scenario option has an overview of all of the possibilities that can be directly applied with just one click.

➤ **Overview of HDR Algorithms**

**HDR projects 4** offers 9 different HDR algorithms to choose from.

**Average:** The average is the easiest form of HDR generation and uses the bracketing midtones.

**Entropy:** In information theory, entropy is a measure of the density of information. When applied to an HDR fusion, the appropriate algorithm measures the density of information of each of the bracketing images pixel for pixel and converts this weight into the HDR generation. The result is a very stable process that is set as a standard algorithm for **HDR projects 4**.

**Luminance Distance:** Luminance distance applies the average brightness distance in the image as the weighting for the HDR fusion. This algorithm is also a universally applicable process that can be used for almost every bracketing series.

**Colourmix:** The colour mix process applies the colour proportions of the pixels as a weighting measurement. It is particularly suitable for bracketing series with limited brightness differences in certain areas, for example fog, smoke or cloud shots.

**Luminance Entropy:** The luminance entropy is a combination of the *Luminance Distance* and *Entropy processes*.

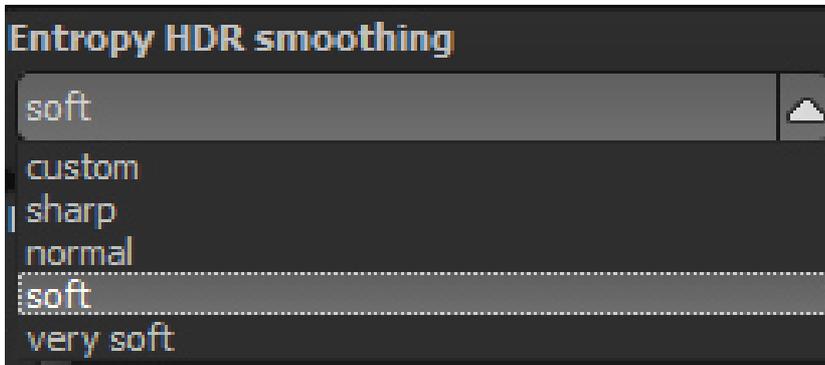
**Luminance RGB:** The RGB process combines the *Luminance Distance* and *Colourmix* processes into a new procedure which is best suited to landscape shots.

**Linear Luminance:** The linear luminance applies the luminance as the weighting for the pixels.

**Luminance Sharpness:** For this algorithm, the luminance sharpness (brightness) is determined for each pixel and converted into a weighting. This process yields the best detail for HDR fusions.

**Colour Sharpness:** The colour sharpness process, like the luminance sharpness feature, determines the sharpness, that is, the level of detail, for every pixel. This technique uses each colour channel, and is thus best suited for bracketing series with intense colours.

**HDR Smoothing for Selected Algorithms:** Just below the selection list for HDR algorithms is a block with controls for fine-tuning colour sharpness: “Entropy HDR smoothing” from sharp to very soft.



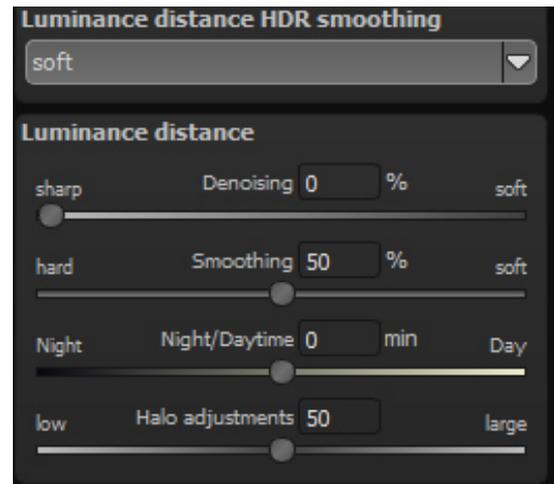
**Denoising:** Denoising appears directly on the HDR image and the noise removal intensity is also presented as a percent. A value of 0% means that no noise pixel will be removed, and a higher value removes more noise from the HDR image, which would be favoured for sharpening an image.

**HDR Smoothing:** HDR smoothing directly influences the weighting matrixes that were created by the HDR algorithms. The smoothing intensity is displayed as a percentage, indicating how dependent the result is on the image resolution. A value of 50% means that weighting matrixes will be smoothed by 50% of the image resolution.

**Night/Daytime:** The day and night controls match the HDR algorithms to day or night shots. Move the control to the left for night, when your bracketing series is suited to a night image, and to the right for day, when your bracketing series is suited to a photo taken during the day. You can also just as easily switch the setting to quickly change the picture’s mood.

For some HDR algorithms there is an additional feature available, in this example the “Luminance Distance”:

**Halo Adjustment:** The halo adjustment deals with a typical HDR generation problem: the formation of halo effect (HDR shadows). The image on the left has a minor defect, there are halos where the roof meets the sky. In the right-hand image, the halos were reduced by 85%, so that the halo effect around the roof has disappeared.

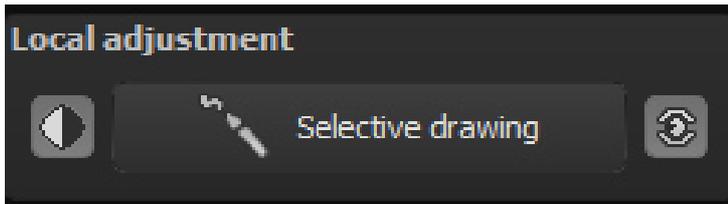


*The halo control is available for certain HDR algorithms, here the “Luminance Entropy” algorithm was used.*

## 10. Local Adjustments and Selective Drawing

The new highlight tool from **HDR projects 4** deserves very special attention. Firstly, this tool selectively edits chosen areas without complicated masks done by hand, like other photo editing programs. **HDR projects 4** includes a completely newly developed intelligent border recognition algorithm, that independently identifies borders, lines, differentiations and light differences in drawing mode. The

boundaries of the area that the mouse skimmed over are saved as a mask. These easily and precisely set masks serve as the basis for seven important image enhancements: “Shading”, “Illuminating”, “Intensifying Colour”, “Reduce Colour”, “Strengthen Details”, “Reduce Details” and “Sharpen”. A mask can even be saved as its own image file and used in other photo editing programs.

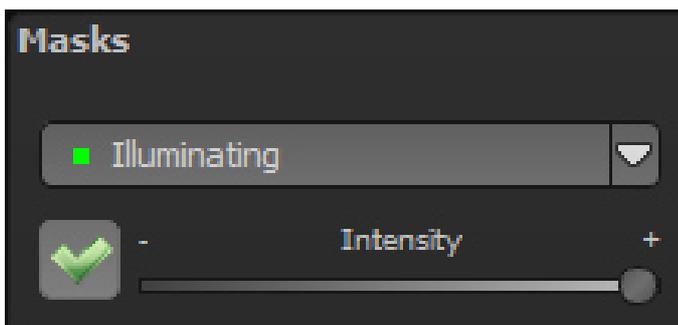


How it all works is probably easiest to explain with an example. Open the selective drawing window (post-processing, finalise - bottom right). Our example is a single image file of a typical twilight on the beach. The picture’s colour details are already well edited. Now we want to slightly brighten the rocks without taking away the evening mood; the sky, water and beach should not be brightened.



1. Select editing objective

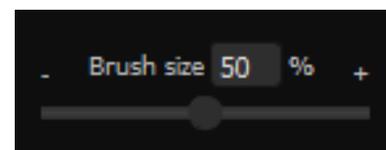
For this case, select "Illuminating". Make sure that the selected mask function is activated and the green checkmark is showing.



2. Activate drawing mode 

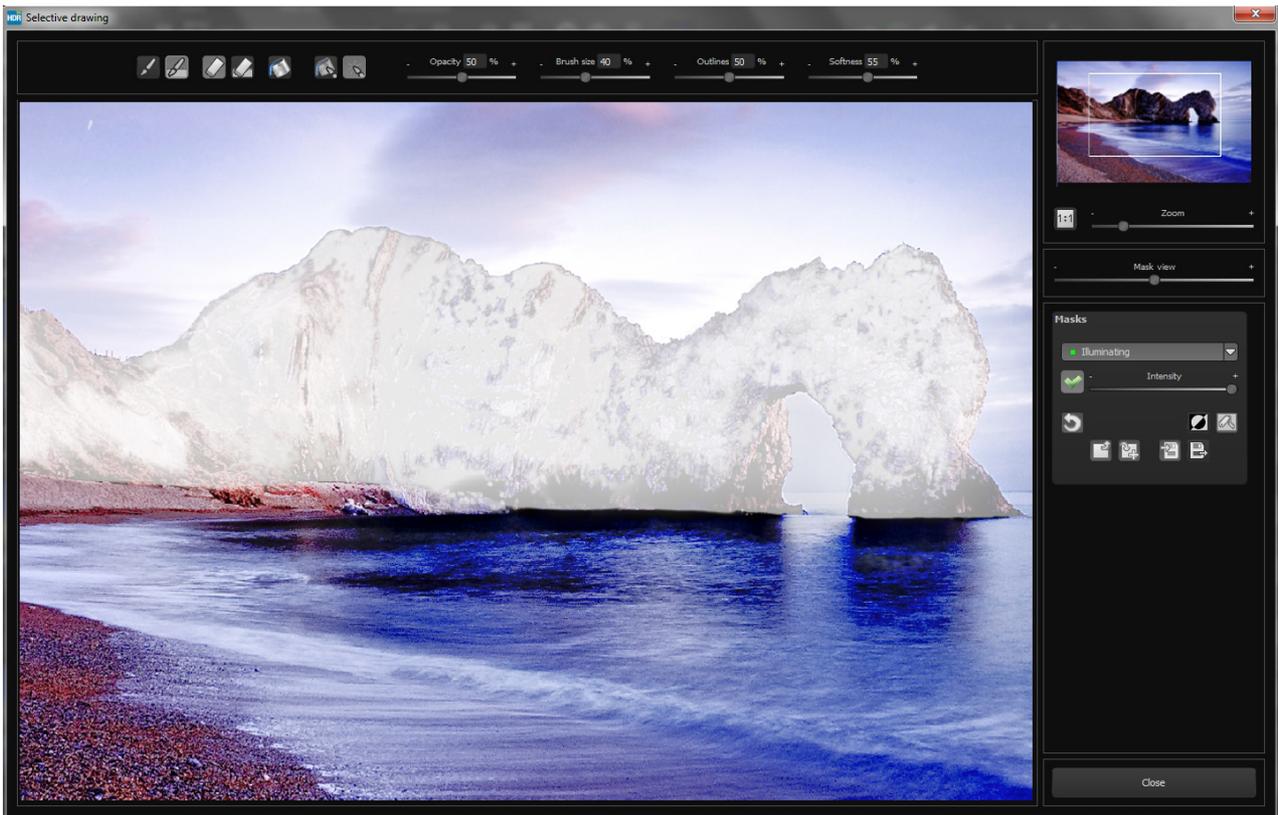
3. Activate filling mode 

4. Run the mouse over the contours without clicking. You can decide



and correct the brush size afterwards.

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



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



7. You will now see only the effect, that is brighter rocks - our objective was "Illuminating". Now you can adjust the intensity of the effect by sliding the control towards the + or -, ac-

ording to your preferred strength. Done: the rocks are brighter while the sky, beach and water remain untouched by the editing.

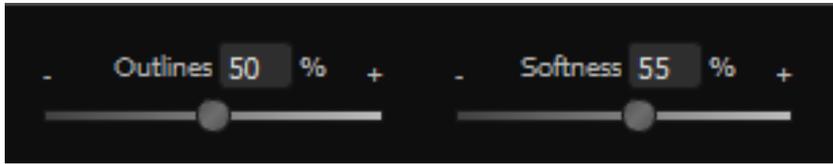
8. Click on “Close”. You will be returned to post-processing and the selective change will be applied.



***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. Click on  and copy the mask to the clipboard. Switch the mask to “Sharpen” and use the  to paste the mask back again. Now you have sharpened just the rocks, and the other parts of the image were not influenced.
10. Every selectively applied effect can be activated and deactivated with the green checkmarks.

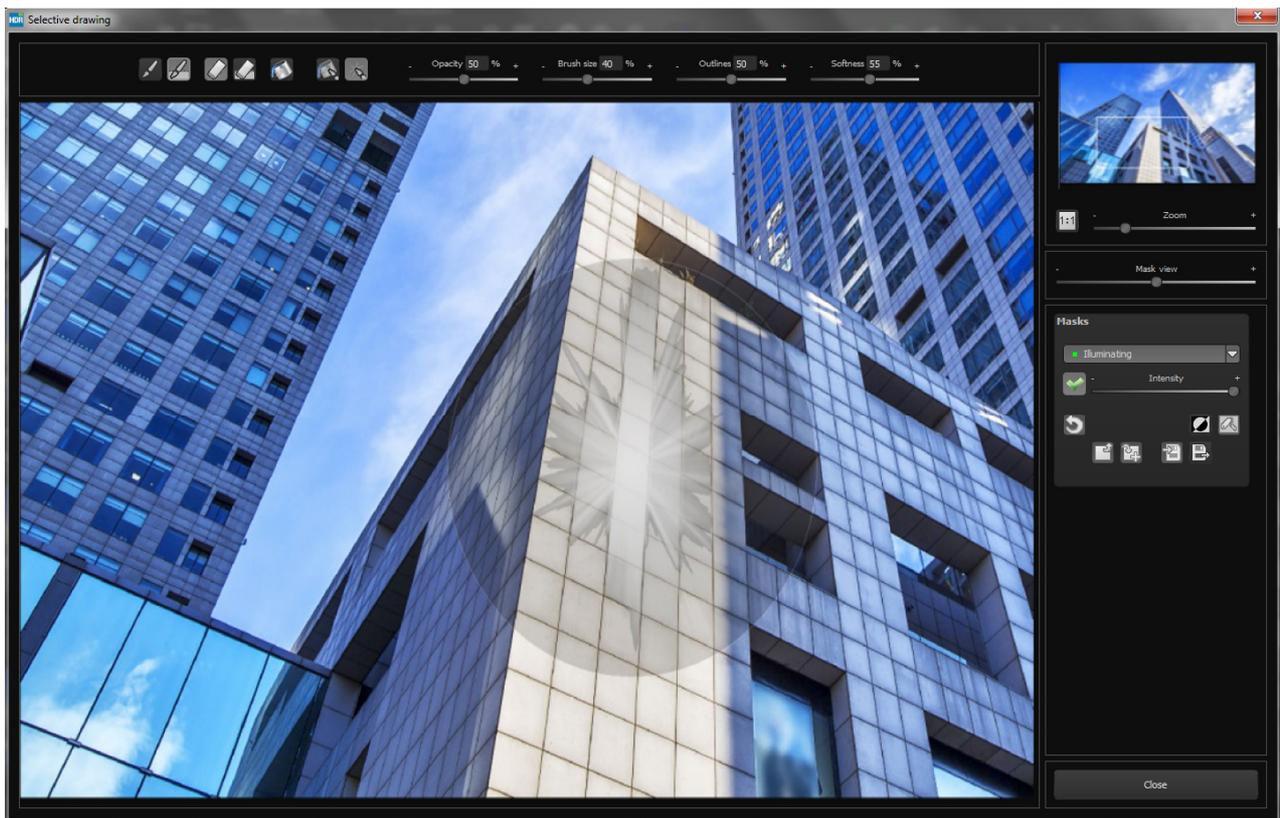
11. Borders have different intensities in every image. Presets normally do just fine, but sometimes it is necessary to adjust the contour and sharpness settings in order to reach perfect fine-tuned results.



12. Have you drawn outside of the lines, despite the border recognition? You can easily remove it with the eraser.  If you only want to remove a small section, use the eraser with limitation. When set to 50%, you can only remove 50% of the mask, regardless of how much you erase. The limited drawing mode works in the same way, and only draws at a certain opacity.
13. If you want to mask the entire image except for a small object, it is a good idea to mask only the small object and then reverse the mask by clicking on the .

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

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

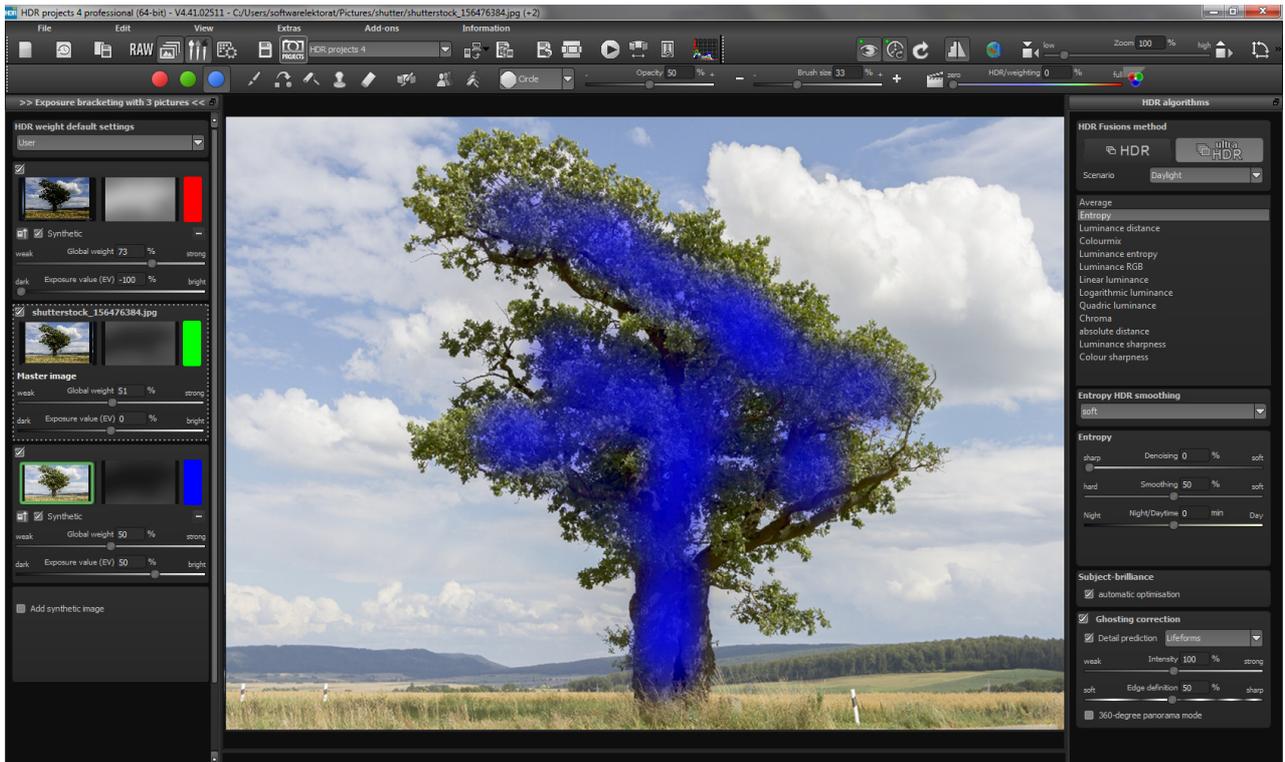


***With ray filling mode you can mask just the walls of the skyscraper while the window surfaces are not selected.***

# 11. Edit Weighting with HDR Painter



HDR painter is a powerful tool to manually adjust certain areas by editing individual images of a bracketing series.



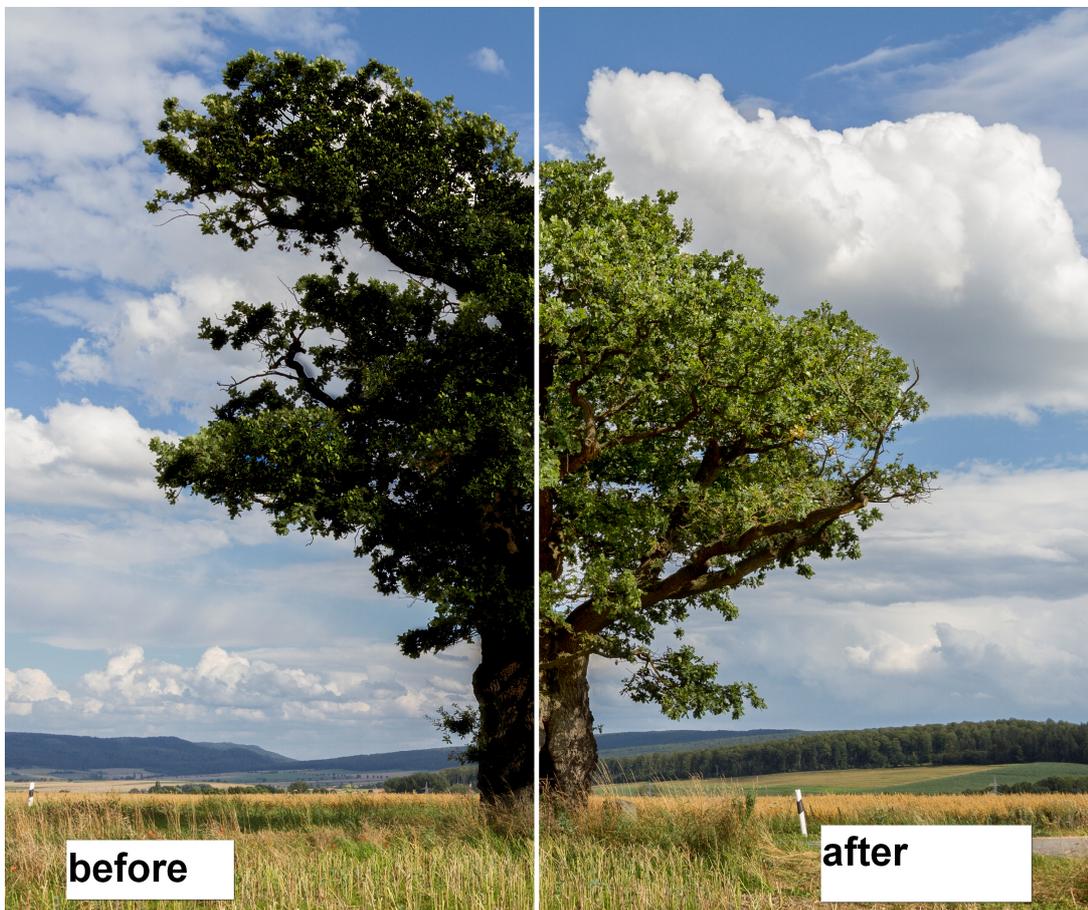
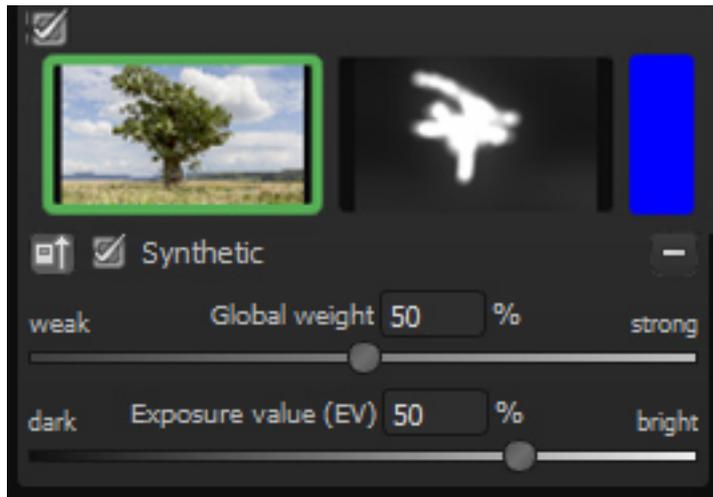
**Exposure Bracketing View (left):** The individual images of a series are sorted into red, green and blue. When the bracketing has more than 3 exposures, the master image will be set as green and the next active neighbouring images as red and blue. If you would now like to make changes to the weighting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



**To clarify:** The brush does not mean that you paint colours goes onto the image, rather that you can adjust the brightness weighting in certain areas of individual images. For example, an HDR result

shows a landscape where the exposure is correct everywhere, except the tree in the foreground is too dark. Here you can select the brightest image from the series and enhance the brightness of the tree by “painting” on the object. The final fusion is a balanced image with a correctly lit tree in the foreground.

**Adjusted Weighting:** After drawing, the adjusted weighting can be seen to the right of the individual image. The white drawn strokes mean that you have emphasised the tree in the brightest image and that the tree will be brighter in the HDR result.



The tree was selectively brightened, without touching the brightness of the sky, clouds or plains. The diffused brush makes the transitions invisible. The result is a properly weighted image with a correctly lit tree in the foreground. The well structured sky remains in the background.

➤ **Important HDR Painter Tools:**



Increase weighting

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



Reduce weighting

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

Brush size

Adjust the size of the brush.



Brush form



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



Stamp

The stamping mode not only edits the weighting of the current image, but adjusts the weighting of all of the other exposures accordingly. For example, if you use the paint tool to increase the

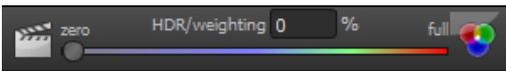
weighting of an area in one image, the weighting of that same section will be reduced in all of the other exposures to amplify the effect.



Blurring

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

HDR image/weighting



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



Delete weighting

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



Delete all

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

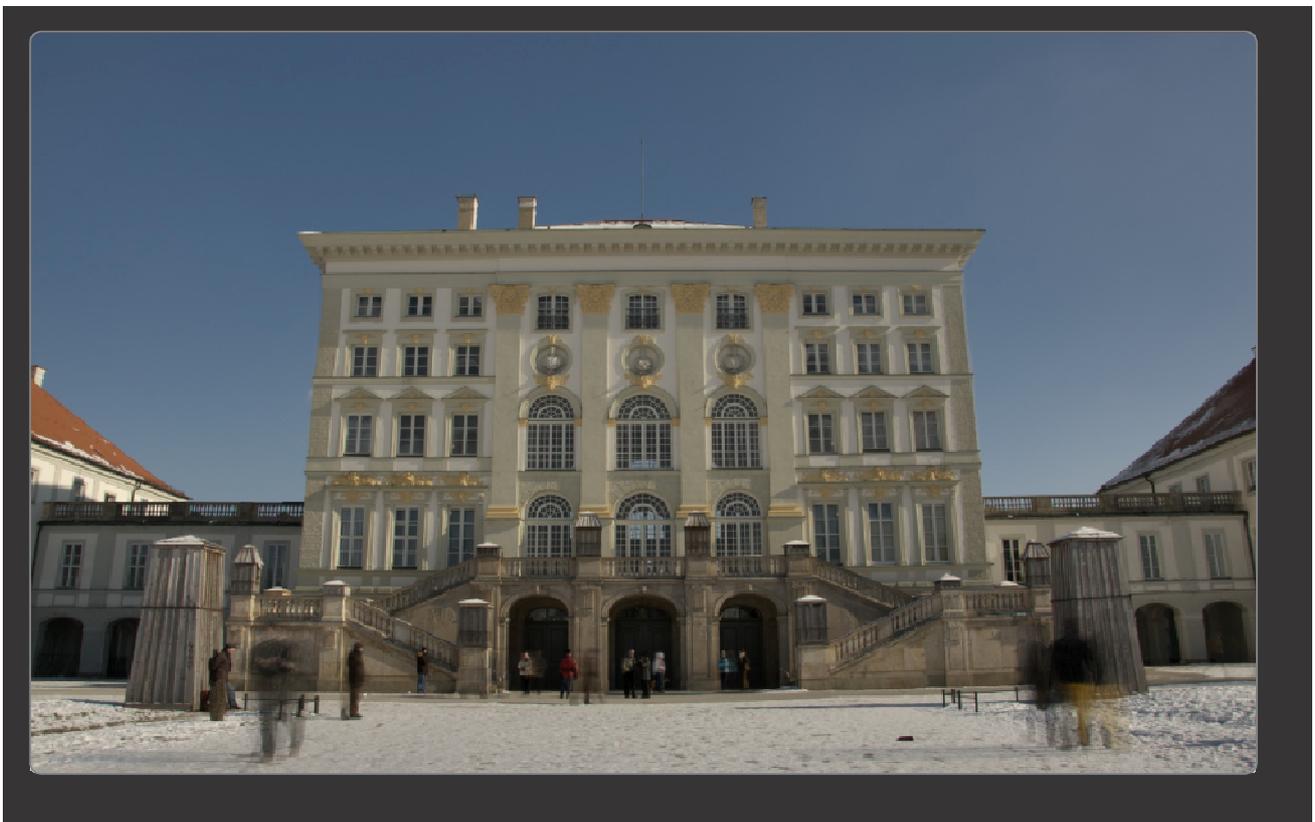
## 12. Ghosting Removal with HDR Painter

When we manually adjust parts of images, it naturally has an effect on the program's ghost image correction. Ghosting can occur when capturing a bracketing series of a scene where people or vehicles are in motion and thus captured at a different position in every shot. Without the automatic ghosting removal from **HDR projects 4**, the moving objects would appear at a different position in every image, thus causing a ghost-like effect.

### Manually removing ghosting:

The following example illustrates how HDR painter can eliminate the regular problem of people walking through a bracketing series.

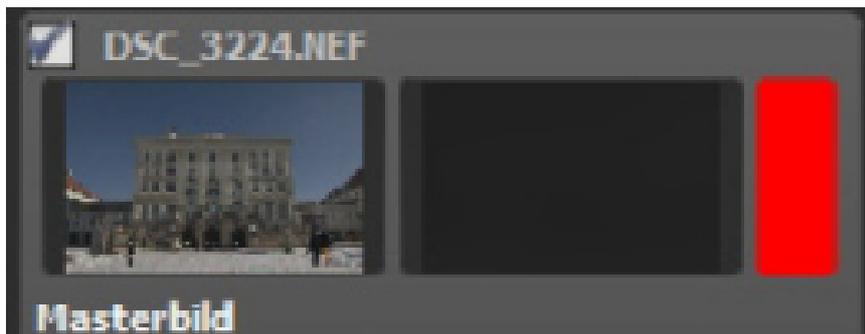
Here is the example after being uploaded and without ghost removal:



Looking at the image, the people on the left and right are immediately recognisable as ghost images.

Let's remove the ghosting as follows:

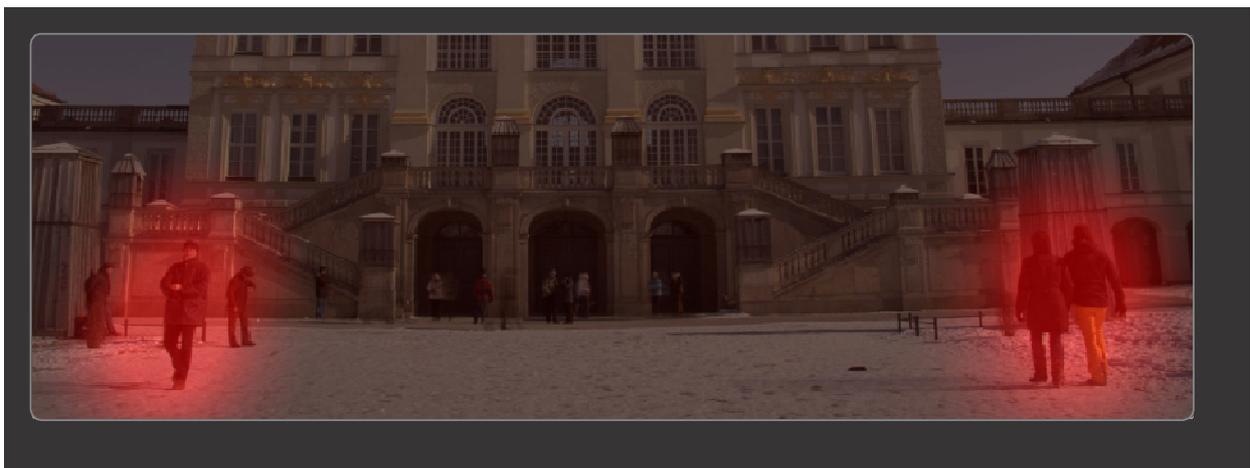
1. Find the image in the series displayed on the left, that comes closest to the brightness of the HDR image. This is usually the master image or one above/below.
2. Select the button for the appropriate colour for this photo, and **HDR projects 4** will allocate red to this image and automatically open the HDR drawing mode.



3. Select the "Increase Weighting" function and activate stamping mode.



4. Draw over the people by carefully dabbing with the brush.

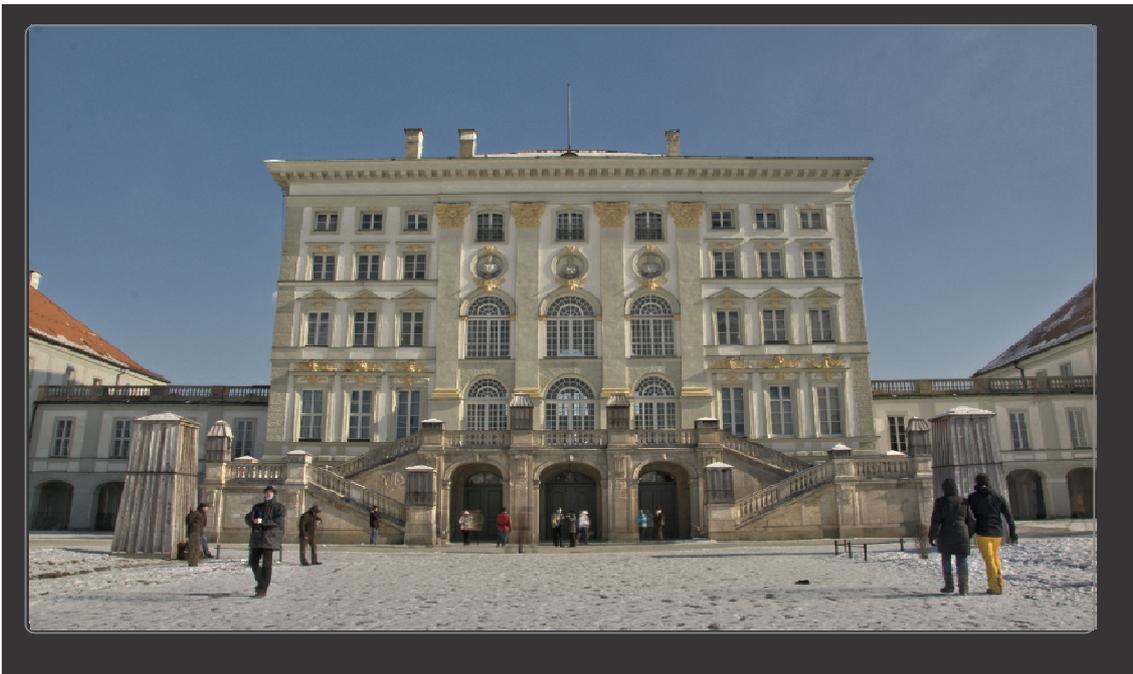


5. Select the "Blurring" button and stamping mode.



6. Carefully trace the edges of the correction with the blurring brush. Done!

Switch to tone mapping and select the “Natural sharp” preset to see the result.



The ghosting has disappeared from the HDR image!

Tip: “Dabbing” the brush is the optimal method for best results.

If you would like the program to automatically remove ghosting or you have simply forgotten to activate the ghosting removal in the

HDR preparation when loading the images, click on this  button to start a new evaluation.

**Warning! A new evaluation eliminates all manually removed ghosting!**

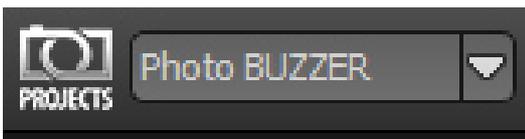
## 13.Workflow

Edit final image further in an external program

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

### ➤ Open in other *projects* programs

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

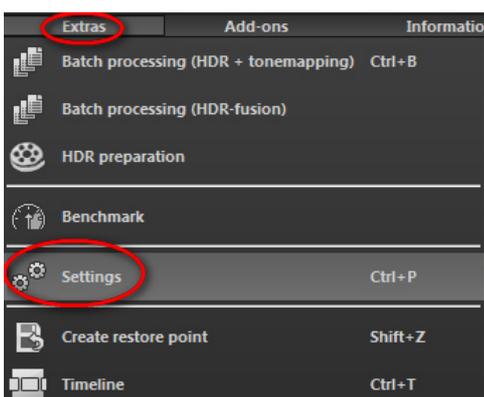
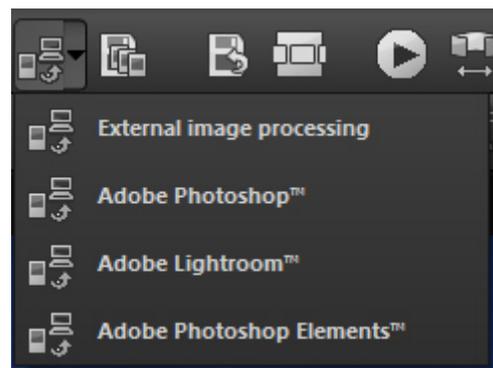


### ➤ Open in other photo-editing programs

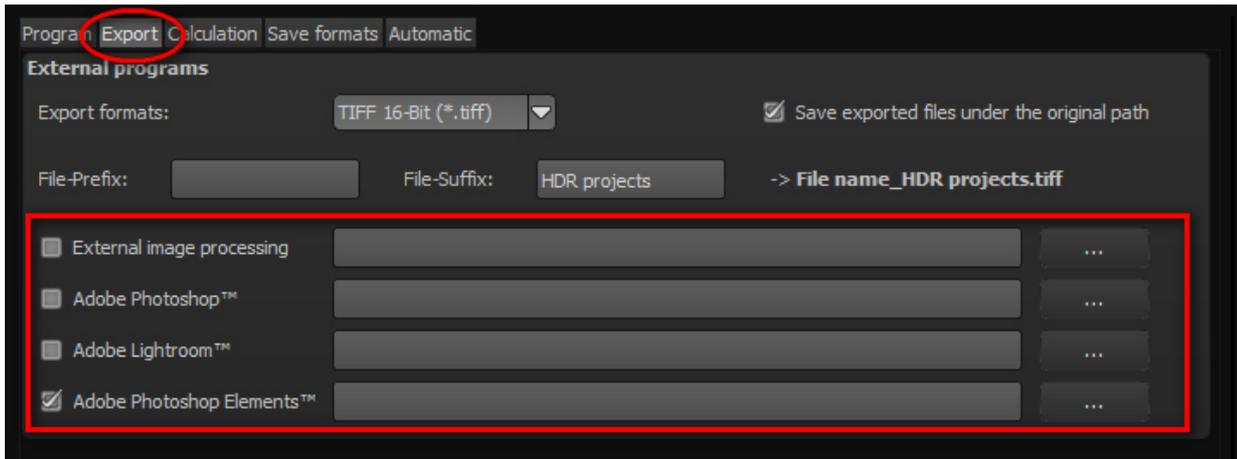
To directly open the image in another photo editing program, such as Adobe Photoshop, click on the corresponding button in the symbol bar.

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

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



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



## ➤ Work with a timeline and restore points

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



“Create Restore Point” saves an in-between point of the current 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 when, for example, you are satisfied with an image, yet want to continue trying out different settings and effects. Simply set a restore point and carry on editing your picture. If you want to go back, simply click on your restore point in the timeline.

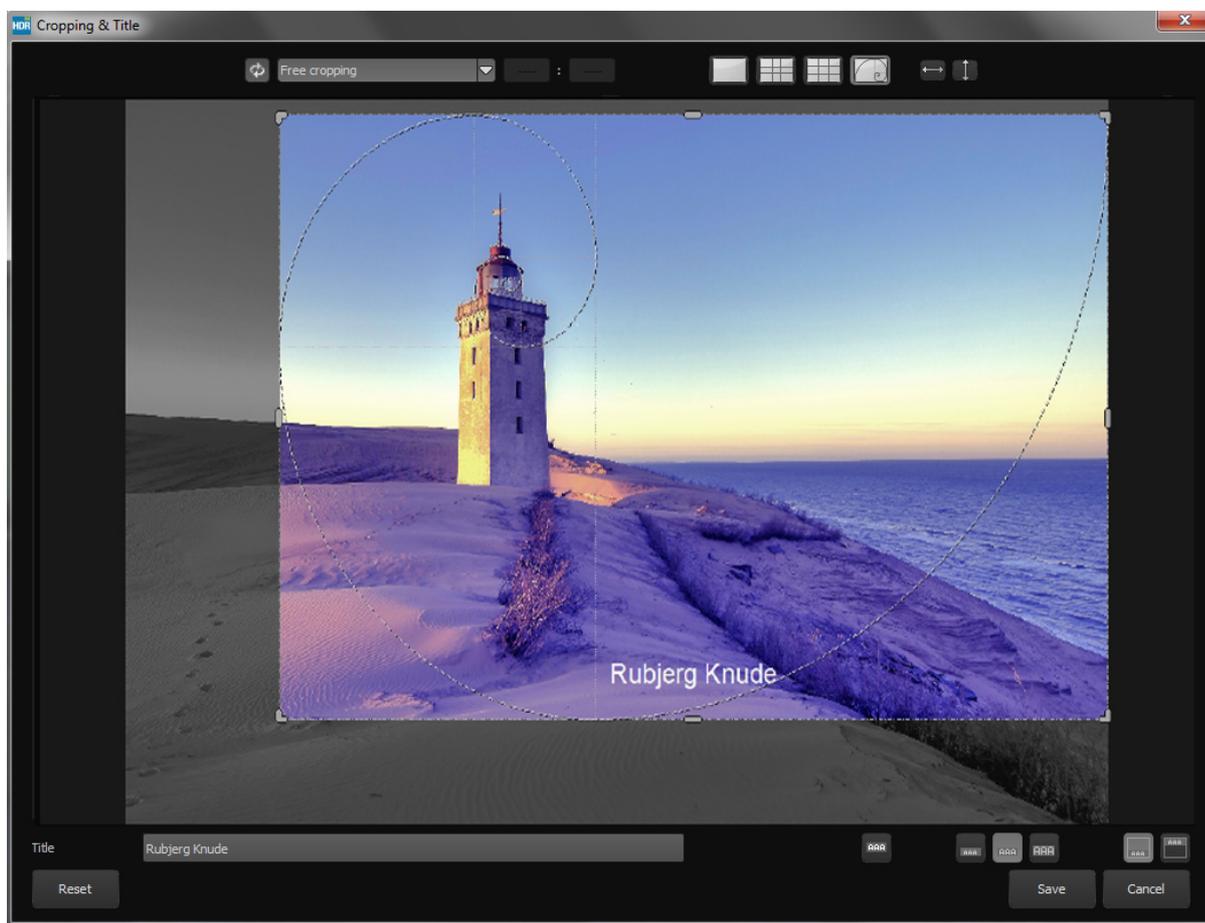
## 14. Selecting and Saving Sections of Images



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

### ➤ Cropping and captions

As soon as you have initiated to save a file, the cropping and caption window will open.



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

You can set the aspect ratio and activate guidelines like the rule of thirds, the golden section or the golden spiral.

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

At the bottom is an option to enter a caption. You can determine the size, position and background for the text. The size of the text will be automatically coordinated to the final cropping.

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

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

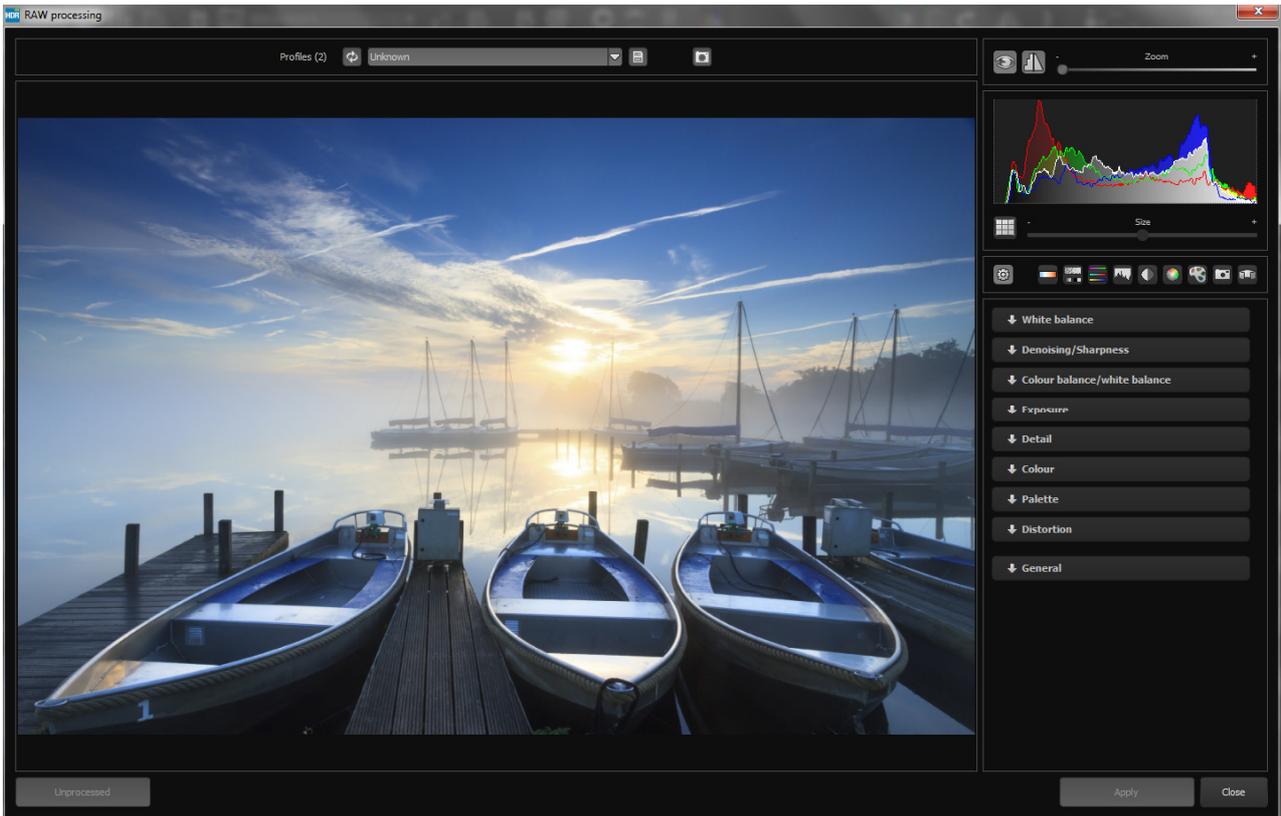


As soon as the image has been cropped and captioned, confirm the save and the following window will prompt you to select a file format and name your file.

## 15. RAW Processing



You can upload and edit RAW image data with the integrated RAW mode. Numerous tools are available to you here, such as denoising/sharpen, exposure, colour, detail and powerful distortion capabilities.



An overview of the most important RAW functions:

### **White balance:**

Here you can regulate the colour temperature. Use the pipette to select a white balancing colour 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 colour noise, banding or hot pixels.

### **Colour balance/white balance:**

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

### **Exposure:**

Influence lights, shadows, contrast and brightness in the final image.

### **Detail:**

Fine-tune clarity and micro-details with lights, shadows and mid-tones.

### **Colour:**

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

### **Palate:**

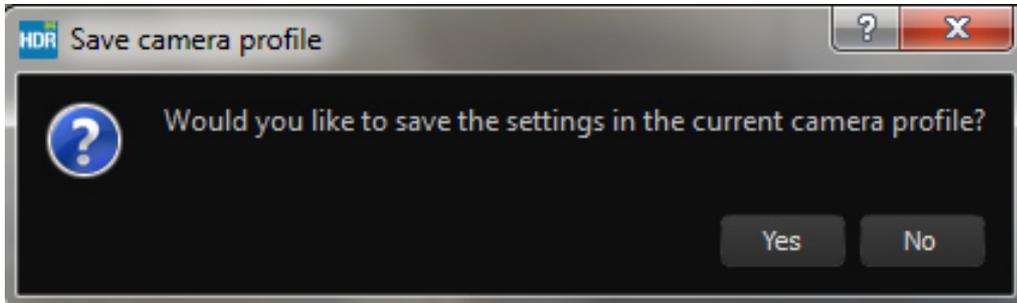
Adjust the saturation of individual colours.

### **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.

## General:

Activate the “360° panorama mode” to optimise matching edges of images in a panorama series.



Save your settings as a camera profile to save time in the future. This can be reset at any time.

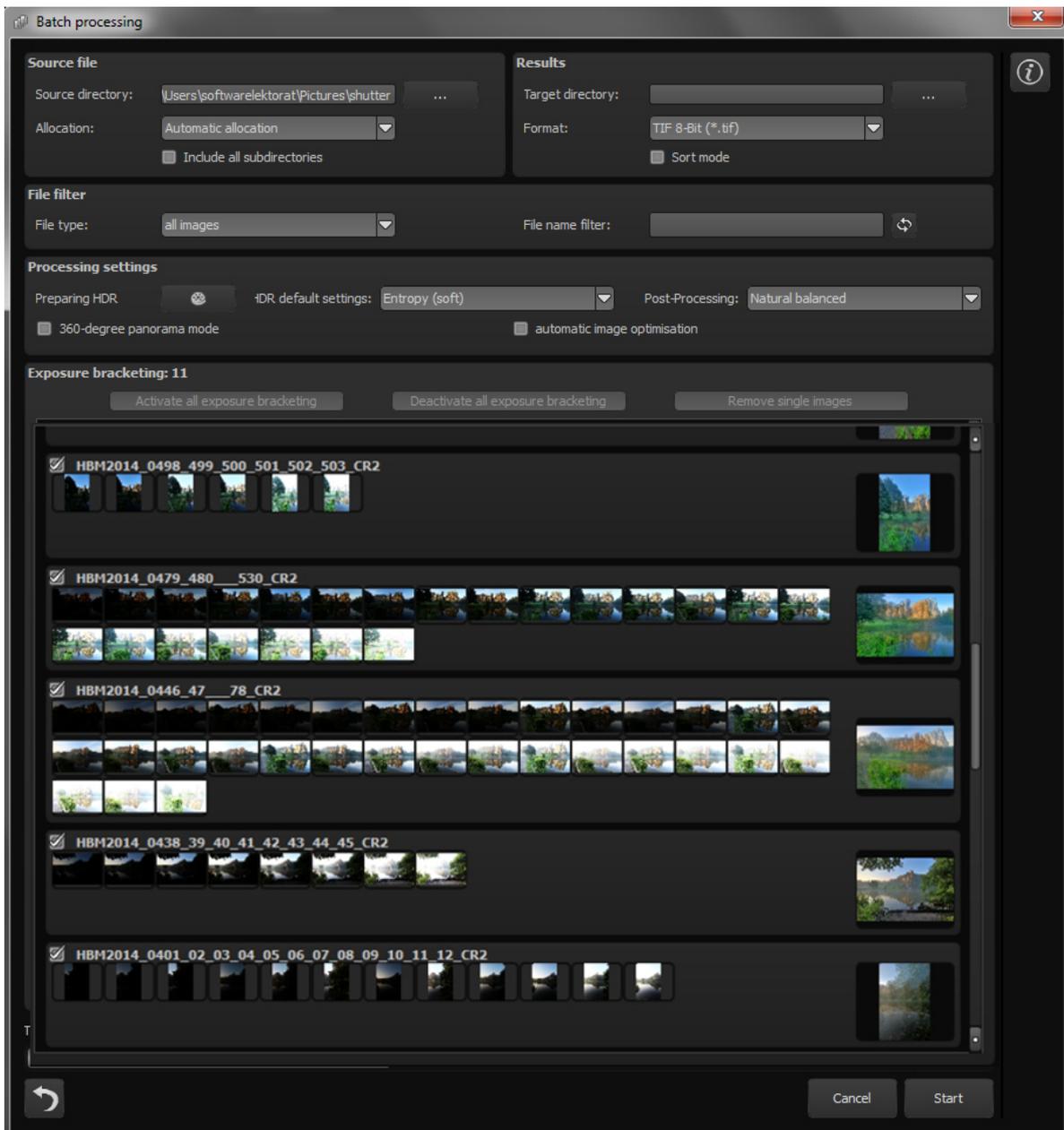
## 16. Batch Processing

**HDR projects 4** 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.

### ➤ **Batch processing HDR + tone mapping**

First, choose the source folder where the individual images (HDR from one exposure) and/or the bracketing series 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.



Note: Remember that looking through folders with several subfolders can require a lot of time. That's why selecting "C:\\" is not recommended.

### ➤ Allocation and automatic bracketing recognition

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

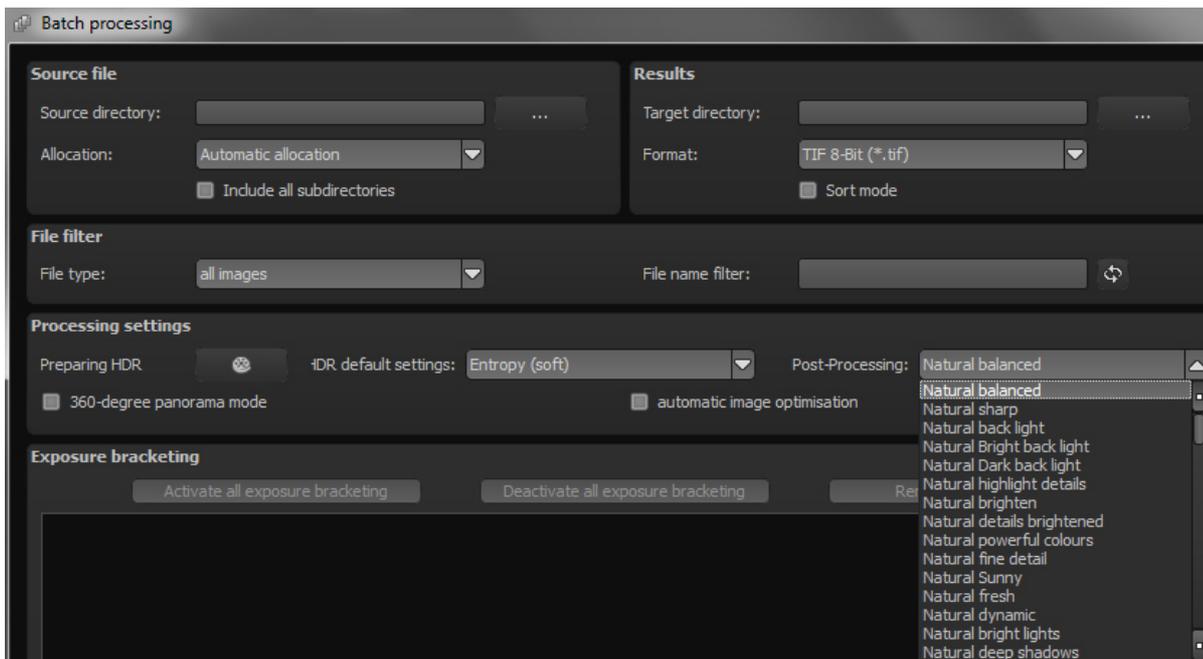
**Automatic allocation:** Loads all of the images and based on the images' content, locates those that belong to an exposure bracketing series. The brightness as well as the coverage are compared, which results in very good automatic recognition.

**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 image 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.



### ➤ Processing settings

Select the settings for the HDR preparation and tone mapping here. These apply to all of the bracketing series in the batch processing.

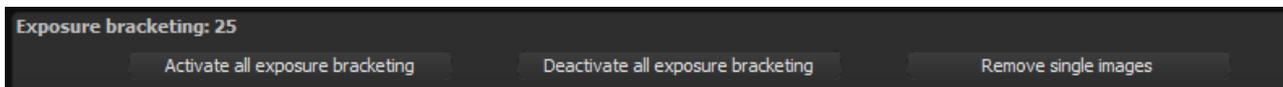
**HDR default settings:** The HDR default settings offer three to four presets for every HDR algorithm. Simply select your preferred preset from the list.

**Post-processing:** The presets contain all post-processing/tone mapping 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. As soon as the HDR presets and post-processing switch, all of the preview images in the bracketing series will be recomputed, so that you always see a real view of the results.

**HDR preparation:** Open this dialog to adjust options like colour space, white balance, alignment etc.

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

**Exposure bracketing 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)

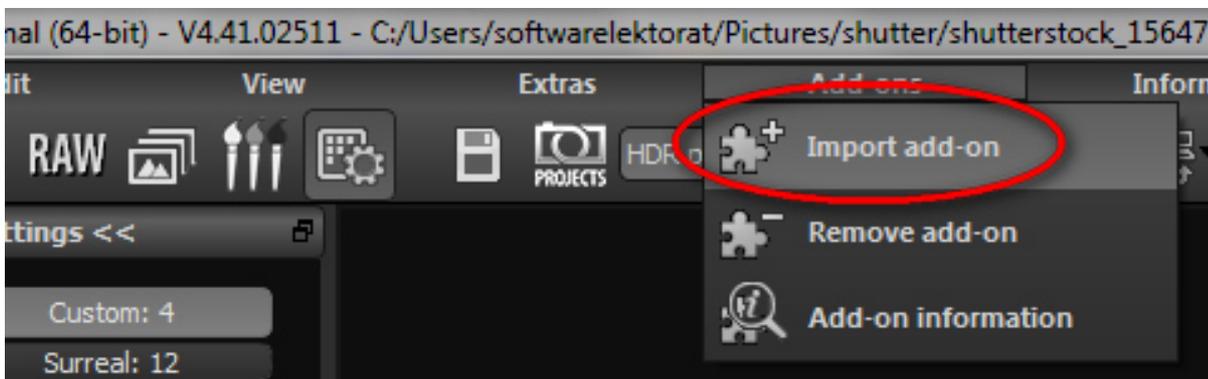
**Deactivate all exposure bracketing:** Deactivates all assigned exposure bracketing for the calculation.

**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 HDR.

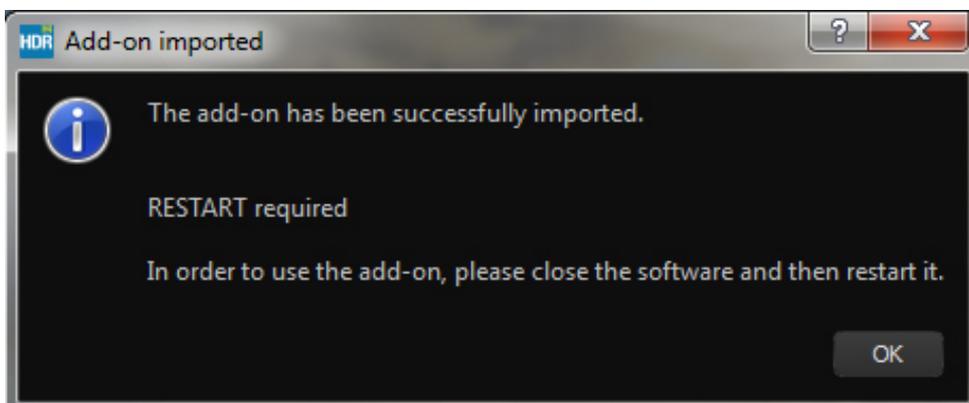
## 17.Add-ons

With help from add-ons, you can not only import presets, but entire post-processing modules can be integrated, which can be necessary to create new preset looks.

1. Extract the files from the downloaded zip folder: **Preset-Collection-HDR-projects-Lostplaces.zip**
2. Open your **HDR projects 4** version
3. Click on Menu → Add-ons → Import Add-ons



4. Select **HDR projects LostPlaces (18)** in the following dialog window, open it with a double-click and select the **HDR\_lostplaces.praddon**. Then click "Open".
5. The add-on will now be imported. A confirmation message will appear:



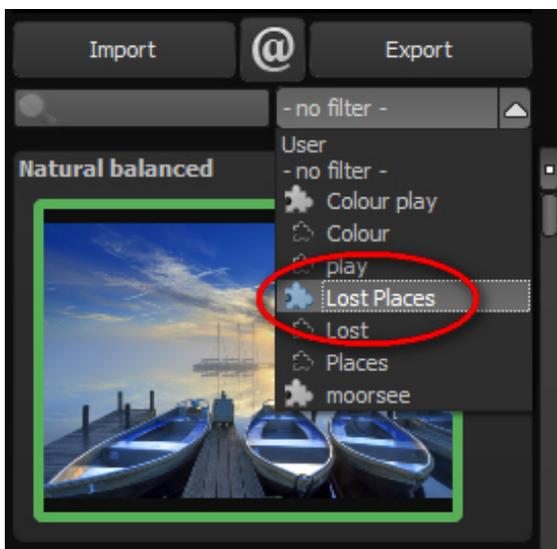
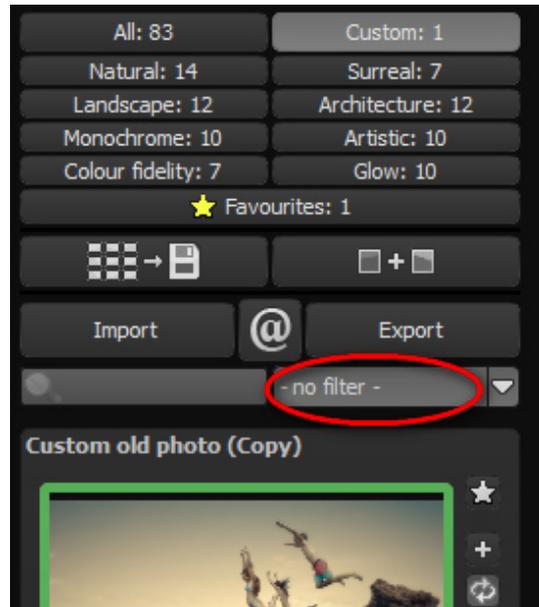
6. Please close and restart the program to be able to use the add-on with all of the other presets.

7. Open **HDR projects 4** and load an image or a bracketing series. Switch to post-processing mode (palate symbol). If you are the owner of **HDR projects 4**, you will automatically be sent to post-processing mode. Select Menu → Add-ons → Add-ons Information, and confirm that your filter package was successfully activated.

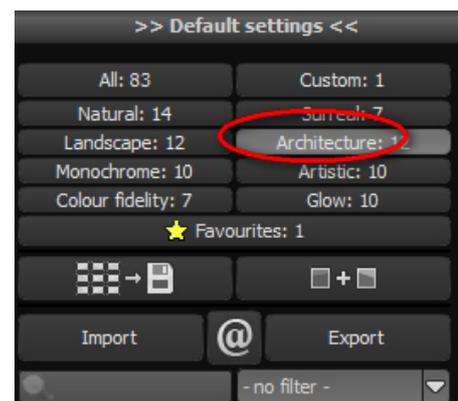
8. Filter selection can be found on the left-hand side, directly under the import/export buttons.

Here only the new, recently imported presets are displayed.

9. Click the arrow to open the drop-down menu and select "Lost Places". Now exclusively the new presets will appear on the left display box.



10. If you would prefer to not filter the presets, the new presets can be found in the "Architecture" category. The "Lost Places" presets have "LP" in their names to be easily recognisable.



## 18.Plug-in Installation

**HDR projects 4** can also be used as a plug-in for Adobe® Photoshop. Newer versions of Photoshop are automatically detected by **HDR projects 4** during installation and the plug-ins are installed in the respective plug-in folder. Older versions of Photoshop might require manual installation.

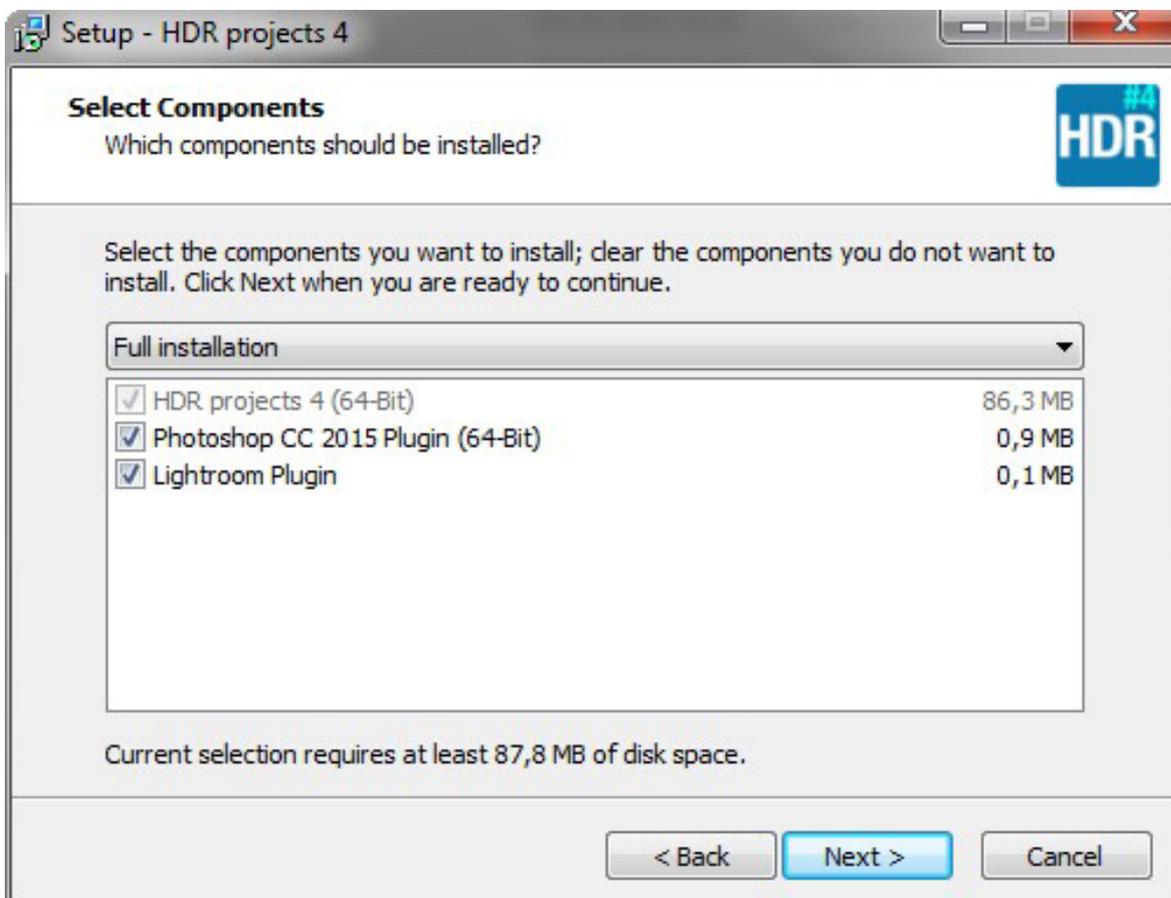
If you purchased your software as a download or if you have lost your CD, the plug-ins are also available for download at:

[www.projects-software.com/plugins](http://www.projects-software.com/plugins)

### Using plug-ins with Windows

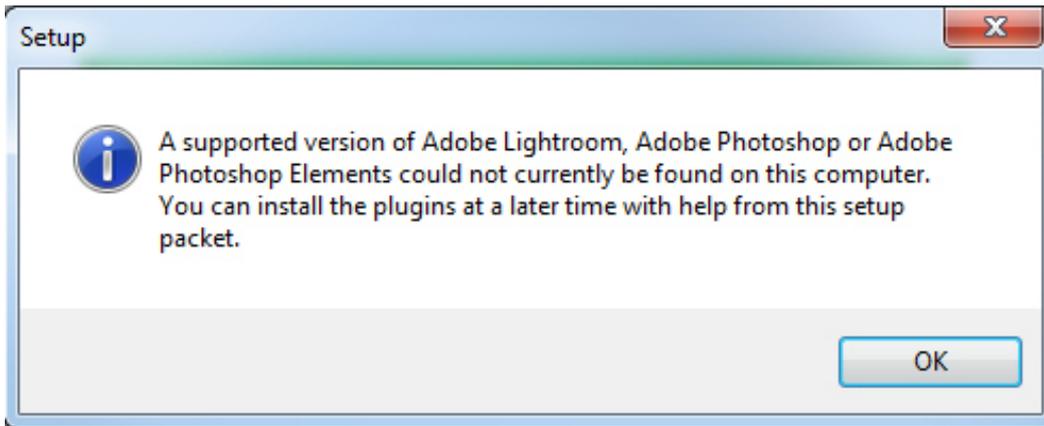
#### Adobe Photoshop & Adobe Photoshop Elements

The following window will appear when installing **HDR projects 4**:



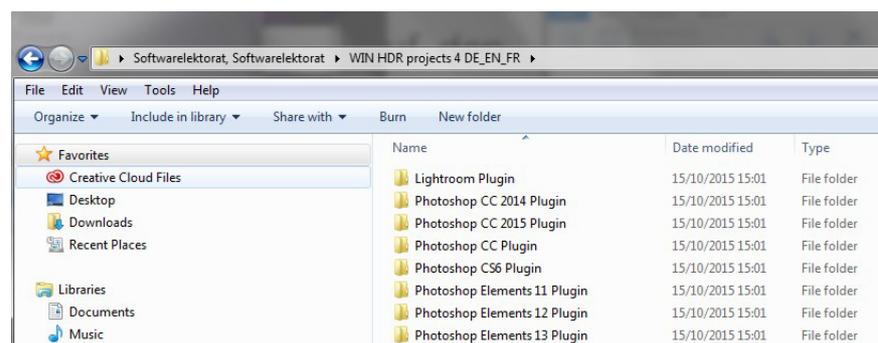
Select the version of Photoshop where you would like to install the **HDR projects 4** plug-in. Click on “next” and follow the instructions from the installation assistant. The plug-ins will then be automatically installed.

If your version of Photoshop is not automatically recognised, the following notification will appear:

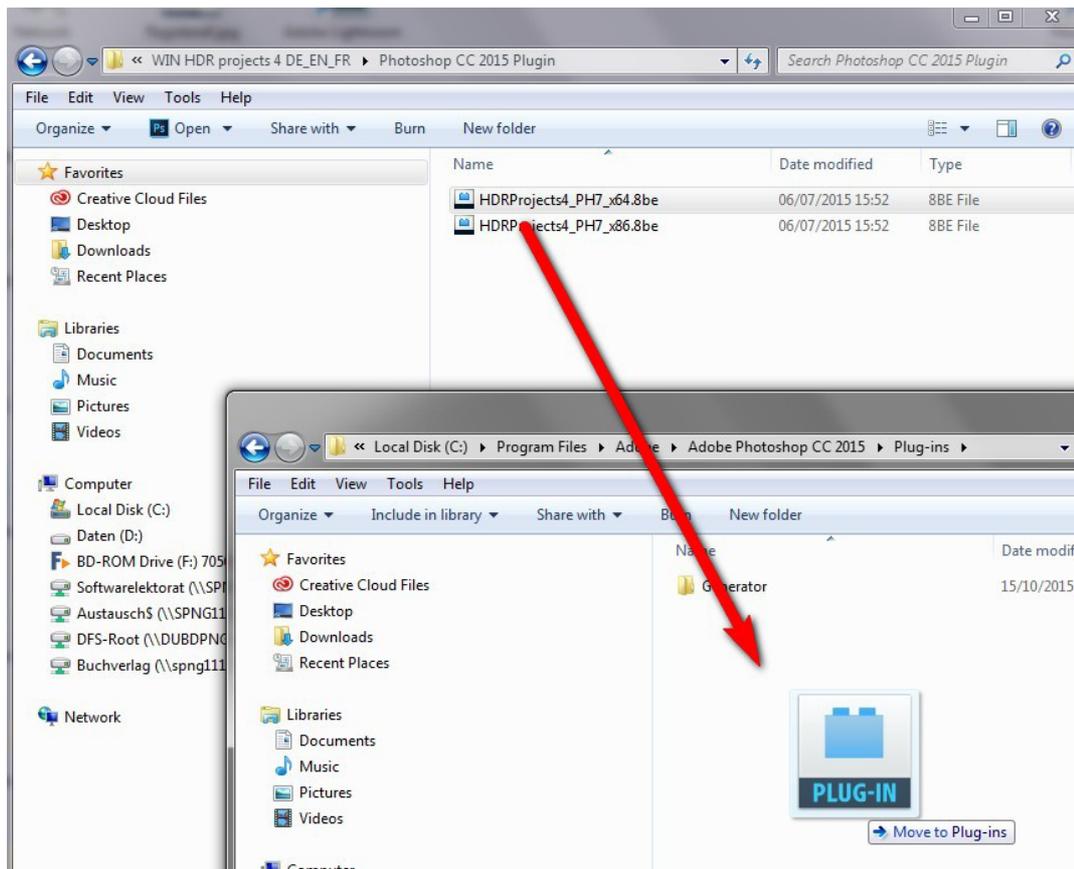


In this case, the plug-in must be manually copied into the “Photoshop Plug-in Folder”. Click on “Open Plug-ins Folder” on the start screen. Windows Explorer will then open with all available Photoshop plug-ins.

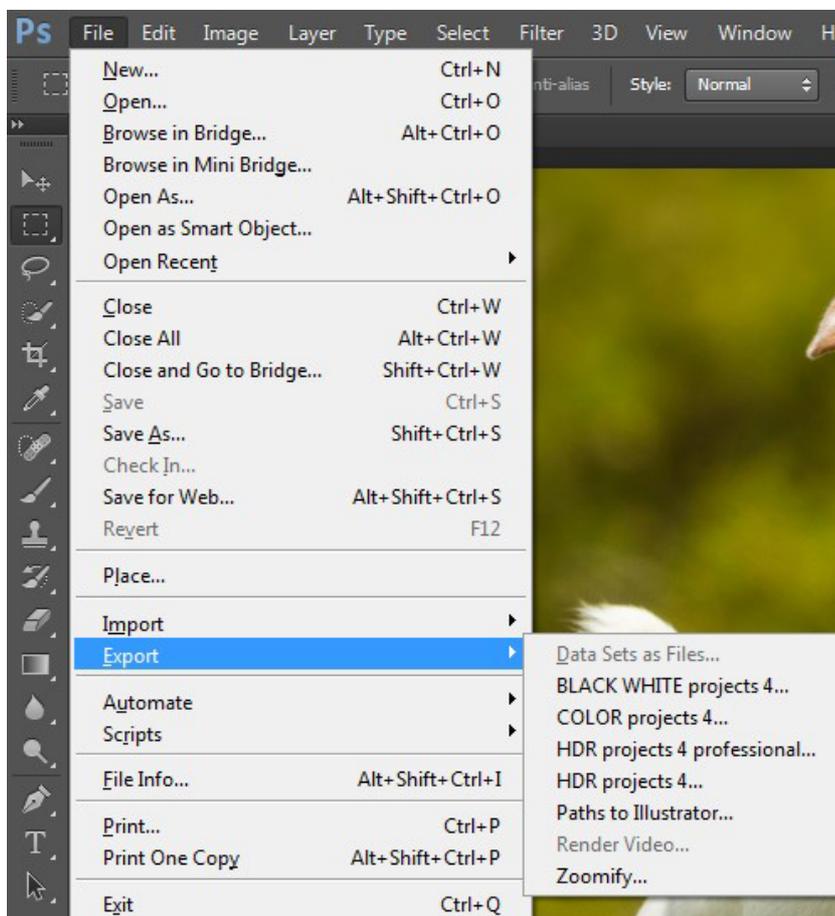
Open the folder for your version of Photoshop and drag & drop the plug-in found in this folder to the



Photoshop plug-in folder, which normally can be found through “Programs → Adobe → Adobe Photoshop → Plug-ins”. The plug-in can also be copy & pasted into the Photoshop plug-in folder.



Finally, the plug-in can be found in Photoshop through “File → Export → HDR projects 4”.



## Using plug-ins with Mac OS X

### Adobe Photoshop & Adobe Photoshop Elements

Plug-ins can be found on the start screen in the “Plug-ins” folder. Select the appropriate folder for your version of Photoshop (we chose Photoshop CS6 for our example). Double click the .zip file to extract the plug-ins.

Next, drag & drop the plug-in to the plug-in folder for your version of Photoshop, which is normally labeled as “plug-ins”:

Start up your version of Photoshop, load an image and navigate to “File → Export → HDR projects 4”. One click will start the plug-in. The image will now be opened in ***HDR projects 4***.

## Adobe Lightroom with Windows

For Adobe Lightroom, it is often the case that plug-ins are not automatically installed. Continue as follows:

Copy the plug-in folder “Lightroom Plug-in” from your CD-ROM.

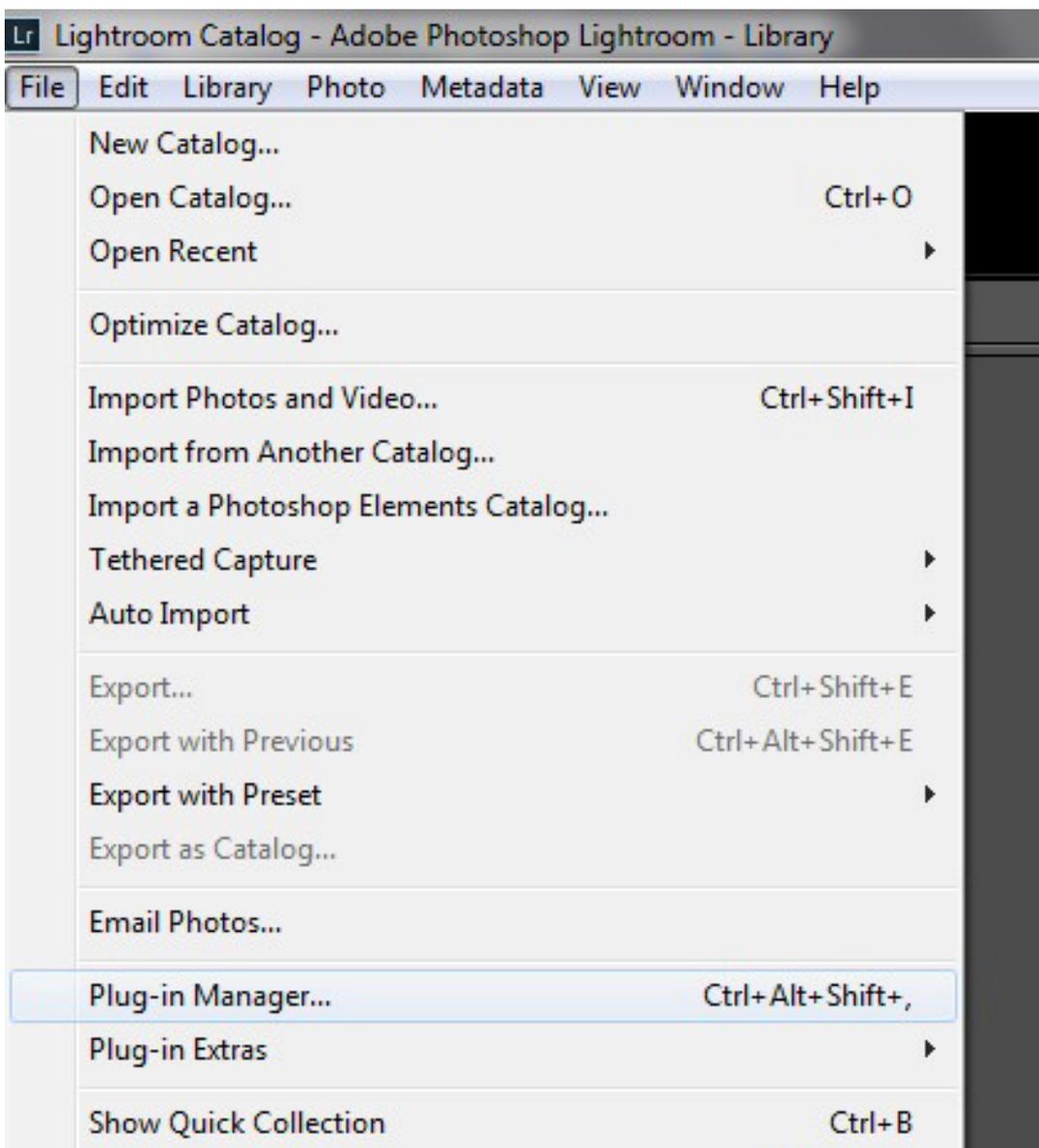
If you have no CD, the plug-in is also available for download at: [www.projects-software.com/plugins](http://www.projects-software.com/plugins)

Paste the folder where you want it to be located.

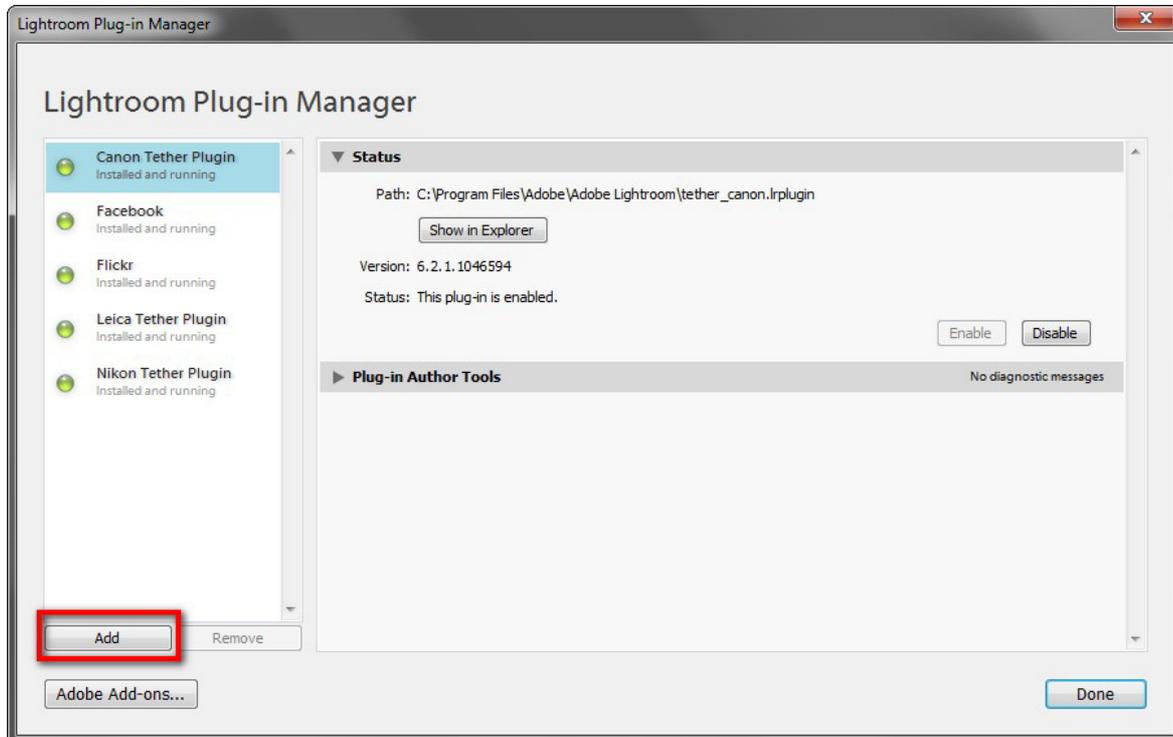
We recommend the folder where also your presets are stored:

**C:\Benutzer(Users)\username\HDR Projects 4.**

Start Lightroom und navigate to “File” → “Plug-In Manager”.



Click the “Add” button in the Lightroom Plug-In Manager.



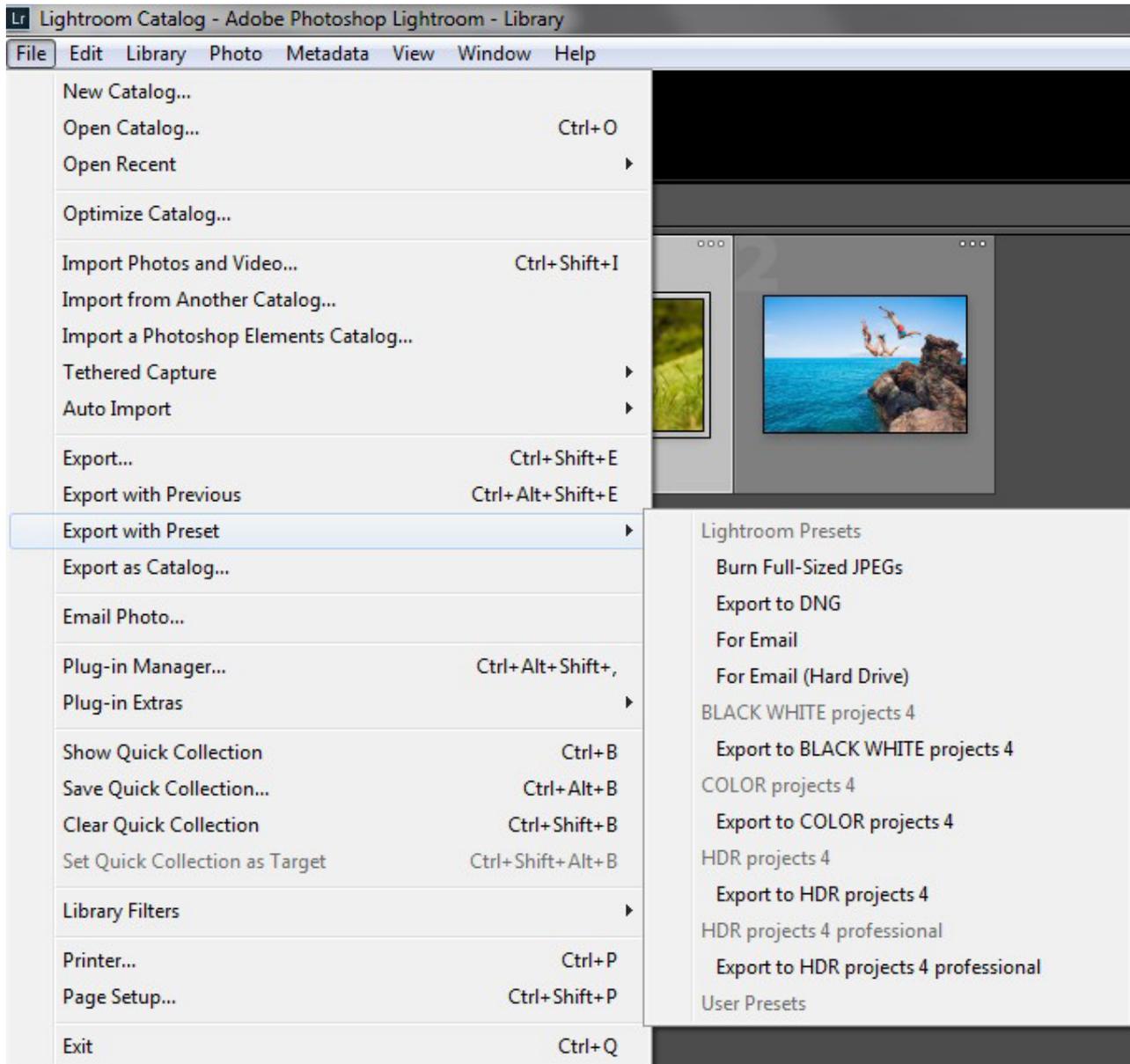
Navigate to the appropriate Lightroom plug-in for **HDR projects 4** that you just added to your PC.

Click on “Select Folder” and then “Done”.

In Lightroom, the plug-in can be found through “File → Export with Preset → Export to HDR projects 4”.

### ALTERNATIVE:

Right-click on the image directly in Lightroom and select „Export → Export to HDR projects 4“.



## Adobe Lightroom with Mac

For Adobe Lightroom, the plug-in will not be automatically installed. Continue as follows:

Install **HDR projects 4** to the program link of your Mac.

Copy the plug-in .zip file from the “Lightroom Plug-in” folder on your CD-ROM. Double click on the .zip file to extract the plug-in to a folder where you want it to be located.

We recommend the folder where also your presets are stored:

**C:\Benutzer(Users)\username\HDR Projects 4.**

Start Lightroom und navigate to “File → Plug-In Manager”.

Click the “Add” button in the Lightroom Plug-In Manager.

Navigate to the appropriate Lightroom plug-in for **HDR projects 4** that you just added to your PC.

Click on “Select Folder” and then “Done”.

Sometimes it can be necessary to close Lightroom and then to re-start. Afterwards, the plug-in will be installed and activated.

There are more ways to export your image from Lightroom to **HDR projects 4**:

„File → Export with Preset → Export to HDR projects 4“.

ALTERNATIVE:

Right-click on the image directly in Lightroom and select „Export → Export to HDR projects 4“.

## 19. Keyboard Shortcuts

### Menu Functions:

#### Windows

	Apple	
Ctrl + N	cmd + N	New project
Ctrl + Shift + O	cmd + Shift + O	Upload single image
Ctrl + O	cmd + O	Upload bracketing exposure series/image series
Ctrl + S	cmd + S	Save result
Ctrl + B	cmd + B	Open batch processing
Shift + Z	Shift + Z	Create restore point
Ctrl + Z	cmd + Z	Return to restore point
Ctrl + T	cmd + T	Show/hide timeline view
F4	F4	Open RAW mode
F5	F5	Edit exposure bracketing
F6	F6	Edit weightings (HDR painter)
F7	F7	Show post-processing view
Ctrl + E	cmd + E	Show exif information
Ctrl + H	cmd + H	Show/hide histogram
Ctrl + F	cmd + F	Open/close full screen
ESC	ESC	Close full screen
Ctrl + P	cmd + P	Open settings
Shift + F1	Shift + F1	Open window "About"
@	@	Show product homepage
Ctrl + F4	cmd + Q	Close application

### Image Functions:

#### Windows

#### Apple

Ctrl + Plus	cmd + Plus	Zoom in
Ctrl + Minus	cmd + Minus	Zoom out
Ctrl + 0	cmd + 0	Zoom to 100%
L	L	Set magnified view
Double Click	Double Click	Switch between "Fit" and "1:1" views

### RAW Developing:

#### Windows

#### Apple

Ctrl + Plus	cmd + Plus	Zoom in
Ctrl + Minus	cmd + Minus	Zoom out

### Edit weightings (HDR Painter):

#### Windows

#### Apple

1	1	Select red
2	2	Select green
3	3	Select blue
Ctrl + G	cmd + G	Calculate automatic ghosting removal

### Selective Editing:

#### Windows

#### Apple

Page Up	Page Up	Select next area
Page Down	Page Down	Select previous area
Cursor Left	Cursor Left	Move selected area 1 pixel to the left
Shift + Cursor Left	Shift + Cursor Left	Move selected area 5 pixel to the left
Ctrl + Cursor Left	cmd + Cursor-Left	Move selected area 10 pixel to the left
Cursor Right	Cursor Right	Move selected area 1 pixel to the right
Shift + Cursor Right	Shift + Cursor Right	Move selected area 5 pixel to the right
Ctrl + Cursor Right	cmd + Cursor Right	Move selected area 10 pixel to the right
Cursor-Up	Cursor-Up	Move selected area 1 pixel up

Shift + Cursor-Up	Shift + Cursor-Up	Move selected area 5 pixel up
Ctrl + Cursor-Up	cmd + Cursor-Up	Move selected area 10 pixel up
Cursor-Down	Cursor-Down	Move selected area 1 pixel down
Shift + Cursor-Down	Shift + Cursor-Down	Move selected area 5 pixel down
Ctrl + Cursor-Down	cmd + Cursor-Down	Move selected area 10 pixel down
Delete	Delete	Delete selected area
1	1	Show no effects
2	2	Show effects of selected areas
3	3	Show effects of all areas

**Scratch/Sensor Spot Removal:**

<b>Windows</b>	<b>Apple</b>	
N	N	Add new contour area
C	C	Activate/deactivate contour display
Page Up	Page Up	Select next contour area
Page Down	Page Down	Select previous contour area
Cursor Left	Cursor Left	Move selected area 1 pixel to the left
Shift + Cursor Left	Shift + Cursor Left	Move selected area 5 pixel to the left
Ctrl + Cursor Left	cmd + Cusor-Left	Move selected area 10 pixel to the left
Cursor Right	Cursor Right	Move selected area 1 pixel to the right
Shift + Cursor Right	Shift + Cursor Right	Move selected area 5 pixel to the right
Ctrl + Cursor Right	cmd + Cursor Right	Move selected area 10 pixel to the right
Cursor-Up	Cursor-Up	Move selected area 1 pixel up
Shift + Cursor-Up	Shift + Cursor-Up	Move selected area 5 pixel up
Ctrl + Cursor-Up	cmd + Cursor-Up	Move selected area 10 pixel up
Cursor-Down	Cursor-Down	Move selected area 1 pixel down
Delete	Delete	Delete selected contour area
Plus	Plus	Increase selected contour area
Minus	Minus	Reduce selected contour area
Ctrl + Plus	cmd + Plus	Zoom in
Ctrl + Minus	cmd + Minus	Zoom out

## Selective Drawing:

<b>Windows</b>	<b>Apple</b>	
Ctrl + Plus	cmd + Plus	Zoom in
Ctrl + Minus	cmd + Minus	Zoom out
Ctrl + 0	cmd + 0	Original resolution
A	A	Activate drawing mode
Shift + A	Shift + A	Activate restricted drawing mode
S	S	Activate eraser
Shift + S	Shift + S	Activate restricted erase mode
D	D	Activate mask fill mode
F	F	Activate brush fill mode
R	R	Activate ray brush fill mode
Plus	Plus	Increase brush size
Minus	Minus	Reduce brush size
Ctrl + Z	cmd + Z	Undo last drawing action
M	M	Activate/deactivate mask view

## History Viewer:

<b>Windows</b>	<b>Apple</b>	
Cursor Left	Cursor Left	Move to the previous image
Cursor Right	Cursor Right	Move to the next image
Page Up	Page Up	Move to the previous page (3 entries)
Page Down	Page Down	Move to the next page (3 entries)
Home	Home	Move to the start of the history
End	End	Move to the end of the history

### Variant-Browser:

#### Windows

Cursor Left  
Cursor Right  
Cursor-Up  
Cursor-Down  
Ctrl + Plus  
Ctrl + Minus  
Ctrl + 0  
Space  
Enter/ Double Click

#### Apple

Cursor Left  
Cursor rechts  
Cursor-Up  
Cursor-Down  
cmd + Plus  
cmd + Minus  
cmd + 0  
Space  
Return/ Double Click

Move an image to the left  
Move an image to the right  
Move an image up  
Move an image down  
Zoom in  
Zoom out  
Zoom 100%  
Center view  
Select and load entry

## **Photo credit:**

Imagery provided by the members of the FRANZIS *projects* team and the programmers.

Special thanks to Mr. Falko Sieker for providing several exposure bracketing series and single images for testing purposes. The majority of the screen shots found in this user manual are results of Mr. Sieker's bracketings.

### Hotline/Support

If you have questions regarding the installation, problems or errors of the software, please contact the **FRANZIS customer support team**.

**E-Mail:** [support@franzis.de](mailto:support@franzis.de)

Please understand that your questions can only be answered directly by FRANZIS customer support. This is to give us the opportunity to constantly enhance our customer service for you and to make sure that you receive only the most qualified answers to all of your questions as fast as possible.

#### **This is how our customer support works best:**

Please have the most important details about your computer and about our product at hand when you call our customer support. These include:

- Name of the product
- Product ISBN (which you can find on the back of the packaging, above the easy to spot bar-code).
- Operating system of your computer
- Technical details of your computer including all your peripheral devices

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