

HDR projects 5

User manual



Contents

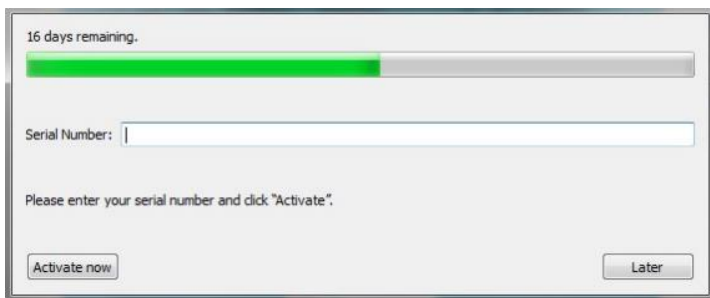
1.	Activation.....	3
2.	Fascinating High Dynamic Range Photography.....	4
3.	What ´s new?.....	7
4.	Configuring the user – interface.....	11
5.	HDR Photos Done Quickly.....	12
6.	Importing image material.....	13
7.	HDR- Preparation.....	17
8.	Post-Processing: Presets.....	21
9.	Post-Processing: Finalisation.....	29
10.	HDR Generation and Bracketing Editing.....	54
11.	Local Adjustments and Selective Drawing.....	72
12.	Composing-Modus.....	84
13.	Edit Weighting with HDR Painter.....	87
14.	Ghosting Removal with HDR Painter.....	92
15.	Workflow.....	95
16.	Selecting and Saving Sections of Images.....	98
17.	RAW-Processing.....	100
18.	Batch processing.....	105
19.	Via GPS coordinates directly to OpenStreetMaps.....	110
20.	Add-ons.....	111
21.	Plug-In Installation.....	113
22.	Keyboard Shortcuts.....	125
23.	Supported RAW formats.....	126

1. Activation

Upon starting **HDR projects 5** for the first time, you will be prompted to activate the program. Proceed as follows:

Install **HDR projects 5** as described by the installation instructions.

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



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

Note: HDR projects 5 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, midtone and shadow detail. HDR projects 5 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 5** and what you can achieve with its immense range of functions.

An obvious case for **HDR projects 5** - 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 5 offers many new features. Here is an overview of some of the most important developments:

- ✓ New filter Plug-ins for Adobe® Photoshop (all versions from PS CS6 to CC 2015.5)

- ✓ With **21 new presets** HDR projects 5 now has a total of 155 presets. On top of that there is a preset browser for all presets

- ✓ There are now **two new HDR Algorithms**: “Repro neutral” and “Repro intensive”

- ✓ You can load up to **19 pictures per bracketing series** (previous versions could do a maximum of 33 photos) for perfect high dynamic range images

- ✓
- ✓ The program has been extended with two new **tone mapping procedures** “contrast” and “brilliance”

- ✓ One can now choose the **font sizes** for menus and titles

- ✓ A **hot key list** as well as a list of unloadable camera RAW formats were embedded in the program

- ✓ The **GPS coordinates** of a photo allow you to directly see where the photo was shot in Open-Streetmaps
- ✓ New as well is the automatic **HDR optimizing contrast range**
- ✓ An **automatic brilliance optimisation** carried out by RAW image files
- ✓ An interactive automatic optimisation was added to the **ghosting removal**.
- ✓ The **RAW-module** has also several new functions:

Category "FX" with 8 extra effects
Light diffraction correction in the area of colours
dynamic brightness
Trapezoid distortion
Colour dynamic

- ✓ New: comparison of function in the preset browser What's really practical: **the optimisation assistant** with different choices of opacity
- ✓ The absolutely novelty in HDR: **film grain**-module with adjustable ISO number, six different film grain forms, masking the film grain and fractal film grain

- ✓ many new effects and functions you can find in the **selective drawing**

Increasing contrast
Reducing contrast
Blending in the original image
Mask production in optional brightness/colour
Smoothing brush
Soft-focus effect, reduction, increase on masks
optional mask colour
automatic adaption of masks from selective drawings onto the distortioncorrection in RAW - module

- ✓ **Composing modus** with free downloadable pictures in four levels in the selective drawing

HDR projects 5 has now **10 new post-processing effects**:

Dissolving	Colour correction
Mist & fog reduction	Warp
Colour dynamic	Light glow
Film grain- analog	Lens reflection
Restoring the highlights	Water reflexion

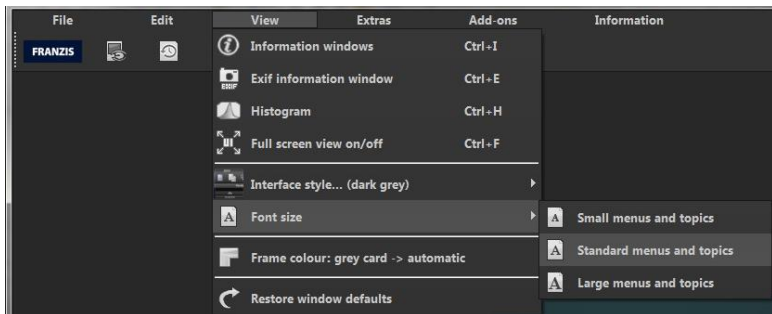
- ✓ Extra: **56 course pre-settings** for the selective processing all post-processing effects

- ✓ **Optimising the HDR engine** as well as the post-processing engine.
- ✓ **Increase in speed** to two factors and more

4. Configuring the user – interface

Optional font size for Menus and titles

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

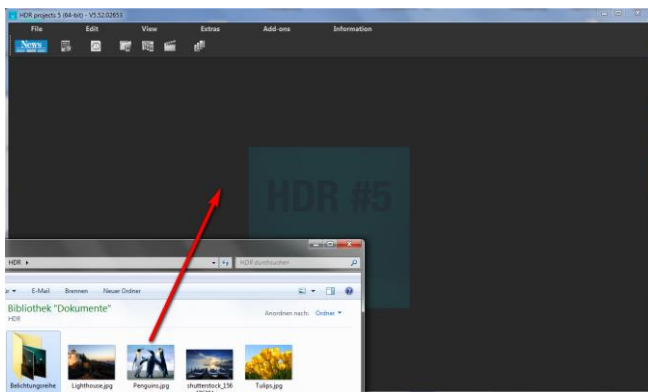


The font size can be adjusted to the run time of the program. 4K – monitors gives you the option to enlarge the font size for better readability of the menu.

5. HDR Photos Done Quickly

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

1. Load Images
2. HDR Preparation
3. Post-Processing -> Preset Selection
4. Optimisation Assistant
5. Select Image segment and Save, that´s it!

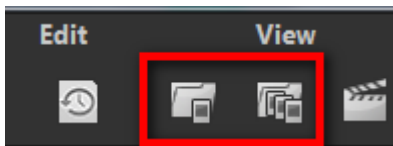


You can simply drag and drop your images or bracketing series onto the start screen

How to get the results you want, and fast - the elaborated presets and looks, individual image adaption and selected drawing allows you to go down your own creative route. **HDR projects 5** offers both options.

6. 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 **maximum number** of possible exposures of a bracketing series is **19 pictures** in HDR projects 5.

How does this number come about?

A HDR- photograph (High Dynamic Range) differentiates from other photographs through one major characteristic:

The information of 32 exposure levels (32 Bit/ 32 ev) can be saved in one image.

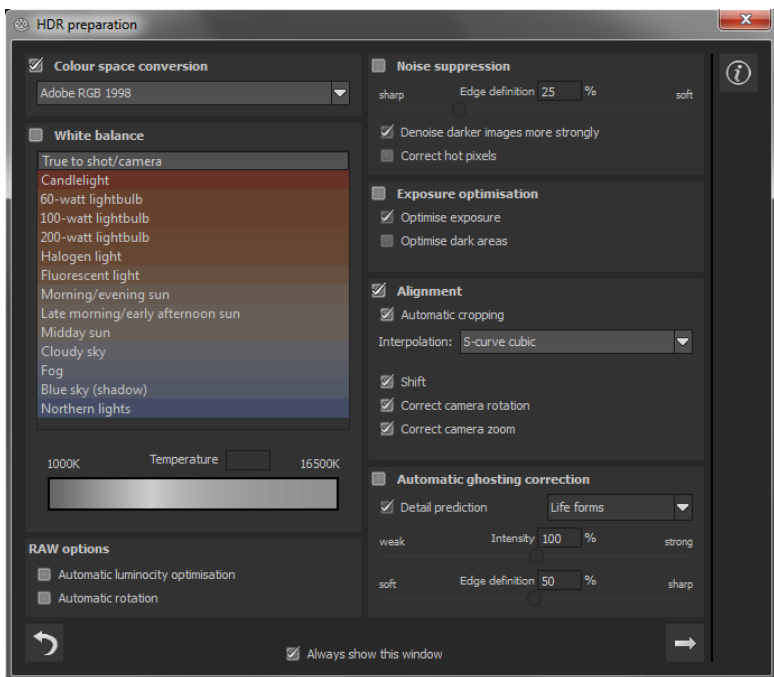
These 32 exposure levels (32 Bit/32 ev) are made up of the accuracy of RAW images with 14 exposure levels (14 Bit/ 14 ev) as well as the exposure differences throughout the bracketing series.

Let's take for example a bracketing series that was taken with -2ev, 0ev, and +2ev. Which has as a result the dynamic range of $+2-(-2) = 4$ ev as exposure difference. This plus the 14 exposure levels from RAW, has a total of 18 ev exposure levels (18 Bit/18ev).

The 19 images can exactly replicate a bracketing series from -9 ev to +9 ev with intervals of 1 ev between two images. This ensures that you have used the maximum exposure that you can get out of a very good camera.

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.

Here you can choose if you want to see the dialog each time you upload a bracketing series (click on the box at the bottom).

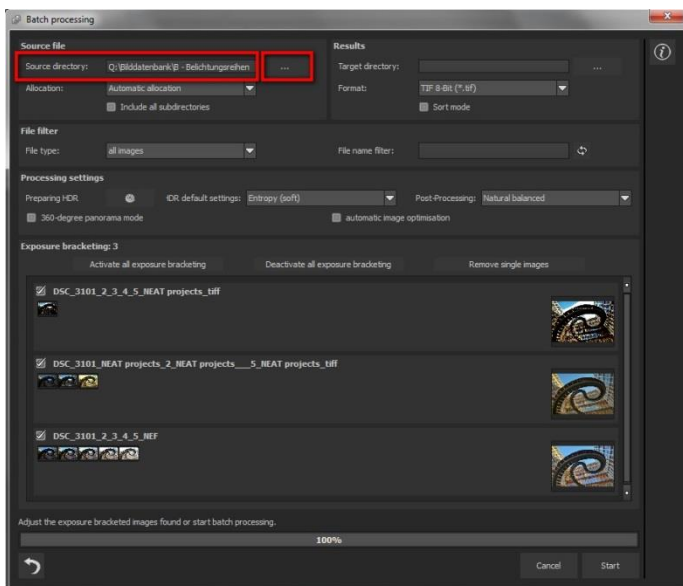


➤ **Bracketing series browser**



For a better overview of your bracketing series you can use the bracketing series browser before uploading your bracketing series.

Click on the corresponding symbol in the task bar. A preview window will open. Chose by „quell folder“ your bracketing series folder.

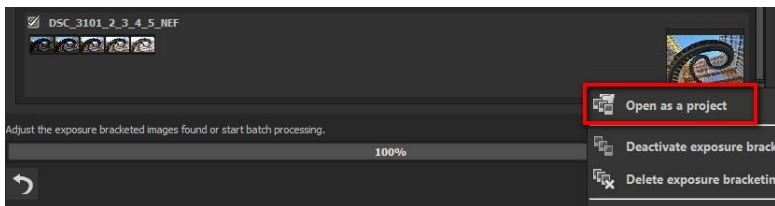


HDR projects 5 starts immediately with the calculation, fitting automatically the right images together as well as showing a preview image. If you go across the image with the mouse, the image will automatically enlarge itself.

The **file type-filter** is practical here, since one often has jpg rows and RAW images together in one folder. But if you type in RAW in the **file type**, only the RAW rows will be shown. You won't have any doubles any more.

At 100% the search for images is finished.

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

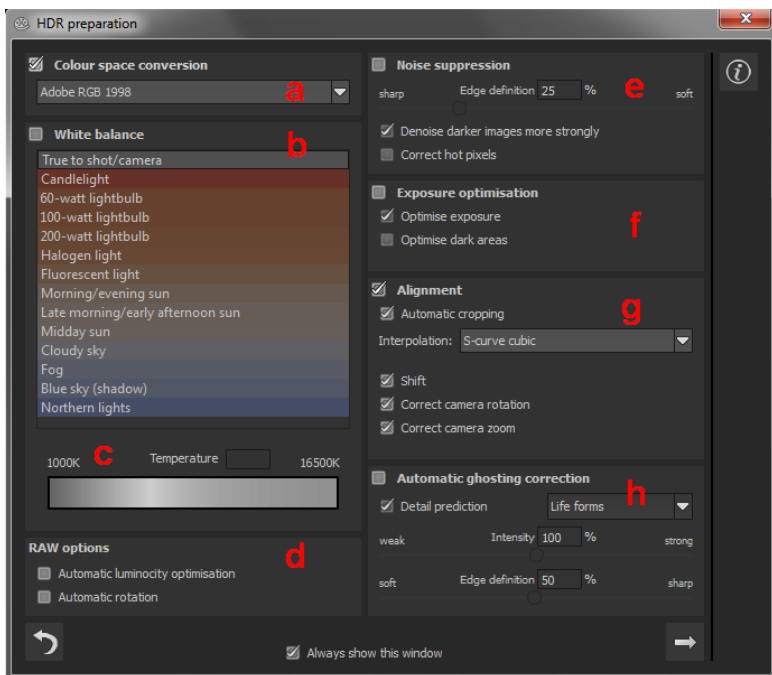


HDR projects 5 uploads the images of the desired row and just like the simple Drag &Drop of the images on the desktop we start now with HDR preparation.

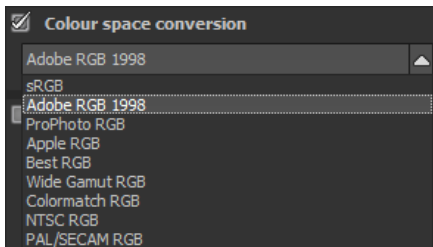
7. HDR- Preparation

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.

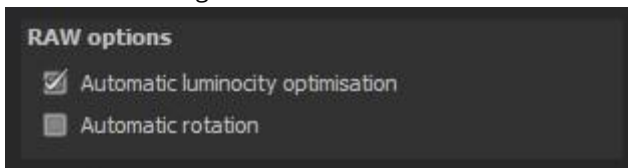


- a. **Colour space conversion:** advanced users can choose a colour space here - for all other users, it is recommended to not make any adjustments, to avoid incorrect colour rendering later. **HDR projects 5** offers several new colour spaces (D65). The **standard illuminant D65** is representative for a phase of natural daylight with the colour temperature of 6500° Kelvin.



- 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. With this regulator one can adjust the **colour temperature** when you´re already uploading. It is advised that you leave the setting on “default” and to regulate the colour temperature later in post-processing.
- d. **RAW-options:** The **automatic brilliance optimisation** for RAW files can be activated in image preparation under RAW options. Frequently it is with camera RAW formats that the image data will not use all tonal values that are available. The automatic brilliance optimisation compensates this with the uploaded RAW images by amplifying the tonal values so

that a meaningful utilised histogram is created for every camera RAW image.



In the area for bracketing series this option is **only wise, if you create HDR images from a single RAW.**

- e. **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.
- f. **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.
- g. **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.

- h. **Automatic ghosting correction: HDR projects 5** 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.



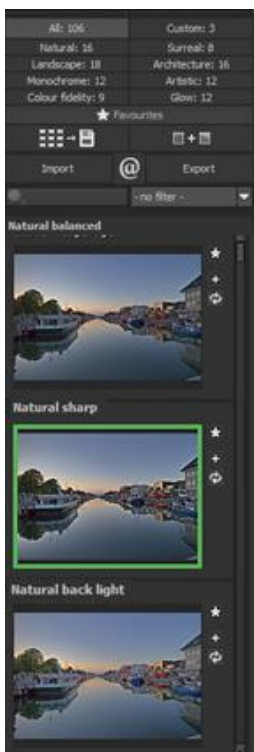
Fusing the images without ghosting removal. People are always on the move in a busy train station! Without correction, ghosting always occurs with multiples exposures

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.

8. Post-Processing: Presets



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



Left side of the post-processing screen:

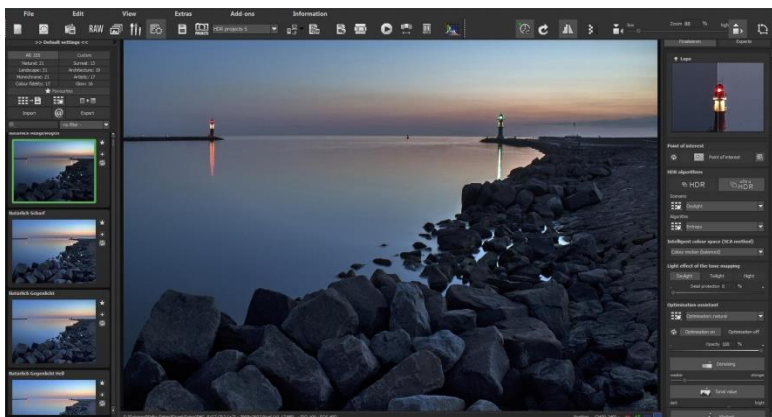
the presets show the breakdown of the live preview in categories - "All", "Natural", "Landscape", "Monochrome", "Colour fidelity", "Custom", "Surreal", "Architecture", "Artistic", and "Glow" with the quantity of presets in the appropriate category.

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 106 different presets. You will be amazed by the intriguing styles in the artistic section!

Image with "Natural balanced" preset

Image after applying the "Landscape Colour and Detail" preset.

All 103 **HDR projects 5** presets at a single glance. The bar “pre-settings” you can detach easily and adjust to the desired size.

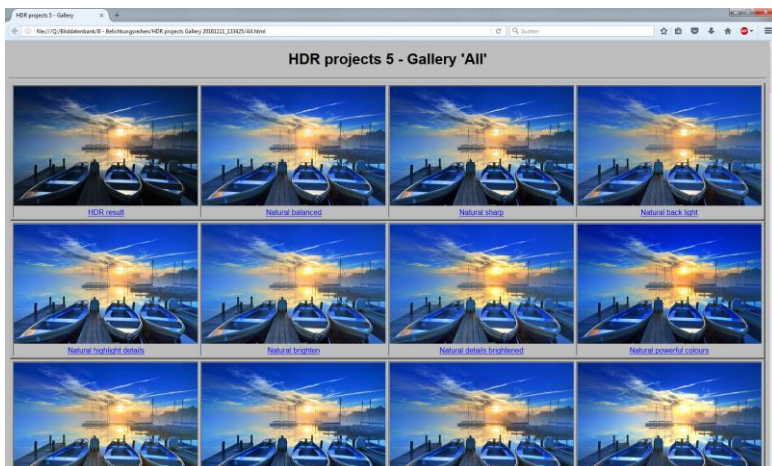


➤ Preview Gallery



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

HDR projects 5 constructs then a browser gallery with all the presets. For a larger display click on the picture.



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

➤ **Preset browser:**



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



Click on the symbol and **HDR projects 5** will show you the entire preview gallery of that **chosen category**. Zoom in now on the variant that you want to compare and set a reference image.

➤ **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





➤ **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.

If this option is deactivated, then you will only see the outcome of your adjustments when you click the button “calculate



afresh”.

➤ **High-Quality Display**

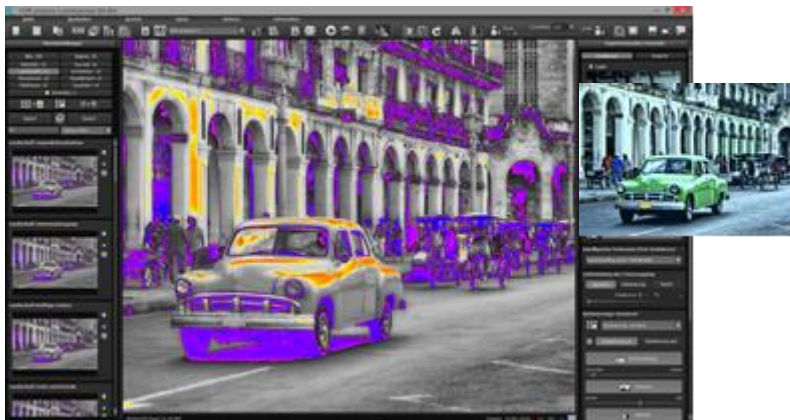


Activate this option to see the preview image in high-resolution. If the preview is set at 100%, there will be no difference. If you zoom in on a section of the photo however, there is a noticeable difference in quality.

➤ **Border Pixel Display**



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



Depiction of border pixels in dark blue and orange tones

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

➤ **Symbol „original resolution setting“**



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

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



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

- **Import/Export from Presets**

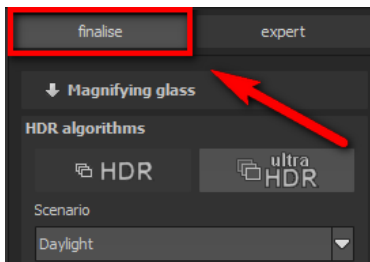


Presets from earlier versions can be easily imported. Do you want to exchange all of your presets with a friend or just secure all of your treasures? Use the practical export function.

- **Filter Presets**

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

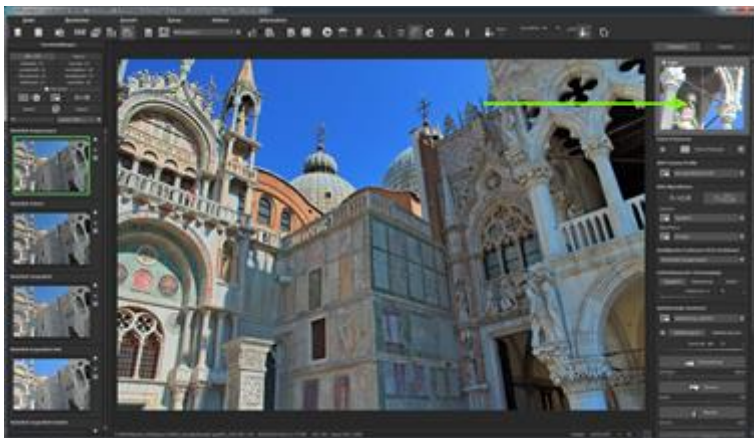
9. Post-Processing: Finalisation



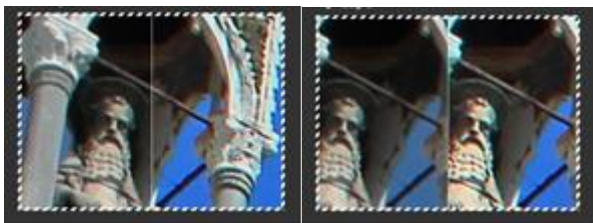
Now that we have understood the most important part of post-processing, let's go onto fine-tuning, which can be found on the right side of the screen under "Finalise". These features are intended to only to be used to edit pictures further after selecting a preset.

➤ The magnifying glass

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



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



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

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

➤ **HDR/Ultra HDR**

This technology describes the art of fusion of bracketing series images. 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.

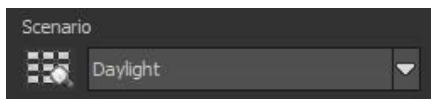


The strength of Ultra HDR can be seen in sensitive situations: the sunlight in the image on the right is significantly more detailed and less overexposed.

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

These settings can be accessed in post-processing at any time

➤ **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.

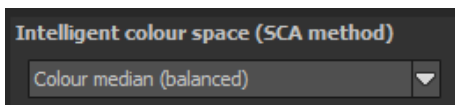
➤ **HDR-Algorithms**

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.

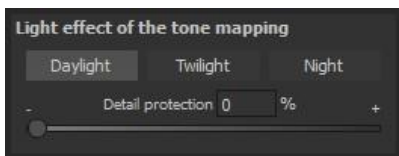
➤ **Intelligent Colour Space (SCA Processing)**



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.

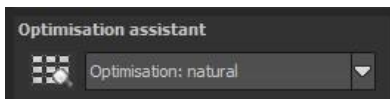
Tip: With “Supersampling” you will get exceptional details and saturated colours!

➤ **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

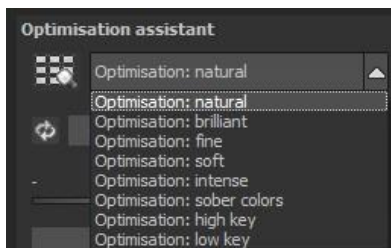


The optimisation assistant is a very efficient tool for fast, fascinating results. When the preset is activated, **denoising**, **tonal value**, **clarity**, **dynamic** and **sharpness** settings can all be adjusted by sliding the control to the left or right. The result can be seen live. The optimisation 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.

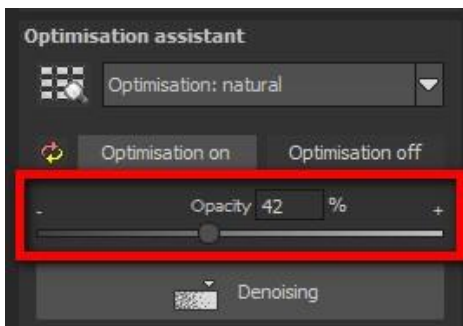


If you would like to edit without the assistant, you can simply turn it off. If you would like to turn off the values that have been “learned” so far, click on the 

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.



➤ **The opacity regulator of the optimisation assistant**



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

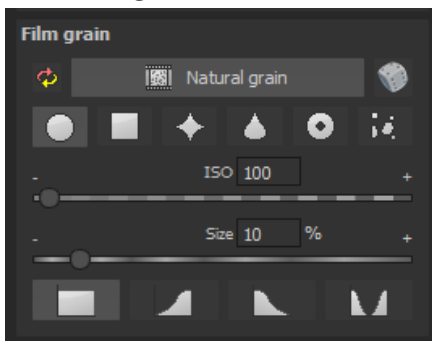
Tip: Put the optimisation presetting in “High-Key” and chose an opacity regulator between 40-60%.

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, unsaturated and high and low key looks lightning fast.

➤ **Granulation module - Natural grain**

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

These following parameters are therefore at your disposal:



➤ **Form**

Choose here from six different variants.



➤ **ISO-number**

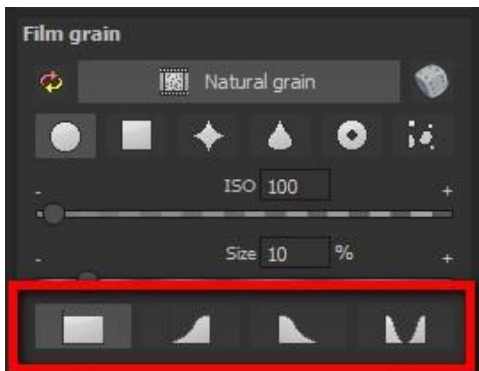
The preset value conforms to the average “restless value” on a naturally grey surface.

➤ **Size**

The maximum size of a simulated grain.

➤ **Masking**

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

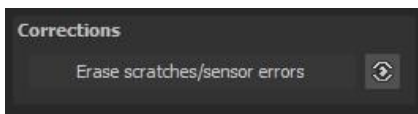


Here the Masking has only been set for the lights. This way they receive a natural granulation, while at the same time the sky is spared.

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



➤ Removal of 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 5**, 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.



The sensor spots are circled in red

Here's how to go about correcting:

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

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

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

(2) allows you to expose or hide the fixed areas. 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 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 postprocessing, 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 (13)**

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 5 offers 11 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 Brilliance (new):

Brilliance Tone Mapping creates a soft luminosity in the shot and is suitable for broad palettes in motifs.

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 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.

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.

➤ **Post-Processing Effects (79)**

The list includes 79 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

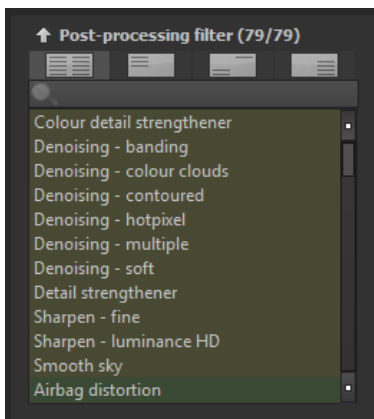
Green: geometric effects

Turquoise: exposure effects

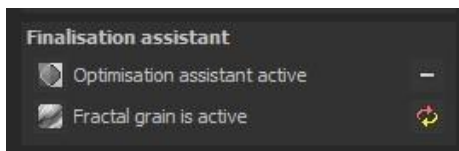
Blue: colour effects

Purple: diffusing effects

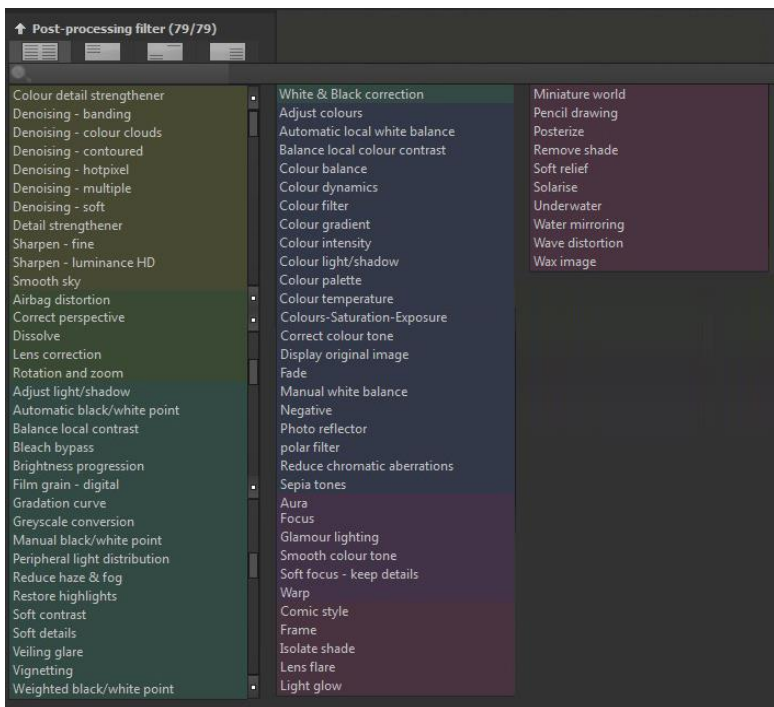
Pink: artistic effects



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 the tone mapping).



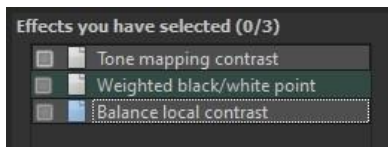
Overview of Post-Processing effects in HDR projects 5

10 new Post-Processing effects

Dissolving	Restoring highlights
Mist & Fog reduction	Correcting the shade of colour
Water reflection	Warp
Colour dynamic	Flare
Film grain - analogue	Lens reflection

➤ **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**

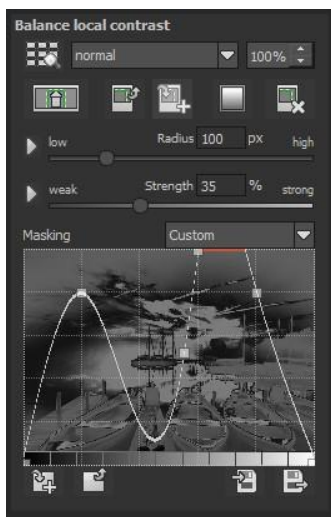
This curve regulates the intensity of the effect for particular bright areas of the image.

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

Here as well you will find on the top right hand side a choice box with presettings. For example the setting “bright lights” has been chosen.

For the gradation curve in this example, it means that the lights in the picture will be brightened, and the dark roots will exempted 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).



➤ **Selective Editing**



For every single one of the 81 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.

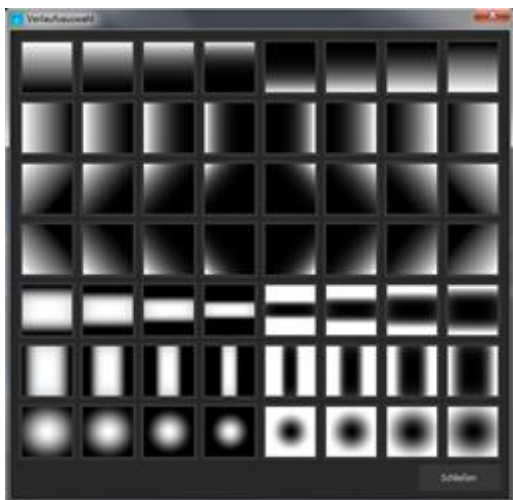
The roundness of the rectangle as well as the sharpness and severity of the selected area can be adjusted with the three controls at the top of the window.

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

➤ **Selective editing – gradient module**

You can choose from every post-processing effect in the area of selective editing a course (gradient) of 56 premade models with a single click.

To activate the desired post-processing effect from your chosen effects, click in the underlying parameter area on the gradient-slider.



A window will open with different types of gradients. From there choose with a left click your desired type of gradient.

Tip: When you choose a gradient model the selected areas (that are possibly already part of the current chosen effect present) will be copied into the clipboard. The selected areas can be brought back via the insertion of the slider.

➤ **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 of the active filter, of course with a confirmation prompt first.

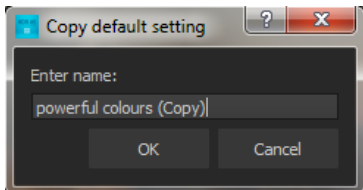


➤ **Custom Presets**

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!

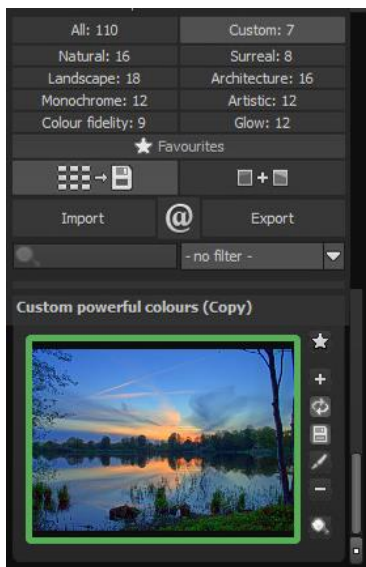
+ Have you changed this preset and don’t want to lose this new look? Then create a new one!

↻ 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 “swampy lake”, 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 “swampy lake”, and you can simply select it from the entered search filters.

10.HDR Generation and Bracketing Editing

What happens in actual HDR image generation in **HDR projects 5**, 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 5 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.

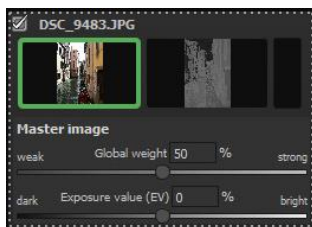
➤ **HDR-Weighting**




From post-processing in **HDR projects 5**, 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.

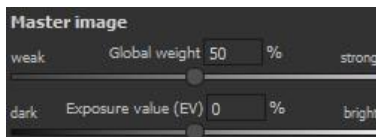
a. The checkbox at the top left allows you to exclude or activate an image from the series for the HDR processing. If you remove a bright picture from the series, the HDR image will be darker in the midtones in certain areas and vice versa.


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. 

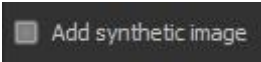
➤ **Synthetic Bracketing**

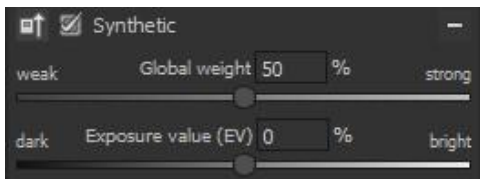
With help from this exceptional technique, gaps in bracketing series can be filled.

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.

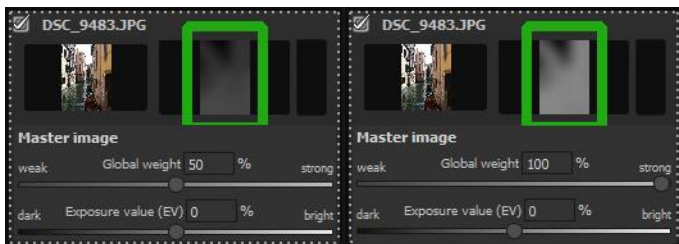
Click on  and add another synthetic image to the series. The original image will always be used as the master image. New images will be labelled as "Synthetic".



➤ **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.

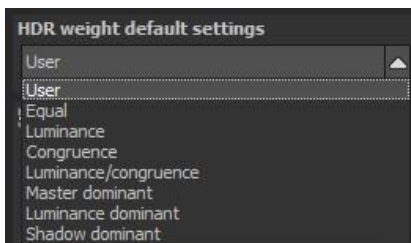
The picture will become brighter once you adjust the exposure control underneath towards “Bright”. This adjustment can be applied to each image in the bracketing series and therefore have a substantial impact on the HDR fusion.

Simply try it out! If need be you can set the controls any time back to its original setting.

➤ **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 seven 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

Master dominant: generates an HDR fusion where greater significance is attributed to the master image

Luminance dominant: all brighter images from the bracketing series are more significant in the HDR fusion

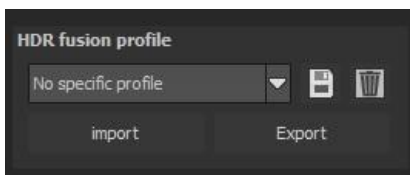
Shadow dominant: all darker images are weighted more than brighter ones

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

➤ **Right side „editing bracketing series“**

a. HDR-fusion profile

HDR fusion profile is the ideal opportunity to save the settings of HDR-fusion on a bracketing series for later use.



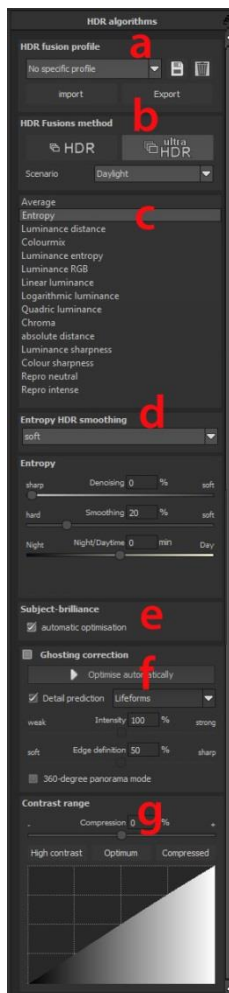
Following functions of the HDR fusion profile are at your disposal:

- ✓ Choice of a profile from the list by clicking on it
- ✓ Saving the current settings as profile
- ✓ Deleting the current profile
- ✓ Import/Export of profiles

Which settings are saved in a HDR fusion profile?

Generally in a profile all the data of HDR fusion setting are saved:

- ✓ The settings of all the HDR-algorithms
- ✓ The automatic motif brilliance
- ✓ The ghosting correction setting
- ✓ The contrast edge definition optimisation



Tip: As soon as you have saved at least 1 HDR fusion profile, you will find the choice of profiles automatically in the post-processing module as well. With this you will be able to take different profiles with ease and compare them with the finished image.

b. 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 9 “Post-processing: Finalisation” for examples. These settings can be accessed in post-processing at any time.

Scenario



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.

c. 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

Overview of HDR Algorithms

HDR projects 5 offers 11 different HDR algorithms to choose from. Click on the algorithm browser for a quick overview. Here you can choose your preferred settings.

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 5**.

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.

Quadratic Luminance: This algorithm works with the fourth power of brightness and is thus well suited to editing bright bracketing series.

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.

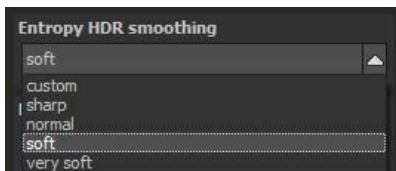
New algorithms:

Repro neutral: This HDR-process is specially optimised for bracketing series of scanned photo data with a normal light situations.

Repro intensive: The Repro intensive HDR-process is built for scanned images with low quality. For example images from old Diascans. The fusion of images is here clearly carried out even more intensive.

Which algorithm should I choose? If you are not sure which algorithm would be best suited to your subject, use the “Absolute Distance”. This one is always a good choice. Otherwise, you can always access and adjust the HDR algorithms and post-processing/tone mapping at any time.

d. 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.



Further parameters for the adjustments of HDR algorithms:

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.

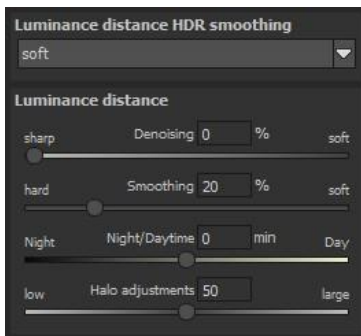
HDR Smoothing: HDR smoothing directly influences the weighting matrixes that were created by the HDR algorithms. The smoothing intensity is displayed as a percentage, indicating how dependent the result is on the image resolution.

A value of 50% means that weighting matrixes will be smoothed by 50% of the image resolution. The smoothing works with the Gauß'schen scrim diffuser.

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".

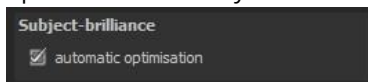
Halo Adjustment: The halo adjustment deals with a typical HDR generation problem: the formation of halo effect (HDR shadows). The image on the left has a minor defect, there are halos where the roof meets the sky. In the right-hand image, the halos were reduced by 85%, so that the halo effect around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





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

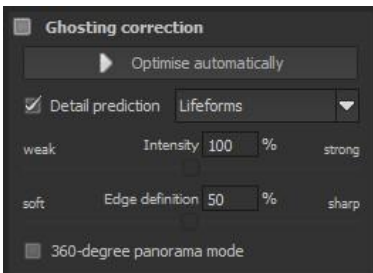
e. Subject-brilliance: Activate the automatic intelligent optimisation by clicking on the box.



f. Ghosting correction
(Interactive, automatic optimisation of ghosting correction)

In the area of ghosting correction the automatic optimisation will start through clicking on the “automatic optimisation” button.

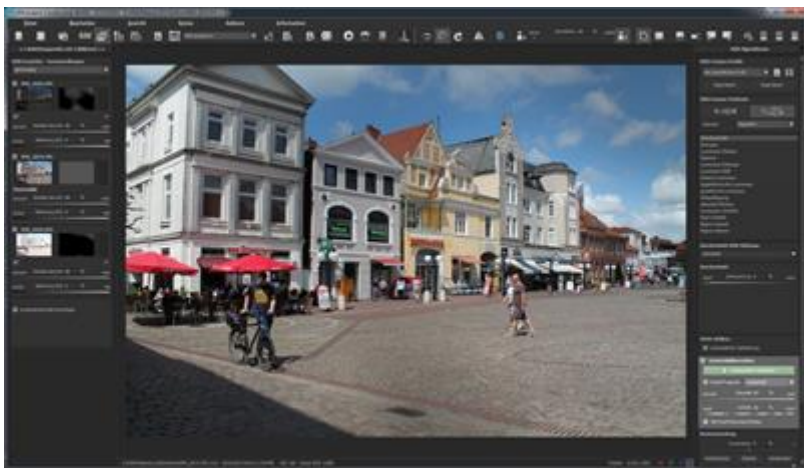
Directly on screen you will be to see the optimisation process.



Here different parameters for the detail prognosis as well as for the intensity are tested by the program until the best combination is found. This combination will then be inserted into the program for you.

This calculation can take several seconds, depending on the size of your bracketing series.

In the result you will get a HDR-image without ghosting and which through automatic optimisation now includes the maximum possible amount of details.



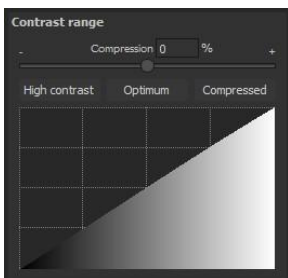
Tip:

When you adjust the focus of the ghosting correction, you will be able to start the automatic optimisation anew and to receive a new result that is optimal for the new focus.

g. Contrast range

(HDR-contrast range and automatic optimisation)

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



A calculation example:

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

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

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

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

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

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

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

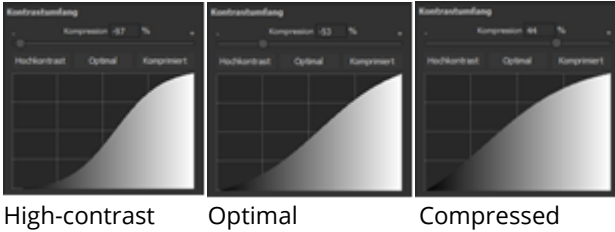
As soon as you confirm the automatic modus you will be able to follow live, how the best values for your current HDR image is searched for.

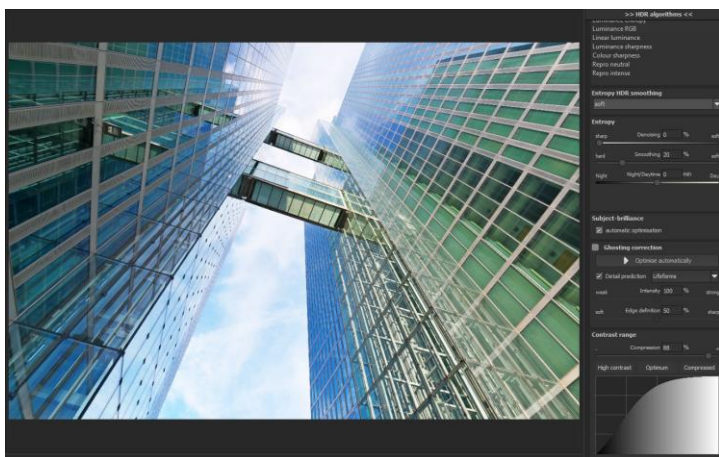
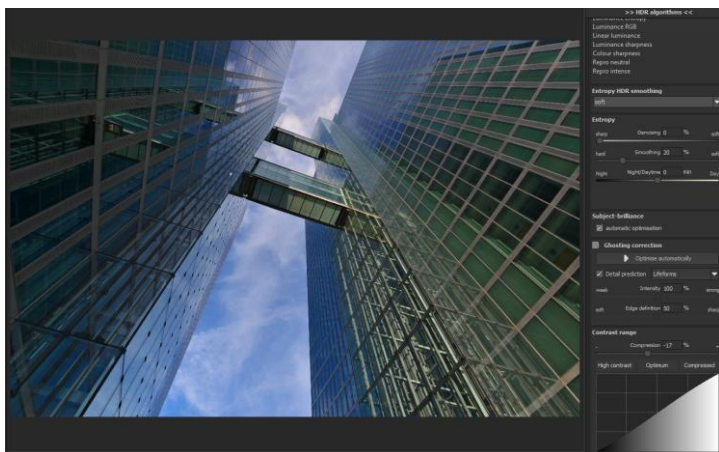
Tip:

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

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

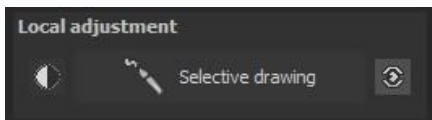
Curve display of the distribution of the brightness value:



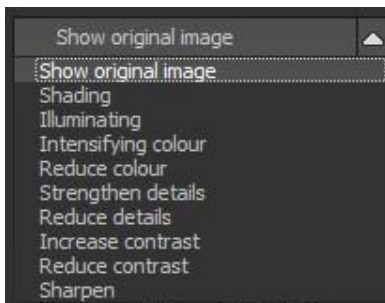


In the above example we see how the same HDR image with the optimisation “high-contrast”(above image) and the other with the optimisation “compressed” (bottom image) are handled.

11. Local Adjustments and Selective Drawing



The selective highlight tool from **HDR projects 5** deserves very special attention. Firstly, this tool selectively edits chosen areas without complicated masks done by hand, like other photo editing programs. **HDR projects 5** 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.



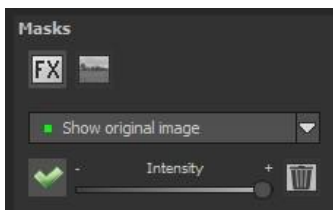
How it all works is probably easiest to explain with an example. Open the selective drawing window (post-processing, finalise - bottom right). Our example is a single image file of a typical twilight on the beach. The picture’s colour details are already well edited.


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

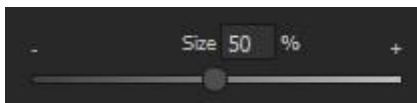
For this case, select “Illuminating”. Make sure that the selected mask function is activated and the green checkmark is showing.



2. Activate drawing mode 

3. Activate filling mode 

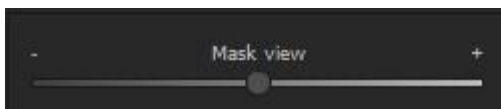
4. Run the mouse over the contours without clicking. You can decide and correct the brush size afterwards.



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 -, according 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. 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.

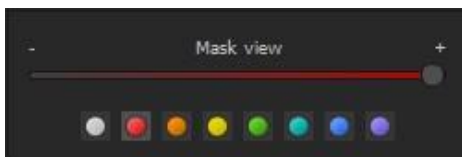


With ray filling mode you can mask just the walls of the skyscraper while the window surfaces are not selected.

New in HDR projects 5:

➤ **Optional mask colours**

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



The display will be immediately adjusted to your desired colour.

➤ **Selektives Zeichnen - Maske erzeugen**

Masken können wahlweise auch aus einem Farbton oder einer Helligkeit erzeugt werden.

Selective Drawing – Creating Masks

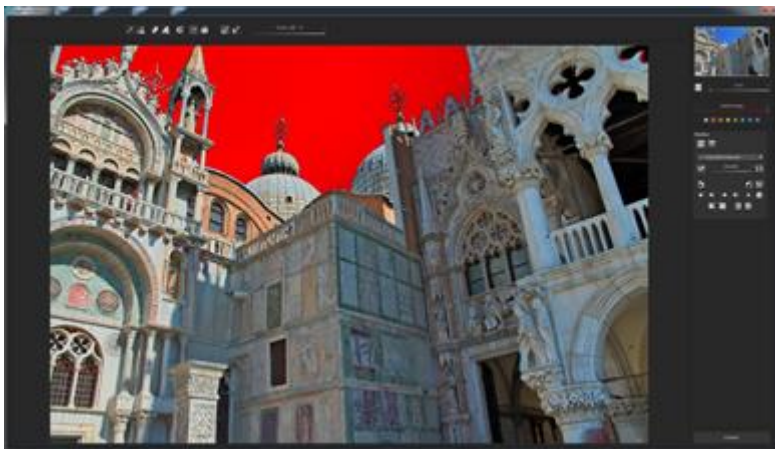
Masks can also be created from a colour or brightness.



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

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

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



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

Tip:

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

➤ **Selective Drawing – Smoothing Brush**

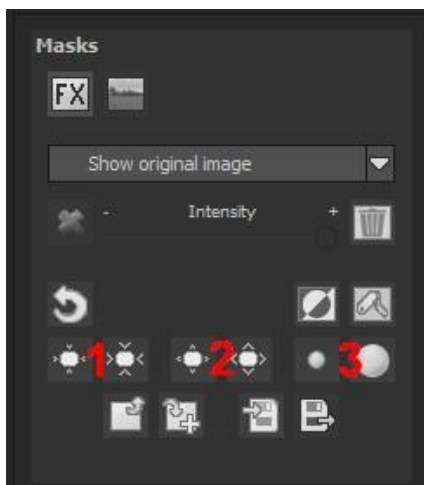
The smoothing brush (1) gives you the opportunity to draw selective areas of the mask softly.



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

➤ **Global Mask Functions**

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



1. Reducing the entire mask outline



becomes



2. Increasing the entire mask outline



becomes



3. Soft-focus effect on the entire mask



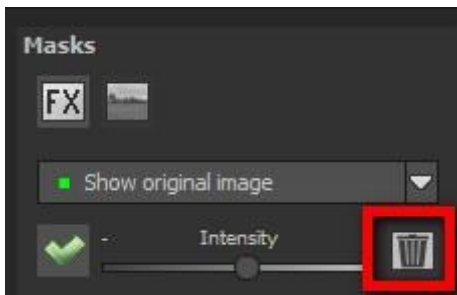
becomes



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

➤ **To reset the function of a mask**

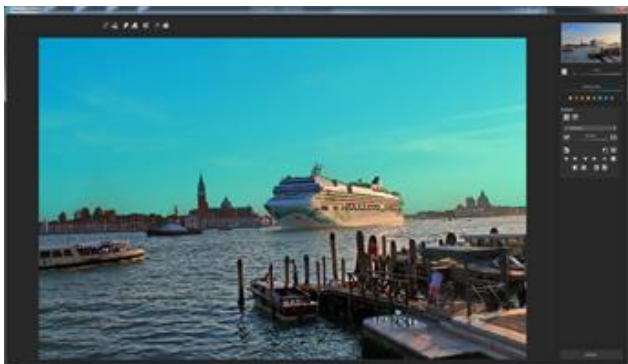
Every mask can without any influence on the other masks be reset to its original state. You simply click on the waste paper button.



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

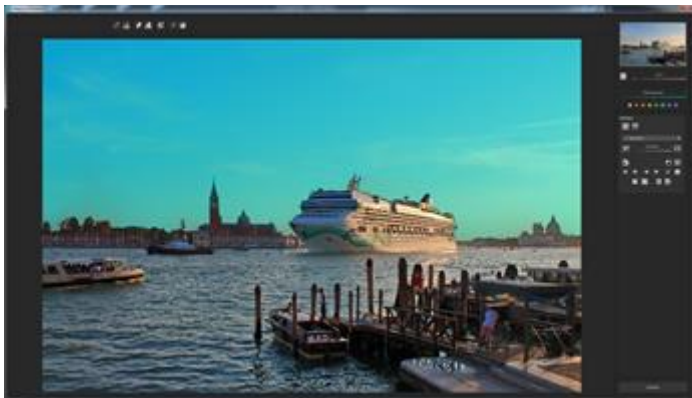
➤ **Adaptation of automatic masks onto the "Distortioncorrection" of the RAW module**

Selective drawing works directly with the RAW module. This includes the "Distortioncorrection" that is part of the RAW module and that is applied completely automatically on several drawn masks.



In the example we have an image, where the sky has already been masked.

When we now subsequently correct in the RAW module the horizon within the image, then the drawn mask will automatically adjust itself to the "Distortioncorrection".



12. Composing-Modus



In the Composing modus of selective drawing you have the opportunity to build up to **4 levels** of images into your current motif.

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

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

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

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

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

(5) Multiple application

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

(6) Determine the width-to-height ratio

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

(7) The Control-parameter

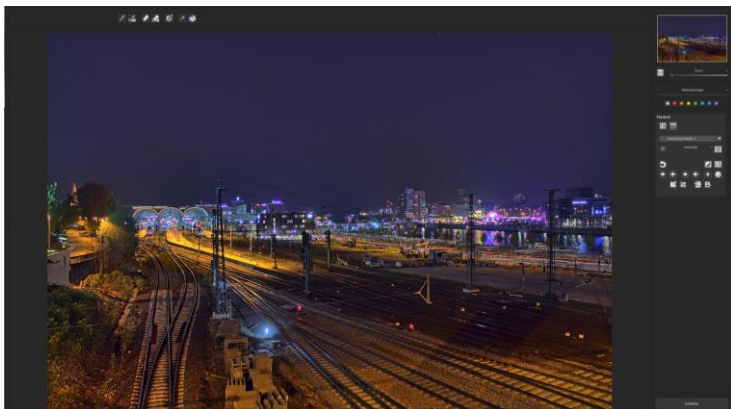
Width-to-height ratio: If the width-to-height ratio isn´t fixed with the button (6), you will be able to change the width-to-height ratio however you desire.

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

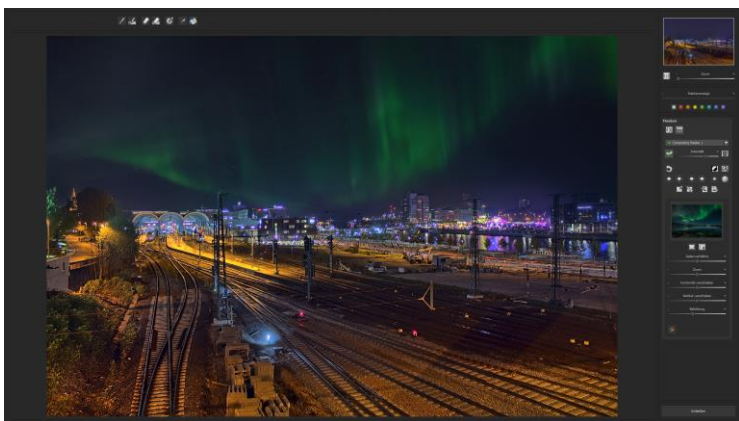
Shifting horizontally: Move the image level to the left or right

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

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



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



***....you can change within a minute with the help of composing
into an eyecatcher.***Q:_Buchverlag_Shop_neu\Produkte nach ISBN
5er Nummern\#ISBN_70000_79999\#ISBN_70000_70999\70571-
4\5_Booklet_Handbuch\images

13. Edit Weighting with HDR Painter



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

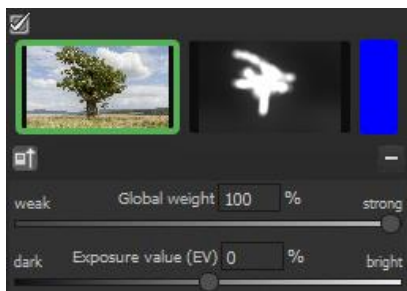


Exposure Bracketing View (left): The individual images of a series are sorted into red, green and blue. When the bracketing has more than 3 exposures, the master image will be set as green and the next active neighbouring images as red and blue. If you would now like to make changes to the weighting 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 tools of the HDR-Painter:**



Increase weighting

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



Reduce weighting

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

Brush size



Adjust the size of the brush.

Brush form

With numerous new brushes, you will find the right 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.

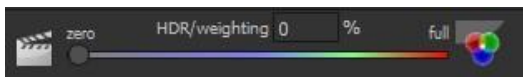


Blurring

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.

14. 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 5**, 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:

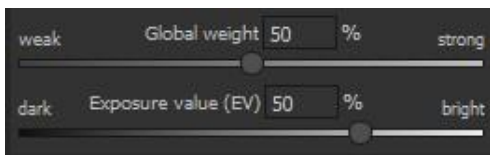


Looking at the image, the people on the left and right are immediately recognisable as ghost images.

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 5** 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



Warning! A new evaluation eliminates all manually removed ghosting!

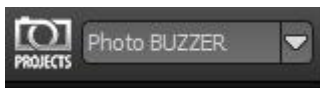
15. Workflow

➤ Edit final image further in an external program

HDR projects 5 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

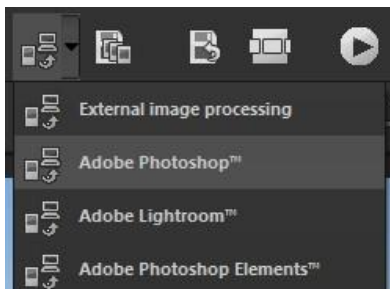
Click on the “Projects” symbol in the toolbar to open the image in a different program from the projects series. Use the drop-down menu beside the symbol to choose one of the programs that you already have installed on your computer.

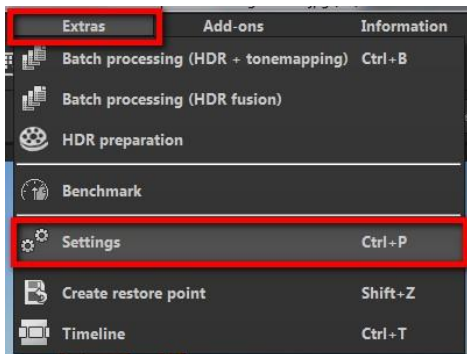


➤ Open in other photo-editing programs

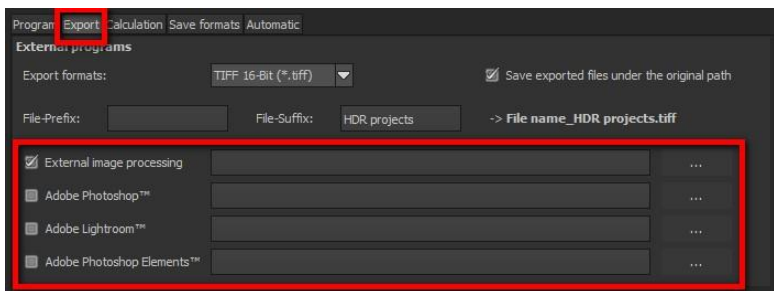
To directly open the image in another photo editing program, such as Adobe Photoshop, click on the corresponding button in the symbol bar.

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.

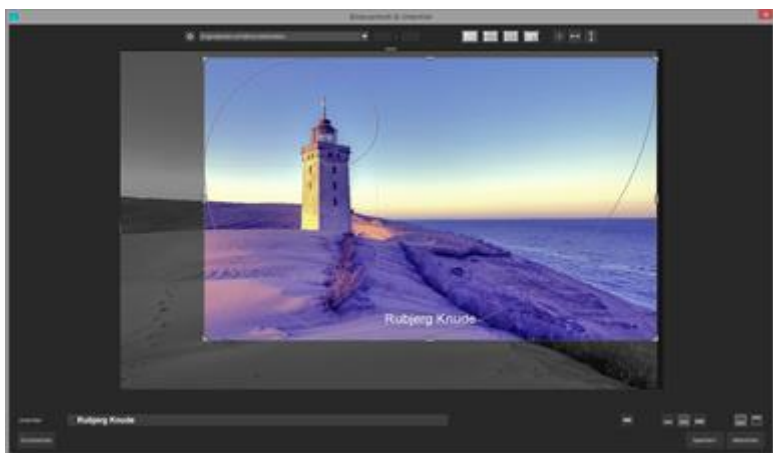
16. Selecting and Saving Sections of Images



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. Practical is also the new photo centre display that you can obtain by simply clicking on this button.

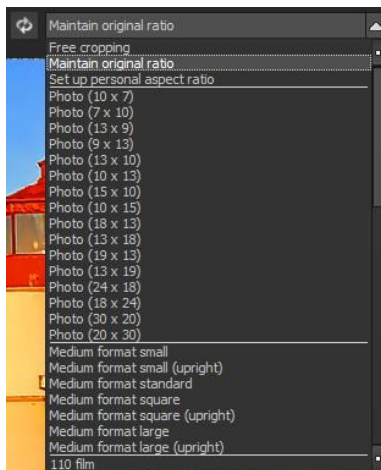


The centre of the window shows your final image. Fix the area to be saved by adjusting the corners and borders of the photo.

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

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

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



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.

17. RAW-Processing

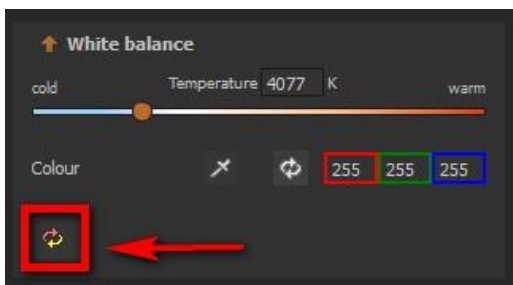


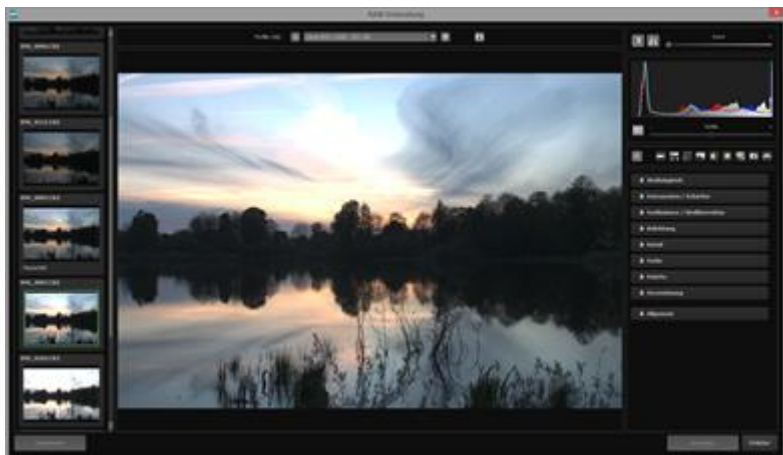
You can upload and edit RAW image data with the integrated RAW mode. Numerous tools are available to you here, such as denoising/sharpen, exposure, colour and detail as well as powerful distortion capabilities.

In this RAW mode changes that are made will be transferred onto the entire bracketing series, so that you only have to put in the settings once.

Resetting the category:

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





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. With the new dynamic brightness you can adapt the light to the contents of each image individually.

Detail:

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

Colour:

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

New is differentiating chromatic aberrations by colours:

Green light diffraction

Blue light diffraction

Red light diffraction

These light diffraction corrections allows you to purposefully remove the chromatic aberrations of a certain colour.

Thereby a lens curve will be calculated backwards on top of the colour channel.

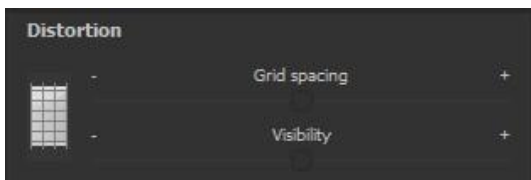
Palate:

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.

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



New: Category FX



This category includes a several new special effects like a mist & fog correction, save highlights, sepia and film grains as well as different **gradients**.

Pro Tip.

When you take a landscape shot, shift the controller to “Gradient top” to a dark tone and create in that way a neutral thick (ND) – process filter.

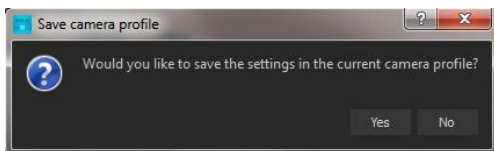
General:

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.

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

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



18. Batch processing

HDR projects 5's 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. Here you will find two types of batch processing:

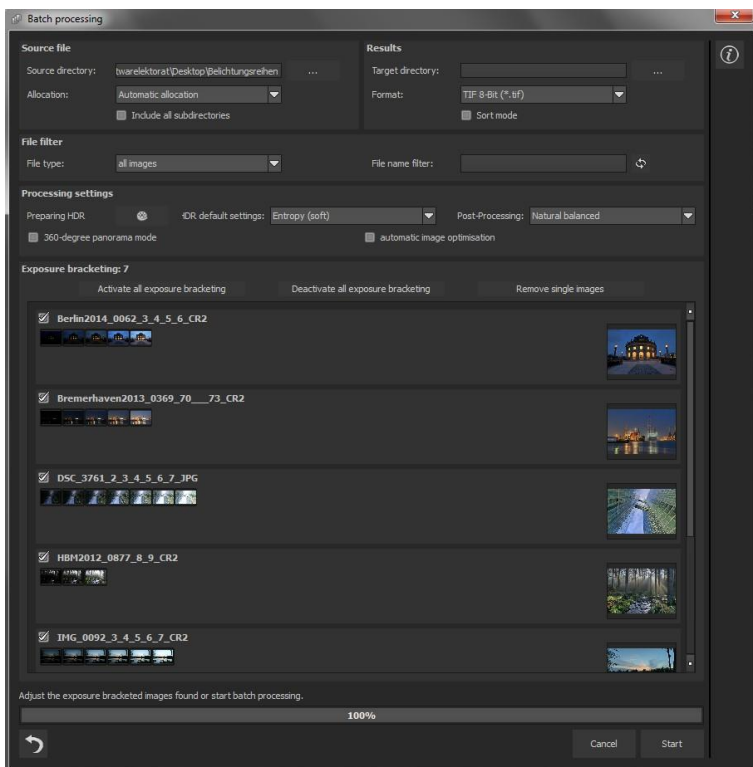
- a.) Batch processing HDR + tone mapping
- b.) Batch processing HDR fusion

➤ **a. 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.

Install a subdirectory per sequence:



When this function is active, every bracketing series gets its own subdirectory.

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

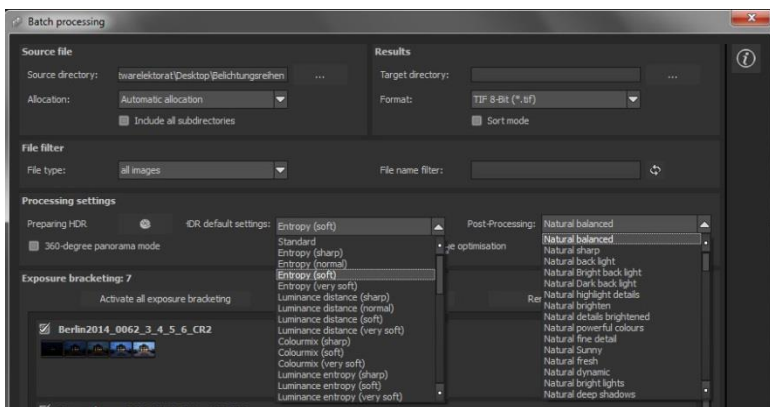
➤ Allocation and automatic bracketing recognition

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.



➤ **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.

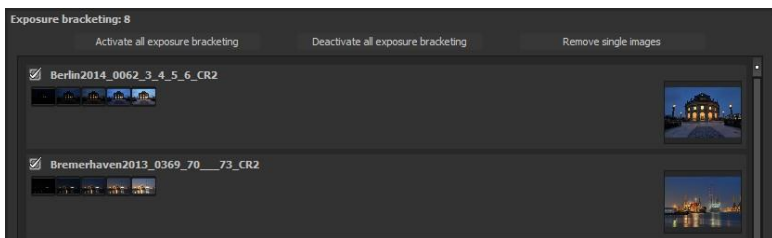
HDR default settings: The HDR default settings offer three to four presets for every HDR algorithm. Simply select your preferred preset from the list.

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.

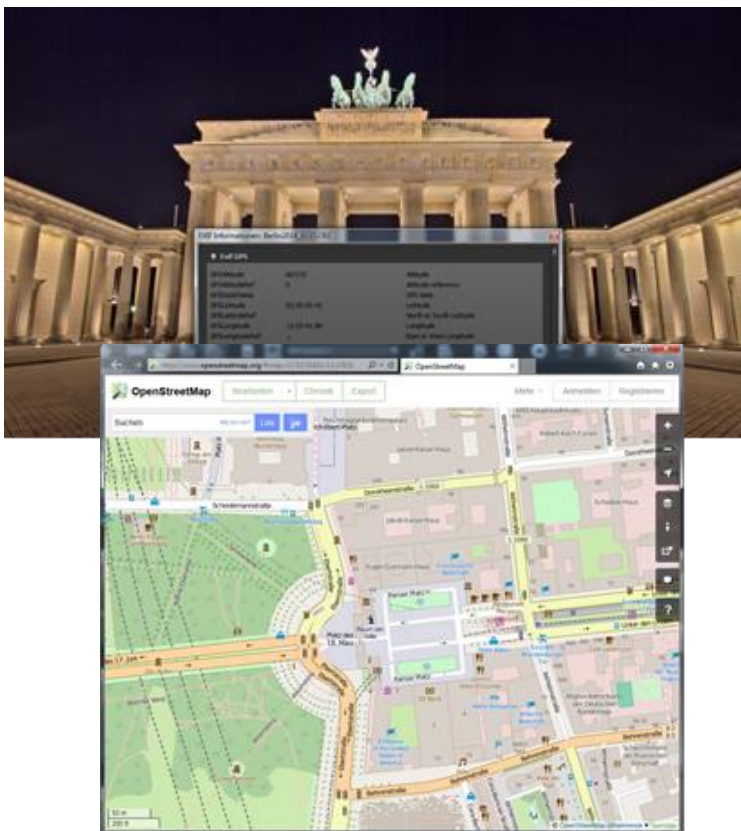
Activate all exposure bracketing: Activate all corresponding bracketing series for the calculation. (Standard setting)

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.

19. Via GPS coordinates directly to OpenStreetMaps

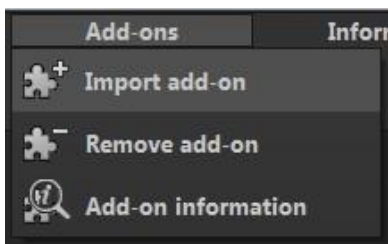
New: If the GPS coordinates are in your Exif-files (Menu -> Exif information), then you will be able to locate the place where the photo was shot when you click on the button "Open GPS coordinates via Browser". You will see the place the photo was shot in www.OpenStreetMaps.org.



20. Add-ons

With help from add-ons, you can not only import presets from HDR projects 5, but also entire post-processing modules can be integrated, which can be necessary to create new preset looks. If you have bought one or several add-on-packets in our shop, install the add-ons like this:

1. Extract the files from the downloaded zip folder:
PresetCollection-HDR-projects-LostPlaces.zip
2. Open your HDR projects 5 version
3. Click on Menu -> Add-ons -> Import Add-ons

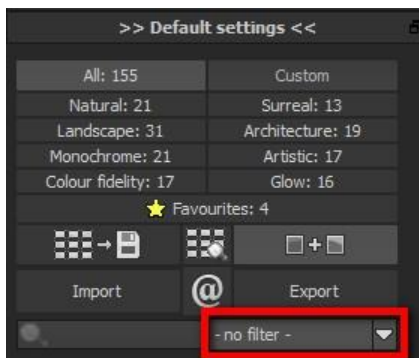


4. Select **HDR projects LostPlaces (18)** in the following dialog window, open it with a double-click and select the **HDR_lostplaces.praddon**. Then click "Open".
5. The add-on will now be imported. A confirmation message will appear:
6. Please close and restart the program to be able to use the add-on with all of the other presets.
7. Open **HDR projects 5** and load an image or a bracketing series. Switch to post-processing mode (palate symbol). If you are the owner of **HDR projects 5**,

you will automatically be sent to post-processing mode. Select Menu -> Add-ons -> Addons Information, and confirm that your filter package was successfully activated.

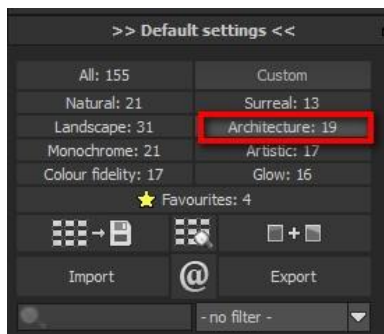
8. Filter selection can be found on the left-hand side, directly under the import/export buttons.

Here only the new, recently imported presets are displayed.



9. Click the arrow to open the dropdown 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.



21. Plug-In Installation

HDR projects 5 can also be used as a plug-in for Adobe® Photoshop. Newer versions of Photoshop are automatically detected by **HDR projects 5** during installation and the plug-ins are installed in the respective plug-in folder. Older versions of Photoshop might require manual installation.

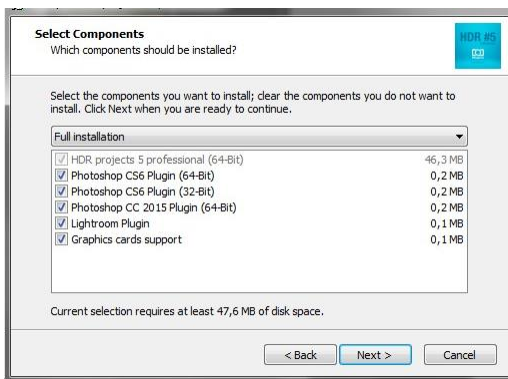
If you purchased your software as a download or if you have lost your CD, the plug-ins are also available for download at:

www.projects-software.com/plugins

➤ Adobe Photoshop & Adobe Photoshop Elements

The following window will appear when installing **HDR projects 5**:

Select the version of Photoshop where you would like to install the **HDR projects 5** plug-in. Click on “next” and follow the instructions from the installation assistant. The plug-ins will then be automatically installed.



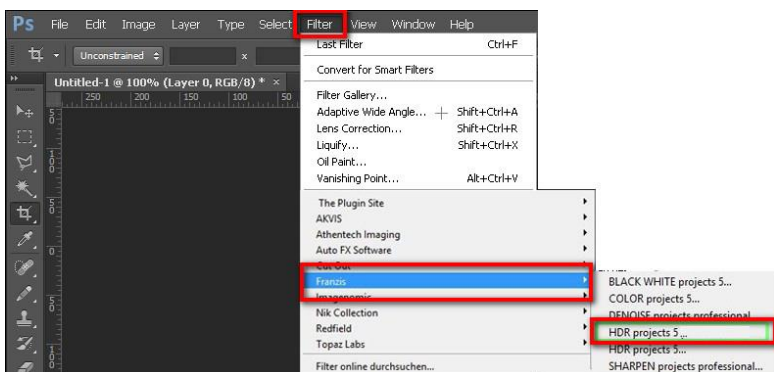
You can conduct the installation of the Plug-In at a later point as well. **Please install Photoshop before the project Plug-ins!**

After the installation of the Plug-Ins, you can open Photoshop again.

In Photoshop you will find under menu item **"Filter"** the entry **Franzis**. Here you will find all of the Plug-Ins listed.

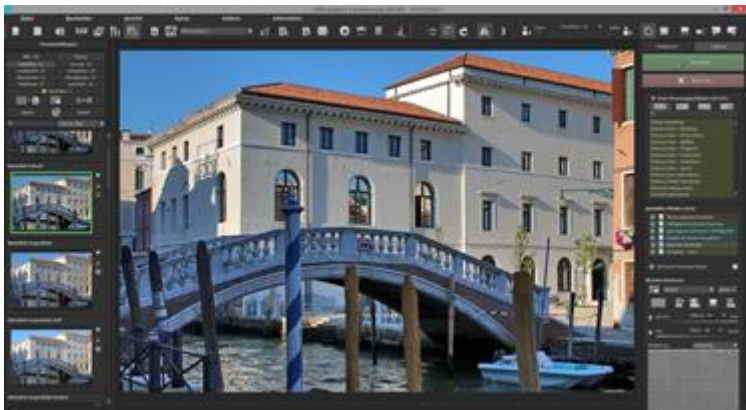
Click on **HDR projects 5**. The image that you have opened and edited in Photoshop will now be opened in **HDR 5 professional**.

Now you will find the program in Photoshop Filter-Plugin mode. You will be able to edit the image as you´re used to in **HDR projects 5**.



When you´re finished editing the image you can send the image directly back to Photoshop by clicking on the button "apply".

With the button “discard” you finish the filter Plug-in, without sending the changes that you have done to the image back to the Photoshop level. The editing that you have done in **HDR projects 5** will be discarded.



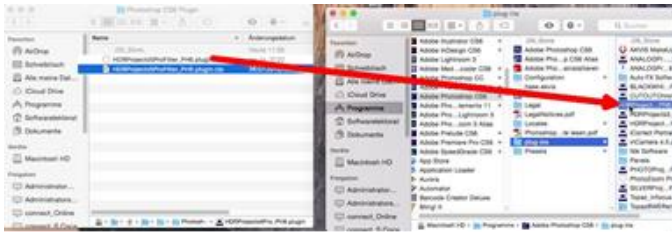
The project program will then automatically close itself. This mechanism is conducted by Adobe Photoshop and cannot be stopped.

➤ **Using photoshop plug-ins with Mac OS X**

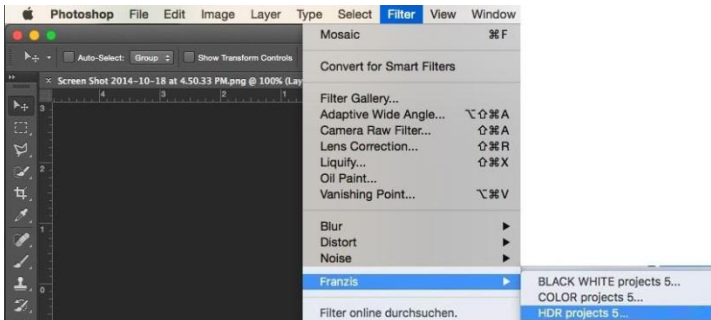
Adobe Photoshop & Adobe Photoshop Elements

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 **HDRProjectsFilter_PH6.plugin** (PH7 with other Photoshop versions) to the plug-in folder for your version of Photoshop, which is normally labelled as “plug-ins”.



Start up your version of Photoshop, load an image and navigate to **“Menu -> File -> Export-> HDR projects 5”**.



One click will start the plug-in. With a click you start the Plug-In. The image will now be opened in **HDR projects 5**.

Now you will find the program in Photoshop Filter-Plugin mode. You will be able to edit the image as you´re used to in **HDR projects 5**.

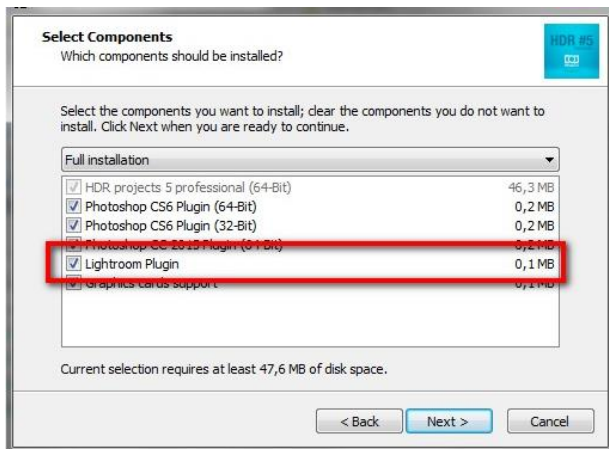
When you´re finished editing the image you can send the image directly back to Photoshop by clicking on the button “apply”.



With the button “discard” you finish the filter Plug-in, without sending the changes that you have done to the image back to the Photoshop level. The editing that you have done in **HDR projects 5** will be discarded.

The project program will then automatically close itself. This mechanism is conducted by Adobe Photoshop and cannot be stopped.

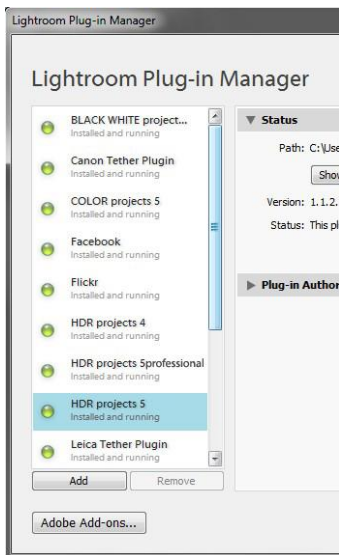
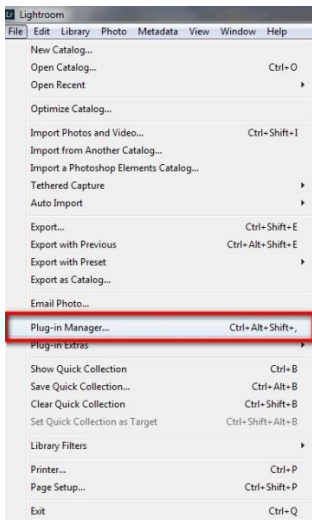
➤ Adobe Lightroom plug-ins with Windows



Start the installation program and check in the component selection if “Lightroom Plugin” has been chosen. Copy the plug-in folder “Lightroom Plug-in” from your CD-ROM.

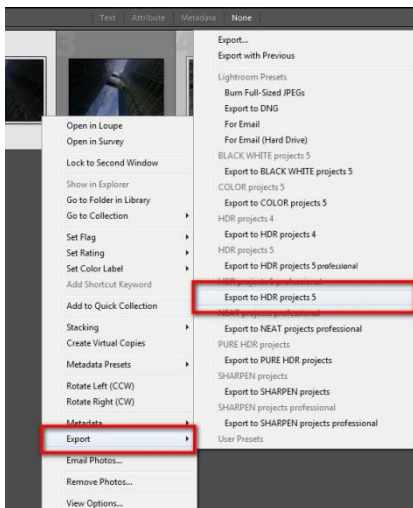
If you have no CD, the plug-in is also available for download at: www.projects-software.com/plugins

Subsequently open your Lightroom version. Start Lightroom and navigate to “File->Plug-In (zusatzmodul) manager” to check if the plug-in has been activated.

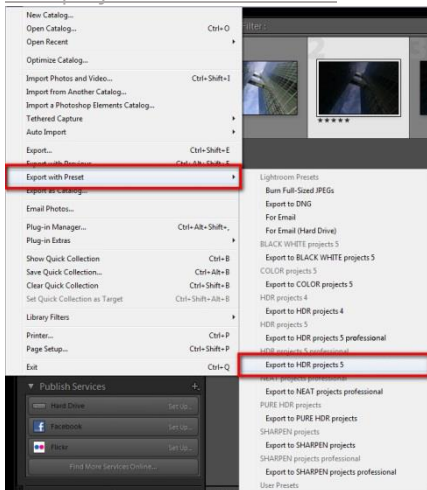


LR: **HDR projects 5**: Installed and executed

Mark a bracketing series in your lightroom library. Right-click on the image directly in Lightroom and select „Export -> Export to **HDR projects 5**“.



Or: Choose "File -> **Export with Preset -> Export to HDR projects 5**".



➤ Adobe Lightroom Plug-Ins with Mac OS X

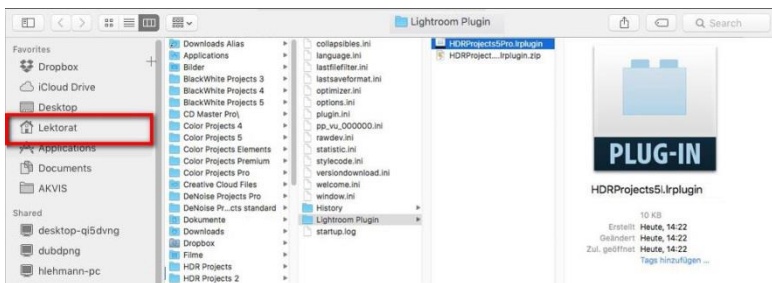
The Plug-In for Adobe Lightroom will not be automatically installed with MAC OS X. To integrate it into Lightroom, continue as follows:

Install **HDR projects 5** 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.

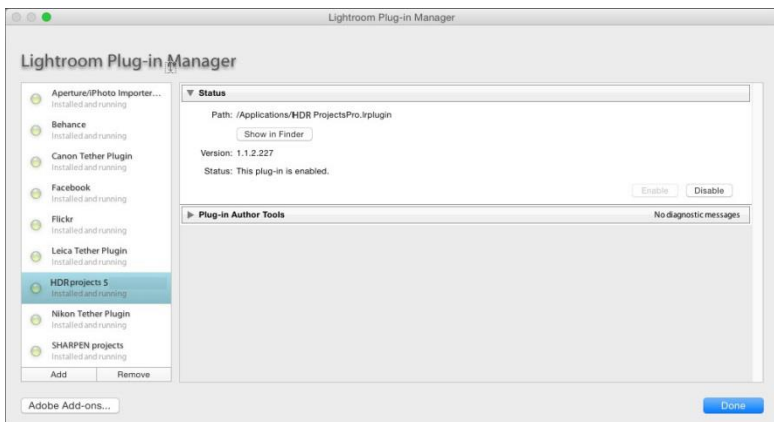
We recommend the folder where also your presets are stored:

“Benutzer(Users)/username/HDR Projects 5”.



Start Lightroom und navigiere zu "File ->Plug-In Manager".

Klicke den "Add" button in the Lightroom Plug-In Manager.



Choose the relevant Lightroom-Plug-In of **HDR projects 5** that you have just copied to your computer, by navigating towards it.

If the Plug-in is not instantly marked with a green active dot, close Lightroom and start it again.

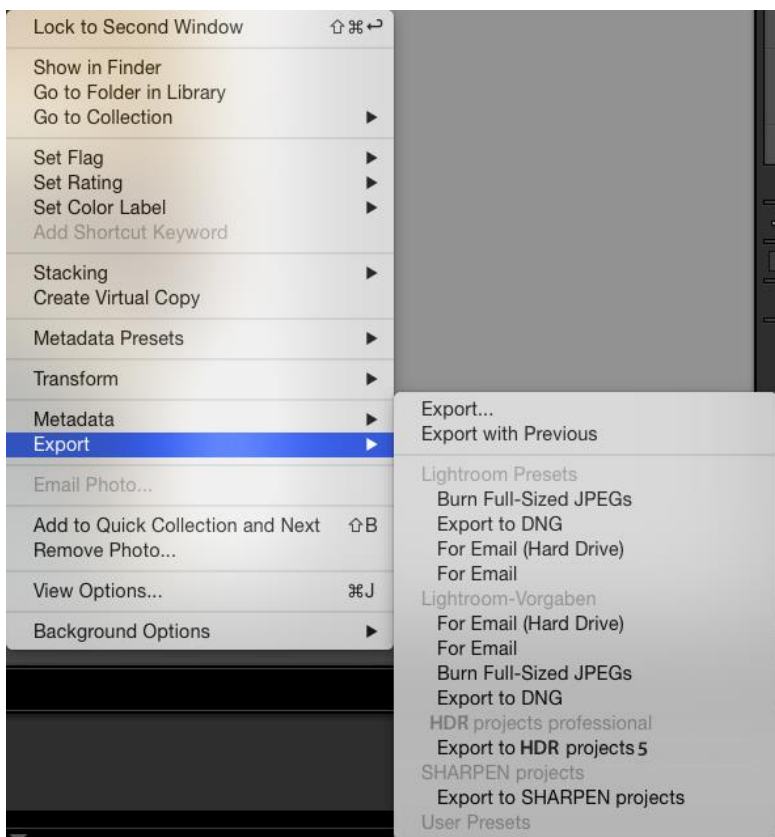
Now the Plug-In should be installed and be up and running.

You have now several options to get your image from Lightroom to **HDR projects 5**.

“File-> export with file-> export to HDR projects 5”.

OR:

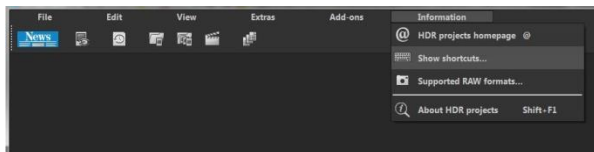
Right-click on the image directly in Lightroom and select „Export -> Export to **HDR projects 5**“.



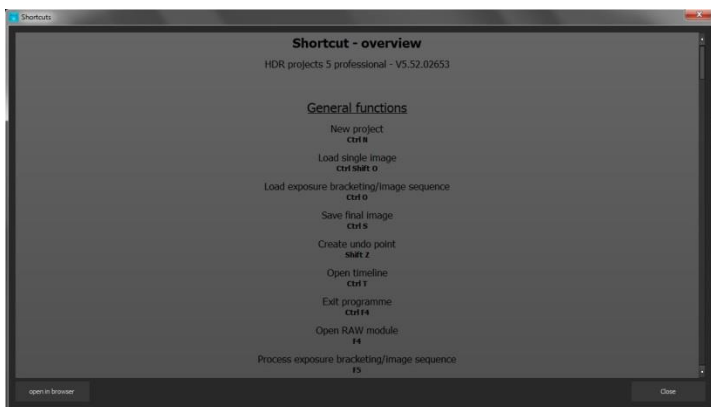
22. Keyboard Shortcuts

Overview of the integrated Keyboard shortcuts

In the main menu in the area of *information* you will find an overview of all available keyboard shortcuts. Click on this item to open the overview.



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

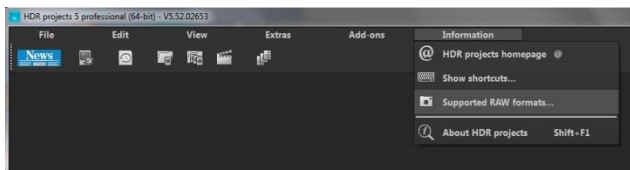


To have constant access to the overview via a separate window, you can use the function „open in browser“(window bottom left), which will show the list in a standard browser.

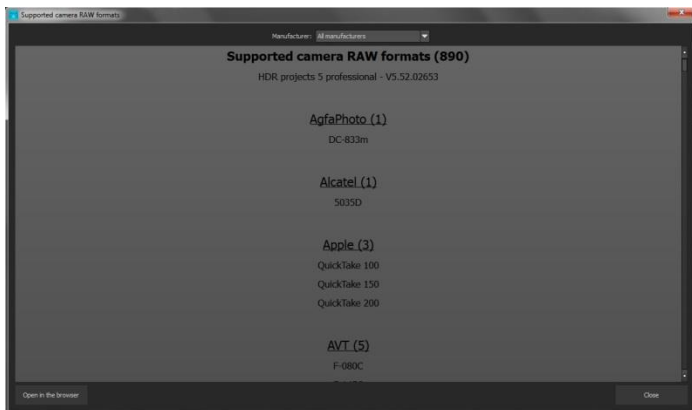
You will also be able to print the keyboard shortcuts from there.

23. Supported RAW formats

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



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



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

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

You will also be able to print the supporting RAW-formats from there.

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.

Support

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

Contact form: <https://www.projects-software.com/>

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 barcode).
- Operating system of your computer
- Technical details of your PC including all your peripheral devices

Copyright

Franzis Verlag GmbH has prepared this product with the greatest possible care. Please read the following conditions:

All the programs, routines, controls, etc., contained in this data media or within this download are protected by their respective authors or distributors as mentioned in the respective programs. The purchaser of this data media or of this download is authorised to use those programs, data or data groups that are not marked as shareware or public domain for his/her own purposes within the provisions of their designated use. He/she is authorised to use programs or parts of programs that are marked as shareware, freeware or public domain within the restrictions given by the respective programs or parts of programs. A reproduction of programs with the intent of distributing data media containing programs is forbidden. Franzis Verlag GmbH holds the copyright for the selection, arrangement and disposition of the programs and data on these data media or these downloads.

The data and the programs in this data media or within this download have been checked with the greatest possible care. Considering the large quantity of data and programs, Franzis assumes no warranty for the correctness of the data and a flawless functioning of the programs. Franzis Verlag GmbH and the respective distributors do not undertake neither warranty nor legal responsibility for the use of individual files and information with respect to their economic viability or their fault-free operation for a particular purpose.

Additionally, there is no guarantee that all the included data, programs, icons, sounds and other files are free to use. Therefore the publisher cannot be held liable for a possible breach of third party copyrights or other rights.

Most product designations of hard- and software and company names and labels mentioned in this product are registered trademarks and should be treated as such. The product designations used by the publisher are basically as the manufacturer describes them.

© 2016 Franzis Verlag GmbH, Richard-Reitzner-Allee 2, 85540 Haar, München