HDR projects 4 professional

User Manual

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1. Activation

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

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

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

HDR projects 4 professional	?	\times				
30 days remaining.						
Serial Number:						
Please enter your serial number and click "Activate".						
Activate now	Later	r				

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

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

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

2. Fascinating High Dynamic Range Photography

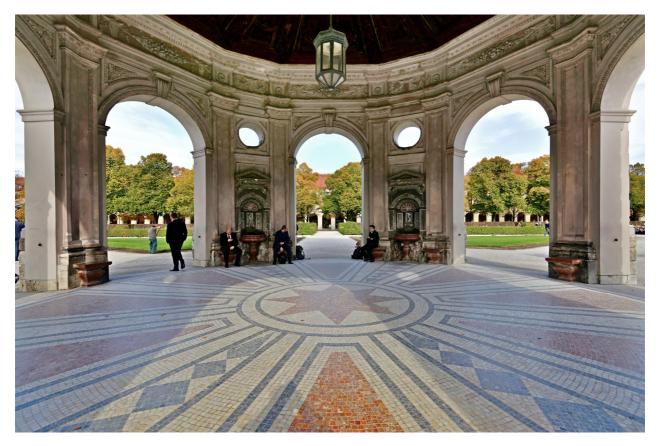
Even the most modern digital cameras have a limited dynamic range. Drastic lighting contrasts exhibit this restriction easily, such as with a photo taken indoors looking outside, like in the first example shot. You either have a properly lit interior, where the surrounding park behind the arches are 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, unmatchable 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 4 professional* does the work for you. The capable program merges the bracketing exposure images and uses tone mapping to establish a photo fit for printing and screen displays.



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

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

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





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

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

3. What's New?

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

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



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

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

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

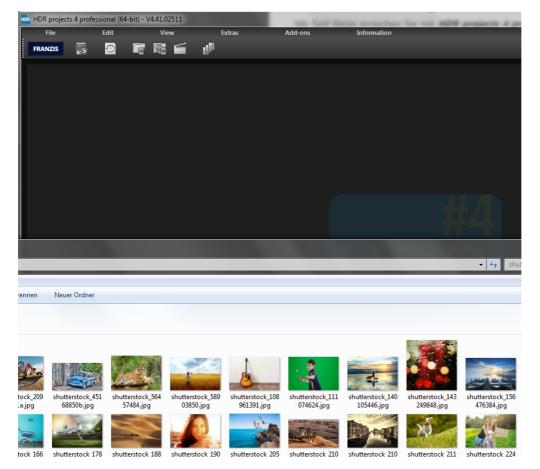
- Algorithm browser with an interactive graphic selection of HDR algorithms, various optimisations and layer-blending modes
- New interactive ghost image removal with four different types of settings for landscape, architecture, life forms and sports
- ✓ A history browser shows all edited bracketing and projects, instantly selectable with a single click
- The intelligent Optimisation Assistant can now be used for eight finely tuned optimisation variations, from natural to brilliant to low-key
- Completely newly developed tone mapping category "Colour Fidelity" for extremely natural colour rendering through tone compression. The preset category "Shine" has also been added, which uses glow/shine effects to enhance images
- ✓ 45 different layer-blending modes for every post-processing effect
- Nine new effect and high-end tools for new creative possibilities from noise removal to mirroring to aura
- Local Adjustment: the chosen effects will only be applied to a specifically definable area, however fully displayed in the chosen section. This function is typically intended for very large, high-resolution photos
- ✓ 134 new and optimised presets with gallery functions
- ✓ Certain presets can now be saved in select categories
- RAW module: developments in black & white corrections and additional high-quality noise removal methods

- Customise program features configure saving formats and automatic settings.
- Image tailoring with 71 format templates and new help tools like the golden spiral, the golden cut and the rule of thirds as guidelines
- ✓ Optimisation of HDR as well as post-processing engines
- ✓ Two-fold speed increase and more

4. HDR Photos Done Quickly

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

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



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

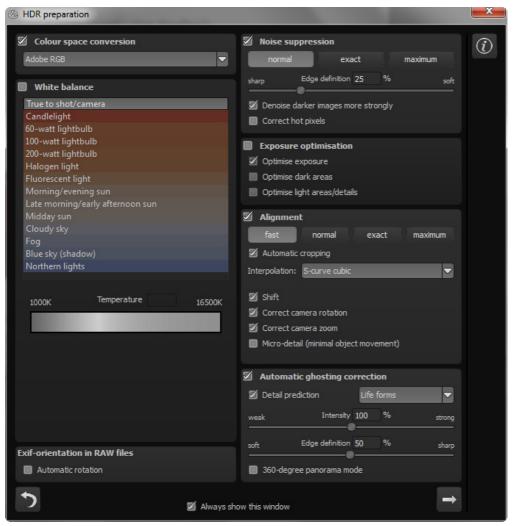
How to get the results you want, and fast - the elaborated presets and looks, individual image adaption and selected drawing allow you to also go the creative route. *HDR projects 4 professional* offers both options.

5. Importing Image Material

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



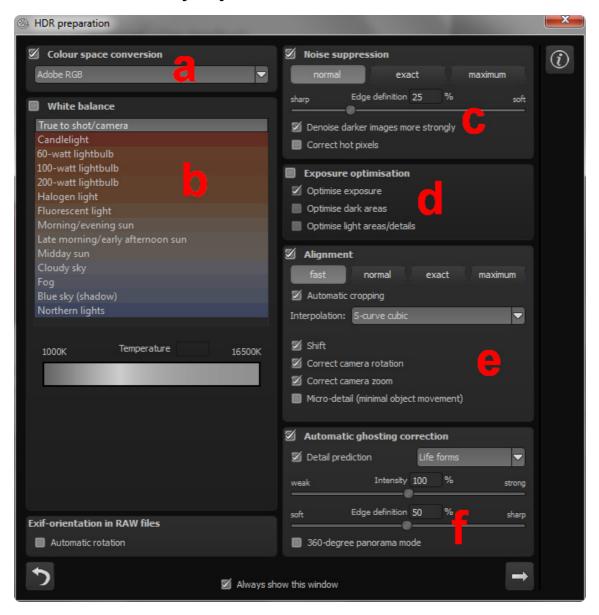
The HDR preparation dialog will open as soon as an image or a bracketing series has been selected or dragged and dropped into the program.



6. HDR Preparation

Here you can precisely configure the program's settings.

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



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

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

c. Denoise: these buttons allow you to select the precision of the noise removal, and the slider regulates the degree of the sharpness for the edges. Here dark images can undergo significant noise removal and have hot pixels (light spots caused by the camera's sensor in dark situations) eliminated.

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

e. Alignment: here you can influence how the individual images of the series are congruently positioned on top of one another. The subtlest movement of an object, unintentional zooming or rotating of the camera can be considered. In the majority of cases, the default settings often lead to the preferred result.

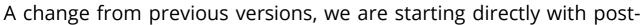
f. Automatic ghosting correction: *HDR projects 4 professional* uses a highly precise ghosting removal to filter out subjects and people moving within the bracketing series. Without correction the people or vehicles in the final image would appear half transparent several times and create a complete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

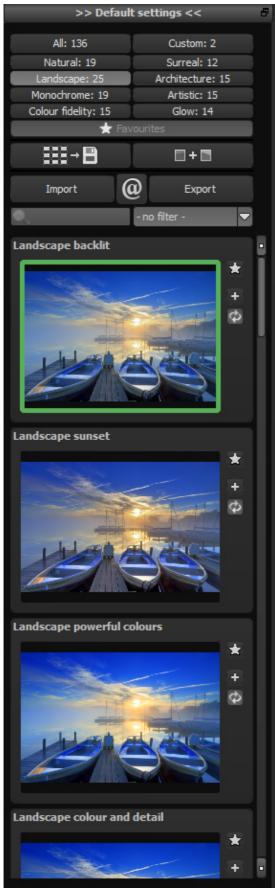


Fusing the images without ghosting removal. People are always on the move in a busy train station! Without correction, ghosting always occurs with multiples exposures.

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

7. Post-Processing: Presets





processing after uploading the images. Here we can control the picture's tone mapping and edit the results with filters and effects.

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

To begin, we've chosen the "Natural balanced" preset. Clicking on the preview image applies the effect to the image in real time, which will then be displayed in the middle of the screen. Discover the wide variety of different looks by clicking on the 134 different presets. You will be amazed by the intriguing styles in the artistic section!



Image with "Natural balanced" preset



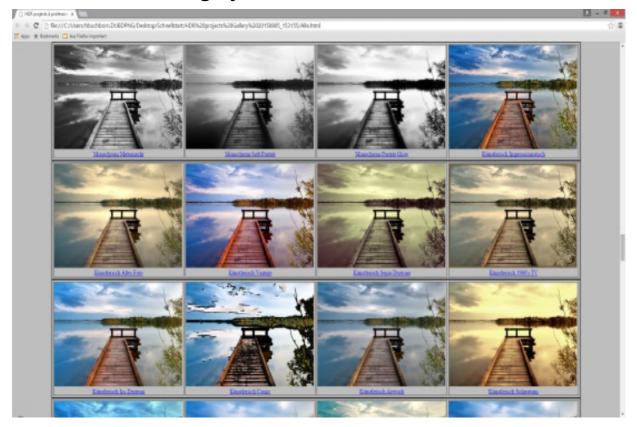
Image after applying the "Landscape Cross colour red" preset

All 134 *HDR projects 4 professional* presets at a single glance. The "Presets" section can be separated from the rest of the interface by clicking on the "Default settings" bar, which then allows you to adjust the size of the window as you like.

> Preview Gallery



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



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

> Comparison View



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



> Preview Mode



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

> Real Time Processing



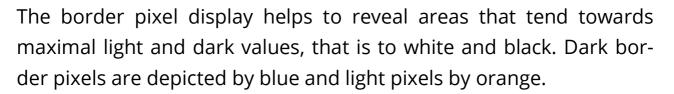
When activated, all of the changes that you have made to the preset settings will be immediately applied to the image and you will see the outcome of your adjustments directly.

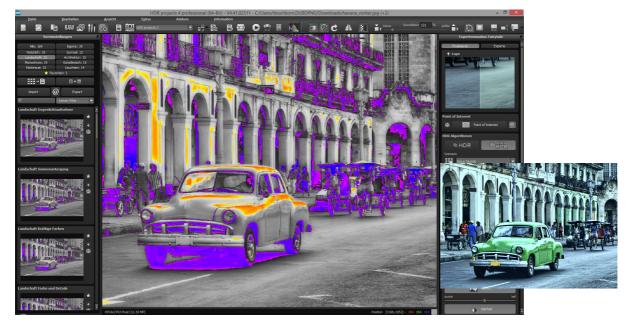
High-Quality Display



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

> Border Pixel Display





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.

> Combine Presets

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

> Name Favourites

Have you found certain presets that you love and instantly want to have handy? Click on the top right star in the preset window and add



the setting to your favourites. By clicking the button, previews all of your favourite presets will be displayed.

> Import/Export from Presets



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

> Filter Presets

Locating presets can be difficult when you have imported presets or

created many additional looks. For example, enter "blue" into the search bar and only presets relating to "blue" will be shown.



8. Post-Processing: Finalise

finalise

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

HDR and Ultra HDR



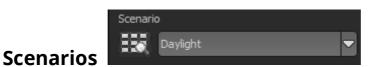
Ultra HDR processes up to 30 intermediate images between two photos with 64-bit precision. The result speaks for itself, and clearly shows a more detailed picture, especially in difficult situations, for example when shooting directly against the light. These settings can be accessed in post-processing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

HDR Algorithms

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

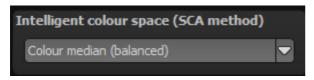
Tip: The HDR algorithm "Entropy", in most cases, will yield a finely tuned and detailed result in all tone values.

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

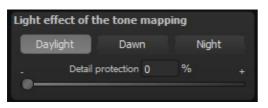
Intelligent Colour Space (SCA Processing)



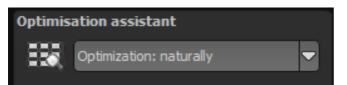
This menu offers you options for optimal colour detail gradation of your tone mapping results. Selecting SCA processing (Smart Colourspace Adaptation) demonstrates differences in the details of more saturated colours.

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

> Tone Mapping Light Effect



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



The optimisation assistant is a very efficient tool for fast, fascinating

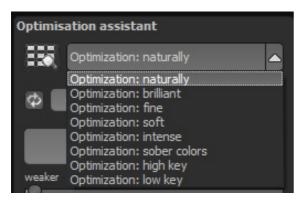
results. When the preset is activated, denoising, tonal value, clarity, dynamic and sharpness settings can all be adjusted by sliding the control to the left or right. The result can be seen live. The optimisation assistant is intelligent; it remembers the values you entered, and applies the same settings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

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



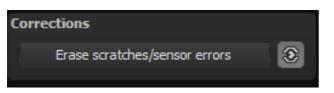
on the

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



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

Scratch and Sensor Errors



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

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

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

Here's how to go about correcting:



after comparison.

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

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

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

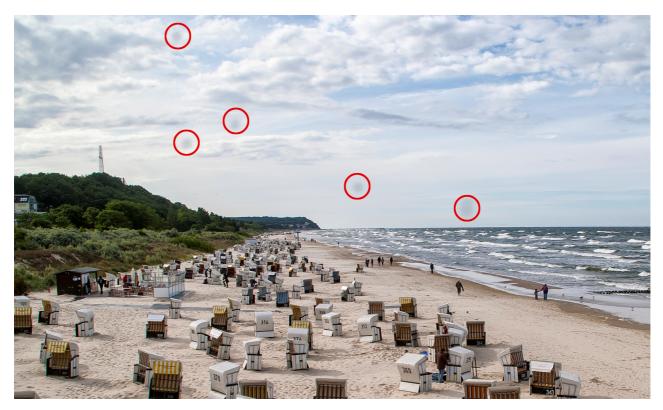
(5) deletes the added corrections.

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

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

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

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



The sensor spots are circled in red



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



Successful sensor spot correction.

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Activated "Point of Interest" renders the current editing only to a specially defined area of the image. The effects will be applied in their full form, however only visible in the specified spots, the rest of the image will be left unaffected. This effect is intended for very large, high-resolution photos, for example panorama pictures.

Post-Processing Expert Mode



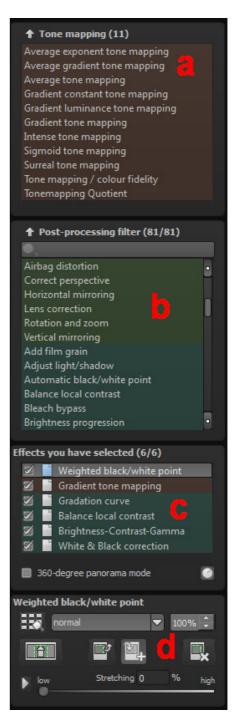
The Post-Processing expert mode can be found on the right side of the screen. Here you can configure all postprocessing, try new effects, adjust a selected preset or construct a completely new preset to meet your desires.

Overview of the Tools:

- a) Tone Mapping Algorithms
- b) Post-Processing Effects
- c) Selected Tone Mapping and Effects
- d) Settings for Selected Effects
- e) Weighted Black and White Points

> a) Types of Tone Mapping (11)

Tone mapping algorithms compromise the dynamic range of images with strong contrast down to a presentable range and serve to improve the quality of the image. *HDR projects 4 professional* offers 11 different algorithm op-



tions, that can be applied individually or combined.

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

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

Tone Mapping Colour Fidelity:

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

Tone Mapping Gradient:

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

Tone Mapping Gradient Luminance:

This process is a modified version of the gradient process, and especially enhances lighter areas.

Tone Mapping Contrast Gradient:

This option yields best results for subjects with mainly middle colours.

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 Middle Value Gradient:

This process was specially optimised for dark bracketing. Dark areas will be significantly lightened even with slight intensity (tone compression).

Tone Mapping Quotient:

This is a general tone mapping process that neutralises a colour saturated image, when compared to the effect of a gradient process.

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.

b) Post-Processing Effects (81)

The list includes 81 different post-processing effects that can be freely applied and combined.

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

32

Yellow: border effects Green: geometric effects Turquoise: exposure effects Blue: colour effects Purple: diffusing effects Pink: artistic effects

▲ Post-processing filter (81/81)
 ▲ Airbag distortion
 Correct perspective
 Horizontal mirroring
 Lens correction
 Rotation and zoom
 Vertical mirroring
 Add film grain
 Adjust light/shadow
 Automatic black/white point
 Balance local contrast
 Bleach bypass
 Brightness progression

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.

Finalisation assistant
Optimisation assistant active

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

Overview of Post-Processing filters (81)					
Colour detail Strengthener	Greyscale conversion	Manual RGB points			
Denoising - banding	Histogram balance	Manual white balance			
Denoising - colour clouds	Light tuning	Negative			
Denoising - contoured	Manual black/white point	Photo reflector			
Denoising - hotpixel	Peripheral light distribution	polar filter			
Denoising - multiple	Soft contrast	Reduce chromatic aberrations			
Denoising - smoothing	Soft details	Sepia tones			
Denoising - soft	Veiling glare	Weighted colour channels			
Detail strengthener	Vignetting	Aura			
Sharpen - fine	Weighted black/white point	Focus			
Sharpen - luminance HD	White & Black correction	Flamour lighting			
Smooth sky	Adjust colours	Smooth colour channel			
Airbag distortion	Automatic local white balance	Smooth colour tone			
Correct perspective	Balance local colour contrast	Soft focus - keep details			
Horizontal mirroring	Colour balance	Artistic detail strengthener			
Lens correction	Colour channel gradation curves	Comic style			
Rotation and zoom	Colour filter	Frame			
Vertical mirroring	Colour gradient	Isolate shade			
Add film grain	Colour intensity	Miniature world			
Adjust light/shadow	Colour light/shadow	Pencil drawing			
Automatic black/white point	Colour palette	Posterize			
Balance local contrast	Colour temperature	Remove shade			
Bleach bypass	Colours-Saturation-Exposure	Soft relief			
Brightness progression	Display original image	Solariser			
Brightness-Contrast-Gamma	Expose colours	Underwater			
Dynamic brightness	Fade	Wave distortion			
Gradation curve Gamma correction colour channel Wax image					

> c) Select Effects

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

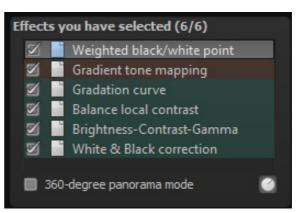
The effect will now be shown in the block below called "Effects you have selected".

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

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

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

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



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

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

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

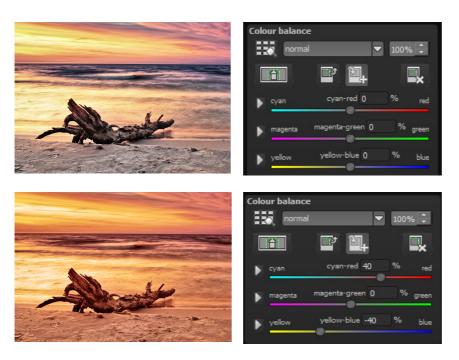
- The context menu for the effects you have selected has numerous functions that allow you to activate, deactivate, move or duplicated effects.



> d) Settings for Selected Effects

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

The available settings and options change depending on the effect you click on. There are sliders, gradation and mask curves, colours and pipettes etc. Alternatively, a numerical value can be entered into the box above the slider. In the example, we see the parameters for "Colour Balance", which consists of three controls for balance: cyan-red, magenta-green and yellow-blue. Sliding the controls instantly adjusts the image. The adjustments will be immediately portrayed in the result image. You will also see a colour flow within the controls, which will give you a direct indication of how the new value will affect the photo.



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

> Example Mask Curves

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

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



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

Layer Processing Methods

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

So that you don't have to try out every single effect, we have a layer mode browser.

normal	
brighten	•
darken	T
average	
multiply	
length	
double strength	
cubic	
geometric	
superimpose	
difference	
negate	
exclusion	
add inversely	
multiply negatively	
soft light	
hard light	
linear light	
luminous light	
point of light	
colour dodging	
colour burning	
linear dodging	
linear burning	
reflect	
shine	
expand colour	
compress colour	
hard mix	
divide squarely	
phoenix	
divide	
shadow	
middle tone	
lights	
greyscales dominate	
colours dominate	
Red channel only	
Green channel only	
Riue channel only	
normal	

				Varianten-Browser				
Hormal	Authellan	Abdunküln	Durchschnitt	Multiplizioren	Edingo	Doppelle Stärke	Kubisch	Geometrisch
A	Ant	Ant	Aut	Aut	Aut	Aut	Aut	Aut
Operclanden	Dufferenz	UmZomen	Ausschlubs	Invers addieren	Negaty multiplizieren	Weiches Licht	Headers Light	Lineares Licht
Alerte				Alert	and the second s			All when
Strahlandas Licht	Lichlpunkt	Farbig abwedeln	Parkig nechbelichten	Linear abwedeln	Linearnechbelichten	Redeitieren	Lauchten	Farbe expandiaren
- Anter	Ant	- North		- Ander		- Batt	- Conte	Ant
Farse komprimieren	Flatts Misching	Quadratisch (allan	Pitonix	dvidleren	Schallen	Miterione	Lientar	Grauatulan dominaran
Ant		Act		A	A.	A	Aut	A
Farben dominieren	nur Rolkanat	nur Grünkändl	nur Blaukanal	kain Rotkanal	Kain Grünkanal	Kuin Blaukanal		
Ant	Aut	Ant.	A	A	Aut	Aut		
								Schleßen

With just one click, you have an overview of all of the processing methods and can comfortably choose which method fits the effect best. Give it a try! The effects that you can generate with layer processing methods are astounding!

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.

> 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 selection again.



, without having to retrace the



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

> Custom Presets

One thing is certain, regardless of which settings you have changed, if you have applied additional filters or adjusted a filter's settings, the

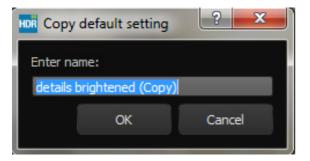
selected preset has been modified and to the right of the preview image is the following symbol:

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

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



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



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

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

Here we can find our first custom preset.

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



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

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

Reset the most recently changed settings for the newest preset.

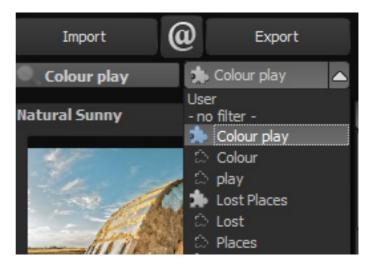
You have readjusted once again? No problem. Save the changes with the disk symbol.

Change the preset's name.

You can also delete your custom preset entirely.

Use this to enter a search filter. For example, enter the search filter "colour play", and subsequently type the term into the search filter bar directly under "Import". All presets with this search filter will be displayed. You can enter the names of places you've holidayed

and all of the presets that you used for those specific holiday photos will then be easy to find and to apply to other pictures. The filter drop down menu to the right already contains "colour play", and you can simply select it from the entered search filters.



9. HDR Generation and Bracketing Editing

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

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

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

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

HDR Weighting



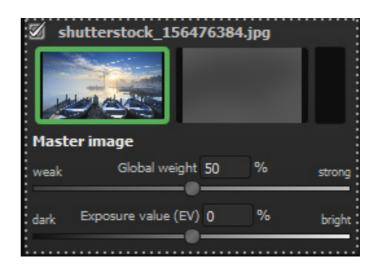
From post-processing in *HDR projects 4 professional*, transfer to HDR generation with this button. We see the work area on the left hand side for HDR weighting, and HDR algorithms on the right. Your HDR picture will always be displayed in the middle of the screen while editing. At the moment the image 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.

under the weighting colour removes an d. The minus button 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.

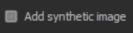
∎↑

Synthetic Bracketing \geq

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.

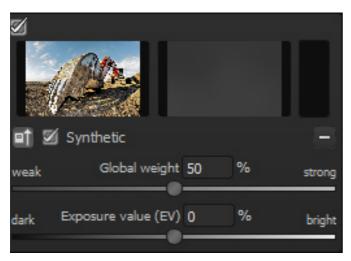
This technique can also be used for manufacturing an HDR image out of a single picture. Two synthetic exposures will be generated for an uploaded single image, one with reduced exposure time and one with increased exposure time. An additional image will be synthesised when only two bracketing images 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 se-

ries. The original image will always be used as the master image. New images will be labelled as "Synthetic".



Global weight & Exposure value (EV)

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

- Global weight
- Exposure value (EV)



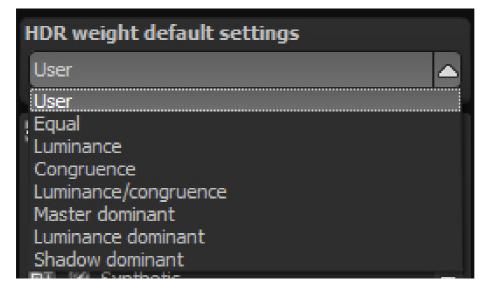
The example shows the master image directly after being loaded. The weighting and exposure controls are in the middle. The window to the right of the preview shows how the image is represented in the HDR fusion. Sliding the global weight to the right, raising it, increases the proportion of this image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

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

> Global Weight

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

You can choose an automatic setting for global weight from 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

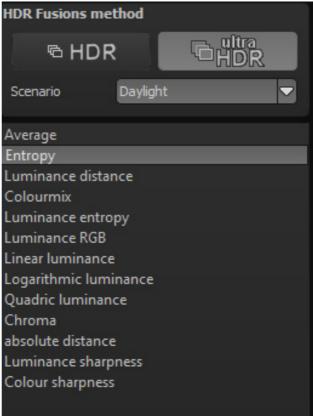
Luminance dominant: all brighter images from the bracketing series are more significant in the HDR fusion

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.

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.

ବ HDR

ultra HDR

> HDR/Ultra HDR

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



> 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.

> Overview of HDR Algorithms

HDR projects 4 professional offers 13 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 4*.

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

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

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

Luminance RGB: The RGB process combines the **Luminance Dis**tance 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.

Logarithmical Luminance: This algorithm works with logarithmic brightness (luminance). This corresponds to the human eye's perception of brightness, which makes this algorithm appropriate for most bracketing series.

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

Chroma: This algorithm calculates the weighting from the colours of the individual images and is best suited to bracketing series with high colour contrast.

Absolute Distance: A very powerful HDR fusion technique, which combines two essential features. When *HDR Smoothing* is deactivated, all HDR images are free of halos and brightness outlines are avoided.

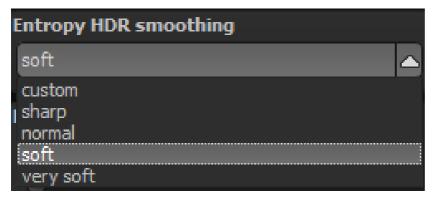
Luminance Sharpness: For this algorithm, the luminance sharpness (brightness) is determined for each pixel and converted into a weighting. This process yields the best detail for HDR fusions.

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.

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.

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



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

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

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

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

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

Luminan soft	ce distance HDI	R smo	othing	
Luminan	ce distance			
sharp	Denoising	0	%	soft
hard	Smoothing	50	%	soft
Night	Night/Daytime	0	min	Day
low	Halo adjustments	50)	large

85%, so that the halo effect around the roof has disappeared.



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

10. Local Adjustments and Selective Drawing

The new highlight tool from *HDR projects 4 professional* deserves very special attention. Firstly, this tool selectively edits chosen areas without complicated masks done by hand, like other photo editing programs. *HDR projects 4 professional* 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.

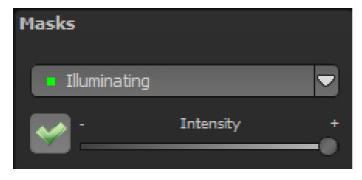


How it all works is probably easiest to explain with an example. Open the selective drawing window (post-processing, finalise - bottom right). Our example is a single image file of a typical twilight on the beach. The picture's colour details are already well edited. Now we want to slightly brighten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



Select editing objective 1.

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



Activate drawing mode 2.

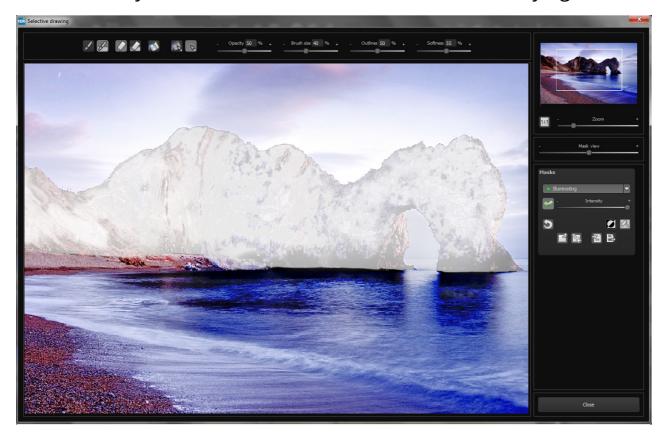


- Activate filling mode 3.
- Run the mouse over the contours 4. without clicking. You can decide

Brush size	50	%	+

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.



 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. Use your quickly made mask for a further effect. Go back to the selective drawing. Our selective mask has remained. Click on and copy the mask to the clipboard. Switch the mask to "Sharpen" and use the to paste the mask back again. Now you have sharpened just the rocks, and the other parts of the image were not influenced.
- 10. Every selectively applied effect can be activated and deactivated with the green checkmarks.

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



12. Have you drawn outside of the lines, despite the border re-

cognition? You can easily remove it with the eraser. If you only want to remove a small section, use the eraser with limitation. When set to 50%, you can only remove 50% of the mask, regardless of how much you erase. The limited drawing mode works in the same way, and only draws at a certain opacity.

13. If you want to mask the entire image except for a small object, it is a good idea to mask only the small object and then reverse the mask by clicking on the

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

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



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

11. Edit Weighting with HDR Painter

🔴 🌀 🔵 🖌 💦 🔨 🤰 🚧 🏰 🇞 💽 Circle 🔽 🕐 Opacity 50 % + - - Brush size 50 % + +

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



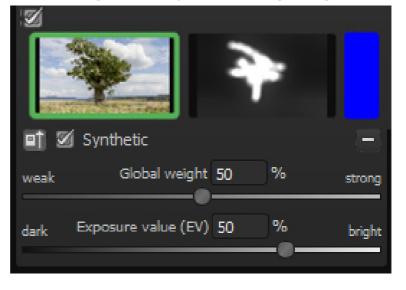
Exposure Bracketing View (left): The individual images of a series are sorted into red, green and blue. When the bracketing has more than 3 exposures, the master image will be set as green and the next active neighbouring images as red and blue. If you would now like to make changes to the weighting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

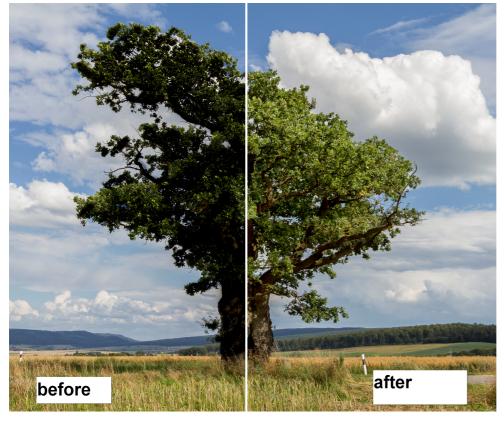


To clarify: The brush does not mean that you paint colours goes onto the image, rather that you can adjust the brightness weighting in certain areas of individual images. For example, an HDR result shows a landscape where the exposure is correct everywhere, except the tree in the foreground is too dark. 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.

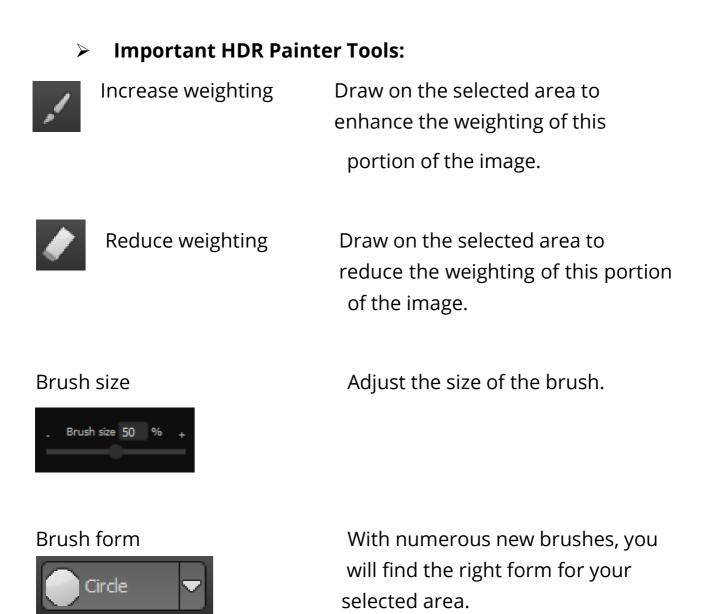
Adjusted Weighting: After drawing, the adjusted weighting can be

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.





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.

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



Blurring

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



Delete weighting



Delete all

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

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

12. Ghosting Removal with HDR Painter

When we manually adjust parts of images, it naturally has an effect on the program's ghost image correction. Ghosting can occur when capturing a bracketing series of a scene where people or vehicles are in motion and thus captured at a different position in every shot. Without the automatic ghosting removal from *HDR projects 4 professional*, 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.
- Select the button for the appropriate colour for this photo, and *HDR projects 4 professional* will allocate red to this image and automatically open the HDR drawing mode.



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



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



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



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

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



The ghosting has disappeared from the HDR image!

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

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

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

Warning! A new evaluation eliminates all manually removed ghosting!

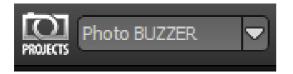
13. Workflow

Edit final image further in an external program

HDR projects 4 professional 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

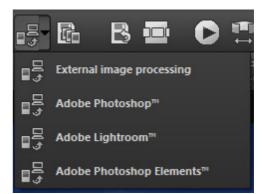
Click on the "Projects" symbol in the toolbar to open the image in a different program from the *projects* series. Use the drop-down menu beside the symbol to choose one of the programs that you already have installed on your computer.



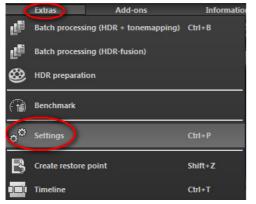
Open in other photo-editing programs

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. HDR projects 4 professional – User Manual

Program Export Calculation Save formats Automatic						
External programs						
Export formats:	TIFF 16-Bit (*.tiff)		🖉 Save exported files under the origina	al path		
File-Prefix:	File-Suffix:	HDR projects	-> File name_HDR projects.tiff			
External image processing						
■ Adobe Photoshop [™]						
■ Adobe Lightroom™						
☑ Adobe Photoshop Elements™						

Work with a timeline and restore points

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



"Create Restore Point" saves an in-between point of the current settings. You can now always return to this stage of your editing. You can save as many editing restore points as you like. The timeline displays the restore points and makes it possible to call up any phase with just a single click:



This function is especially useful when, for example, you are satisfied with an image, yet want to continue trying out different settings and effects. Simply set a restore point and carry on editing your picture. If you want to go back, simply click on your restore point in the timeline.

14. Selecting and Saving Sections of Images

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

> Cropping and captions

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



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

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

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

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

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

Free cropping	
Free cropping	
Set up personal aspect ratio	
Photo (10 x 7)	
Photo (7 x 10)	
Photo (13 x 9)	
Photo (9 x 13)	
Photo (13 x 10)	
Photo (10 x 13)	
Photo (15 x 10)	
Photo (10 x 15)	
Photo (18 x 13)	-
Photo (13 x 18)	
Photo (19 x 13)	
Photo (13 x 19)	
Photo (24 x 18)	
Photo (18 x 24)	
Photo (30 x 20)	
Photo (20 x 30)	
Medium format small	
Medium format small (upright)	
Medium format standard	
Medium format square	
Medium format square (upright)	
Medium format large	
Medium format large (upright)	
110 film	
110 film (upright)	

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 <u>ratio</u> of 13 to 18.

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

15. RAW Processing



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



An overview of the most important RAW functions:

White balance:

Here you can regulate the colour temperature. Use the pipette to select a white balancing colour directly from the image.

Denoising/sharpness:

This feature regulates the image's noise and sharpness. Control the quality and different types of noise such as colour noise, banding or hot pixels.

Colour balance/white balance:

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

Exposure:

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

Detail:

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

Colour:

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

Palate:

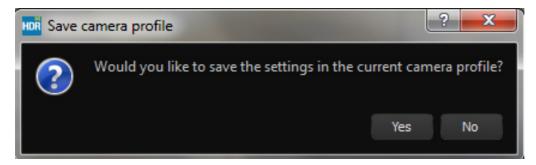
Adjust the saturation of individual colours.

Distortion:

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

General:

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



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

16. Batch Processing

HDR projects 4 professional'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

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.

Batch processing					×
Source file		Results			(i)
Source directory:	Users\softwarelektorat\Pictures\shutter	Target directory:			
Allocation:	Automatic allocation 🗸	Format:	TIF 8-Bit (*.tif)		
-	Include all subdirectories		Sort mode		
File filter					
File type:	all images 🔽	File name filter:		Ф	
Processing setting	5 				
Preparing HDR	IDR default settings: Entropy (soft)		Post-Processing: Natural balance	ced 🗸	
360-degree pano	orama mode	automatic image of	optimisation		
Exposure bracketin	ıg: 11				
Act	ivate all exposure bracketing Deactivate a	all exposure bracketing	Remove single ima	ages	
MBM2014_0	498_499_500_501_502_503_CR2				
				Sea Lake	
🗹 нвм2014_0	479_480530_CR2	and the second second second second	to the Description of the Life		
				a contantian	
	the seld sets sets sets				
	1446_4778_CR2				
			and the second		
Participant and an	1 and				
HBM2014_0	438_39_40_41_42_43_44_45_CR2			100 Mar	
🗹 НВМ2014_0	401_02_03_04_05_06_07_08_09_10_11_12_CR	2			
			1	1.0.0	
т					
5				Cancel Start	

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

> Allocation and automatic bracketing recognition

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

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

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

2 image to 9 image groupings: Select this option if you have taken HDR films or are certain that the bracketing series in your folder all contain the same number of shots. The file names for the final images will automatically be successive, so that the edited images can be directly used in a video editing program.

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

Format: You can choose from nine different formats to save your resulting images. With .jpg, .tif and .png, there are two 8-bit formats (LDR) and four 16-bit formats (HDR). JPG images are always the highest quality and TIF files are saved uncompressed and without defects. For further web editing, the final images can be saved in Open EXR as well as in Portable Floatmap and Radiance RGBE.

Batch processing	3			-			
Source file			Results				
Source directory:			Target directory:				
Allocation:	Automatic allocation 🔽		Format:	TIF 8-Bit (*.tif)	-		
	Include all subdirectories			Sort mode			
File filter							
File type:	all images 🗸 🗸 🗸		File name filter:			Ф	
Processing settings	5						
Preparing HDR	🐵 IDR default settings: Entr	ropy (soft)		Post-Processing:	Natural balanced		
360-degree pano	orama mode		automatic image op	otimisation	Natural balanced Natural sharp		ļ
Exposure bracketin	ig ivate all exposure bracketing	Deactivate all exp	oosure bracketing	Re	Natural back light Natural Bright back light Natural Dark back light Natural brighten Natural details brightene Natural gowerful colours Natural gowerful colours Natural Sunny Natural Sunny Natural dynamic Natural dynamic Natural dynamic Natural deep shadows	3	

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.

```
Exposure bracketing: 25
Activate all exposure bracketing Deactivate all exposure bracketing Remove single images
```

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.

> Batch processing for HDR fusion

In HDR fusion batch processing, you calculate the image stacks for the pure fusion HDR images without applying any post-processing or tone mapping filters.

Batch processing						x
Source file Source directory: Allocation:	Automatic allocation		Results Target directory: Format:	Radiance RG8E (*.hdr)		
File filter						
File type:	all images	-	File name filter:		Ф	
Processing settings Preparing HDR	8		IDR default settings:	Entropy (soft)		
	vate all exposure bracketing	Deactivate all exp	oosure bracketing	Remove single	: images	
MG_2156_7						
⊠ 1MG_2085_6	5-7-CR2					
2 IMG_2079_8	0 81 CR2					
Ø 1MG_2082_3 # ↔ ¥ # ↔ ¥	4_CR2					
Please select valid sour	ce and target directories	04	₩			
5					Cancel Start	

These methods make the most sense when you want to edit the fused results further in other programs or want to create and save pure 32-bit HDR formats.

The available lossless final formats:

- Radiance RGBE (.hdr)
- Open EXR (.exr)
- Tiff 32-bit (.tif32)
- Portable Floatmap 32-bit (.pfm)

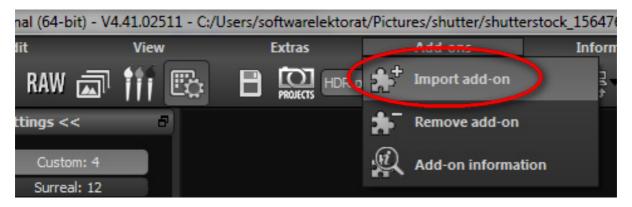
17. Add-ons

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

1. Extract the files from the downloaded zip folder: **Preset-Collection-HDR-projects-Lostplaces.zip**

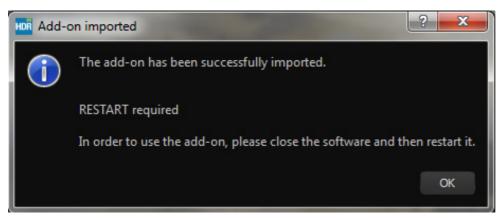
2. Open your HDR projects 4 version

3. Click on Menu → Add-ons → Import Add-ons



4. Select **HDR projects LostPlaces (18)** in the following dialog window, open it with a double-click and select the **HDR_lostplaces.praddon**. Then click "Open".

5. The add-on will now be imported. A confirmation message will appear:

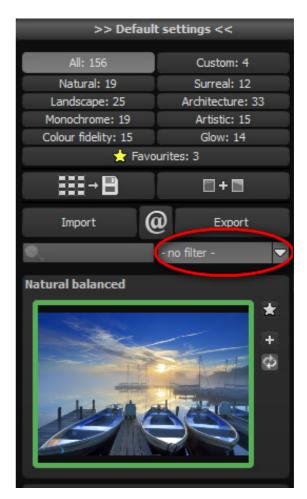


6. Please close and restart the program to be able to use the add-on with all of the other presets.

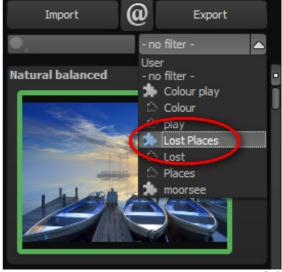
7. Open **HDR projects 4 professional** and load an image or a bracketing series. Switch to post-processing mode (palate symbol). If you are the owner of **HDR projects 4 professional**, you will automatically be sent to post-processing mode. Select Menu \rightarrow Add-ons \rightarrow Addons Information, 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.



18. Plug-in Installation

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

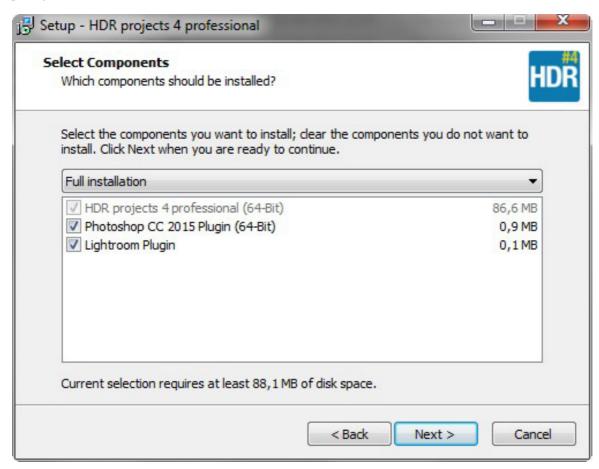
If you purchased your software as a download or if you have lost your CD, the plug-ins are also available for download at:

www.projects-software.com/plugins

Using plug-ins with Windows

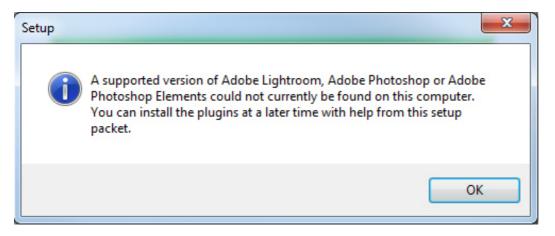
Adobe Photoshop & Adobe Photoshop Elements

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



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

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

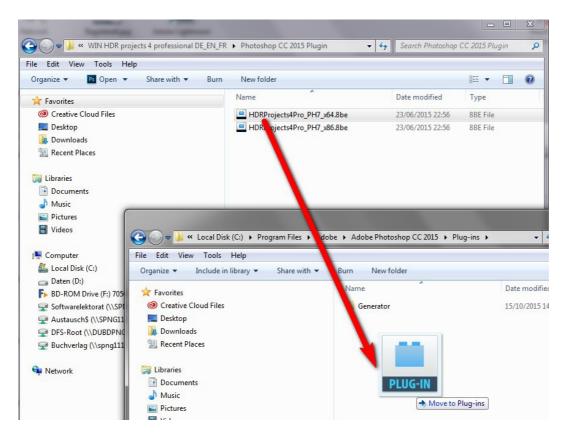


In this case, the plug-in must be manually copied into the "Photoshop Plug-in Folder". Click on "Open Plug-ins Folder" on the start screen. Windows Explorer will then open with all available Photoshop plug-ins.

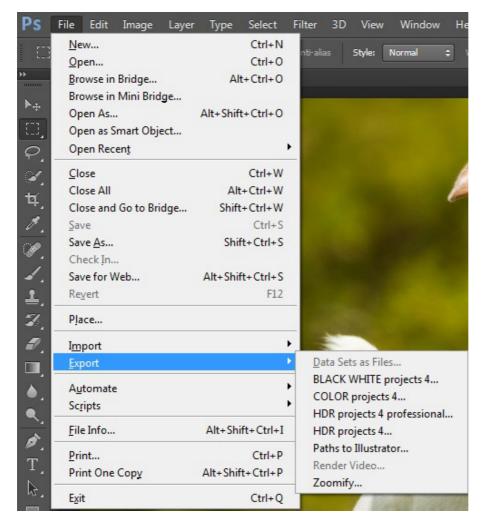
Open the folder for your version of Photoshop and drag & drop the plug-in found in this folder to the Photoshop

File Edit View Tools Help			
Organize Include in library Share	with Burn New folder		
🖌 🔆 Favorites	Name	Date modified	Туре
Creative Cloud Files	\mu Lightroom Plugin	15/10/2015 15:02	File folde
🧮 Desktop	Photoshop CC 2014 Plugin	25/09/2015 11:03	File folde
👪 Downloads	Photoshop CC 2015 Plugin	25/09/2015 11:03	File folde
Recent Places	Photoshop CC Plugin	25/09/2015 11:03	File folde
	🌗 Photoshop CS6 Plugin	25/09/2015 11:03	File folde
4 🥽 Libraries	闄 Photoshop Elements 11 Plugin	25/09/2015 11:03	File folde
Documents	闄 Photoshop Elements 12 Plugin	25/09/2015 11:03	File folde
🖻 🌙 Music	Photoshop Elements 13 Plugin	25/09/2015 11:03	File folde

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



Finally, the plug-in can be found in Photoshop through "File \rightarrow Export \rightarrow HDR projects 4 professional".



Using plug-ins with Mac OS X

Adobe Photoshop & Adobe Photoshop Elements

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

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

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

Adobe Lightroom with Windows

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

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

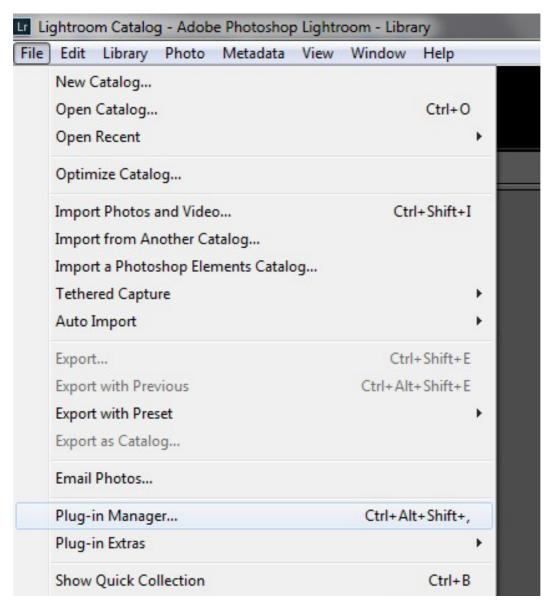
If you have no CD, the plug-in is also available for download at: <u>www.projects-software.com/plugins</u>

Paste the folder where you want it to be located.

We recommend the folder where also your presets are stored:

C:\Users\username\HDR Projects 4 Pro.

Start Lightroom und navigate to "File" \rightarrow "Plug-In Manager".



Click the "Add" button in the Lightroom Plug-In Manager.

Lightroon	m Plug-in Manager		×
Lig	Ihtroom Plug-in N	Vlanager	
0	Canon Tether Plugin	▼ Status	*
•	Facebook Installed and running Flickr Installed and running	Path: C:\Program Files\Adobe\Adobe Lightroom\tether_canon.lrplugin Show in Explorer Version: 6.2.1.1046594	
Θ	Leica Tether Plugin Installed and running	Status: This plug-in is enabled.	ble
Θ	Nikon Tether Plugin Installed and running	▶ Plug-in Author Tools No diagnostic m	essages
	Add Remove		*
Ado	obe Add-ons		Done

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

Click on "Select Folder" and then "Done".

In Lightroom, the plug-in can be found through "File \rightarrow Export with Preset \rightarrow Export to HDR projects 4 professional".

Edit Library Photo Metadata V	iew Window Help	
New Catalog		
Open Catalog	Ctrl+O	
Open Recent	۰.	
Optimize Catalog		
Import Photos and Video	Ctrl+Shift+I	•••
Import from Another Catalog		
Import a Photoshop Elements Catalog.		
Tethered Capture	•	
Auto Import	+	
Export	Ctrl+Shift+E	
Export with Previous	Ctrl+Alt+Shift+E	
Export with Preset	•	Lightroom Presets
Export as Catalog		Burn Full-Sized JPEGs
Email Photo		Export to DNG For Email
Plug-in Manager	Ctrl+Alt+Shift+,	For Email (Hard Drive)
Plug-in Extras	•	BLACK WHITE projects 4
Show Quick Collection	Ctrl+B	Export to BLACK WHITE projects 4
Save Quick Collection	Ctrl+Alt+B	COLOR projects 4
Clear Quick Collection	Ctrl+Shift+B	Export to COLOR projects 4
Set Quick Collection as Target	Ctrl+Shift+Alt+B	HDR projects 4
Library Filters	•	Export to HDR projects 4 HDR projects 4 professional
Printer	Ctrl+P	Export to HDR projects 4 professional
Page Setup	Ctrl+Shift+P	User Presets
Exit	Ctrl+O	

ALTERNATIVE:

Right-click on the image directly in Lightroom and select "Export \rightarrow Export to HDR projects 4 professional".

Adobe Lightroom with Mac

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

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

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

We recommend the folder where also your presets are stored:

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

Start Lightroom und navigate to "File \rightarrow Plug-In Manager".

Click the "Add" button in the Lightroom Plug-In Manager.

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

Click on "Select Folder" and then "Done".

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

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

"File \rightarrow Export with Preset \rightarrow Export to HDR projects 4 professional".

ALTERNATIVE:

Right-click on the image directly in Lightroom and select "Export \rightarrow Export to HDR projects 4 professional".

19. Keyboard Shortcuts

Menu Functions:

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

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Image Functions:

Windows	Apple	
Ctrl + Plus	cmd + Plus	Zoom in
Ctrl + Minus	cmd + Minus	Zoom out
Ctrl + 0	cmd + 0	Zoom to100%
L	L	Set magnified view
Double Click	Double Click	Switch between "Fit" and "1:1" views

RAW Developing:

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

Edit Weightings (HDR Painter):

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

Selective Editing:

Windows	Apple	
Page Up	Page Up	Select next area
Page Down	Page Down	Select previous area
Cursor Left	Cursor Left	Move selected area 1 pixel to the left
Shift + Cursor Left	Shift + Cursor Left	Move selected area 5 pixel to the left
Ctrl + Cursor Left	cmd + Cusor-Left	Move selected area 10 pixel to the left
Cursor Right	Cursor Right	Move selected area 1 pixel to the right
Shift + Cursor Right	Shift + Cursor Right	Move selected area 5 pixel to the right
Ctrl + Cursor Right	cmd + Cursor Right	Move selected area 10 pixel to the right
Cursor-Up	Cursor-Up	Move selected area 1 pixel up
00		

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

Scratch/Sensor Spot Removal:

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

Selective Drawing:

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

History Viewer:

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

Variant-Browser:

Windows	Apple	
Cursor Left	Cursor Left	Move an image to the left
Cursor Right	Cursor rechts	Move an image to the right
Cursor-Up	Cursor-Up	Move an image up
Cursor-Down	Cursor-Down	Move an image down
Ctrl + Plus	cmd + Plus	Zoom in
Ctrl + Minus	cmd + Minus	Zoom out
Ctrl + 0	cmd + 0	Zoom 100%
Space	Space	Center view
Enter/ Double Click	Return/ Double Click	Select and load entry

Photo credit:

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

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

Hotline/Support

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

E-Mail: support@franzis.de

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 computer including all your peripheral devices

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