

DIGITAL CENTERFILTER Manual



without



with

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1. Introduction

What is a CENTERFILTER?

Wide-angle lenses are characterised by decreasing light intensity towards the edge with increasing angle of view, which makes the corners appear darker and is unwelcome in many cases. In conventional film photography concentric gradient filters referred to as CENTERFILTERs were developed. These filters have a higher density in the centre of the image and increase transmission towards the edge.

CENTERFILTER for analogue photography have to be mounted on the lens before the film is exposed. They correct the brightness reduction by a fixed value – usually 1.5 or 2 aperture stops. ANALOGUE CENTERFILTERs consist of a glass plate that is coated with a special ND grading in a complex production process and a filter ring that positions the plate at an exactly calculated position in front of the first lens.

Disadvantages of an ANALOGUE CENTERFILTER

- Possible vignetting at ultra-wide angles $> 100^\circ$
- Several filters may be required, e.g. an additional polarising filter
- Risk of reflexes, reflections and "ghost images" on the filter surface under unfavourable lighting conditions
- Loss of brightness during focusing
- Symmetry interference with high-resolution lens systems

Why use a DIGITAL CENTERFILTER?

In contrast to analogue photography, in digital photography each image is stored in a file and can be (post-)processed using suitable software. If the brightness reduction of the lens over the whole image circle is known, it can be corrected – provided the edges of the image were sufficiently exposed – with the aid of special software, the DIGITAL CENTERFILTER. A DIGITAL CENTERFILTER can also be used for correcting the edge brightness reduction in analogue images after they have been digitised for processing.

Advantages of a DIGITAL CENTERFILTER:

- The filter is applied after the image has been taken, so that the full brightness of the lens is retained
- Virtually 100% edge shading correction available, even with offsets (offset values xy can be entered in the software)
- Continuously variable correction of the exposure value – aperture 0.1, 0.5 or 1.5, anything is possible.
- A correction can be discarded and repeated, if necessary
- No additional glass in front of the lens system that may cause reflections and reduce the resolution
- No risk of vignetting of centerfilter holder

In order to enable users to create optimum images, **Schneider-Kreuznach** and **Nurizon Software** have developed a DIGITAL CENTERFILTER as a plug-in for Photoshop® (from version CS2).

Schneider Kreuznach – Nurizon DIGITAL CENTERFILTERs are based on the exact specification for the corresponding **Schneider Kreuznach** lens and therefore guarantee optimum correction of the brightness reduction in wide-angle images.

The software for the Photoshop® plug-in and the lens-specific file for the DIGITAL CENTERFILTER will be included in the price of each **Schneider Kreuznach** wide-angle lens from March 2010.

Further files for using a DIGITAL CENTERFILTER for other focal lengths are available as options.

2. Installation

Copy the file digitalCenterFilter.plugin into the folder "Program Files/Photoshop/Plug-Ins/Filters".

From the plug-in perspective, Photoshop® is responsible for managing the RAM etc. To enable the DIGITAL CENTERFILTER to operate correctly, the plug-in must be able to manage the required RAM autonomously.

Start Photoshop® (version CS2 or higher) and open the memory management dialog via the menu Photoshop → Preferences → Performance....

Set the memory management settings as shown in Fig. 1 below.

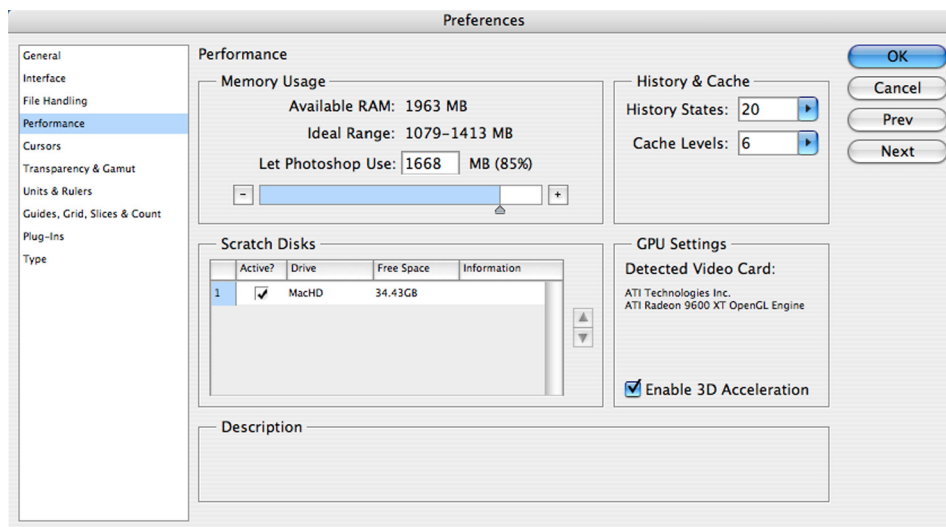


Fig. 1

3. DIGITAL CENTERFILTER licence

Each **Schneider Kreuznach** wide-angle lens comes with a licence number for using the **Schneider Kreuznach – Nurizon** DIGITAL CENTERFILTER as a plug-in for Photoshop®.

The licence number can be found in the enclosed documentation.

3.1 Activating the DIGITAL CENTERFILTER licence

To activate your DIGITAL CENTERFILTER licence, proceed as follows:

- 1) Open the information dialog via the menu "Photoshop → About Plug-In → Digital Centerfilter" (see Fig. 2)
- 2) Select the required lens from the "Lens" popup menu.
- 3) Use the "Generate Key" button to generate the key code.
- 4) Open the "Licence Service Website" by clicking the corresponding button or open by entering the URL "www.digitalcenterfilter.com" in your web browser.
- 5) Fill in the online form.

You will then receive an email containing the activation code.

Enter the activation code in the field next to the "Activate Key" button and save it by clicking the "Activate Key" button. If the code was entered correctly the status now changes to: Your DIGITAL CENTERFILTER licence is activated.

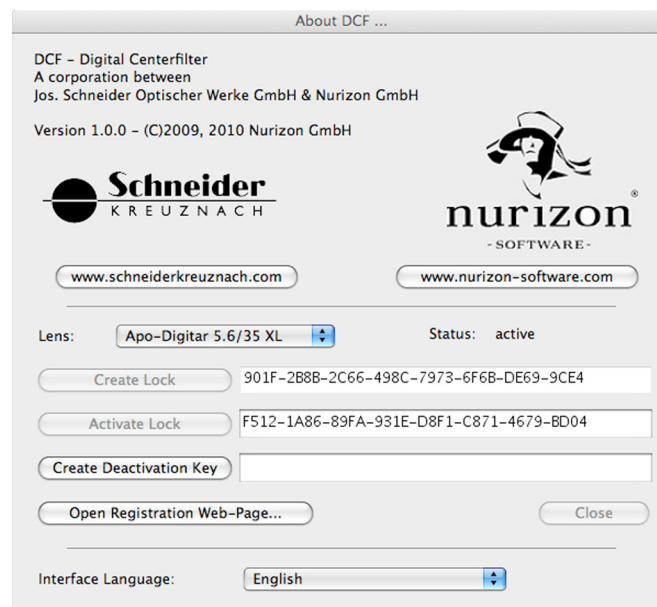


Fig. 2

Please note:

You can exit the dialog at any time and continue later by clicking "Close".

You can change the interface language using the "Interface Language" popup menu.

3.2 Transferring the DIGITAL CENTERFILTER licence

Once you have registered a licence number and activated the DIGITAL CENTERFILTER for a lens, you can deactivate it again at any time. This is required, for example, if the licence is to be used on another computer or if the hard disk is to be reformatted.

- 1) Open the information dialog via the menu "*Photoshop → About Plug-In → Digital Centerfilter*" (see Fig. 2).
- 2) Select the required lens from the "*Lens*" popup menu.
- 3) Click the button "*Deactivate Key*" to generate a key code for deactivating the licence.
- 4) From this point in time the original activation will have elapsed on your system.
- 5) Open the licence service website at "*www.digitalcenterfilter.com*" using the corresponding button or by entering it in a web browser
- 6) Fill in the online form for releasing licenses.

You will receive an email confirming the deactivation of the licence.

You can now reactivate the **Schneider Kreuznach – Nurizon** DIGITAL CENTERFILTER licence on another computer or on the same computer.

Or you can pass the licence on together with the lens, for example.

4. Correcting edge shading

Start Photoshop® (version CS2 or higher). Open the image to be processed via "Open" and open the filter dialog via "Filter → Schneider Kreuznach → Digital Centerfilter..." (see Fig. 3).

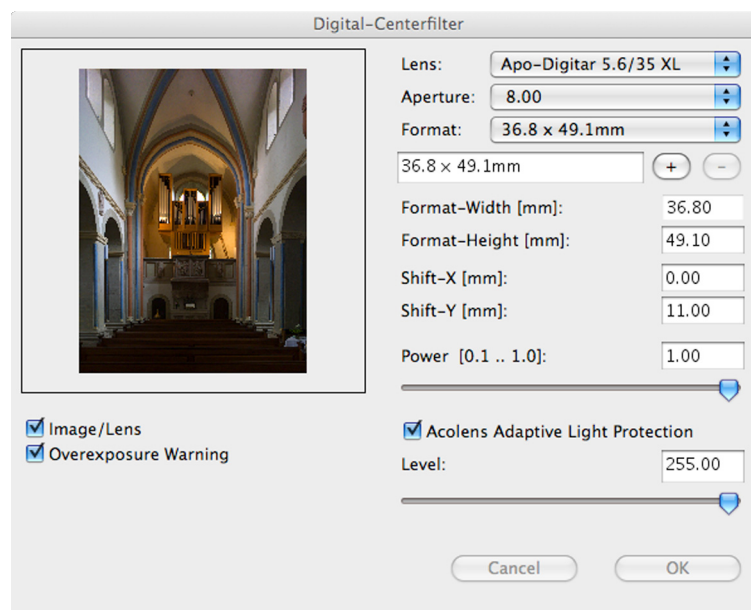


Fig. 3

Select your lens from the "Lens" popup menu. Select the aperture with which the image was taken from the "Aperture" popup menu. The sensor/film format can be selected in the "Format" popup menu.

In the fields "Format Width" and "Format Height" you can enter your own formats, allocate names and save them for subsequent projects using the "+" button.

To remove a format from the list, select it and click "-"

If applicable, enter the sensor offset in the "Shift-X" and "Shift-Y" boxes.

Depending on the image contrast you can fine tune the correction with the slider or using the "Power" box.

The optional *"Acolens Adaptive Light Projection"* offers effective protection for the pattern and details in the image lighting.
Use the *"Level"* slider to control the upper limit.

For images with low contrast or few highlights this function can be deactivated. If the *"Overexposure Warning"* checkbox is active, image regions with insufficient detail are coloured red.

Use the *"Image/Lens"* checkbox to switch between an image preview (see Fig. 3) and an image circle view (Fig. 4).
The sensor/film format is shown as a red frame in the image circle. It can be moved with the mouse pointer. The settings range can also be entered manually.

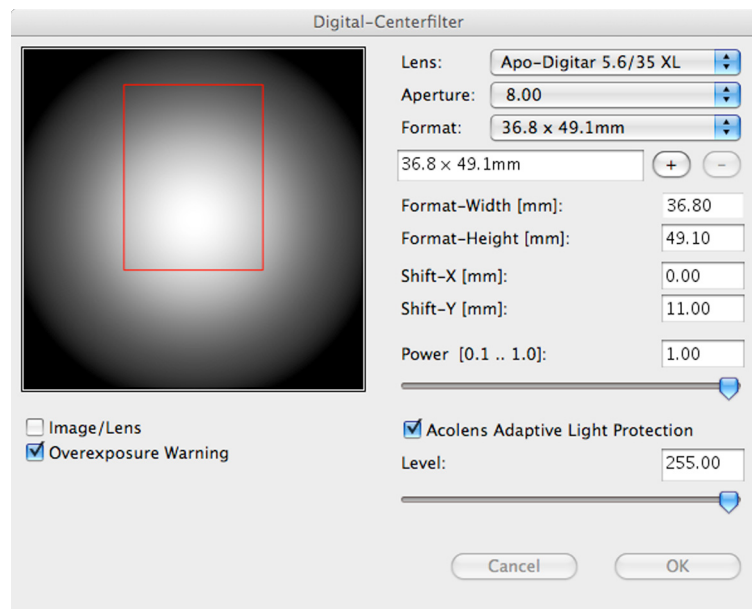


Fig. 4

5. System requirements

Operating system min. MacOS 10.4 and Photoshop® CS2.

Please find current information at the website www.digitalcenterfilter.com.

6. FAQ

Please find more information at our website
www.digitalcenterfilter.com/faq

7. Service & support

Visit our website at

www.digitalcenterfilter.com

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