

Technical Overview

Kodak Professional DCS Pro 14n Digital Camera lens optimization

The design of 35mm lenses dictates a “characteristic” in terms of design of optics.

Lenses fall broadly into three groups:

- “normal” lenses
- “macro” and wide-angle lenses
- wide-angle zoom lenses

The film response to these three classes of lenses generally shows similar results. However, due to the nature of sensor technology, digital cameras can show a noticeable difference in their responses to the different types of lenses.

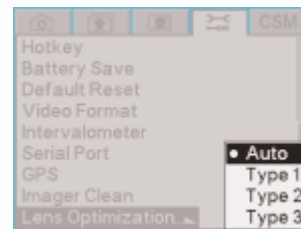
For example, if you compare an image taken by an extremely long lens to an image taken with an extremely wide-angle lens, you may see a shift in hue across one of the images. One side of the image may appear slightly cyan while the opposite side may appear slightly magenta.

Generally, digital SLR cameras are optimized for a theoretical “normal” lens. Consequently, using lenses that are significantly different from a “normal” lens may show anomalies in the image more readily.

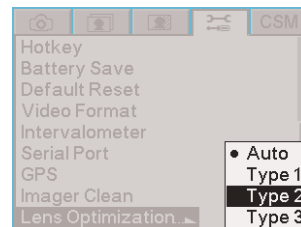
The DCS Pro 14n has a feature that enables the camera to select optimized lens settings to help compensate for some of the differences in lenses. When you use one of the most current lenses, the camera automatically recognizes the lens and applies a correction for each image.

The automatic lens selection only works with lenses that the camera can identify easily. Consequently, older, manual lenses will not be optimized automatically. Lenses that are not listed in the camera’s known-lens chart (on the next page) will also not be automatically optimized. However, you can manually choose a setting to compensate for or override the camera’s automatic selection.

Options for three different lens corrections are included in the manual selection setting:



- Type 1 (default) is generally for “normal” lenses
- Type 2 is generally for “macro” and some wide-angle lenses



- Type 3 is generally for some wide-angle and wide-angle zoom lenses

On the following page is a chart of lenses that are currently included in the Pro 14n firmware (ver.4.4 or higher).



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Manufacturer	Lens	Focal length	Auto tag	Actual lens classification	Recommended setting
Nikon	AF-S 17-35mm f/2.8D IF-ED	All	Type 1	Type 1	Auto
Nikon	AF 18-35mm f/3.5-4.5D	All	Type 3	Type 3	Auto
Nikon	AF 20-35mm f/2.8D IF	20mm 28-35mm	Type 2 Type 1	Type 1 Type 1	Type 1 Auto
Nikon	AF 24-120mm f/3.5-5.6D AF	24-35mm 50-120mm	Type 1 Type 1	Type 3 Type 1	Type 3 Auto
Nikon	AF 24-85mm f/2.8-4D	24-35mm 50-85mm	Type 3 Type 1	Type 3 Type 1	Auto Auto
Nikon	AF 28-105mm f/3.5-4.5D IF	28mm 35-105mm	Type 3 Type 1	Type 3 Type 1	Auto Auto
Nikon	AF 28-200mm f/3.5-5.6D IF	28-50mm 70-200mm	Type 3 Type 1	Type 3 Type 1	Auto Auto
Nikon	AFS 28-70mm f/2.8D IF-ED	All	Type 1	Type 1	Auto
Nikon	AF 28-85mm f/3.5-4.5 Micro	All	Type 1	Type 1	Auto
Nikon	AF 35-105mm f/3.5-4.5D IF	All	Type 1	Type 1	Auto
Nikon	AF 35-135mm f/3.5-4.5N	All	Type 1	Type 1	Auto
Nikon	AF 35-70mm f/2.8D	35-50mm 70mm	Type 1 Type 1	Type 3 Type 1	Type 3 Auto
Nikon	AF 35-70mm f/3.3-4.5	35-50mm 70mm	Type 3 Type 1	Type 3 Type 1	Auto Auto
Nikon	AF Micro 70-180mm f/4.5-5.6D ED	All	Type 1	Type 1	Auto
Nikon	AF 70-210mm f/4.5-5.6D -f32	All	Type 1	Type 1	Auto
Nikon	AF 70-300mm f/4.5-5.6D ED	All	Type 1	Type 1	Auto
Nikon	AF 60-200mm f/2.8D ED	All	Type 1	Type 1	Auto
Nikon	AF 80-400mm f/4.5-5.6D ED VR	All	Type 1	Type 1	Auto
Nikon	AF-S 70-200mm f/2.8G ED-IF VR	All	Type 1	Type 1	Auto
Nikon	AF-S 24-120mm f/3.5-5.6G ED-IF VR	All	Type 1	Type 1	Auto
Nikon	AF Fisheye 16mm f/2.8D	Fixed	Type 2	Type 2	Auto
Sigma	AF 14mm f/2.8D	Fixed	Type 1	Type 1	Auto
Nikon	AF 18mm f/2.8D	Fixed	Type 1	Type 1	Auto
Nikon	AF 20mm f/2.8D	Fixed	Type 2	Type 2	Type 2
Nikon	AF 24mm f/2.8D	Fixed	Type 3	Type 3	Auto
Nikon	AF 28mm f/1.4D	Fixed	Type 1	Type 1	Auto
Nikon	AF 2.8mm f/2.8D	Fixed	Type 1	Type 2	Type 2
Nikon	AF 35mm f/2D	Fixed	Type 2	Type 2	Auto
Nikon	AF 50mm f/1.4D	Fixed	Type 1	Type 1	Auto
Nikon	AF 50mm f/1.8D	Fixed	Type 2	Type 2	Auto
Nikon	AF 85mm f/1.4D IF	Fixed	Type 2	Type 2	Auto
Nikon	AF 85mm f/1.8D	Fixed	Type 2	Type 2	Auto
Nikon	AF Micro 60mm f/2.8D	Fixed	Type 2	Type 2	Auto
Nikon	AF 180mm f/2.8D ED-IF	Fixed	Type 1	Type 1	Auto
Nikon	AF-S 300mm f/2.8D ED-IF	Fixed	Type 1	Type 1	Auto
Nikon	AF-S 400mm f/2.8D ED-IF	Fixed	Type 1	Type 1	Auto
Nikon	AF-S 500mm f/4D ED-IF	Fixed	Type 1	Type 1	Auto
Nikon	AF-S 600mm f/4D ED-IF	Fixed	Type 1	Type 1	Auto

For assistance in the USA, call 1-800-235-6325, ext. 82.

In Canada, call 1-800-465-6325, ext. 36100.

Eastman Kodak Company

343 State Street

Rochester, New York 14650 USA

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