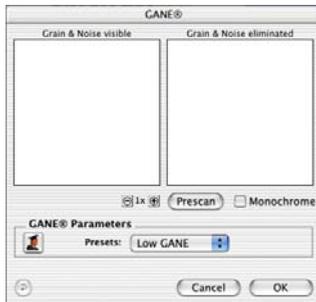# 6.4 GANE®

Grain- and Noise Removal

GANE (Grain- and Noise Elimination) is a *SilverFast* filter to remove or reduce film-grain and CCD noise

The reduction of grain-pattern and noise can be monitored in *SilverFast*'s "Before-After preview" and enables a secure judgement of the final results.

Today's modern, high resolution scanners bring out the grain from film, especially from films with high ASA/ISO-values. Suppression of noise is more relevant with older scanners or with digital cameras.

The intensity of the *GANE* filter can be easily controlled by the user with the before-after-preview. For finer adjustment the Expert-mode helps with additional slider. The Expert-mode is only available in *SilverFast* full versions.
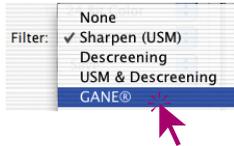
Important Preparatory Steps

Since *GANE* works like the "Unsharp Masking (USM)" filter in *SilverFast*, it is first necessary to carry out all steps of the normal *SilverFast* image optimisation workflow!

GANE is best used as last step, directly before starting the scan. You should at least set scaling and output resolution!
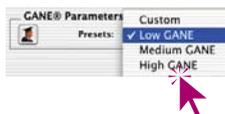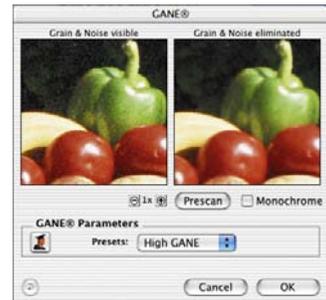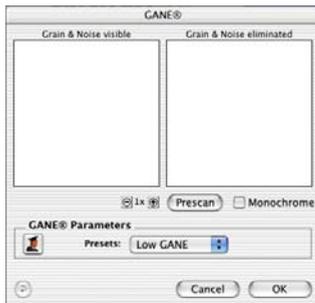
Activating *GANE*

GANE gets activated under Filter in the *SilverFast* main dialogue "Frame". The *GANE* dialogue window will open up.
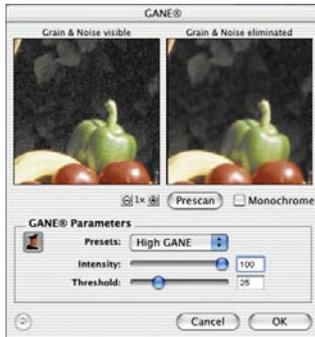
In order to monitor the *GANE* effect in the Before-after-preview, click the "Prescan" button and with the square mouse cursor click onto a significant image area in the image preview, so you have relevant image details to see the effect.
SilverFast will prepare a 1:1 scan, with the preset resolution, and display the results in the before-after-preview.

Now you only have to select a setting from the "Presets" menu.
In the example above the setting "High GANE" has been selected.

Expert Mode

Whenever the presets seem insufficient, you can activate the Expert-Mode by clicking onto the Expert button.
The dialogue window will now become larger and three extra sliders become visible.

Intensity: indicates the magnitude of the effect. The maximum value 100, indicates *GANE* will try to eliminate 100% of the noise in all of the image.

An "ideal" image without any noise will easily be interpreted as "artificial" by the human brain. For instance. an "ideal" single colour flat area, will seem artificial to the onlooker. On the other hand, an area containing a small amount of noise looks much more "natural".

Due to these facts, it seems to be reasonable to reduce the intensity with high quality scanners to 80% or less, or when the results look "unnatural" or "artificial".

Threshold: Here *GANE* tries to distinguish between unwanted noise and image details that have to be preserved. A small value means a smaller level of noise.

6.4 • GANE Graine and noise elimination *SilverFast*® Manual