

## 6.6 Multiple Sampling



Multiple sampling can be applied for some scanners that show a visible, strong noise in the shadow areas, in order to eliminate the artefacts.

From Version 641r6 onwards, *SilverFastAiStudio* and *SilverFastSEPlus* allows any scanner that runs with *SilverFast* to perform the multi-sampling function. This also includes scanners that were not initially meant to support this function.

This does not work with scanners having weak positioning behaviour. Frankly speaking, most scanners are mechanically not precise enough and overlaying several scans for noise reduction would result in „unsharp, out of focus“ scans. Therefore we had to develop a special process that would eliminate the lack of mechanical precision between the sampling scans.

This process is called *Multi-Sampling with Auto-Alignment*. The result is sharp scans with the noise artefacts eliminated or significantly reduced depending on the number of samples (4, 8 or 16). Now, in principle every scanner can profit from this method which as a result enhances the usable dynamic range showing scans with nice shadow details. Another benefit is, that with a much cleaner scan, so much more Unsharp Masking can be applied for a crisper image, without pronouncing the noise artefacts (since they are gone).



Multi sampling can be activated with its own button. The number of scans per scan frame can be 1, 4, 8 or 16 (the number depends on the scanner). A small number in the button will show the number of sample scans.



Please note that the entire scan time increases proportionally to the number of sample scans.



### \* Attention!

*This function is hardware dependant and is only available for some scanners.*

*Multisampling is done by software and is available for all SilverFastAiStudio und SilverFastSEPlus Versions.*

Only a few scanners use the multi-sampling while the CCD is not moving. The scanner stops and reads the CCD more than once, according to the preset number of sampling scans. The advantage lies in the faster speed (not much longer than a standard scan), but there is also perfect precision of register. In general, there is no loss of sharpness with this method.

