

Compression and Losses

Another myth is the statement that JPEG compression is always bad and details get lost; although unfortunately, this is true with most scanners that do the compression in the host PC. Image Access scanners compress to JPEG *inside* the scanner, utilizing a customized set of parameters to ensure the best possible compromise between noise suppression and JPEG artifacts. The result is a decently compressed file (1:10 – 1:25) with no visible JPEG artifacts - nearly as high quality as a TIFF raw file but with significantly reduced noise. The experienced reader will understand the following diagram after considering the following statements:

- Every optical system has a resolution limit (MTF).
- Compressing areas above the MTF adds noise, no content.
- Discarding areas below the MTF reduces high frequency details.
- A customized JPEG parameter set preserves more details.
- WT36 scanners all have a highly optimized JPEG compression engine developed by Image Access and tailored towards the camera properties.

