

the corresponding diapositive. If the diapositive is rejected, then a new diapositive must be produced, and this quality control process repeated.

Scanning (Softcopy Photogrammetry)

The following steps are to be used for quality assurance of the scanning process.

All equipment used for scanning aerial negative or positive film for the purpose of creating a digital image that will subsequently be used for aerotriangulation, stereo compilation, or orthophoto generation, must be certified by the manufacturer to be in good working condition to produce scans according to the manufacturer's originally stated specifications. Scanner calibration certificates (where applicable) must be current and validated by the manufacturer or a representative thereof.

All scans generated by a scanner must be of good radiometric and geometric quality. Interior Orientation values should not exceed 20 microns. These values and qualities must be verified by a senior technician or shift supervisor.

1. The material(s) being scanned (negative film or diapositive) will be visually inspected prior to scanning. The material(s) will be inspected to check for scratches, blemishes, discoloration, unusually dark or light areas, etc., which may affect the quality of the scanned images. Any material(s) failing the visual inspection will be reproduced. Any reproduced material(s) will be inspected as outlined above.
2. Normalization or calibration of CCD camera responses will be performed within manufacturer's recommended calibration range. Unacceptable normalization residuals must be corrected by authorized service, software checks, etc., before scanning commences.
3. Fiducial mark quality must be checked. All 8 fiducials should be visible, clear and sharp in the scanned image. If fiducials are of questionable quality, the affected images will be rescanned, and the original material reviewed for clarity. If appropriate, the original material will be reproduced in an effort to improve fiducial clarity and quality.
4. The manufacturer's recommended input values for Transmissivity (Tmin and Tmax), Density, and Gamma Correction, will be followed for all VDOT project-related scanned imagery.
5. A test scan will be performed on the first diapositive/negative, prior to scanning the entire project. Scanner settings will be adjusted as necessary to produce the best quality possible, meeting the requirements of the project. The test image will be visually checked for quality before final scanning is done.
6. Final scans will be reviewed for correct scan resolution, required image output format, and compression. Visual checks will be performed on the images after each scan is complete.

Aerotriangulation

The following steps are to be used for quality assurance of the aerotriangulation process.