

Quality Control

Quality control must be maintained throughout the life cycle of an image collection. Routines must be developed to verify both documentation (description, indexing, and metadata capture) and image capture and maintenance. Time and labor limitations may mean that it is only feasible to spot-check projects, in which case the frequency of such checks must be decided: for instance, one image in every ten, or every hundred, will be scrutinized.

Consistent image-capture guidelines and parameters should be established, and scans must be periodically reviewed and checked for accuracy, ideally against the source material, whether they are produced in-house or supplied by a vendor. Although automatic scanning is generally consistent, problems with exposure, alignment, and color balance occur often enough to require a quality-control component in any scanning program. Without quality control, it will not be possible to guarantee the integrity and consistency of the resulting digital image files. Steps should be taken to minimize the variations between different operators and different scanning devices. The operator and device, as well as the settings used, should be recorded for each scan; this can normally be done in bulk, and standardized settings can be developed for certain categories within the collection. Records need to be proofread and mechanisms such as controlled vocabularies utilized to ensure consistent data entry. Additionally, relationships between cataloguing records and image files need to be verified and/or developed.

Quality control must also be applied to all access files derived from master images and to all preservation copies made, on whatever media, as mistakes and technical errors can often be introduced during the process of duplication or migration. Files should be checked to ensure that all are correctly named, not corrupted, and so on. Files should then be stored in a secure archival environment that safeguards their authenticity and integrity, and quality checks should be incorporated into a long-term management plan and performed on a regular basis. There are various ways of ascertaining whether files have somehow been altered or corrupted; one method is to document and periodically compare **checksums**—the exact number of bits in a file at its most basic, or actual values and patterns of data using more complex checksum algorithms. Again, such measures require that adequate preservation and technical metadata be stored along with the image files. When selecting a networked storage solution, evaluate software management capabilities for error checking and file refreshing. CD-ROM error-checking software is also available. (See *Networks, System Architecture, and Storage and Security Policies and Procedures*.)