

Federal Agency Digitization Guidelines

Still Image Digitization Working Group Charter

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1 Purpose

The goal of this group is to identify and establish common standards, methods, practices, and guidelines (hereafter referred to as “guidelines”) for the digitization of static or still visual materials (such as textual content, maps, photographic prints and negatives) in a sustainable manner. A cooperative effort to develop common digitization guidelines will enhance the exchange of research results and developments, encourage collaborative digitization practices and projects among federal agencies and institutions, provide the public with a product of uniform quality and establish a common set of benchmarks for digitization service providers and manufacturers.

2 Scope

The focus of the work is historical, cultural and archival materials. The scope will be limited to digitization practices for still images, primarily treating objects as two-dimensional. Basic encoding/formatting of image data within a “master” image file is considered in scope as well as the associated metadata (technical, administrative, preservation, etc.). The work will emphasize the metadata embedded within the image file itself. Motion picture image content and “born digital” images are out of scope.

Guidelines are of limited value without the means to ascertain whether practices conform to those guidelines. For that reason, project scope will include methods to verify conformance to the guidelines within the scope of the charter.

The creation and validation of the digital "master" are the primary focus of this effort, although the creation of derivative images and specific image byproducts (e.g., optical character recognition) are also considered within scope. Because aspects of derivative production are dependent on characteristics of the master file and associated metadata, the effective creation of derivatives will be a consideration in determining guidelines for digital masters.

The group will also provide guidance related to the benefits and risks associated with the sequence and nature of processing applied from image capture, to sensor transfer, to the formatting of the image file(s).

3 Participants

3.1 Federal

All United States Federal agencies and institutions (herein after referred to as "agencies") involved in digitization activities within the scope described in this charter are encouraged to participate. All agencies desiring to participate will designate one or more representatives. These representatives will include staff responsible for, involved with, or possessing special knowledge of digitization as described in §2 of this document. While representatives may limit their participation to specific areas, a core group will be required to be involved throughout the full process of drafting, review and finalization of

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the joint guidelines. Other participants may elect have a lower level of involvement limited to providing comments and opinions on draft guidelines awaiting approval.

3.2 Non-Federal Experts

The technical arenas of conversion, imaging, and metadata are highly specialized and constantly evolving. To address the challenge of developing federal guidelines in these fields, subject matter experts in a variety of specialties, as well as experts with broad experience in all aspects of digitizing cultural heritage materials, will be identified to advise the group. These experts will be sought from the corporate and academic communities as well as from governmental agencies.

It is recommended that a designated senior imaging scientist be invited on board the project as a consultant at the onset and remain involved throughout the work. This individual must have broad expertise in all areas of imaging that pertain to the digitization of cultural heritage materials with particular depth in areas of image quality metrics.

4 Approach

The guidelines will be objectives-based. Therefore a crucial prerequisite will be to identify and define the objectives driving digitization. Three central components determine specific digitization guidelines: 1) the digitization objectives, such as access to intellectual content, preservation, etc.; 2) the physical characteristics of the objects to be digitized; and 3) a foundation of quality or performance metrics to be used in describing and evaluating the digital object.

All reasonable efforts will be made to base the guidelines on empirical evidence. Where no empirical evidence exists, the guidelines will rely on broadly accepted best practices and current guidelines. Areas lacking empirical studies will be highlighted in the hopes of encouraging further study in these areas. These will be documented in a regularly updated Gap Analysis document. Where practical, studies will be conducted to resolve ambiguity in existing practices.

5 Process

5.1 Discovery

The first phase will focus on identifying existing guidelines and practices, primarily among participating agencies, but also among other recognized institutions in the field, then evaluating the relevance and strength of those guidelines.

The discovery process will begin with a comparative analysis of existing guidelines published by the agencies participating in this project. Differences between the guidelines documents will be identified and documented. It is recommended that the NARA Technical Guidelines¹ serve as a baseline point of comparison. The NARA document is

¹ U.S. National Archives and Records Administration (NARA) Technical Guidelines for Digitizing Archival Materials for Electronic Access: Creation of Production Master Files – Raster Images, June 2004.

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the most commonly cited of the federal documents describing digitization guidelines, and is well organized for purposes of comparison.

In addition to this cross-agency comparison, the existing guidelines will be evaluated against a hypothetical ideal, with gaps identified and documented. Examples of gap areas might include specific aspects of digitization such as noise or sharpening, or broader areas such as digitization objectives and definitions. Documented differences and gaps will be evaluated against scope, and then assigned priorities by the working group as project tasks to be shared among agencies.

5.2 Conceptual Framework

For practical guidelines to be established, a conceptual framework representing the processes across the lifecycle needs to be developed. The framework must describe objectives, analog object characteristics, the multiple steps of material handling, imaging, formatting, quality assurance and metrology, and delivery. Mapping guidelines to this framework will help to ensure consistency across subcommittee work, provide a rational and systematic approach to guidelines, and take advantage of a common vocabulary.

5.3 Definitions

In parallel with the discovery effort:

- Digitization objectives will be clearly articulated in a manner that can be satisfied through technical processes
- Definition and classification of record types and digitization purposes/outcomes will be agreed upon
- A common vocabulary will be established for processes and technical factors.

5.4 Guidelines Development

Initial guidelines will be developed based on the discovery and definition phases. The development will proceed in stages, with each stage focusing on a specific area of digitization. Guidelines in development will be published to a secure web site for review and comment by participating agencies. Further development in the guidelines area will proceed based on gaps identified and described as discussed in Section 5.1 above.

5.5 Review

Draft guidelines will be developed in stages, with an initial concentration on those areas with the least ambiguity and greatest understanding. As a draft is completed and tentatively approved by the subcommittee, it will be published to an open, public website with an invitation for comment within a 45-day period. A consistent means of broadcasting/communicating the release of draft and final metadata schema will be established.

5.6 Finalization

Comments will be actively solicited from external entities and considered for incorporation before final guidelines are published. The finalized documented guidelines will be made accessible on a public web site. While agencies will likely have guidelines specific to

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unique needs, it is assumed that the core guidelines developed under this charter will be followed by all participating agencies to the extent practical.

5.7 Updates

The guidelines documents will be collectively reviewed by participating agencies at regular intervals as determined by a consensus of the participating agencies. Agencies may also request out-of-cycle reviews to consider additions or revisions of a pressing nature or necessitated by advances in research or technological developments.

5.8 Communication and Collaboration Resources

The group described here will be highly collaborative, involving multiple federal agencies, and inviting input from outside organizations and corporate entities. Tools for collaboration and for communication will be identified, defined, developed, and promoted as a priority. The core representatives will meet on a regular basis, and tools will be developed for collaborative communications outside scheduled meetings. These may include such vehicles as wikis, listservs, web sites, conference calls or means of remote collaboration.

The www.digitizationguidelines.gov site will be used to communicate the objectives, methodology, progress and conclusions of the group, as well as to solicit public input on draft guidelines.

6 Deliverables

- Definitions of digitization objectives
- Standard classifications of content types
- A foundational model describing imaging quality/performance characteristics and metrics
- Technical and process definitions
- Published draft and final digitization guidelines within the scope of this charter
- Published conceptual framework for the digitization process
- Development of a public web site to communicate the activities under this charter, including the posting of draft and final guidelines

7 Timeline

To be developed during the course of activities through common agreement of participating agencies.