

## INTRODUCTION

With a gift from Ameritech, the Library of Congress is sponsoring a competition to enable public, research, and academic libraries, museums, historical societies and archival institutions (except federal institutions) to create digital collections of primary resources. These digital collections will complement and enhance the collections made available on the Internet by the National Digital Library Program at the Library of Congress. The National Digital Library is envisioned as a distributed collection of converted library materials and digital originals to which many American institutions will contribute. The Library of Congress's contribution to this World Wide Web-based virtual library is called *American Memory* and is created by the Library's National Digital Library Program.

The aim of the *American Memory* project is to provide a gateway to rich primary source materials relating to the history and cultural development of the United States. The ability to represent and store text and images in digital form and the existence of the Internet combine to permit access from libraries, classrooms, and homes across the country to resources that have previously been available only to those who visited the particular libraries and archives where the physical artifacts were housed. Because digital resources can be used remotely and repeatedly without damage or deterioration and can be presented in new ways as technology develops, the digital collections being assembled can be mined to fuel the educational process at all levels for generations to come.

One objective of this National Digital Library Program is to assemble resources that will be of immediate and long-term use to students in elementary and secondary schools, to college students and faculty, and that will also be of particular interest to the American public. These resources include the histories of political, social and cultural institutions, individuals and groups, the built and natural environments, and popular culture.

Applications will be evaluated by scholars, educators, administrators, and technical specialists external to the Library of Congress. Evaluators for the competition will be convened by the Division of Preservation and Access of the National Endowment for the Humanities and the Council on Library and Information Resources.

**The primary criterion for evaluation of an application will be the significance of the collection for historical understanding and its utility to students and the general public. Once evaluators have assessed the significance and utility of the proposal, they will assess the technical and administrative viability of the project's plan of work.**

**Applications from Association of Research Libraries (ARL) and non-ARL institutions will be evaluated separately. In the final selection among meritorious projects, consideration will be given to relevance to the subjects outlined below and to the size, type, and geographical location of the applicant institution.**

**For this competition cycle, applications will be accepted for collections of textual and graphic materials that illuminate American history and culture beginning with the contact period in 1492 and continuing through the colonial and nation building eras to 1920.** The competition encourages the submission of proposals for collections that illuminate the transformation of U.S. culture and society, showing both the distinctive qualities of historical eras and groups as well as the larger amalgam that constitutes the nation's unique tradition and identity. Collections that document the experience of an individual community, an historical event, or a cultural phenomenon should be selected or presented so that they can be seen in the context of larger social, economic, or political currents of the period. The digital collections and introductory materials together should constitute a broad view of a particular place, time, or subject.

For the 1998/99 cycle, the competition is **especially interested** in proposals that illuminate the following subject:

**Meeting of Frontiers.** As Frederick Jackson Turner made vivid for generations of Americans, the exploration and settlement of the American West with all that it connotes was deeply etched into American self-perceptions during the nineteenth century. A comparable experience occurred for the Russians in their far east and from 1784 until 1867 in Alaska. Modern linguistic and ethnographic scholarship, issues concerning land rights and natural resources, studies of mining booms and economic growth, combined with better knowledge of local historical records now permit a more nuanced story of the opening of the frontiers in the West and the Northwest. The competition welcomes materials that illustrate this complex process from the points of view of any of the many peoples involved.

The competition is **also interested** in the following subjects:

**Science and Technology.** From the colonial period to the 1920s Americans were often perceived, and thought of themselves, as technically inventive and proficient: the steam boat, the cotton gin, the sewing machine, the steel bridge, the portable printing press, the typewriter, the airplane, the assembly line, and agricultural machines are outstanding examples. Materials bearing upon these or other technological

transformations are particularly welcome. In science as well, Americans made outstanding contributions in the eighteenth and nineteenth centuries. Pioneers in fields such as botany and zoology, ornithology, medicine, exploration, chemistry, geology, and physics are well known. The competition seeks related materials documenting the history of scientific description, experimentation, and achievement.

**Church and Society.** During the colonial era the thirteen colonies' governing bodies had varying relations with religious denominations and shifting levels of protection of religious freedom. These relationships changed over time and were shaped by a range of social, cultural, and economic factors. Materials illustrative of these relationships are welcome. Examples include the intersection of secular and religious rhetoric during the American Revolution; the rise of the First and Second Great Awakenings, and innovations leading to new religious organizations and charitable associations. The competition welcomes materials illuminating the history of Church and society.

## ELIGIBILITY

The Library of Congress/Ameritech National Digital Library competition staff will review each application and verify that the following objective criteria for eligibility have been met:

- The application comes from a non-federal, tax-exempt, non-profit cultural repository in the United States.
- The application has been postmarked by the application deadline (November 2, 1998).
- A signed original and eleven copies of the application have been submitted.
- All required information has been entered on the cover sheet and budget form.
- The application conforms to the subject, chronological, and format specifications announced for the 1998/99 competition (United States history and culture, 1492-1920, textual or graphic primary resources.)

The Library of Congress will acknowledge the receipt of each application no later than December 4, 1998.

## CONSORTIAL PROJECTS

A consortium should be composed of a lead institution that may be a member of the Association of Research Libraries (ARL) and one or more non-ARL institutions with emerging digitization programs. All members of a consortium must be non-federal, tax-exempt, non-profit cultural repositories in the United States. The lead institution will take full responsibility for the plan of work and the administration of the award. The staff at the lead institution will be the primary contact for the technical advisor at the Library of Congress who will facilitate integration of the consortium's digitized collection with the *American Memory* collections. It is intended that the staff of the lead institution serve as mentors for the staff at non-ARL institutions in the consortium. Applications from consortial projects will be judged by the same evaluation criteria as applications from single institutions. In addition, the collections proposed as a group for digitization by a consortium must be intellectually coherent and constitute a more significant body of materials than would be the case if the collections were presented separately.

## AMOUNT OF AWARD

- Up to \$75,000 for a single institution.
- Up to \$150,000 for an eligible consortium.

## EVALUATION PROCESS

Each application will be evaluated by experts external to the Library of Congress. These will include scholars, educators, librarians, archivists, administrators, and technical specialists. Evaluators for the competition will be convened by the Division of Preservation and Access of the National Endowment for the Humanities and by the Council on Library and Information Resources.

## EVALUATION CRITERIA

Principal criteria for evaluation will be:

- Significance of the collection's content for understanding United States history and culture, as well as its breadth of interest and utility to students and the general public.
- Availability and usability of aids to intellectual access that can be integrated into the *American Memory* resource.

- Technical and administrative viability of the project's plan of work in relation to the scope of the project.

Applications from ARL institutions and those from non-ARL institutions will be evaluated separately. Consortial projects will be evaluated with the non-ARL group. In the final selection among meritorious projects, consideration will be given to relevance to the subjects outlined in the introduction and to size, type, and geographical location of the applicant institution.

## PREPARING AN APPLICATION

The elements of the application should be assembled in the order specified on the verso of the front cover.

### 1. Application Cover Sheet

Use the form supplied in these instructions. If the cover sheet is prepared using word-processing software, replicate the layout of the form. Do not omit any category of information. The "Brief description of project" should not exceed the space provided (or ten lines, if word-processed.) It may be best to complete the cover sheet last, after all other parts of the application have been prepared.

### 2. Executive Summary

A one-page précis of the project.

### 3. Table of Contents

List and supply continuous page numbers for the various parts of the application, including any appendices.

### 4. Narrative

The narrative should be concise and written in such a way that it is comprehensible to a general reader and addresses the criteria for evaluation specified on page 2. Discussion of technical issues should reflect the understanding of the applicant, and not merely incorporate the language of vendor or service bureau literature. If an element is lacking in the application, its absence should be explained.

The narrative should not exceed ten pages, and should address the following points:

#### a. The Collection

##### *Description*

- Describe the collection **that is to be digitized in the course of the project**. How many items does it encompass (or linear feet or other commonly accepted measure)? If the collection consists of items in more than one format, describe

the formats and how many items of each format exist in the collection. You may summarize this in chart form or use the optional form on page 25. **Provide in an appendix at least one example of each genre, format, or type of material.**

##### *Significance*

- **The significance of the collection is a primary criterion for evaluation.** Discuss the ways the collection can be used for both education and research in the history and culture of the United States of the period 1492-1920.

Describe the major regional or national issues which could be addressed on the basis of this collection. **Provide examples that refer to specific items or aspects of the collection.**

Describe any formal or informal consultations with scholars and educators about the potential widespread usefulness of the collection.

If only a portion of a collection is to be digitized, describe the selection criteria and explain who will make the selection.

##### *Audience and Users*

- Describe the users of the collection in its current format, whether original or a surrogate (e.g., microfilm, transcription).
- Describe any current or planned efforts to increase access to the collection for the elementary, secondary, or college-level education community.
- Explain how conversion into electronic format will enhance use of the collection. Will the audience change? How will the intellectual use of the collection change?

##### *Relationship to American Memory, Other Digitized Collections, and Subject Emphases for the Competition*

- Explain the ways in which the collection complements or augments current and future *American Memory* collections, and specifically how the proposed collection relates to the categories of current and future collections shown on page 9.
- Describe the ways in which the proposed project relates to the subjects outlined in the introduction to the guidelines.
- Describe any other versions of the proposed col-

lection that may be accessible in electronic form or any collections of similar content that have already been mounted on the Internet.

#### *Preparation and Preservation of Collection*

- Describe the condition of the material and the impact of the process of digitization on the originals.
- Explain any physical treatment that will be necessary to prepare the material for digitization.
- Explain the provisions for care of the collection (and for any photographic intermediates created in the course of the project) following digitization.

#### *Ownership, Privacy, and Copyright Issues*

- Identify any privacy or other intellectual or physical property rights restrictions attached to the collection and indicate how they have been or will be resolved.

*(Note: Collections that are digitized with awards from this competition must be distributable on the Internet. See sections G and H of the Sample Cooperative Agreement, pages 18-19.)*

### **b. Intellectual Access**

Digital files cannot be used without appropriate aids to access. Access to documents or images can be facilitated through catalog records or a finding aid, while textual materials also may be converted to a form that allows searching for words within the text. An essential aspect of the application is an explanation of the linkage between intellectual access aids and digital images or texts. An institution may choose to mount the digital collection itself or have the Library of Congress mount the collection, but in either case, **a copy of all access aids must be delivered to the Library of Congress to allow searching across all American Memory collections.**

All applications should include a discussion of the following issues, which have been derived by the Library of Congress from its experience in digitizing its own collections and in collaboration with other institutions.

#### *Structure of Intellectual Access*

- Explain how intellectual access to the content of the digital collection will be provided. Describe the format to be used for catalog records or a finding aid (archival register). If some other approach or format is to be employed, explain.

**Provide examples.** If not providing full searchable text for textual materials, please discuss how adequate access will be achieved. This is particularly important for long textual works, for which turning through page-images would be inadequate. How is the collection organized?

*(Note: The competition will provide funds for modifying records as necessary to link to digital reproductions, but it will not pay for processing unprocessed collections.)*

- For bibliographic descriptions that are not based on MARC or Dublin Core data elements, discuss how they could be mapped or converted to one of these formats. Provide examples of catalog records and describe the elements and the structure of records in non-standard formats.
- If intellectual access for components of the collection will be provided through differing forms of access aids, describe how you will also provide coherent access to the collection.
- Explain the method and level of subject access. Does the access aid employ commonly accepted subject thesauri such as *LCSH (Library of Congress Subject Headings)*, *AAT (Art and Architecture Thesaurus)*, or *TGM (Thesaurus for Graphic Materials)*? If some other method of providing subject access is to be used, describe and explain the method.
- Explain the level of description to be employed. Description should operate at a level corresponding to links to the digital reproductions. Each link from an access aid should point to a single digital resource, addressable by a single Uniform Resource Locator (URL) for the World Wide Web. The digital resource may represent a multipart item (such as a manuscript folder or a map reproduced in segments), or a grouping of closely related objects treated as an item (such as a set of photographs of the same subject). If some other approach is to be employed, explain.

#### *Links from Access Aids to Digital Reproductions*

- Explain the identifier system that will be used to link the catalog records or finding aid to the digital reproductions. To allow use of copies of these access aids in systems at the Library of Congress and at the applicant institution (or in other shared catalogs or systems as desired by the applicant institution), links should be

specified in a form that supports access across the World Wide Web (typically a URL).

- Describe the elements in the catalog records or finding aid that will support the links to the digital reproductions.

#### *Intellectual Context*

- Describe the introductory materials that are or will be prepared to illuminate the proposed collection's historical significance. Introductory materials may include short essays, bibliography, biographical, and/or chronological information. Introductory materials should be accessible to a wide audience and prepared in Hypertext Markup Language (HTML). Also, describe the qualifications and background of those drafting the introductory materials.

#### *Access through Bibliographic Utility*

- Describe how one or more bibliographic records supporting access to the digital collection will be made available through a national bibliographic utility.

#### *Staff*

- Describe the experience of staff in providing intellectual access to comparable materials. If project staff are to be hired to modify cataloging or provide historical context for the collection, describe the required qualifications and indicate the experience of existing staff in supervising such work.

Further discussion of many of these topics may be found in the Technical Notes on Interoperability and Access Aids (page 14).

### **c. Digital Conversion Methodology**

#### *Production Process*

- Describe the overall process, **including the method for carrying out quality review**. Production approaches may include the direct capture of original items by means of a scanner or camera, or capture from photographic intermediates, including microfilm.

#### *Format*

- Specify the format or formats for digital reproductions, including level of resolution, and compression and, where relevant, markup schemes for searchable text. Select formats that

are in common use and that can be deployed over the World Wide Web. For further discussion of digital formats in use at the Library of Congress and some factors that may influence the choice of format, see the Technical Notes on Formats for Digital Reproduction (page 11).

- In the Forms section of the 1998/99 Guidelines and Application Instructions there is an **optional** form titled Categories of Material and Formats for Digital Reproductions. Completion of such a form may be particularly useful for proposals incorporating a heterogeneous collection of material types. Also provided is a sample completed form.

#### *Consultants and Outside Vendors*

- If a consultant is to be employed using award funds (non-ARL institution only), discuss the criteria used to select the consultant. If a consultant has been selected, include the name and résumé.
- If a vendor or service bureau is to be used to perform the digital conversion, explain the criteria that will be used to select a vendor, and the capacity of staff to monitor the vendor's performance.

#### *In-house Production*

- If digital conversion is to be performed in-house, describe the hardware and software to be used (or the criteria to be used in their selection) and discuss the prior experience of staff in their use for materials similar to those proposed for digitization.

### **d. Provision for Delivery and Network Access**

- Ongoing World Wide Web access for the general public to the digital reproductions may be provided by the applicant or by the Library of Congress. If the applicant provides access, the collection must be structured so as to permit the Library to integrate copies of the catalog records or finding aid into *American Memory* in a way that will appear seamless to the user.

#### *For Collections to Be Mounted by the Institution*

- If the institution plans to assemble and mount the collection on its own system, explain how it will provide individual addresses for the repro-

ductions that can be resolved via the World Wide Web, using the names imbedded in the catalog records or finding aid. Describe the format and medium for delivery of the catalog records or finding aid and introductory materials to the Library of Congress. Describe the current or proposed facilities of the applicant for supporting World Wide Web access and the prior experience of staff in such projects.

- If the applicant has mounted materials or information on the Internet, provide a Uniform Resource Locator (URL) or instructions for access to the material.

*For Collections to Be Mounted by the Library of Congress*

- If the Library of Congress is to assemble and mount the collection, describe the format and medium for delivery of the catalog records or finding aid, introductory material, and the reproductions. Estimate the disk space required to store the digitized materials.

*Preservation and Maintenance of Files*

- Explain how the information will be maintained and made accessible into the future. Describe the institution's current capabilities to carry out these activities.

#### e. **Plan of Work**

- Provide a plan of work in tabular and/or narrative form that describes the goals or benchmarks of the project in six-month segments. All project activities must take place within an 18-month period.
- Include all elements of the plan of work necessary to the implementation of the project, not just those to be supported by Library of Congress/Ameritech competition funds.
- Make clear which project staff will be involved in each task. Describe the staff's experience in managing or performing comparable types of work.
- Discuss how any costs of the project that would not be supported by a Library of Congress/Ameritech award would be met.

#### 5. **Budget**

Awards will not exceed \$75,000 for a single institution and \$150,000 for a consortium. Only costs directly associated with digital conversion may be

included in the request (e.g., scanning, modification of cataloging records or finding aids to link to digital reproductions, quality control of digital images). Equipment may not be purchased with award funds. Institutions may use award funds for a vendor or service bureau to supply scanning services. The institution will be expected to bear costs of administrative overhead, preparation of original materials for digitizing, provision of intellectual access to or preservation of the original materials, and future maintenance of digital materials. Institutions that are not members of ARL may include the costs of a consultant who will assist in the process of digital conversion.

All of the items listed in the budget, whether supported by award funds or cost-sharing contributions, must be reasonable, necessary to accomplish project objectives, auditable, and incurred during the award period. A complete itemization of the projected costs of any third-party contractor should be attached.

Use the budget form supplied in the appendix of these instructions. If the budget is generated by word-processing or spreadsheet software, follow the layout of the form as closely as possible.

If the applicant is considering using the LC/Ameritech award to match federal funds from another agency, consult the appropriate official of that agency to determine whether such a match will be permitted.

#### 6. **Appendices**

Appendices should be attached that contain clearly explained relevant material. Provide examples of catalog records and describe the elements and the structure of records in non-standard formats. In addition, provide examples from the proposed collection, examples of previous work or planned access aids, brief (two-page) résumés describing related experience and qualifications of project staff, job descriptions for project hires, or requests for proposals from vendors. Indicate the nature of a consultant's responsibilities, if one is used; attach a brief résumé.

Please provide 10 extra copies of all printed or bound materials in appendices (e.g., published finding aids, vendor literature.)

## PROJECT ADMINISTRATION

Catalog records and finding aids for new collections must contain certain elements in common with *American Memory* catalog records and finding aids being created at the Library of Congress. Since these practices may continue to evolve, the Library will work closely with awardees to determine specific details. (See Technical Notes on Interoperability and Access Aids, page 14.)

If funding is awarded, the applicant organization must enter into a cooperative agreement with the Library of Congress (see the generic agreement on page 18). The applicant organization will be responsible for ensuring that the award is administered in accord with the following provisions:

Project activities must commence within the Library's fiscal year in which the award is made (i.e., before October 1, 1999.) Over the period of award activity, an awardee will provide status reports at six month intervals that describe the accomplishments to date and indicate how successful the awardee has been in measuring up to the goals described in the project's plan of work. The final cumulative report on the project will be due within three months after the end of the award period.

The award will be made in two payments: 85% of the award will be given at the outset and 15% when the final report is accepted.

Significant changes in the scope, focus, and objectives of the project require prior approval by the Library of Congress. The replacement of the project director or other key staff members who are specifically named in the proposal also requires prior approval by the Library of Congress.

Adequate documentation of the time spent on award activities by all project personnel must be maintained by the awardee.

When project work is subcontracted with a third-party vendor, the awardee must develop a contract with the vendor that confirms the costs of the subcontracted activity over the period of the award. The contract should also contain production benchmarks and quality control review procedures.

All procurement transactions should be conducted in a manner that provides, to the maximum extent practical, open and free competition.

Awardees should acknowledge the Library of Congress's and Ameritech's support in all materials resulting from or publicizing award activities. The Library of Congress will publicize the contributions of awardees to the National Digital Library.

To comply with federal regulations for auditability, the awardee must have a financial management system that records separately and accurately within its general accounting system the receipt and disbursement of award funds and cost-sharing contributions and that monitors all transactions related to the expenditure of these funds against the approved budget. The Library of Congress and its duly authorized representatives will have the right during the awardee's normal business hours to audit and examine books of account and records with respect to the subject matter and terms of the award. The awardee will keep all books, accounts, and records available for at least three years after the completion of the work funded by the award.

## ADVICE FROM EVALUATORS

During and after the first two rounds of the competition, the staff asked the evaluators for their thoughts about how the individual proposals might better address various elements of an application. The following is compiled from their comments.

### General Advice

Make sure the proposal is cohesive and coherent. Place your documents or images in historical context, tell the story they relate, and convey a sense of what users will take away from them.

### Description of Collection

Describe the content of the collection in enough detail so that someone not familiar with it can make a sensible determination about its value for education and research.

Demonstrate how the materials are integrated into a unit; how the parts reflect a coherent whole; and how the parts relate to other parts of the whole.

Representative examples are very useful in presenting the contents of a collection. Provide at least one example of each genre, format, or type of material in the collection. Give the reason for your choices.

### Significance of the Collection

Justify the choices that will be made in selecting portions of a collection for digitization.

The advice of a scholar or specialist in the subject of the collection could enhance the ability of the applicant to make an argument for the significance of the collection.

### Audience and Users

Work closely with teachers and scholars to reach out to new audiences.

Describe potential audiences in specific terms (such as Advanced Placement history students or doctoral candidates or Civil War buffs) and describe how each is to find its way through the collection.

As time is a real constraint for K-12 teachers, explain how a teacher can help a class find the materials, learn from them, and exit without spending an inordinate amount of time. This need not be the only use of the materials, but it should be accessible in this way to this audience. Provide an interpretive paragraph or two about the significance of the material that will serve as a guide for the teacher and students. These paragraphs should be focused specifically on the material, rather than vaguely referring to the historical context.

### Intellectual Access

Samples of catalog records and finding aids demonstrate the level and nature of intellectual access to a collection. If not providing full searchable text for textual materials, please discuss how adequate access will be achieved. This is particularly important for long textual works, for which turning through page-images would be inadequate.

Evaluators consider introductory materials a critical component of accessibility and usability. Preparing these materials are considered part of the institution's cost-sharing. For an example of introductory materials, see *The Northern Great Plains* in the *American Memory* collection, (<http://memory.loc.gov/ammem/award97/ndfahtml/ngphome.html>).

### Technical Matters

Collections with great diversity of materials are appealing to all audiences. However, diverse formats and genres also present a number of technical difficulties. Explain how users will search across different materials and how you propose to integrate distinctive types of material into the *American Memory* collections.

In the Forms section of the 1998/99 Guidelines and Application Instructions there is an **optional** form titled Categories of Material and Formats for Digital Reproductions. Such a form may be particularly useful for proposals incorporating a heterogeneous collection of material types. Also provided is a sample completed form.

Provide evidence of any technical experience you have in digitization projects. Demonstrate how that experience and the lessons learned from it relate to the project being proposed.

For institutions without experience in digitization projects, it is a good idea to seek the advice and help of a consultant before formulating a plan for digitizing the collection.

### Budget

The budget is an important component in evaluators' determination of the feasibility of a project. Complete the budget form as completely as possible, providing details about how the cost of digitization was determined and relating the plan of work to the budget. Also, please provide a detailed account of cost-sharing, highlighting the contributions of the applying institution.

### Appendices

Limit résumés to two pages; include only those elements that are relevant to the project for which the application is being made.



## Selected American Memory Collections

Current and Future Collections by Period	Exploration and Colonial Settlement: 1492-1763	The American Revolution: 1780-1815	The New Nation: 1780-1815	Expansion and Reform: 1801-1861	Civil War and Reconstruction: 1850-1877	Development of the Industrial U.S.: 1876-1915	Emergence of Modern America: 1890-1930
The African-American Experience in Ohio, 1850-1920 (Ohio Historical Society) <sup>1</sup>					X	X	X
African-American Perspective: Pamphlets from the Daniel A.P. Murray Collection, 1818-1907				X	X	X	X
African-American Sheet Music Digitizing Project (Brown University) <sup>1</sup>					X	X	X
America's First Look into the Camera: Daguerreotype Portraits and Views, 1839-1864				X	X		
An American Ballroom Companion: Dance Instruction Manuals, ca. 1490-1920	X	X	X	X	X	X	X
American Environmental Photographs, 1897-1931 (University of Chicago) <sup>1</sup>						X	X
American Indians of the Pacific Northwest, 1763-1920 (University of Washington) <sup>1</sup>	X	X	X	X	X	X	X
American Landscape and Architectural Design, 1850-1920: A Study Collection from the Harvard School of Design (Harvard University) <sup>1</sup>					X	X	X
American Leaders Speak: Recording from World War I and the 1920 Election, 1918-1920							X
American Life Histories: Manuscript from the Federal Writers' Project, 1936-1940						X	X
The American Variety Stage: Vaudeville and Popular Entertainment, 1870-1920					X	X	X
Around the World in the 1890s: Photographs from the World Transportation Commission, 1894-1896						X	
Baseball Cards, 1887-1914						X	X
Built in America: Historic American Buildings Survey/Historic American Engineering Record, 1933-Present	X	X	X	X	X	X	X
By Popular Demand: Jackie Robinson and Other Baseball Highlights, 1860s-1960s					X	X	X
By Popular Demand: Portraits of the President and First Ladies, 1789-Present		X	X	X	X	X	X
By Popular Demand: 'Votes for Women' Suffrage Pictures, 1850-1920					X	X	X
"California as I Saw It": First Person Narratives of California's Early Years, 1849-1900				X	X	X	
California Gold: Northern California Folk Music from the Thirties	X	X	X	X	X	X	X
A century of Lawmaking for a New Nation: U.S. Congressional Documents and Debates, 1774-1873	X	X	X	X	X		
Curtis, North American Indian Digitizing Project, 1900-1920 (Northwestern University) <sup>1</sup>						X	X
Documents from the Continental Congress and the Constitutional Convention, 1774-1789	X	X					
Early Motion Pictures. 1897-1916						X	X
The Emergence of Advertising in America, 1850-1920 (Duke University) <sup>1</sup>					X	X	X
The Evolution of the Conservation Movement, 1850-1920					X	X	X
First-Person Narratives of the American South, 1860-1920 (University of North Carolina, Chapel Hill) <sup>1</sup>					X	X	X

**Notes:** This matrix highlights Current and Future Collections according to historical period. Information about collections, including format type, are available online at <http://memory.loc.gov/ammem>. Additional collections whose primary focus is later than 1920 have been excluded from this matrix.

<sup>1</sup> LC/Ameritech Award Winner

## Selected American Memory Collections - (continued)

Current and Future Collections by Period	Exploration and Colonial Settlement: 1492-1763	The American Revolution: 1780-1815	The New Nation: 1780-1815	Expansion and Reform: 1801-1861	Civil War and Reconstruction: 1850-1877	Development of the Industrial U.S.: 1876-1915	Emergence of Modern America: 1890-1930
The George Washington Papers at the Library of Congress, 1741-1799	X	X					
Haymarket Affair: Chicago Anarchists on Trail (Chicago Historical Society) <sup>1</sup>						X	
Historic American Sheet Music Project (Duke University) <sup>1</sup>					X	X	X
History of the American West, 1860-1920 (Denver Public Library) <sup>1</sup>					X	X	X
The Information Age Starts Here: Broadside from 1527 to the Present	X	X	X	X	X	X	X
Inventing Entertainment: Early Motion Pictures and Sound Recording from the Thomas A. Edison Companies						X	X
Lincoln and the Civil War in Song: Sheet Music from the Stern Collection, 1859-1900					X	X	X
Map Collections, 1639-1988	X	X	X	X	X	X	X
Mr. Lincoln's Virtual Library				X	X		
Music for the Nation: American Sheet Music 1870-1885					X	X	
The Northern Great Plains, 1880-1920: Photographs from the Fred Hultstrand and F.A. Pazandak Photo Collection (North Dakota State University, Fargo) <sup>1</sup>						X	X
Panoramic Maps, 1847-1921					X	X	X
Pioneering the Upper Midwest: Books from Michigan, Minnesota, and Wisconsin					X	X	X
Prairie Settlement: A Story of Determination, 1886-1912 (Nebraska State Historical Society) <sup>1</sup>						X	X
Poet At Work: Recovered Notebooks from the Thomas Biggs Harned Walt Whitman Collection					X	X	
Puerto Rican Portrait	X	X	X	X	X	X	X
Railroad Maps of North America, 1828-1900				X	X	X	X
Reclaiming the Everglades: South Florida's Natural History (University of Miami) <sup>1</sup>						X	X
Selected Civil War Photographs from the Library of Congress					X		
Small Town America: Stereoscopic Views from the Dennis Collection, 1850-1910 (New York Public Library) <sup>1</sup>					X	X	X
The South Texas Border, 1900-1920: Photographs from the Robert Runyon Collection (University of Texas) <sup>1</sup>						X	X
Spanish-American War Motion Pictures and Sound Recordings, 1898-1900						X	X
Taking the Long View: Panoramic Photographs, ca. 1852-1991			X	X	X	X	X
The Thomas Jefferson Papers at the Library of Congress	X	X	X	X			
Touring Turn-of-the Century America: Photographs from the Detroit Publishing Company, 1880-1920						X	X
Traveling Culture: Circuit Chautauqua in Twentieth Century, 1890-1940 (University of Iowa) <sup>1</sup>						X	X
Votes for Women: Selection from the National American Women Suffrage Association Collection, 1848-1921				X	X	X	X
Words and Deeds in American History: Selected Documents from the Manuscript Division	X	X	X	X	X	X	X

**Notes:** This matrix highlights Current and Future Collections according to historical period. Information about collections, including format type, are available online at <http://memory.loc.gov/ammem>. Additional collections whose primary focus is later than 1920 have been excluded from this matrix.

<sup>1</sup> LC/Ameritech Award Winner

# TECHNICAL NOTES ON FORMATS FOR DIGITAL REPRODUCTIONS

## Introduction

### Formats in Use at the Library of Congress for Historical Collections

1. Pictorial Materials
2. Textual Materials Reproduced as Searchable Text and Images
3. Images of Textual Materials
  - a. Images of Manuscripts and Printed Documents
  - b. The Special Problem of Illustrations in the Form of Printed Halftones
4. Textual Materials Reproduced Only as Images
5. Maps

### Where to Find More Information

## Introduction

*Catalog records* or *finding aids* must be delivered to the Library of Congress for indexing and mounting in order to ensure interoperability with other National Digital Library collections. Digital *reproductions*, however, may be mounted either at the Library of Congress or on the institution's own system.

The National Digital Library Program supports a variety of formats for digital reproductions. Technological options are continually developing and the selection of formats for capture, archiving, and online access depends upon the nature of the collection and the overall purposes of the digitization project. In some cases, the Library has chosen capture and archiving formats that offer very high quality while placing moderate quality derivative reproductions online to afford end-users efficient access. In other cases, the Library has created only access-quality reproductions, either because circumstances prevented higher quality production, or because the items in a collection had already been conserved or microfilmed.

The Library selects digital formats and levels of quality for various reasons, including the desire to archive very high quality copies, convenient accessibility for the general public over the World Wide Web, likely longevity of format (using standard formats where possible and proprietary formats only where widely deployed), and production cost. Other institutions may weigh the factors differently, and choose other formats. They are encouraged to do so, with the goal of providing effective widespread access to the digital reproductions over the World Wide Web. Applicants who use formats other than those in use at the Library of Congress should be capable of providing access through their own facilities or guiding implementation at the Library.

## Formats in Use at the Library of Congress for Historical Collections

### 1. Pictorial Materials

For pictorial collections, the Library produces three image types:

Thumbnail	A small GIF image presented with the bibliographic record, to allow users to judge whether they wish to take the time to retrieve a higher quality image.
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Service	A JPEG image for reference access, typically at screen resolution, i.e., in the range of 640x480 to 1024x768 pixels. In current projects, only one service image is provided; future collections may offer a second service image at higher resolution. Some previous award-winners have chosen to create two service images, one intended primarily for screen display, the other for printing or closer study.
Archival	An uncompressed TIFF image provided for artifact-free reproduction or for future reprocessing as compression standards change. For some collections, this larger file is offered to researchers in addition to the reference image.

Both the thumbnail (GIF) and service (JPEG) images shall be freely available online in any project that is awarded funding in the LC/Ameritech competition. Archival images (TIFF) files need not be maintained online, and may be part of an institution's fee-based cost-recovery program. Awardees who choose to have the digital reproductions mounted at the Library of Congress need furnish only those versions of the images that are to be offered via the Internet.

Several other organizations have used the Kodak PhotoCD (Image Pac) format for imaging projects. The Library has not had extensive experience with PhotoCD. Applicants wishing to use the PhotoCD technology should either determine how direct access to those images may be provided from their site to WWW clients or plan to reprocess the images to produce GIF and JPEG images for mounting at the Library of Congress.

## 2. Textual Materials Reproduced as Searchable Text and Images

Transcribed text is a tremendous aid to a user seeking to analyze text at the level of particular words or phrases. Transcribed text also facilitates the researcher's navigation of a long document, especially when it is encoded with a markup language. The cost of providing perfect or near-perfect transcriptions is very high, however, and for many researchers proper understanding of a document may depend upon seeing a reproduction of the original. For these reasons, the Library has experimented with the presentation of manuscript and printed matter items as combined page-images and searchable text.

The Library encodes its documents using Standard Generalized Markup Language (SGML), using a document type definition (DTD) based on the guidelines of the Text Encoding Initiative (TEI). Applicants are strongly encouraged to use a TEI-conformant DTD and may choose to use the Library's *American Memory* DTD. Full-function SGML viewers for the WWW are not yet available free or at low cost. For this reason, the Library derives an HTML version of the text from the SGML version and places both online. Both versions have active links to page images. The page images included in the searchable presentations employ the formats for tonal and bitonal images described in the next section.

## 3. Images of Textual Materials

Original items with a mixture of light and dark markings are often more successfully reproduced in a tonal (i.e., color, grayscale) rather than a bitonal image. Typography or line art, however, is often successfully reproduced in a bitonal image. Bitonal images may provide better printed output. Thus, some collections may warrant the production of both types of images.

### 3.a. Images of Manuscripts and Printed Documents

In the case of tonal images, the Library often produces an uncompressed archival grayscale or color image, stored as a TIFF file, and a compressed JPEG service image for easier access.

The Library's production of bitonal images has been oriented toward access rather than preservation, and the images have generally been at 300 dpi, stored as TIFF files with ITU T.6 Group 4 compression. Projects with a preservation focus, like those at Cornell University, have made similar images at 600 dpi.

In general, the Library does not create thumbnails for document images. For documents presented without searchable texts, the Library uses the "page-turning" approach described in section 4. In the case of illustrated books, the Library has recently adopted the approach of creating a thumbnail image for the illustrated pages and inserting this as a browser-online GIF image in the HTML version of the online text.

### **3.b. The Special Problem of Illustrations in the Form of Printed Halftones**

Printed halftones present special problems in reproduction because of interference between the spatial frequency of the halftone dot pattern and the spatial frequency applied by scanning and/or output devices. The interference “waves” caused by the intersection of the two frequencies manifest themselves as aliasing (or moiré pattern) that degrades the image.

There are a number of treatments that can mitigate or correct this degradation but not all are practical in a production-line environment. Possible treatments include the following: descreening and rescreening; capture at high enough resolution to reproduce the halftone dots; grayscale reproduction; or “diffuse dithering”, a randomization of the dot pattern created by the scanner.

### **4. Textual Materials Reproduced Only as Images**

A number of devices may be employed to present to users the many page images that may be linked to a single reference. The simplest, albeit least elegant, is to create a table of contents or menu. Here, an HTML file lists the pages by number and links each one to its reproduction image. A proprietary option that may be appropriate for short documents is to incorporate several images into one file in Adobe’s PDF format.

Another approach, followed by the Library of Congress and other institutions, is the use of “page-turning” scripts that can display a sequence of page-images on the World Wide Web in a way that allows the user to move forwards or backwards or jump to a particular page in the sequence. These displays are usually generated on the fly from a database. For an example, see the Walt Whitman notebooks at the *American Memory* site. The Library of Congress uses a very simple data-structure to generate its displays; a file with one line per page-image is created for each document. Applicants asking the library to mount collections of documents consisting only of page-images should be prepared to create such files for multi-image documents. More details about this mechanism are available from the WWW site for the LC/Ameritech Competition.

An approach that is particularly suitable for short illustrated documents is to present a grid of thumbnails with links to higher resolution images. The Library’s page-turning data structure can also support this type of presentation.

### **5. Maps**

The Library’s Geography and Map Division is developing its approach for digitizing map collections with the advice of the division’s Center for Geographic Information. For the historical maps selected for digitization, the preliminary finding is that good legibility will be afforded for most through tonal images captured at 300 dpi. Archival copies at this level of resolution will be stored without compression or with lossless compression.

For Internet access, the Library has made a special arrangement to use a proprietary technology that uses wavelet compression to make a derivative copy of the archival image. The technology not only compresses the map image very effectively but also permits the presentations of map segments on the fly at the user’s request. Applicants who wish to participate in the Library’s experimental use of this new technology should contact the Competition program staff (202-707-1087, [lc\\_ameritech@loc.gov](mailto:lc_ameritech@loc.gov)).

### **Where To Find More Information**

Applicants may wish to consult the WWW site for the Library of Congress/Ameritech National Digital Library Competition (<http://memory.loc.gov/ammem/award/>) for illustrative examples and to gain a better understanding of the issues relating to the creation of and access to digital reproductions. The WWW site has papers summarizing the Library’s experience and current practices as well as references to related materials elsewhere.

## TECHNICAL NOTES ON INTEROPERABILITY AND ACCESS AIDS

### Introduction

#### Identifiers for Digital Reproductions

#### Suggested Formats for Access Aids

1. Bibliographic Records that Adhere to the MARC (Machine Readable Cataloging) Format
2. Bibliographic Records, Following the Emergent "Dublin Core" Approach
3. Structured Headers for Searchable Text Reproductions
4. Finding Aid Using the Emerging Standard for Encoded Archival Description

#### Where To Find More Information

### Introduction

One aim of the LC/Ameritech Competition is to integrate materials digitized by other institutions into the *American Memory* resource, allowing users to search across all *American Memory* collections with a single query. To achieve this while allowing institutions full flexibility to incorporate materials into their own catalog systems and online services, the Library of Congress requires that awardees deliver to the Library copies of catalog records or other aids to intellectual access. Awardees and the Library will work together so that records in the *American Memory* "union catalog" or at an awardee institution can link directly to the digital reproductions, whether they are mounted by the institution or the Library. This is one step towards the fuller interoperability that will support the long-term vision for the National Digital Library. Practice within digital libraries is evolving continuously; applicants are expected to propose technical approaches consistent with those in use in July 1998. Alternatively, approaches consistent with standards in advanced stages of development within a national library, archival, or Internet association or community may be proposed by institutions prepared to adapt as those standards take their final form. Elements required for interoperability have been held to a minimum and the suggestions described below (with examples on the competition's WWW site at <http://memory.loc.gov/ammem/award/>) offer many options.

Each collection must be supported by a coherent aid or set of aids to intellectual access, usually through catalog records or a finding aid (archival register). The provision of searchable reproductions of textual materials is encouraged as an additional aid to access. In the networked, distributed environment envisaged for the National Digital Library, each digital reproduction must be identified in a way that permits retrieval across the World Wide Web. This identifier serves the role played by a "call number" in a traditional library. The identifier supports an active link between access aids and the digital reproductions they describe. The exact linking mechanism will depend on the form of the access aid.

Applicants must be prepared to use forms of access aid and linking mechanisms that are compatible with those used by the Library of Congress, usually through consistent use of certain fields or tags. Applicants may, but need not, choose to follow current Library of Congress practices exactly. In the weeks following the announcement of awards, awardees will be expected to work closely with the Library of Congress to ensure that the details of their technical approach allow their materials to be integrated effectively with the other collections.

Some suggestions for alternative approaches to identifying items and forms of access aid follow.

### **Identifiers for Digital Reproductions**

The Uniform Resource Locators (URLs) used currently to identify resources on the Internet are unsatisfactory as long term identifiers, since they usually identify a particular file on a particular computer. When the file must be moved, perhaps when the computer is replaced, the URL will usually change. If URLs are imbedded directly in bibliographic records or finding aids, those access aids must be modified (and the links tested) when the files are moved. Applicants should consider mechanisms that minimize the need for manual editing in the future.

There are currently several proposed schemes for long-term identifiers known as Uniform Resource Names (URNs), which will be resolved into physical locators, such as URLs, at link time. The Library of Congress offers to help awardees establish URNs for items in their collections using the “handle” service proposed as a URN scheme by the Corporation for National Research Initiatives. Applicants from institutions planning to make use of OCLC’s PURL (Persistent URL) system, might consider using PURLs as identifiers. For more information on URLs, URNs, PURLs, and handles, see the competition’s WWW site at <http://memory.loc.gov/ammem/award/>.

Some institutions have taken a local approach to establishing persistent URLs that might be feasible for applicants from institutions already using appropriate software. URLs for individual reproductions are actually database queries retrieving a single known item using a unique identifier. The databases being queried might be specialized archives used to manage the digital content or tables mapping identifiers or “logical” names to the URLs representing their “physical” location.

The Library of Congress has installed a handle-server to allow experimentation with URNs. However, *American Memory*’s current practice for long-term identification of items is based on following rigid rules for naming files and storing them in a directory tree in a way that allows automatic derivation of names for different digital versions of the same bibliographic item. In effect, field 856 contains a “logical” name in fields \$d and \$f from which “physical” file locators can be derived. If files are moved from one server to another or to a different level of the file hierarchy, the derivation procedure must be changed, but not the individual catalog records. Applicants wishing to follow Library practices and use this approach will be expected to work with the Library

closely, after receiving an award, to establish a naming and storage scheme. General information about the storage/naming approach is available on the WWW site, but final details must be worked out after awards are made.

### **Suggested Formats for Access Aids**

#### **1. Bibliographic Records that Adhere to the MARC (Machine Readable Cataloging) Format**

All bibliographic records for current *American Memory* collections are in MARC format. Applicants choosing to prepare catalog records in USMARC format need not create full-level records. In addition to the leader and required fixed fields, the MARC fields listed below must be present. No other fields are mandatory for integration with *American Memory*, although the use of author, subject and note fields is strongly recommended to facilitate access.

#### **245 Title Statement**

#### **856 Electronic Access**

There is not yet consensus on how best to apply field 856 when several versions of an item are available (such as page-images and searchable text for a document or different qualities of reproduction for an image). See the competition’s WWW site at <http://memory.loc.gov/ammem/award/> for examples of recommended approaches. Details will be worked out with awardees after awards are made.

#### **985**

This LC local field is needed to keep track of the institution supplying the records, a unique code to identify the digital collection, and other administrative details. This field will normally be identical for all records provided by an awardee for a single collection.

#### **659**

This LC local field will hold a broad categorization of original material type in a consistent form.

At this time, the Library is unable technically to support the new 774 (Constituent Item) field linked to 856 fields as described in MARBI Proposal 96-4 and integrated into the March 1996 update to the USMARC Bibliographic Format.

For more details, see the competition’s WWW site at <http://memory.loc.gov/ammem/award/>.

## 2. Bibliographic Records, Following the Dublin Core Approach

In March 1995, at a “metadata” workshop organized by OCLC and the National Center for Supercomputing Applications and held in Dublin, Ohio, participants representing librarians, archivists, publishers, computer and information scientists, and members of Internet Engineering Task Force working groups approached the task of developing a short list of data elements that could be used by information providers to describe their own resources. This group proposed a set of thirteen elements that is known as the Dublin Core. Further working meetings have been held around the world, with strong participation from Europe and Australia. The set of core elements to support access and retrieval has been extended to fifteen: Title, Author or Creator, Subject or Keywords, Description, Publisher, Other Contributor, Date, Resource Type, Digital Format, Resource Identifier, Source, Language, Relation, Coverage, Rights Management. For more detailed information about the Dublin Core proposal, see [http://purl.oclc.org/metadata/dublin\\_core/](http://purl.oclc.org/metadata/dublin_core/).

This approach provides an alternative for cataloging that requires less specialized software than the MARC format. However, the Dublin Core concept is still under development and there is not yet an agreed communications format for Dublin Core data. Applicants proposing to create non-MARC bibliographic records should consider how their data elements can be mapped either to MARC or to the Dublin Core element set and be prepared to work with the Library to deliver copies of the database records in a straightforward non-proprietary format.

Requirements for interoperability will be similar to those for MARC bibliographic records, with the following fields being mandatory. Details will be worked out in consultation with the Library after awards are made.

Title	must be present
Resource Identifier	required, with details depending on approach proposed for identifying digital reproductions.
Resource Type	required to indicate a broad categorization of original material type
Relation	required to support a link to the parent digital collection

Other Contributor required to identify the institution providing the record

## 3. Structured Headers for Searchable Text Reproductions

The Library recognizes that some applicant institutions may have elected to incorporate the bibliographic information usually found in a catalog record into structured headers within the digital texts and not to create independent bibliographic records. Applicants taking this approach should be prepared to extract header information into bibliographic records using one of the approaches described above. The Library of Congress has chosen to prepare and manage bibliographic records separately from its searchable text reproductions.

Applicants are strongly encouraged to use Standard Generalized Markup Language (SGML) document type definitions (DTDs) that conform to the guidelines of the Text Encoding Initiative (TEI) when preparing searchable reproductions of textual materials. The TEI approach allows full bibliographic information to be incorporated into the document header. For more information on the TEI guidelines, which have been widely adopted for reproductions of historical texts, see the WWW site at <http://www.uic.edu/orgs/tei/>.

Dublin Core descriptive elements (see the previous section) can be held in the header section of Hypertext Markup Language (HTML) documents. For information on the proposed syntax, see [http://purl.oclc.org/metadata/dublin\\_core/syntax.html](http://purl.oclc.org/metadata/dublin_core/syntax.html).

## 4. Finding Aid Using the Emerging Standard for Encoded Archival Description

This format for structured finding aids marked up in SGML is currently being used at the Library of Congress and at many other institutions. The standard is maintained at the Library of Congress and details are available on the WWW pages of the Encoded Archival Description (EAD) maintenance agency at <http://lcweb.loc.gov/ead/>. Development of the standard has been supported by the Society of American Archivists and has involved representation from two international bibliographic utilities (OCLC and the Research Libraries Group). Several projects are under way to establish collaborative online archives of finding aids in the EAD format.

To provide links from the finding aid to the digital reproductions, the Library recommends the use of logi-



cal identifiers within the main document in conjunction with the SGML “entity” mechanism. Short logical identifiers in the digital archival object element (<dao>) can be resolved into full filenames in an associated entity file. At some future stage, when SGML software recognizes URN identifiers, the entity file could be modified through a global change to use location-independent identifiers rather than physical filenames.

Because there is currently no free or inexpensive SGML viewer that is fully satisfactory for general use, the Library expects to create HTML versions for browsing, generated automatically from the SGML versions, to support wider accessibility. The Library will be prepared to generate HTML versions of EAD finding aids prepared by awardees.

#### **Where To Find More Information**

Applicants may wish to consult the WWW site for the Library of Congress/Ameritech National Digital Library Competition (<http://memory.loc.gov/ammem/award/>) for illustrative examples and to gain a better understanding of the issues relating to the creation of and access to digital reproductions. The WWW site has papers summarizing the Library’s experience and current practices as well as references to related materials elsewhere.

## SAMPLE COOPERATIVE AGREEMENT

(Note that this a generic agreement and will be customized for individual institutions.)

### Basis of Agreement

Following the evaluation and review process as outlined in the *Library of Congress/Ameritech National Digital Library Competition 1998/99 Guidelines and Application Instructions* (Attachment 1), this Cooperative Agreement is made on the basis of the proposal entitled <“Title of Proposal”>, submitted by <Institution Name>, <Project Director Name>. A copy of the proposal dated <Date> is attached (Attachment 2.)

### Term of Agreement

<Date - Date>

This term includes the 90-day period in which the Deliverables and Final Report will be conveyed to the Library.

### Schedule of Payments and Reports

Payment will be made according to the schedule in Attachment 3.

Interim and Final Reports on performance and expenditures are required. The schedule for report submission is in Attachment 3. The final payment will be made on the Library’s receipt of the Deliverables <deliverables specified>, and acceptance of the Final Report.

### Administration of the Cooperative Agreement

Questions relating to the administration of the project, changes in project personnel, or in the project budget should be addressed to Program Administrator, Library of Congress/Ameritech National Digital Library Competition. Questions relating to the scope of project activities, interoperability, and technical assistance should be addressed to Technical Advisor, Library of Congress/Ameritech National Digital Library Competition.

### Terms and Conditions

- A. The Plan of Work is approved (see Attachment 2). In accordance with the Plan of Work, the Institution will select, digitize, and make accessible through the Internet the collection specified in the proposal (Attachment 2). The Library of Congress will have the right to approve in advance any significant changes in the scope, focus, objectives of the project, and the replacement of the project director or other key staff members who are specifically named in the proposal. Any amendments or modifications to the Plan of Work must be submitted in writing by the Project Director and approved in writing by the

Library of Congress/Ameritech National Digital Library Program Administrator.

- B. The Budget is approved (see Attachment 2). Any variation from the approved budget must be approved in writing by the Library of Congress/Ameritech National Digital Library Program Administrator.
- C. Catalog records and finding aids for new collections must contain structured elements in common with *American Memory* catalog records and finding aids being created at the Library (see pp. 3-6, 14-17 in the *1998/99 Guidelines and Application Instructions* [Attachment 1]). Digital reproductions must also meet criteria established by the Library of Congress in its digital collections and other reasonable criteria provided by the Library during the course of this Cooperative Agreement. Since practices continue to evolve, the Library will work closely with the Institution to determine specific details. Technical assistance may be provided by a number of Library staff members coordinated through the Library of Congress/Ameritech National Digital Library Competition Technical Advisor, Caroline Arms. Technical assistance may be provided as follows:
  - up to 20 hours of consultation and technical support in the start-up phase of the project;
  - up to 60 hours of ongoing consultation and technical support during the term of project activities;
  - up to 40 hours of consultation during the final implementation and installation of the institution’s collection at the Library.
- D. The Institution will provide ongoing access for the General Public to the digital reproductions. In view of the mission of the program to augment the collections of the National Digital Library Program at the Library of Congress, thus provide continuing public access to primary resource materials for distribution on the Internet, if for any reason the Institution is unable to provide such access, copies of the digital content files and archival files will be provided to the Library in a form that will enable public access and permanent preservation of the records by the Library of Congress.
- E. The Institution will acknowledge the Library’s and Ameritech’s support in its presentation of digitized materials resulting from the award and in publicizing award activities. The Library of Congress will

publicize the contributions of the Institution to the National Digital Library Program. The Library will have the right to review in advance any use of its name in advertising, promoting, and publicizing any or all products produced under this agreement or as a consequence of it.

- F. This award does not carry with it either an implication or a guarantee of continued support beyond the completion of the Cooperative Agreement.
- G. The Institution represents and warrants that a) it has the full right and authority to enter into this Cooperative Agreement; b) it has the full right and authority to perform its duties as described herein and to authorize the Library to perform its duties as described herein in reliance on the Institution's warranty; c) the Institution has not assigned, pledged or otherwise encumbered the rights in the Source Materials, corresponding digital reproductions, and/or related material created for or provided to the Library under this Cooperative Agreement. The Institution represents and warrants that neither the digital reproductions and/or related material created for or provided to the Library under this Cooperative Agreement will interfere with or violate any rights of third parties, any copyright, or any other right, and will contain no matter that is libelous or in violation of any rights of privacy or that is otherwise contrary to law.
- H. The Institution will indemnify and hold the Library harmless from all claims and losses based on the ground that the Source Materials or Deliverables, in whole or in part, provided by the Institution contain any violation of this Cooperative Agreement or is found otherwise unlawful. The Institution will give the Library prompt written notice of any suit, action, proceeding, or complaint brought against it alleging facts, which if proven, would constitute a breach of the warranties made by the Institution, above, or which might otherwise give rise to a claim for indemnification under this clause. The warranty and indemnity contained herein shall survive the termination of this Cooperative Agreement.
- I. This Cooperative Agreement and referenced attachments set forth the entire agreement and under-

standing between the parties hereto with respect to the subject matter contained herein. No modification, amendment, waiver, termination or discharge of this Cooperative Agreement or any provision hereof shall be binding unless confirmed in writing signed by the Program Administrator, Cliff Cohen.

## CERTIFICATIONS

### Information on Certifications Required from Applicants and Awardees

#### General Requirements

It is the Library of Congress's policy to obtain from all applicants certifications regarding federal debt status and a drug-free workplace. Applicants must also certify that they will comply with the nondiscrimination statutes and implementing regulations.

*By signing and submitting an application, the authorizing official of the applicant institution provides the applicable certifications set out below.* When a prospective applicant is unable to certify regarding the nondiscrimination statutes and implementing regulations for a drug-free workplace, that institution is not eligible to apply for funding from the Library of Congress. When an applicant is unable to certify regarding federal debt status, an explanation must be attached to the proposal. The explanation of why the certification cannot be submitted will be considered in connection with the evaluators' award determination. Failure to furnish a certification or an explanation shall disqualify the applicant from receiving funding from the Library of Congress.

The certifications are material representations of fact upon which the evaluators will rely when they determine whether to fund the application. If it is later determined that the applicant knowingly provided an erroneous certification or did not comply with the requirements, in addition to other remedies available to the federal government, the Library of Congress may seek judicial enforcement of the certification (nondiscrimination statutes); may terminate the award for cause or default (federal debt status); and may suspend payment or suspend or terminate the award (drug-free workplace).

The applicant shall provide immediate written notice to the director of the National Digital Library if at any time the applicant learns that its certifications were erroneous when submitted or have become erroneous by reason of changed circumstances.

### Certification of Nondiscrimination

This certification regarding nondiscrimination obligates the applicant for the period during which the award is given. This certification is binding on the applicant, its successors, transferees, and assignees, and on the authorizing official whose signature appears on the application cover sheet for this proposal.

Certification text: The applicant certifies that it will comply with the following nondiscrimination statutes and their implementing regulations: (a) Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d *et seq.*) which provides that no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the applicant received federal financial assistance; (b) Title VII of the Civil Rights Act of 1964 (42 U.S.C. 2000e *et seq.*) which provides that employees and applicants for employment will not be discriminated against on the basis of race, color, or national origin, or sex; (c) the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 *et seq.*), which prohibits discrimination on the basis of handicap in programs and activities receiving federal financial assistance; (d) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. 1681 *et seq.*) which prohibits discrimination on the basis of sex in education programs and activities receiving federal financial assistance; and (e) the Age Discrimination Act of 1975, as amended (42 U.S.C. 6101 *et seq.*) which prohibits discrimination on the basis of age in programs and activities receiving federal financial assistance, except that actions which reasonably take age into account as a factor necessary for the normal operation or achievement of any statutory objective of the project or activity shall not violate this statute.

### Federal Debt Status

If the applicant institution is unable to certify regarding federal debt status, submit an explanation with the proposal.

Terms used in the federal debt status certification are defined as follows:

**Federal Debt:** The amount of money or property that has been determined by an appropriate federal agency official to be owed to the United States by any organization or entity.

**Delinquent:** Represents the failure to pay an obligation or debt by the date specified in a federal agency's initial written notification or applicable contractual agreement, unless other satisfactory payment arrangements have been made by that date, or if at any time thereafter, the debtor fails to satisfy the obligation under a payment agreement with the agency.

Certification text (OMB Circular A-129): The applicant certifies to the best of its knowledge and belief, that it is not delinquent in the repayment of any federal debt.

## Drug-Free Workplace

By signing and submitting an application for funding, the applicant institution agrees, among other things, to establish an ongoing drug-free awareness program; to publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the awardee's workplace; and to give this statement to each employee to be engaged in the performance of the award. The program and policy statement must be in place within thirty days of the date the award is issued.

As an awardee, the applicant institution will be considered in violation of the drug-free workplace requirements if it falsely certifies, fails to carry out the requirements of the certification, or fails to make a good-faith effort to maintain a drug-free workplace.

In the application, the applicant must either identify the place(s) where the award activities will be carried out or must keep this information on file in its office so that it is available for federal inspection. Workplace identification shall include the actual address of buildings (or parts of buildings) or other sites where work under the award will take place. Failure to identify all known workplaces constitutes a violation of the awardee's drug-free workplace requirements.

The terms used in the drug-free workplace certification are defined as follows:

**Controlled Substance:** A controlled substance in schedules I through V of the Controlled Substance Act (21 U.S.C. 812), and as further defined by regulation at 21 CFR 1308.11-1308.15.

**Drug-free Workplace:** A site for the performance of work done in connection with a specific award at which employees of the awardee are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

**Employee:** The employee of an awardee directly engaged in the performance of work under the award and all temporary personnel and consultants who are directly engaged in the performance of work under the award and who are on the awardee's payroll.

**Applicant:** An institution that applies for or receives an award directly from the Library of Congress under the LC/Ameritech National Digital Library competition.

Certification text (Drug-Free Workplace Act of 1988):

- (A) The applicant certifies that, if given an award under this program, it will continue to provide a drug-free workplace by
- (a) publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the awardee's workplace and specifying the actions that will be taken against employees for violation of such prohibitions;
  - (b) establishing an ongoing drug-free awareness program to inform employees about (1) the dangers of drug abuse in the workplace; (2) the awardee's policy of maintaining a drug-free workplace; (3) any available drug counseling, rehabilitation, and employee assistance programs; and (4) the penalties that may be imposed on employees for drug abuse violations occurring in the workplace;
  - (c) making it a requirement that each employee to be engaged in the performance of the project be given a copy of the statement required by paragraph (a);
  - (d) notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the award, the employee will (1) abide by the terms of the statement; and (2) notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace not later than five calendar days after such conviction;
  - (e) notifying the Library of Congress in writing within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction.
  - (f) taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted: (1) taking appropriate personnel action against such an employee, up to and including termination consistent with the requirements of the Rehabilitation Act of 1973, as amended; or (2) requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency;
  - (g) making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e), and (f).
- (B) The applicant shall either identify the site(s) for the performance of work done in connection with the project in the application material or shall keep this information on file in its office so that it is available for federal inspection. The street address, city, county, state, and zip code should be provided whenever possible.

# Library of Congress/Ameritech National Digital Library Competition Application Cover Sheet

## Institution or Organization

## Project Director

Name \_\_\_\_\_

Name/Title \_\_\_\_\_

Address \_\_\_\_\_

Tel. no. \_\_\_\_\_

\_\_\_\_\_

E-mail address \_\_\_\_\_

\_\_\_\_\_

Amount requested \_\_\_\_\_

(city) (state) (zip code)

Consortium Yes \_\_\_\_\_ No \_\_\_\_\_ Members \_\_\_\_\_

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Descriptive title of project \_\_\_\_\_

Project Start Date \_\_\_\_\_ Project End Date \_\_\_\_\_ Number of items to be digitized \_\_\_\_\_

Brief description of project (do not exceed space provided)

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## Authorizing Official

Name \_\_\_\_\_

Employer identification no. \_\_\_\_\_

Title \_\_\_\_\_

E-mail address \_\_\_\_\_

Address \_\_\_\_\_

(street address)

(city)

(state)

(zip code)

Member of the Association of Research Libraries  Yes  No

### Certification:

By signing and submitting this application, the authorizing official of the applicant institution is providing the applicable certifications regarding the nondiscrimination statutes and implementing regulations, federal debt status, and a drug-free workplace, as set forth in the appendix of these guidelines.

\_\_\_\_\_

(printed name)

\_\_\_\_\_

(signature)

(date)

NOTE: Federal law provides criminal penalties of up to \$10,000 or imprisonment of up to five years, or both, for knowingly providing false information to an agency of the U.S. government.

# Library of Congress/Ameritech National Digital Library Competition Budget Form

Applicant Institution \_\_\_\_\_

Project Director \_\_\_\_\_

Requested Award Period

From \_\_\_\_\_ to \_\_\_\_\_  
mo/yr mo/yr

The three-column budget has been developed for the convenience of those applicants who wish to identify the project costs that will be charged to LC/Ameritech funds and those that will be cost shared. The method of cost computation should clearly indicate how the charge for each budget item was determined. If more space is needed for any budget category, please follow the budget format on a separate sheet of paper.

## 1. Salaries and Wages

Provide the names and titles of principal project personnel.

name/title or position	method of cost computation	LC/Ameritech Funds (a)	Cost Sharing (b)	Total (c)
		\$	\$	\$
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
	Subtotal	\$	\$	\$
		_____	_____	_____

## 2. Fringe Benefits

If more than one rate is used, list each rate and salary base

rate	salary base	(a)	(b)	(c)
_____ % of \$	_____	\$	\$	\$
_____ % of \$	_____	_____	_____	_____
	Subtotal	\$	\$	\$
		_____	_____	_____

**3. Services**

Include the cost of duplication and printing, long distance telephone, postage, consultant fees, and other services related to project objectives. Provide an itemization of subcontract costs on this form or on an attachment.

item	basis/method of cost computation	(a)	(b)	(c)
_____	_____	\$ _____	\$ _____	\$ _____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
	Subtotal	\$ _____	\$ _____	\$ _____

**4. Other Costs**

Include supplies and materials, equipment purchases, and other items not previously listed. Please note that “miscellaneous” and “contingency” are not acceptable budget categories.

item	basis/method of cost computation	(a)	(b)	(c)
_____	_____	\$ _____	\$ _____	\$ _____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
	Subtotal	\$ _____	\$ _____	\$ _____

**5. Total Project Costs**

\$ \_\_\_\_\_      \$ \_\_\_\_\_      \$ \_\_\_\_\_



**Categories of Material and Formats for Digital Reproductions** (Optional Form)

Applicants may find it convenient to use this chart (or a similar one) to categorize the material to be digitized and describe the proposed digital reproductions. The columns should be used to identify different genres for items in the collection, such as pictorial images, manuscript materials, and printed items. For each type of material, indicate whether archival, service, or thumbnail images will be prepared and whether textual materials will be converted to searchable form. Provide details on format, compression, and resolution as appropriate.

If the chart does not suit the contents or treatment of your collection, you are encouraged to provide equivalent information in a more appropriate table. For example, a simpler table would be appropriate for a collection including one type of material. Applicants proposing to mount their own materials and derive service versions dynamically, rather than storing them, should include that information in this table (or equivalent).

Original Formats	Type 1	Type 2	Type 3	Type 4	Type 5	Total #s
Items						
Pages or elements						
<b>Image Formats</b>						
Thumbnail						
Tonal Depth						
Format/ Compression						
Spatial Resolution						
Service (or Reference)						
Tonal Depth						
Format/ Compression						
Spatial Resolution						
Archival						
Tonal Depth						
Format/ Compression						
Spatial Resolution						
<b>Searchable Text</b>						
Service						
Archival						

See the following example as a guide to filling out this form.

Example Table

Original Formats	Type 1	Type 2	Type 3	Type 4	Type 5	Total #s
	manuscript typescript	printed matter	pictorial items	broadsides		
<b>Items</b>	100 folders	75 pamphlets	1400 items	300 broadsides		1875
<b>Pages or elements</b>	12,000 pages	2250 pages	1400 items	425 pages		16,075
<b>Image Formats</b>						
<b>Thumbnail</b>						
<b>Tonal Depth</b>	Not Used	Not Used	8 bits	8 bits		
<b>Format/ Compression</b>	Not Used	Not Used	GIF	GIF		
<b>Spatial Resolution</b>	Not Used	Not Used	150x100 pixels	150x100 pixels		
<b>Service (or Reference)</b>						
<b>Tonal Depth</b>	4 bits grayscale 8 bits color	Not Used	8 bits grayscale 24 bits color	8 bits grayscale 24 bits color		
<b>Format/ Compression</b>	color	Not Used	JPEG	JPEG		
<b>Spatial Resolution</b>	400x600 pixels	Not Used	640x480 pixels	640x480 pixels and 2000x1500 pixels		
<b>Archival</b>						
<b>Tonal Depth</b>	8 bits grayscale 24 bits color	1 bit	8 bits grayscale 24 bits color	8 bits grayscale 24 bits color		
<b>Format/ Compression</b>	TIFF uncompressed	TIFF ITU Group IV	TIFF uncompressed	TIFF uncompressed		
<b>Spatial Resolution</b>	200 dpi	300 dpi	3000x2000 pixels	5000x4000 pixels		
<b>Searchable Text</b>						
<b>Service</b>	--	HTML	--	HTML		
<b>Archival</b>	--	SGML	--	SGML		