

**RLG GUIDELINES FOR
CREATING A REQUEST FOR PROPOSAL
FOR DIGITAL IMAGING SERVICES
(INCLUDING TEXT CONVERSION AND ENCODING)**

PREFACE

Cornell University Library, Department of Preservation and Conservation prepared these guidelines on behalf of RLG to assist the member institutions in developing their own Requests for Proposal (RFP) for digital imaging services. These guidelines do not represent a model RFP, but rather a framework for creating an RFP, such as the sample one prepared by Cornell for an upcoming text digitization project.

In developing these RFP guidelines, we began with the following basic assumptions:

1. Digitization projects include a range of associated services that could be outsourced, including scanning, text conversion, encoding, inspection, printing, backup, and archiving functions.
2. These guidelines would be limited to the creation of an RFP for imaging services and would not cover all aspects of an imaging project (e.g., making digital material accessible)
3. These guidelines may be used in developing RFPs for projects involving the use of original or intermediate source documents, but that they are most prescriptive for paper-based materials and are especially well defined for textual rather than graphical materials.

Cornell developed these guidelines based on its experience in creating several earlier RFPs for imaging services. The staff also reviewed copies of RFPs generously supplied to us by other institutions and organizations, and have included references to many of them in the accompanying bibliography of sources. We were particularly interested in ensuring that recommendations contained in the guidelines were consistent with vendor capabilities and services, and thus sought the assistance of a number of service providers in reviewing earlier drafts of the guidelines and sample Cornell RFP. We gratefully acknowledge the assistance of Meg Bellinger of Preservation Resources; Mike Beno of Image Graphics, Inc.; Jim Harper of P.F.A., Inc.; Charles Hazel of Digital Imaging; Tom Ringdahl and John Sarnowski of Northern Micrographics, Inc.; and Rosalie Wise of MicroMedia. The staff also acknowledges the helpful input of Rich Entlich (formerly of Cornell University Library); and RLG staff members, especially Robin Dale and Anne Van Camp.

INTRODUCTION

The main goal of an RFP is to convey the terms and conditions of an institution's digital imaging project to potential service providers. It also provides formal documentation that will serve as a key component of the final digital imaging service contract. Because cultural institutions have not developed standards or even best practices for creating digital image collections, and because vendors lack experience in converting library and archival materials, the RFP should be as prescriptive as possible. At least initially, it is better to err on the side of creating an overly detailed RFP than risk miscommunication or false assumptions about each party's responsibilities and expectations.

Preparing an RFP can be very time-consuming, and RLG recommends that an institution allow at least a month for its development. Staff from a number of institutional units, including purchasing and technical support, should be involved in developing the RFP. These guidelines and sample RFP for imaging services will prove helpful in the process, but bear in mind that the RFP should be written to address the specific requirements of each project. In addition to specifying mandatory technical, procedural, and managerial requirements, the RFP should include general institutional guidelines related to proposal submission instructions and formal conditions. The inclusion of a table of contents will facilitate review of the RFP and its accompanying appendixes and attachments by potential respondents. To ensure a common understanding of technical terminology, it may also be a good idea to prepare a glossary of terms. Availability of electronic versions of the proposal in different formats will assist potential vendors in their response to the RFP.

COMPONENTS OF THE REQUEST FOR PROPOSAL

Introduction and Project Overview
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The goal of this section is to describe the project to potential vendors. It should include the following components:

- Brief project description and objectives
- Institutional background
- Nature of services to be performed and products to be delivered
- Quality, production, and pricing requirements
- Description of materials to be converted, including volume, size, type, and characteristics of informational content (extent of grayscale/color information, presence of halftones and other illustrations, font size and type, use of intermediates and their characteristics, etc.)
- Handling requirements (e.g., fragile material, special training, book cradles, on-site scanning, security considerations)
- Imaging requirements (e.g., resolution, bit-depth, enhancements, use of targets, establishment of required color values, file size limitations)
- Technical requirements (e.g., format, compression, delivery medium and storage requirements)
- Metadata requirements (file naming, directory structuring, file header information, indexing, other finding aids)
- Level of preparation and documentation (collation, inclusion of flags and special instructions)
- Text conversion and encoding requirements
- Managerial requirements
- Security, storage, insurance, bonding
- Other services to be performed, including printing, derivative and backup creation, archiving, distribution

Proposal Submission Time Line and Information

This section should contain all of the administrative requirements that a vendor must comply with in order to submit a proposal as requested. It will provide the vendor with information on all relevant dates and procedures from the point of receipt of the RFP to the award of the contract and order for services.

RLG recommends a 3 month period to complete this process.

- Week 1: Institution announces and/or distributes RFP
- Week 2. Optional: Vendors acknowledge receipt of the RFP. Institution includes a preprinted fax response form for vendor to confirm the receipt of the RFP which includes the name and fax number of the person administering the RFP process.
- Week 2: Institution holds pre-bid meetings/conference calls with potential vendors
- Week 2-3: Vendors notify the institution of their interest in replying to the RFP and request preliminary scanning test materials. Institution provides a preprinted fax response form which includes the name and fax number of the person administering the RFP process. Vendor to supply information on where to send preliminary scanning test
- Week 3: Institution sends preliminary scanning test to interested vendors
- Week 4, Optional: Institution distributes list of bidding vendors to all potential vendors to enable potential partnerships
- Week 4-7: Institution responds to vendors' written inquiries and shares responses with all potential vendors
- Week 8: Submission deadline for RFP response
- Week 9-10: Institution evaluates written RFP responses and sample scanning test, holds calls with vendors to clarify information, and completes RFP evaluation forms; purchasing unit checks vendor financial status , e.g., Standard and Poor's ratings
- Week 11: Institution negotiates with acceptable vendors on products, services, and pricing, and notifies successful vendor(s)
- Week 12: Institution submits contract to successful vendor(s) for approval and signature, and notifies unsuccessful vendors
- Week 13: Institution issues blanket purchase order for services

Proposal submission instructions should include:

- Name and address of person to receive RFP responses
- Statement that expenses for preparation of the RFP (and sample production text) are borne by vendors
- Instructions for preparing written responses (e.g., need 4 copies of responses with original signatures; proposals are expected to be typed, paper size/color requirements, corrections need to be initialed and legible, etc.) and response format (proposals must include the following sections: costs schedule, executive overview, proposed solutions; proposals should address and track the numerical sequence of the specific information requested by the instructions)
- Scanning production test requirements (e.g., description of the sample of work, purpose of the test, directions for processing the sample documents, costs associated with the test, information on hardware/software used, delivery date for the test, return date for the completed test, etc.)

- Terms for disqualifying proposals (e.g., failure of the vendor to follow all the proposal submission instructions will be cause for the institution to disqualify the proposal; any false or misleading statement found in the proposal will be grounds for disqualification)
- Institutional responsibilities regarding submissions (e.g., the institution reserves the right to respond or not to each submission; proposals become the property of the institution)
- Confidentiality clause (e.g., privacy of the RFP and vendor proposals will be maintained by each party; institution will limit access to the proposals to key staff members; and non-bidding vendors will return RFP to institution)
- Vendor communications during the RFP process
 - ◊ contact names and information for vendor questions and inquiries (technical, service, financial, etc.)
 - ◊ preferred modes of communication (mail, phone, fax, etc.)
 - ◊ conference calls, pre-bid meetings, and site visits
 - ◊ referencing RFP section and page numbers for each inquiry
 - ◊ sharing all vendor questions and institutional responses with all bidding vendors
- Prime vendor relationship and subcontracting policy (selected vendor will be responsible for service performance, including work performed by any subcontractors; prime vendor must disclose number, name, and type of subcontract)
- Amendments policy (if this RFP is amended by the institution, the amendment will be sent to each vendor in writing and the vendors are required to acknowledge each amendment received in writing)
- Exceptions policy (the vendor needs to provide a list of exceptions taken to the RFP and explain in writing; if an alternative solution is offered, the benefits of this alternative solution must be explained; if multiple submissions allowed, they must be clearly labeled and identified; if vendor fails to answer specific questions, institution must determine how to interpret vendor's silence)
- Supplemental information (if the vendor provides supplemental information for a requirement, this information should be provided under separate cover as an appendix to the proposal)
- Awards process (the institution reserves the right not to make an award if it is deemed that no single proposal fully meets the requirements of the RFP; the vendor chosen for award should be prepared to incorporate the winning proposal along with other written correspondence into the contract and purchase order for service; institution reserves the right to select more than one vendor to perform the work)

Evaluation Guidelines for Vendor Proposals

The institution should carefully establish criteria and a weighting of factors for evaluating proposals. It is important to document fully the evaluation of each response according to these criteria so as to justify the final choice to the institution's procurement office and to the unsuccessful bidders.

- Understanding of and compliance with RFP requirements
- Excellence of response
- Successful processing of the sample/test materials
- Ability to meet technical and managerial requirements
- Ability to meet production schedule within required time table
- Fair pricing relative to other proposals
- Qualifications and experience of staff, especially with similar projects
- Infrastructure, hardware and software systems and configurations
- References
- Guarantee of work
- Financial stability and other various business issues
- Nature and extent of vendor support

Project Time Line

Provide a time table that includes all the relevant dates for the production schedule, beginning with the contract award through the post conversion clean-up. If this is a highly detailed schedule, include a general overview here and the more detailed one as an appendix to the RFP. Include the dates for:

- Production schedule (production rate per month, week, etc.; number and frequency of shipments, vendor turn around time, inspection and re-work schedule, duration of project, volume of material, and nature of work to be performed)
- Quality control, including periodic conference calls or formal reports on progress, notification of rejected work, re-work schedule, and re-inspection/sign-off times
- Payment schedules

Project Responsibilities: Institution

Both the institution and the vendor have specific project responsibilities that must be fully articulated in the RFP. Project responsibilities and assignments will vary, and the tasks included in the following two sections can be assigned either to the institution or to the vendor depending on the goals of the digital imaging project. Typically, the institution will assume responsibility for and provide information to potential vendors on the following:

- Select materials for scanning
 - ◊ identify materials
 - ◊ determine legal restrictions (copyright, privacy rights, donor rights, etc.) and inform the vendor of them
 - ◊ eliminate items due to poor physical condition or incompleteness
- Determine the size of the collection (characterize in group lots, e.g., bound volumes, single-leaf/unbound, microimages and count titles, volumes, pages, characters/page)
- Provide physical description of materials and intermediates to be digitized
 - ◊ subject matter (e.g., American history, 1810-1890)
 - ◊ physical dimensions (regular, oversize, microformat)
 - ◊ physical presentation (bound, single-leaf, presence of foldouts)
 - ◊ document classification (text/line, halftone, continuous tone, mixed, special treatment)
 - ◊ tonal range and color attributes
 - ◊ physical condition (e.g., brittle)
 - ◊ characteristics of the intermediates (format, condition, density, color, film type, age, generation, etc.)
- Determine appropriate conversion approach (e.g., film then scan, bound volume scanning).
- Determine imaging requirements for both digital master and derivatives¹
 - ◊ resolution (e.g., 600 dpi)
 - ◊ bit depth (e.g., 1-bit, 8-bit, 24-bit)
 - ◊ enhancements (e.g., use of filters, special halftone treatment, dithering)
 - ◊ file format, compression requirements, and file size (e.g., TIFF 6.0, ITU Group IV compression, file size no greater than 3 Mb) for master files and derivatives²

¹ There are no standards for image quality, but a number of institutions/organizations have proposed guidelines for imaging depending on the material at hand (bitonal text, color graphics, papyri, etc.). For example, see: Kenney, Anne R., Chapman. Steve, *Digital Resolution Requirements for Replacing Text-Based Material: Methods for Benchmarking Image Quality*. Washington, DC: The Commission on Preservation and Access, 1995. Gertz, Janet. *Oversize Color Images Project, 1994-1995, Final Report of Phase I*. Washington, DC: The Commission on Preservation and Access, 1995. (also available at <http://www.columbia.edu/dlc/nysmb/>) Bagnall, Roger S. *Digital Imaging of Papyri: A Report to the Commission on Preservation and Access*. Washington, DC: The Commission on Preservation and Access, 1995.

² For examples of guidelines in creating digital masters and access derivatives, see: Fleischhauer, Carl. *Digital Formats for Content Reproductions*. National Digital Library Program, Library of Congress, August, 1996 (<http://lcweb2.loc.gov/ammem/formats.html>)

- ◊ use of targets (resolution and color targets³)
- ◊ watermarking, encryption, hashing, and other security measures⁴
- ◊ post processing for digital masters and derivatives (e.g., deskewing, cropping, splitting images of 2-up frame scanned from film)
- Determine requirements for and create metadata
 - ◊ create catalog entries for digital resources
 - ◊ determine strategies and guidelines for directory structuring, file naming, file header information, and auxiliary files
 - ◊ create additional indexes or finding aids to support digital searching (e.g., indexing at the article level for journal literature or creating/converting finding aids using Encoded Archival Description for archival collections)
 - ◊ specify the form in which the metadata will be delivered to the vendor (machine-readable vs. paper, shared database)
- Define nature and extent of text conversion (re-keying, OCR; full-text of all documents, full-text of specific documents, table of contents only) and accuracy requirements.
- Define nature and extent of encoding (e.g., SGML-TEI) and accuracy requirements
- Prepare documents for imaging (may be done in combination with document preparation for indexing, OCRing, and encoding)
 - ◊ collate documents, identify missing/damaged pages and anomalies (e.g., foldouts, incorrect pagination), ensure correct order
 - ◊ repair pages, replace missing or illegible pages
 - ◊ prepare intermediates, if necessary (e.g., microforms, transparencies, photocopies, etc.)
 - ◊ disbind originals and trim binder's edge parallel to text (when appropriate)
 - ◊ mark pages that will not be scanned
 - ◊ provide special instructions and flags for other anomalies in the documents

Puglia, Steve; Roginski, Barry. *NARA Guidelines for Digitizing Archival Materials for Electronic Access*, US National Archives and Records Administration, November 1997 (will be available on the NARA web site in early 1998: <http://www.nara.gov/>)

³ The most commonly used resolution targets are:

RIT Alphanumeric Resolution Test Object (716-475-2739)

IEEE Std 167A.1 1995, IEEE Standard Facsimile Test Chart (800-678-4333)

AIIM Scanner Test Chart#2 (AIIM at 301-587-8202 or IEEE at 800-678-4333)

Note: A number of institutions are beginning to use Modulation Transfer Function (MTF) targets and software to measure resolution. See, for example, *The Library of Congress Requests Proposals for Digital Images of Pictorial Materials National Library Program*. Solicitation Number: RFP97-9, 1997.

The most commonly used color targets are:

Q13 and Q14: Kodak Color Separation Guide and Grayscale Targets (call Kodak at 800-225-5352 to find a local distributor, example: 415-495-8640 in San Francisco area)

Q60: Kodak Color (call Kodak at 800-225-5352 to find a local distributor, example: 415-495-8640 in San Francisco area)

Kodak Gray Cards (800-368-6257)

Macbeth ColorChecker Color Rendition Chart (800-MACBETH)

⁴ The following article includes a discussion of different security measures:

Graham, Peter S. *Intellectual Preservation and Electronic Intellectual Property*, <http://www.nlc-bnc.ca/ifla/documents/infopol/copyright/graham.txt>

- ◇ prepare production notes that will serve as the first page of each volume
- ◇ create documentation/instructions for bibliographic control, indexing, tagging, and encoding information (consider entering information in shared database)
- ◇ determine bibliographic and technical targets to accompany scanned images
- Prepare materials for indexing, OCRing, and encoding
 - ◇ mark pages that will not be indexed or OCR'd (or if only a portion is to be indexed, mark those pages)
 - ◇ provide special instructions and flags for any anomalies in the documents
 - ◇ supply vendor with the following information for each volume, as either paper or machine-readable worksheet(s) or shared database:
 - ⇒ total number of pages to be scanned/encoded/OCR'd and average characters/page
 - ⇒ location of significant reference structures (for either labeling or OCRing) that may be present within the work, including but not limited to title page, table of contents, lists of illustrations, indexes, bibliography or reference listings
 - ⇒ a root identifier and file naming structure on which to base file naming for all the pages in the volume, and basic bibliographic data (author, publisher, date of publication, series notes, and subject headings)
 - ⇒ label information for certain important pages within each volume to identify the starting and ending page of structures within books and serials such as tables of content and indexes
- Ship materials to the vendor (if services performed off-site and vendor does not offer pickup/delivery services). Costs associated with shipping to the vendor normally borne by the institution.
 - ◇ sort and pack materials
 - ◇ include a packing slip with each box
 - ◇ clearly mark each volume and accompany with a project worksheet, indicating relevant bibliographic and indexing data, or reference to a shared database
 - ◇ specify handling of multi-volume serials
- Receive digital files and accompanying metadata and originals from the vendor (inspect contents of each shipment to be sure that all items are present, complete, and in proper order)
- Perform quality review of digital images (this review is in addition to the vendor's quality control, see Vendor Responsibilities.)
 - ◇ proposed method, level, timing, and extent of quality review by the institution and the vendor (e.g., 100% quality control vs. sampling; inspection of on-screen images or paper printouts; level of "accuracy" required⁵)
 - ◇ amount of time for inspection based on shipment size
 - ◇ inspection of full-resolution and/or derived low resolution images
 - ◇ inspection for: missing/incomplete pages, blurred/indistinct images, pages out of sequence or skewed
 - ◇ use of technical targets in evaluation of resolution (e.g., for bitonal scanning, rendering of characters or symbols on the IEEE, AIIM, or RIT targets; for grayscale/color scanning, the

⁵ See, for instance, *Library of Congress RFP 96-18, Digital Images from Original Documents, Text Conversion, and SGML-Encoding, National Digital Library Program*, in which LC required 99.5% accuracy of sample batch file from each shipment (page C-32) following the general inspection level II of ANSI/ASQC Z1.4-1993, ANSI/ASQC S2-1995).

MTF values as measured from a sine pattern target); tonal reproduction (grayscale targets); and color (grayscale and color targets)⁶

- ◇ evaluation technique and attributes to be considered in examining output for different types of materials, i.e., text/line art, continuous tone, halftone (e.g., examine a 600 dpi image of text/line materials for text legibility of the smallest significant characters, magnification to examine serifs, fine detail, and adjacent letters; for halftones, absence of moiré patterns, etc.)
- ◇ file size, level of compression
- ◇ media integrity
- Perform quality control of related metadata
 - ◇ proposed method, level, timing, and extent of quality review by the institution and the vendor (e.g., 100% quality control vs. sampling; level of accuracy required)
 - ◇ checking the completeness and correctness of file and directory names, file headers, bibliographic information, document structure labels, and the correspondence of physical page numbers with image numbers
 - ◇ amount of time for metadata inspection, based on shipment size
- Perform quality control of text conversion and SGML encoding
 - ◇ proposed method, level, timing, and extent of quality review by the institution and the vendor (e.g., 100% quality control vs. sampling; level of accuracy required)
 - ◇ inspecting text conversion (OCR or rekeying) and SGML output for completeness and accuracy rate (specified by the institution in the proposal)
 - ◇ amount of time for text conversion and SGML inspection, based on shipment size
- Identify unacceptable images, metadata, text converted files and encoding
 - ◇ explain what constitutes an unacceptable product/service (imaging errors, incorrect data entry, OCR accuracy levels below specifications, etc.), and percentage of shipment to be reviewed
 - ◇ the institution will include specific comments explaining the scope and nature of the problem
 - ◇ vendors will make all the necessary adjustments and reproduce the images/indexing data at their expense to achieve an acceptable level of quality
- Approve final product and initiate payment (state that payment will be deferred until the final product is approved including all retakes)

⁶ See *The Library of Congress Requests Proposals for Digital Images from Original Documents Text Conversion and SGML Encoding National Digital Library Program*. Solicitation Number: RFP96-18, 1996, Part I, Section C.

Project Responsibilities: Vendor

An institution should enumerate all vendor responsibilities as a vendor is not obligated to assume responsibility for duties not specifically defined. Typical vendor responsibilities may consist of some or all of the following:

- Receive materials
 - ◊ acknowledge receipt of materials from the institution
 - ◊ communicate to the institution any discrepancies to the packing slip, or in the condition of the originals and accompanying metadata instructions before proceeding
 - ◊ secure materials in a secure, dry location
 - ◊ take great care in handling fragile originals
- Prepare and scan material
 - ◊ calibrate and maintain systems (maintain consistency of output as described in ANSI/AIIM MS44-1988 (R1993) *Recommended Practice for Quality Control of Image Scanners*; ensure that scanning system is free of dust and other distorting particles; maintain calibration through each shift; use appropriate technical targets and procedures as defined by manufacturer)
 - ◊ prepare material (review each volume prior to scanning to determine the presence and nature of illustrations, the page dimensions, the physical condition, treatment for multi page volumes)
 - ◊ select scanning settings (resolution, threshold, bit depth, filters, screens, halftone treatments, page trim) for best image capture and record these settings on the accompanying worksheet; include name of scanning technician
 - ◊ scan material and accompanying technical targets following guidelines for image capture, such as:
 - ⇒ render the complete page; image should fill the scan area
 - ⇒ maintain proper image orientation (landscape, portrait)
 - ⇒ align page on scanner platen to ensure little or no skew and to preserve front to back registration for printing of paper copies from digital files (specify mis-registration and skew tolerance)
 - ⇒ reproduce the polarity of the original item (typically positive polarity)
 - ⇒ check for aliasing or other distortions, including moiré and apply special treatments to eliminate or minimize their effects
 - ◊ utilize special handling methods when necessary (e.g., no use of auto document handlers, no face-down scanning of bound volumes, etc.)
 - ◊ report and discuss any problem images that can not be captured to meet benchmark specifications
 - ◊ inspect film intermediates for quality and consistency
 - ◊ post process digital images (cropping, deskewing, despeckling, image rotation)
- Perform image quality review, during and after scanning⁷

⁷ ANSI/AIIM MS44-1988 (R1993), *Recommended Practice for Quality Control of Image Scanners*. There are few standards governing image quality for digitized material.

- ◇ follow the method, level, and extent of quality review required by the institution (e.g., 100% review on-screen or of printed version)
- ◇ maintain a high level of quality control to ensure that each page is fully rendered, properly aligned and ordered, free of distortions, and named to reflect the correct sequence of the original volume
- ◇ record quality review data in format and medium identified by the institution (e.g., printed inspection worksheet, shared online database, etc.) for each volume
- ◇ guarantee image quality that meets the institution's specifications, including the correction of unacceptable images with no additional charge to the institution
- Print paper copies of digital images for quality control, facsimile production, and text conversion
 - ◇ follow institutional requirements regarding paper stock, paper size, toner, duplexing, and printing resolution⁸ for the creation of paper replacements for originals
 - ◇ follow institutional requirements for evaluation of image quality in printed copies
 - ◇ utilize paper copies for re-keying text when OCR will not render satisfactory results
 - ◇ provide prints on demand to institution and other customers (optional)
- Create derivative images from the digital masters to serve as thumbnails, printing, reference, or display quality images (following the institution's requirements including file size, pixel dimensions, scripting routines, image formats, compression, and media requirements)
- Create metadata to structure, locate, and retrieve digital images
 - ◇ receive the metadata information from the institution and prepare the data (e.g., if the indexing information is provided in print, the vendor needs to key in this information in a specified format; if in electronic form, the vendor will upload and record the data in a specified format using the software and operating system required by the institution)
 - ◇ follow the conventions provided by the institution for directory structuring and file naming⁹:
 - ⇒ logical order of directories (e.g., root identifier/volume/issue/)
 - ⇒ length of directory and file names (e.g., DOS limits the file names to eight characters or fewer) and case preferences in naming directories and files (e.g., upper vs. lower case letters),
 - ⇒ directory/file name format (e.g., DOS 8.3, UNIX, etc.) and extension (e.g., .tif, .txt etc.) requirements
 - ⇒ provide guidelines for the vendor to name images for the pages that are sequential, non-sequential, unnumbered, and other anomalies (e.g., incorrectly numbered, duplicate, foldouts, etc.)

⁸ The National Archives issued guidelines on machine and toner requirements for preservation photocopies, see, Norvell M.M. Jones, *Archival Copies of Thermofax, Verifax, and Other Unstable Records*. National Archives Technical Information Paper No. 5 (Washington: National Archives and records Administration, 1990). *ANSI/NISO Z39.48-1992 Permanence of Paper for Publications and Documents in Libraries and Archives* covers the requirements for permanent/durable paper.

⁹ There might be different conventions for different types of materials, e.g., serials vs. monographs. These conventions can be based on ISO-9660 specifications, which is designed to provide broad compatibility for reading CD-ROMs across platforms. Ideally, a directory name conveys a fairly good sense of the identity of the files. Directory names should also be unique, at least within a project context. Broad coordination of document naming, such as that provided by CNRI handle system, would assure uniqueness within and across institutions.

- ◇ adhere to the file header information conventions¹⁰ including the header structure, and data elements that will be contained in the header (e.g., resolution, bit depth, date and time of scan, document structure labels, title, author, etc.). The guidelines will be provided by the institution.
- ◇ index the materials at the level identified by the institution (from a basic level of indexing based on the volume level bibliographic information provided by OPAC to advanced indexing that facilitates article level access) by entering the data fields (e.g., title, author, date of publication, etc.) into a file or a file header (e.g., for each volume create a file name bibdat.txt and enter the bibliographic data by extracting it from the institution's Online Public Access Catalog)
- ◇ create additional indexes or finding aids to support digital searching (e.g., follow the Encoded Archival Description¹¹ standards to encode an online searchable version of a finding aid)
- ◇ record and deliver the auxiliary files (e.g., for each physical volume, create a file that will contain a dump of the image header information, or create a file that contains a listing of all the file names in a directory) in the format and medium identified by the institution (e.g., in ASCII format in electronic worksheets accompanying each volume; via a shared online database in dBase format)
- Perform quality review of metadata
 - ◇ follow the method, level, and extent of quality review required by the institution (e.g., 100% accuracy in entering file header information, 100% inspection of the file names vs. inspection based on sampling), and use software and customized scripts to run automated quality check
 - ◇ record the quality review data in format and medium identified by the institution (e.g., print inspection worksheet, shared online database, etc.)
- Conduct text conversion and SGML encode the resulting text files
 - ◇ follow text conversion and encoding guidelines¹² (e.g., OCR vs. re-keying, using TEI Lite DTD for encoding, establish accuracy level for SGML)
 - ◇ use specified text conversion and SGML encoding software and method (e.g., single vs. double rekeying for text conversion; fully automated OCR; full vs. partial OCR; uncorrected vs. corrected OCR; automated SGML encoding¹³)

¹⁰ Tagged Image File Format (TIFF) is the most commonly used format that enables the inclusion of header information. Information on TIFF file headers can be found at:
<http://theory.uwinnipeg.ca/localfiles/infocfiles/tiff/support.html>

¹¹ The Encoded Archival Description (EAD) Finding Aid Pilot Project web site presents information and preliminary results on the Library of Congress's efforts to encode archival finding aids using the Standard Generalized Markup Language (SGML) and the beta version of the Encoded Archival Description (EAD) document type definition (DTD). The URL is: <http://www.loc.gov/rr/ead/eadhome.htm>.

¹² There are several web sites with SGML information, and examples include:

TEI Guidelines for Electronic Text Encoding and Interchange : <http://www.hti.umich.edu/docs/TEI>

TEI Home Page: <http://www.hti.umich.edu>

In addition to the standard guidelines, it is common for institutions to provide additional guidelines. For example, RLG's *Technical Checklist* prepared for the Studies in Scarlet project provides supplementary conversion and encoding guidelines to be used along with TEI Lite (<http://www.rlg.org/scarlet/tech.html>). *The Library of Congress RFP96-18* also has specifications for SGML encoding (see page C-25-27, Part II, Section J). Another example is the American Memory DTD for Historical Documents at <http://lcweb2.loc.gov/ammem/amtdtd.html>.

- ◇ record the output text files in the identified file format and compression method (e.g., ASCII and compression not allowed)
- Perform quality review of text conversion and SGML encoding
 - ◇ follow the method, level, and extent of quality review required by the institution (e.g., 100% quality control of text conversion and encoding, quality control based on sampling), and use software and customized scripts to run automated quality check
 - ◇ record the quality review data in format and medium identified by the institution (e.g., print inspection worksheet, shared online database, etc.)
- Note any situation that falls outside the institution's metadata, text conversion or encoding instructions, and communicate the situation to the institution
- Guarantee metadata, text conversion, and encoding quality, including the correction of the unacceptable products with no additional charge to the institution in a timely fashion
- Document production and item tracking through separate or shared database
- Create the digital images, text files, and other output files in standard file formats and compression techniques (e.g., save all the image files as TIFF 6.0 with CCITT Group IV)
- Store images and auxiliary files on specified storage media (e.g., tape, disk - 4mm, 8 mm, CD-R and 5.25" MO) complying to the standards (e.g., ISO-9660 standards), and maintain accurate and clear naming of the delivery media and its contents
- Ship the digital files to the institution
 - ◇ all deliveries of digital files need to be made within ___ of receiving the physical volumes from the institution
 - ◇ vendor is responsible for all costs associated with shipping and handling of the digital files, originals and metadata
 - ◇ vendor will pack the delivery medium containing the digital image files, accompanying metadata, as well as original documents; the institution may specify that the original materials are to be retained by the vendor until the institution has fully inspected and accepted the digital files
 - ◇ prepare packing slip
 - ◇ insure each shipment
 - ◇ ship via overnight courier to the address specified in the proposal
 - ◇ track missing/delayed shipments at request of institution
- Other responsibilities
 - ◇ backup creation
 - ◇ archiving
 - ◇ networking
 - ◇ customized programming
 - ◇ vendor deletion of digital files upon acceptance by the institution

¹³ See <http://dns.hti.umich.edu/htistaff/pubs/1997/ejshaw.01> for an account of the implementation of the automated SGML approach by the University of Michigan (Making of America project).

Product Profile and Pricing

Provide the specifics related to the products/services required and provide an attachment to the RFP on which the vendor can record their pricing for specific products and different levels (e.g., scanning base bid for up to 2,500 pages and 25,001-500,000 pages at 600 dpi, 1-bit; uncorrected and fully automated OCR per 1,000 characters, etc.). Asked for bids based on incremental level of volume and quality within the specifications of the RFP.

- Product/service profile (scanning, OCR, re-keying, encoding, etc.)
- Itemized pricing for products/services
- Conditions
 - ◊ inclusive (prices quoted should be inclusive: e.g., scanning cost should include set up, scanning, data entry, special handling, inspection, basic structuring and labeling, storage media, shipping, insurance; other additional costs such as indexing, text conversion and encoding should be priced separately)
 - ◊ firm (prices quoted by the vendor shall be firm for the duration of the project)
 - ◊ net (prices quoted by the vendor shall be net, unless otherwise specified by the institution; if costs are to vary under any circumstances -- e.g., from one year to the next, or from one delivery medium to another-- the vendor should submit separate bids)
 - ◊ prices offered will be equal to or less than those offered to other private and public institutions
- Quoting alternatives (specify if the vendor is allowed to quote alternates -- in that case vendors need to specify manufacturer name and product number; alternates must meet or exceed original items specified)

Vendor Support Profile

This section will specify the desired vendor support mechanism.

- Service profile
- Vendor's pre-sales support (e.g., on-site product review and demo)
- Vendor's post-sales support (included in prices quoted)
 - ◊ installation and set-up assistance
 - ◊ staff training
 - ◊ ongoing technical support (e.g., 800-number for no charge technical support, days/hours of service, location of the support staff, number of support staff)
- Warranties provided

General Service Provider Information

The goal of this section is to judge the vendor's capability, experience, and the company's viability.

- Business profile (information on vendors' business and technical experience, most recent annual report)
- Business summary (public or privately held, number of years in business, annual sales, number of employees, proof of company viability, and Dun and Bradstreet number, etc.)
- Information on key contacts of the vendor (people who will be involved in supplying the services/products)
- Staff qualifications and responsibilities
- Minimum of three vendor references (list of clients), including contact names, phone numbers, and brief description of the business relationship (particularly those who have had similar work performed)
- Staff qualifications and responsibilities (institution can request specific personnel requirements, such as level of expertise or years of experience in project management, scanning, systems programming)
- Additional training needs (e.g., the institution may require additional training of the vendor's staff in the handling of rare and fragile materials)
- Hardware/software used in preparing/producing the products, and throughput capacity
- Communication (name of contacts, their areas of responsibility, their availability)
- Sample of work and other supporting material (brochures, reports, etc.)
- Disaster recovery for original materials and digital files

Project Management and Formal Conditions

The success of the project will rely on how well the institution and the vendor manage their respective project responsibilities and understand the formal conditions of the contract. In this section, the vendor and the institution will present their approaches and capabilities to control and integrate the components of the proposal, and monitor the proposed schedule. They will also discuss how the accomplishments and milestones will be reported.

- Provide contact information for communications (for directing technical, financial, and procedural questions during RFP process -- each participant will designate representatives who will be available to field questions and to discuss any aspect of the project)
- Formal review meetings between the institution and the vendor during the project
- Conditions of on-site inspection of vendor facility (e.g., vendor will permit representatives from the institution to inspect its facility during its normal daytime working hours anytime during the award or contract period with a prior arrangement)
- Terms of default (e.g., failure of the vendor to correct unsatisfactory work within ___ days will constitute a default)
- Conditions and process for cancellation for non-compliance (e.g., the institution will have the option to cancel the agreement upon ___ days of written notice to the vendor for performance that is not in compliance with specifications of the RFP)
- Errors (the vendor will correct the errors within ___ working days of the receipt of the items at no additional charge)
- Delivery schedule (establish a regular delivery schedule of originals, images, etc. – any changes in the delivery schedule need to be communicated by the party initiating the change within ___ weeks prior to the schedule change)
- Specify purchase order, billing terms, and conditions of the institution
- Specify order change, cancellation conditions (e.g., no penalty for cancellations)
- Invoices
 - ◊ the vendor shall provide detailed invoices for each completed shipment within ___ working days of delivery of a shipping to the institution
 - ◊ invoices shall reflect the price structure delineated in the agreement
 - ◊ invoices must include the total number of page scanned, the charge per images, the total charge for the shipment, the institution's Purchase Order Number, and any other itemized charges.
 - ◊ invoices will be paid upon the acceptance by the institution of the digital image, indexing, etc. following inspection as described elsewhere in the RFP
 - ◊ invoices should be sent to: address
- Intellectual property rights of the products (e.g., include a “work for hire” clause in RFP and specify that all products resulting from this project shall be the property of the institution and may not be used or distributed for any purposes without the prior written approval of the institution)
- Identify the insurance coverage requirements to work on the institutions premises
- Processing of orders and blanket orders (e.g., accept phone call or fax to change orders)
- Parking and use of facilities for meeting, demonstrations, deliveries, etc. (e.g., it is vendors' responsibility to contact Cornell for parking permits and fees)

- Errors attributed to the vendor (e.g., any errors made by the vendor, which are identified by the institution's inspection process within ____ days after the institution receives the products shall be returned to the vendor for correction without additional charge to the institution and returned within _____ days of the vendor's receipt of the items for correction; images not reported as problematic will be deemed approved and accepted)
- Errors attributed to the institution (when the vendor identifies an error made by the institution -- e.g., missing pages, inaccurate bibliographic data, etc. -- the error needs to be reported immediately by telephone/fax/mail to the institution for resolution)
- Improvements and innovations in methods and materials (e.g., any improvements in or changes to imaging/text conversion/encoding/indexing methods and procedures proposed by the vendor should be sent to the institution in writing after the new methods/procedures undergo extensive testing and need to be approved in writing by the institution before the implementation of any changes)
- Compliance with the RFP specifications and national/international standards (e.g., all scanning is to be done by the vendor according to the ANSI and AIIMS standards and other specifications identified by the institution)
- Subcontracting disclosure (e.g., subcontracting is allowed, however, the institution intends to contract only with the vendor of the winning proposal to be known as the Primary Contractor; in the event of a subcontracting arrangement, the primary contractor assumes all responsibility for the services/products supplied by subcontractors; cost increases resulting from subcontracting shall not be passed on to the institution)

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