

December 16, 2009

Ms. Marian Rengel
MDL Outreach Coordinator
Learning Resources & Technology Services
St. Cloud State University
720 Fourth Avenue South
St. Cloud, MN 56301-3398

Dear Marian,

Thank you for the opportunity for *Arca*Search to respond to the Minnesota Digital Library (MDL)'s Request for Qualifications. We're delighted to be submitting the attached information.

Attached you will find our response to your request including project scope of work and digitization standards for all materials with the exception of audio files. In the response, we have also included background information on *Arca*Search, our process working with archiving clients and relevant customer work. If you haven't already, we would also encourage you to visit our online portfolio at www.arcasearch.com for more information on our archiving work and client testimonials. Please know that client references are available upon request.

Again, thank you for considering *Arca*Search. We would enjoy the opportunity to work with MDL's contributing organizations and to be listed as a qualified vendor. If you have any questions, please do not hesitate to contact me.

Sincerely,



Jeff Ruprecht
Sales Manager



A Response to a Request for Qualifications

Prepared for the Minnesota Digital Library
by *ArcaSearch*

December 16, 2009

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SIGNATURE:



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I. PROJECT BACKGROUND

ArcaSearch is pleased to respond to the Minnesota Digital Library (MDL)'s Request for Qualifications (RFQ) to solicit industry input in order to:

- 1) Increase MDL's capacity for digitizing collections; and
- 2) Gather information and experience levels that can help MDL focus on possible solutions for large and small scale digitization projects and to inform the 110 participants.

What follows is *ArcaSearch*'s response to the RFQ and our demonstrated experience in handling digitization projects that can meet MDL's standards and technical requirements. *ArcaSearch* will provide information MDL needs to complete its industry survey and obtain information that provides guidance to MDL's current and future contributors.

The Minnesota Digital Library, which administratively operates under the umbrella of Minitex (a library information network located at the University of Minnesota – Twin Cities), is a group of professionals from libraries, archives, historical societies and museums across Minnesota. *ArcaSearch* understands these professionals support education, scholarship and enrichment through Internet access to the MDL collection. The MDL provides a server and database environment and imaging support that is the technical foundation for current and future digitization activities.

MDL's initial and ongoing digitization effort is Minnesota Reflections. Begun in 2004-2005, the project now includes more than 110 participating organizations. MDL works with these organizations to help them digitize their collections and provide access to Minnesotans to those digital items.

Through the MDL and its participants, more than 45,000 unique photographs, maps, journals, documents, letters and works of art have been digitized with collected information on these images in an online searchable database for user access and use. The project audiences include participating organizations, K-12 educators and students, family historians and the public. Minnesota Reflections has proven to be a valuable resource for commercial users as well.

The MDL is conducting Phase 6 of this project in 2009-2010 with funding that has come through a series of Library Services and Technology Act grants provided by the State Library Service unit of the Minnesota Department of Education.

ArcaSearch understands that, if selected, MDL will post a list of its qualified vendors on its Web site with the responses to the RFQ. *ArcaSearch* is providing this information with the hope of being selected and so MDL can include the information in its checklist of qualified

vendors made available to the public on its Web site. *ArcaSearch* traditionally does not enter into subcontract work arrangements and does not foresee the need for the work involved with the contributing organizations.

II. PROJECT SCOPE OF WORK – FORMATS & STANDARDS

ArcaSearch understands that MDL is seeking to identify vendors that have the capacity to provide one or more of the following digitization services to our contributors while adhering to the corresponding standards. *ArcaSearch* will provide qualifications for all formats with the exception of audio digitization services. It will address the corresponding standards for each format.

ArcaSearch is well-suited to partner with the MDL on all aspects of this digitization project and provide digitization services to MDL's contributors while adhering to corresponding standards. Our background and unique expertise in working with universities, libraries, historical groups, government agencies and newspapers to digitally archive their collections and papers make us particularly well-matched for this interesting and important project.

About Our Digitization Services

ArcaSearch has digitized, stored and delivered more than 10 million files for numerous entities with 10,000-12,000 pages are being added daily.

The *ArcaSearch* process was born from a team of high quality digital imaging and graphic arts experts. Its original mission was to produce a PDF with these viewing characteristics: 1: Highest possible image quality. 2: Highest possible text recognition (OCR) accuracy. 3: Smallest file size for fast transfer via the Internet. Throughout our industry, all three of these attributes are inherently in direct conflict with each other. *ArcaSearch* has achieved all of these goals and subsequently the process is U.S. patent pending status. All *ArcaSearch* PDFs contain full color, pleasing images with the highest accuracy in text search ability.

ArcaSearch has 12 full- and part-time staff. Four staff people serve as support for troubleshooting. *ArcaSearch* was founded by ColorMax, Inc., in 1992 by Cal and Terri Sixta. ColorMax, located 90 miles west of Minneapolis in Paynesville, Minnesota, has served clients across the USA and internationally by providing outstanding quality service in the graphics and pre-press industry. In addition to a complete capture and processing studio at its headquarters in central Minnesota, *ArcaSearch* has MAX (Mobile Archive Express), an onsite scanning station that travels to digitize customers' collections. This is a solution for customers that require their collections stay at their facilities.

ArcaSearch has been working in the digital conversion of sensitive originals for 18 years and brings 100 years of combined expertise in the graphic arts industry to an archiving project. We capture a quality full color image for each of the documents guaranteeing an optimal quality

level whether they're maps, letters, photographs, receipts, reports, books, newspapers and prints. Understanding the full scope of our client's archiving project, *ArcaSearch* applies its expertise in making decisions about handling fragile materials and discuss this with the client.

Project Standards

ArcaSearch has reviewed and is familiar with the Western States Digital Imaging Best Practices Version 1.0, January 2003 and is able to deliver PDFs according to the specifications of this standard.

Security and Experience with Historic Materials

ArcaSearch has reviewed the information and requirements about the security and handling of the contributing organizations' valuable, unique and original material and has prepared this response regarding experience, security and handling practices.

Experience

ArcaSearch has expertise in handling fragile historical materials. From unique and valuable pieces of artwork to century-old materials, we are experts in making decisions and managing the originals.

We have scanned multiple types of material including ancient and new parchment, photograph paper, newspaper, onion skin, hardboard, carbon paper and blue prints while maintaining clarity and color. The size ranges from a postage stamp size to as large as 48" x 60" or larger with special setup circumstances. *ArcaSearch* has no limit to the type and size of document we archive and has the ability to archive more than 30,000 documents per day.

Security of Materials in Our Care

The *ArcaSearch* facility is not open to the public. Employees involved in specific projects are the only ones with access to the documents. Background checks have been done on employees with access to the documents. The documents will be housed in the same *ArcaSearch* facility in which our corporate offices reside. This office complex is secured by a monitoring system which detects smoke, heat, low temperature drops and unauthorized entry. Automatic notification is sent to the 911 system, the monitoring company and the CEO of *ArcaSearch*. The facility is equipped with Halon fire suppression.

Handling Practices

ArcaSearch will use its proven expertise in caring for and handling the original documents, which we deem to be irreplaceable. We ensure they are safely and securely cared for and packed under the same preservation standards in which they were delivered and received until they are returned to the contributor.

Specifically, our scanning equipment used for digitizing is a non-intrusive procedure and will not damage the original document. The *ArcaSearch* Scanning System has no roller or auto feeders to damage the documents system. Manual handling of each document will carefully take place laying each page on a vacuum bed. The instant capture system will not come in contact with the document. After the digitization has taken place the document will be returned to a water resistant, secure container.

Quality Control Procedures

ArcaSearch uses multiple techniques to optimize a quality product. The following processes are not exclusive yet reflect our primary strategies for quality assurance:

- 1) At the point of digital capture each image is displayed on a monitor for the imaging technician to access tonal range, focus, complete image capture and skew. Technicians are trained and responsible for the accurate representation of the original document.
- 2) Focus is paramount to accurate OCR and document viewing. Therefore, *ArcaSearch* has developed a technique where, based on the documents dimensions, file weight is benchmarked and monitored for differences to insure focal integrity.
- 3) *ArcaSearch* utilizes custom-developed software for efficient viewing of files for post-process quality assurance purposes.
- 4) Real-time quality assurance is available at the customer web site for both the customer and *ArcaSearch*. As documents are captured, they are processed and uploaded to the web site within 48 hours. As a result, the customer is able to literally watch their archive grow. The immediacy of quality assurance viewing prevents end-of-project surprises.

As part of the inspection, *ArcaSearch* believes the accuracy of full text conversion (OCR text file image requirements -100% accuracy) is subject to the condition of the content being OCR'd All elements, for screen images and print outs can be inspected as well.

ArcaSearch employs multiple methods to ensure the digital files are produced to meet customer expectations. Those expectations will be a combination of industry best practices and benchmarking from earlier *ArcaSearch* projects. *ArcaSearch* uses professional technicians, professional digital cameras and patented image processing to insure a quality product. Both procedural and automated systems are in place to address all aspects of quality assurance for the RFQ.

ArcaSearch will capture and provide an entire page within each digital master file. Each image or page constitutes one file. *ArcaSearch* will provide quality, full color, enhanced images using a file format appropriate for customer-defined project requirements.

We provide 99 percent conversion accuracy on OCR readable characters. However, some letters may not be recognizable due to deterioration, damage and printing errors (broken type,

excessive kerning, offsetting, color scheme, etc.) on the original document and will result in a loss of accuracy. *ArcaSearch's* patented technology will produce optimal result in these instances.

III. DIGITIZATION STANDARDS

A. Photographs and Oversized Photographs

ArcaSearch has reviewed the following requirements and is able to digitally scan and archive photographs and oversized photographs according to the following specifications:

| | | |
|--------------------|---|---|
| File Format | - | TIFF - uncompressed |
| Bit Depth | - | 1 bit bitonal, 8 bit grayscale, 24 bit color |
| Spatial Resolution | - | 3000 to 5000 pixels across the long dimension |
| Spatial Dimension | - | 100% of original |

Requirements:

Size Restrictions

ArcaSearch's size restrictions include color or black and white scanning of textual materials (bound) up to 22 x 40 inches. Bitonal scanning of textual materials (bound) up to 22 x 40 inches.

Hardware Equipment

ArcaSearch uses transparency scanners, flatbed scanners and oversize document scanners. Since the scanning/capture system equipment is developed and customized by *ArcaSearch* using different camera and other components, the equipment information is proprietary information. However, all equipment components are researched and developed to best fit various projects. *ArcaSearch* would be happy to supply MDL and each contributor with more information on its equipment at a time when a specific project is discussed and not for public use on the MDL Web site.

Software

ArcaSearch's uses a few commercially written software packages i.e. Adobe, Photoshop, etc. The software is consolidated, modified, customized to *ArcaSearch's* specifications. Therefore, the software is not an "off-the-shelf" product any longer and also becomes proprietary information. The two *ArcaSearch* patent-pending processes have become intertwined throughout the process and are no longer separate software.

ArcaSearch is able to provide a Tiffen (formerly Kodak) Separation Guide for all flatbed and oversized color and grayscale scanning.

Relevant Client Work: *ArcaSearch* has digitally scanned a portion of “A Summons of Comradeship” collection of WWI and WWII War posters, WWI and WWII Cartography, WWI and WWII Women in War photos, WWI and WWII Aerial photos for the **University of Minnesota**. The photos were large at 102 centimeters. For more information, visit: <http://digital.lib.umn.edu/warposters/warpost.html>.

B. Maps and Plat Books

ArcaSearch has reviewed the following requirements and is able to digitally scan and archive maps and plat books according to the following specifications:

| | | |
|--------------------|---|---|
| File Format | - | TIFF - uncompressed |
| Bit Depth | - | 24 bit color |
| Spatial Resolution | - | 3000 to 5000 pixels across the long dimension |
| Spatial Dimension | - | 100% of original |

Requirements:

Size Restrictions

ArcaSearch's size restrictions include color or black and white scanning of textual materials (bound) up to 22 x 40 inches. Bitonal scanning of textual materials (bound) up to 22 x 40 inches.

ArcaSearch's book scanner can capture one side (one page) that is the 22 x 40 inches measurement. The total book when opened and spanning the two-page spread is 22 x 80 inches and when we capture the two page spread and digitally seam them back together measures 22 x 80 inches.

Hardware Equipment

ArcaSearch uses transparency scanners, flatbed scanners and oversize document scanners. Since the scanning/capture system equipment is developed and customized by *ArcaSearch* using different camera and other components, the equipment information is proprietary information. However, all equipment components are researched and developed to best fit various projects. *ArcaSearch* would be happy to supply MDL and each contributor with more information on its equipment at a time when a specific project is discussed and not for public use on the MDL Web site.

Software

ArcaSearch's uses a few commercially written software packages i.e. Adobe, Photoshop, etc. The software is consolidated, modified, customized to *ArcaSearch*'s specifications. Therefore, the software is not an “off-the-shelf” product any longer and also becomes proprietary information. The two *ArcaSearch* patent-pending processes have become intertwined throughout the process and are no longer separate software.

ArcaSearch is able to provide a Tiffen (formerly Kodak) Separation Guide for all flatbed and oversized color and grayscale scanning.

Relevant Client Work: *ArcaSearch* has digitally scanned 1,100 plat maps, 24" x 36" for **Renville County**, Minnesota.

C. Textual Documents – Books, Magazines, Journals, Etc.

ArcaSearch has reviewed the following requirements and is able to digitally scan and archive books, magazines, journals and other textual documents according to the following specifications:

| | | |
|--------------------|---|---|
| File Format | - | TIFF - uncompressed |
| Bit Depth | - | 1 bit bitonal, 8 bit grayscale, 24 bit color |
| Spatial Resolution | - | 3000 to 5000 pixels across the long dimension |
| Spatial Dimension | - | 100% of original |

Requirements:

Size Restrictions

ArcaSearch's size restrictions include color or black and white scanning of textual materials (bound) up to 22 x 40 inches. Bitonal scanning of textual materials (bound) up to 22 x 40 inches.

ArcaSearch's book scanner can capture one side (one page) that is the 22 x 40 inches measurement. The total book when opened and spanning the two-page spread is 22 x 80 inches and when we capture the two page spread and digitally seam them back together measures 22 x 80 inches.

Hardware Equipment

ArcaSearch uses transparency scanners, flatbed scanners and oversize document scanners. Since the scanning/capture system equipment is developed and customized by *ArcaSearch* using different camera and other components, the equipment information is proprietary information. However, all equipment components are researched and developed to best fit various projects. *ArcaSearch* would be happy to supply MDL and each contributor with more information on its equipment at a time when a specific project is discussed and not for public use on the MDL Web site.

Software

ArcaSearch's uses a few commercially written software packages i.e. Adobe, Photoshop, etc. The software is consolidated, modified, customized to *ArcaSearch's* specifications. Therefore, the

software is not an “off-the-shelf” product any longer and also becomes proprietary information. The two *ArcaSearch* patent-pending processes have become intertwined throughout the process and are no longer separate software.

ArcaSearch is able to provide a Tiffen (formerly Kodak) Separation Guide for all flatbed and oversized color and grayscale scanning.

Relevant Client Work: *ArcaSearch* has digitally scanned yearbook collections, course catalogs, annual reports, point-of-sale catalogs for **St. Catherine’s University**, the **University of St. Thomas**, the **College of St. Scholastica**, **Anhueser Busch** and **Cargill** companies. A total of more than 100,000 pages were scanned for these clients.

D. Graphics

ArcaSearch has reviewed the following requirements and is able to digitally scan and archive graphics according to the following specifications:

| | | |
|--------------------|---|---|
| File Format | - | TIFF - uncompressed |
| Bit Depth | - | 8 bit grayscale, 24 bit color |
| Spatial Resolution | - | 3000 to 5000 pixels across the long dimension |
| Spatial Dimension | - | 100% of original |

Requirements:

Size Restrictions

ArcaSearch’s size restrictions include color or black and white scanning of textual materials (bound) up to 22 x 40 inches. Bitonal scanning of textual materials (bound) up to 22 x 40 inches.

Hardware Equipment

ArcaSearch uses transparency scanners, flatbed scanners and oversize document scanners. Since the scanning/capture system equipment is developed and customized by *ArcaSearch* using different camera and other components, the equipment information is proprietary information. However, all equipment components are researched and developed to best fit various projects. *ArcaSearch* would be happy to supply MDL and each contributor with more information on its equipment at a time when a specific project is discussed and not for public use on the MDL Web site.

Software

ArcaSearch’s uses a few commercially written software packages i.e. Adobe, Photoshop, etc. The software is consolidated, modified, customized to *ArcaSearch’s* specifications. Therefore, the software is not an “off-the-shelf” product any longer and also becomes proprietary information.

The two *ArcaSearch* patent-pending processes have become intertwined throughout the process and are no longer separate software.

ArcaSearch is able to provide a Tiffen (formerly Kodak) Separation Guide for all flatbed and oversized color and grayscale scanning.

Relevant Client Work: *ArcaSearch* has digitally scanned the **William "Smokey" Robinson, Jr. Project**, Mission Viejo, Calif.

E. Artwork

ArcaSearch has reviewed the following requirements and is able to digitally scan and archive artwork according to the following specifications:

| | | |
|--------------------|---|---|
| File Format | - | TIFF - uncompressed |
| Bit Depth | - | 24 bit RGB color |
| Spatial Resolution | - | 3000 to 5000 pixels across the long dimension |
| Spatial Dimension | - | 100% of original |

Requirements:

Size Restrictions

ArcaSearch's size restrictions include color or black and white scanning of textual materials (bound) up to 22 x 40 inches. Bitonal scanning of textual materials (bound) up to 22 x 40 inches.

Hardware Equipment

ArcaSearch uses transparency scanners, flatbed scanners and oversize document scanners. Since the scanning/capture system equipment is developed and customized by *ArcaSearch* using different camera and other components, the equipment information is proprietary information. However, all equipment components are researched and developed to best fit various projects. *ArcaSearch* would be happy to supply MDL and each contributor with more information on its equipment at a time when a specific project is discussed and not for public use on the MDL Web site.

Software

ArcaSearch's uses a few commercially written software packages i.e. Adobe, Photoshop, etc. The software is consolidated, modified, customized to *ArcaSearch's* specifications. Therefore, the software is not an "off-the-shelf" product any longer and also becomes proprietary information. The two *ArcaSearch* patent-pending processes have become intertwined throughout the process and are no longer separate software.

ArcaSearch is able to provide a Tiffen (formerly Kodak) Separation Guide for all flatbed and oversized color and grayscale scanning.

Relevant Client Work: *ArcaSearch* has digitally scanned the William "Smokey" Robinson, Jr. Project, Mission Viejo, Calif.

E. Audio

ArcaSearch does not digitally scan and archive audio files.

F. Newspapers Scanned from Paper or Microfilm

ArcaSearch has reviewed the following requirements and is able to digitally scan and archive newspapers scanned from paper or microfilm according to the following specifications:

| | | |
|--------------------|---|---|
| File Format | - | TIFF - uncompressed |
| Bit Depth | - | 8 bit grayscale |
| Spatial Resolution | - | 3000 to 5000 pixels across the long dimension |
| Spatial Dimension | - | 100% of original |

Requirements:

Scan and Capture

ArcaSearch is able to scan newspapers one page per TIFF (or microfilm that contains two pages per frame must be outputted as two TIFF files). We are also able to capture the image at a resolution of 300 or 400 ppi.

Hardware Equipment

ArcaSearch uses transparency scanners, flatbed scanners and oversize document scanners. Since the scanning/capture system equipment is developed and customized by *ArcaSearch* using different camera and other components, the equipment information is proprietary information. However, all equipment components are researched and developed to best fit various projects. *ArcaSearch* would be happy to supply MDL and each contributor with more information on its equipment at a time when a specific project is discussed and not for public use on the MDL Web site.

Software

ArcaSearch's uses a few commercially written software packages i.e. Adobe, Photoshop, etc. The software is consolidated, modified, customized to *ArcaSearch's* specifications. Therefore, the software is not an "off-the-shelf" product any longer and also becomes proprietary information.

The two *ArcaSearch* patent-pending processes have become intertwined throughout the process and are no longer separate software.

ArcaSearch is able to provide a Tiffen (formerly Kodak) Separation Guide for all flatbed and oversized color and grayscale scanning.

Relevant Client Work: *ArcaSearch* has digitally scanned millions of newspaper pages for hundreds of publishers and editors across the USA and Canada.

IV. FILE NAMING CONVENTIONS

ArcaSearch has reviewed all file naming conventions in “Appendix B” is able to conform to the standard naming conventions.

V. TECHNICAL METADATA GUIDELINES

ArcaSearch has reviewed all technical metadata guidelines in “Appendix C” and is able to provide accompanying technical metadata and the required fields stated in the guidelines. This information can be provided for every digitized asset created.

VI. SCANNING SERVICES AND EQUIPMENT WORKSHEETS

ArcaSearch has reviewed all of the information in “Appendix D” and has the capabilities to provide the following scanning services:

| Scanning Service | Specifications |
|---|-----------------------|
| Standard Flatbed scanning (color & B/W) | 12 x 18 inches |
| Oversized scanning (color & B/W) | Size unlimited |
| Color & B/W scanning of textual materials (bound) | 22 x 40 inches |
| Color & B/W scanning of textual materials (unbound) | Size unlimited |
| Bitonal scanning of textual materials (bound) | 22 x 40 inches |
| Bitonal scanning of textual materials (unbound) | Size unlimited |
| 35mm slide transparencies | Yes |
| Other film transparencies (negative and positive) | 8.5 x 11 inches |
| Audio conversion | No |
| Audio cassette | No |
| Reel-to-reel | No |
| Other sound recordings | No |
| Newspapers | Yes |
| Grayscale scanning of paper originals | Size unlimited |
| Grayscale scanning from 35mm positive microfilm | No |
| Grayscale scanning from 35mm negative microfilm | No |

| | |
|---|-----|
| Grayscale scanning from 16mm positive microfilm | No |
| Grayscale scanning from 16mm negative | No |
| Digitized asset Gold CD | Yes |
| Digitized asset Gold DVD | Yes |
| External Hard Drive | Yes |
| SFTP | Yes |

VII. PARTIAL CUSTOMER LIST

County Government Centers

Carbon County
 Freemont County
 Flathead County
 Lincoln County
 Granite County
 Gains County
 Hays County
 Renville County
 Sargent County

Colleges and Universities

Bethel College
 St. Catherine University
 College of St. Scholastica
 Concordia College
 Gustavus Adolphus College
 Luther College
 Macalester College
 Northwestern College
 Trinity University – Austin, Texas
 University of Massachusetts at Dartmouth
 University of Minnesota
 University of St. Thomas

Corporations and Union

Anheuser Busch
 Cargill
 Minneapolis Labor Review
 St. Paul Labor Union

Newspapers

Alberta Newspaper Association

Utah Newspaper Association

Wisconsin Newspaper Association

Oklahoma Newspaper Association

The Catholic Spirit

The Country Day News

350 private newspaper publishers in USA and Canada

Libraries

Chester Beatty Library – Dublin, Ireland

Hill Museum & Manuscript Library (image capture system in Balamand, Lebanon, and microfilm scanning project at the National Archive and Library of Ethiopia)

Artistic Endeavors

The Saint John's Bible