Louisiana Digital Consortium Metadata and Scanning Guidelines

The Louisiana Digital Consortium Metadata and Scanning Guidelines Working Group

Draft: March 11, 2015

Revised November 2007
Revised June 2012

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Part 1. Introduction to the LDC, the LDL, and CONTENTdm

About

The Louisiana Digital Consortium (LDC) is a partnership of Louisiana libraries, museums, archives, and cultural heritage institutions working together to expand and enhance access to the state's historical and cultural resources through a variety of digital initiatives.

The Louisiana Digital Library (LDL) (www.louisianadigitallibrary.org) is a program of the LDC. The LDL is an online portal to digital materials documenting Louisiana's history, culture, places, and people. Participating institutions utilize a digital collection management program (currently CONTENTdm) to: upload and store their digital files; create and store metadata records describing the content; and organize and maintain their collection(s).

Participation and Responsibilities

Participation in the LDL is contingent upon membership in the LDC. Refer to the LDC membership policy for further information. It is the responsibility of each member institution to digitize and describe their own items according to the guidelines outlined below. In addition to these guidelines, help is available via the following resources:

> CONTENTdm Online Help/Manual - http://www.contentdm.org/help6/
> CONTENTdm User Support Center (forums, webinars, training, etc.) - http://www.contentdm.org/login/login_USC.asp

Review

These guidelines will be reviewed and evaluated by the LDC/LDL on an annual basis or as needed.

What is my institution's role in the LDL?

The Louisiana Digital Consortium (LDC) offers fee-based memberships to institutions in Louisiana. The LDC ensures that the Louisiana Digital Library (LDL) serves the people of Louisiana, determines the standards and policies for state-wide participants in the LDL, and promotes the LDL. Individual departments and branch libraries work through their parent institutions to create and maintain their digital collections using CONTENTdm.

For a list of participating LDL institutions, visit http://www.louisianadigitallibrary.org/index.php?browseby=institution.

What is CONTENTdm?

CONTENTdm is digital collection management software that allows for the upload, description, management and access of digital collections. It is Unicode and Z39.50 compatible. CONTENTdm can handle documents, PDFs, finding aids (including Encoded Archival Description, or EAD), images, videos, and audio files. It can also handle content so that multipage documents, scores, or books can be uploaded and organized into chapters, books or by page number. CONTENTdm is also able to display six-sided, multidimensional objects. It is mostly used by universities, libraries, archives, museums, government agencies and historical societies.

How the CONTENTdm process works

Digital items can be added to a CONTENTdm digital collection using the CONTENTdm Project Client, which can be downloaded from the "Downloads" section of the CONTENTdm User Support Center website: http://www.contentdm.org/ (First-time users must create an account).

Digital collections reside on a CONTENTdm server, which can be hosted locally at your institution or by OCLC at their facility. The LDL resides on a CONTENTdm server hosted by OCLC.

There are three tools used to manage collections and items in CONTENTdm:

I. CONTENTdm Server Administration (also called CONTENTdm Administration)

CONTENTdm Server Administration is a Web interface accessed through a browser (i.e. Firefox, Chrome, Internet Explorer) which allows users to create and manage collections, set search options by collection, perform global search and replace operations on materials already uploaded, restrict materials, view usage statistics, and more.

Instructions on how to use CONTENTdm Administration can be found at http://www.contentdm.org/help6/server-admin/index.asp.

Digital items are initially uploaded, using the Project Client (see below).

II. Project Client

Project Client is a piece of software installed on your workstation that allows you to upload items to your collection once it has been created using CONTENTdm Administration. Metadata can either be entered directly into Project Client or created separately using Microsoft Excel or a text editor to create a tab delimited file which you can import into Project Client.

Instructions on how to use Project Client can be found at http://www.contentdm.org/help6/projectclient/index.asp.

III. Website Configuration Tool

The Website Configuration Tool is a Web interface that allows you to customize the appearance and navigation of your CONTENTdm website and collections. It is also where Google Analytics code can be uploaded to track usage of each collection. You can access the Website Configuration Tool through the CONTENTdm Server Administration.

Instructions on how to use the Website Configuration Tool can be found at http://www.contentdm.org/help6/custom/configure2.asp.

Help on all CONTENtdm-related tasks can be found at http://www.contentdm.org/help6.

You can also ask questions via the CONTENTdm forums at http://www.contentdm.org or you can post questions via the LOUISDL mailing list and see if another LDL collection administrator has any advice.

Part 2. Project Planning and Management Advice

This section offers general advice about starting a digitization project.

Choose your project

You or someone at your institution probably already have a pretty good idea about *what* you'd like to put online. If not, you might consider looking at some of the collections that are already in the Louisiana Digital Library: http://www.louisianadigitallibrary.org/. Another good resource is the CONTENTdm Collection of Collections, which offers over 700 different collections created by a wide variety of institutions: http://collections.contentdm.oclc.org/.

Whether you are interested in digitizing photographs, maps, books, audio materials, or whatever, there are a few questions that you should consider before you begin:

- Why does your institution want to digitize these items in particular? Do you have a priority list of collections or groups of items that you are interested in digitizing?

- Is there a particular demand for these materials? Will the items appeal to a broad audience, or just a select group? Can you define your target audience?

- Are your items part of a larger collection of materials? How many total items do you want to digitize, whether now or later?

- Will these items be well-suited for viewing on the web? Will the quality and detail of your digitized materials satisfy your target audience?

- Is the condition of the items fragile or deteriorating to the point where digitizing the items might damage them further?

- Are there any copyright restrictions that might prevent you from putting these materials online? Does your institution own the right to all of the materials? If not, what steps do you need to take to gain permission to display the items in the collection?

Identify your resources

Equipment and Hardware

- *Scanner or digital camera*
  Does your institution own a scanner or digital camera? If not, will you be able to borrow, buy, or use another department's equipment?

- *Storage*
  You will need to store the master or archival files that you create when digitizing. Do you have space on your server to host the digital files, or will you need to purchase additional equipment or partner with another institution?

- *Computer*
  Do you have a Windows machine that can be used for this project, or will your department need to purchase one? The CONTENTdm Project Client software can be installed on any PC, but a dedicated PC might be needed for the scanning operation.

- *Workspace*
  Will there be a place in your institution where this work will take place? Will you need additional workspace for student workers, other staff or volunteers?

Software

- *Image Editing*
  Does your institution have access to Photoshop or another image editing software? This may be needed for adjusting the images after they have been digitized. There are some freeware programs similar to Photoshop that may meet your needs, including GIMP and Photoshop Creative Suite (CS).

- *PDF*
  Will any of the items to be digitized be text only? If so, you may want to save them as Adobe Acrobat PDF files. This will require the Adobe Acrobat (full version) software. Importing PDF files into CONTENTdm is different from importing other kinds of objects. Some instruction is available in the CONTENTdm Online Help files at http://www.contentdm.org/help6/projectclient/adding7.asp.

- *Collection Management*
  CONTENTdm Project Client software is included with your LDC membership. LDC support staff will provide the software licensing information for your copy. See "How the CONTENTdm process works" in the Introduction section for instructions on how to download and use Project Client.

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Staff

- *Current Staff*
  Does your institution's current staff have knowledge of the technologies that will be used for the project? Will additional training be needed to help complete the project?

- *Student worker(s), graduate student(s), volunteers, part-time staff*
  Will you need to additional people to assist the current staff? If so, will their salaries be funded with grant money or taken from the current budget. What will be the procedures for allowing volunteers to help with the work?

Time

- How much time does your institution's current staff have to devote to this project?

- Will it be a part of yours or another staff member's daily work, or a separate responsibility?

- How long do you have to spend (i.e. how strictly will you need to follow a timeline?)

Money

Digital projects are expensive. Take into consideration extra expenses that you might encounter during the project.

- Will you need funds to buy equipment, software, hire staff, etc.?
- Where will you get the money – regular budget funds, grant money, other?
- Does your project have a budget?

Plan your project

At this point you have identified the materials you want to digitize, defined your project's purpose and target audience, and inventoried your equipment, software, staffing, and budget needs. Now you need to put it all in writing so others know what you are doing. This is called project planning.

Approval

For any project, one needs approval from the people in charge. If you've answered the questions in Step 2 you have a good idea of where you want to go with your project. The next step is to meet with your department head, supervisor, club president, director or whoever makes the big decisions for your organization, and describe your idea for the digital project. If you are part of a larger library, make an appointment with the Digital Services Librarian to discuss your plan. Smaller institutions who do not have a specific Digital Services Librarian should discuss their project with a Systems librarian and/or their IT support in order to identify potential challenges and benefits from establishing a digital project.

Components of a project plan

Writing a project plan is similar to applying for a grant. You need to explain what you want to do, why you want to do it, how you are going to do it, and how much it will cost.

A project plan generally includes following:
- A goal or mission statement describing the purpose and scope of the digital project
- An inventory of the physical materials to be included in the project
- A timeline
- A list of staff members who will work on the project
- A list of equipment and software availability and needs
- A workflow.

Workflow can be defined as "the sequence of industrial, administrative, or other processes through which a piece of work passes from initiation to completion." A digitization workflow can be detailed or simple, depending on the scope of your project.

Questions to consider when creating a digital project plan

- Who will scan the items and how?

- What (if any) image manipulation will be performed after scanning?

- How will you keep track of the items you have scanned?
  Consider creating a scanning log. A simple Excel file that tracks the file's name, file size, date scanned, and the initials of whoever scanned the material. Using the SUM function in Excel can quickly give you an idea of how much disk space your files take up on a server or computer. The log also keeps a history of "who did what," and when.

- Where will you store your digital files and backup files? How often will you back up your collection?

- Who will be able to see your data? CONTENTdm can limit views of your collection to certain IP ranges.

- Do you want to brand your digital objects with a watermark, url or institutional name? CONTENTdm includes an option to custom brand images as they are processed.

- Will you digitize and then describe your items, or do both simultaneously? Will one person scan and another describe? Who will approve items for final indexing? Multiple people? Just one?

- Do you want to create full-text versions of documents using optical character recognition (OCR)?

  – OCR is the process by which a computer attempts to match up parts of an electronic image, typically the result of scanning a printed page, with characters, such as letters, to produce a file containing text.
  – CONTENTdm has an OCR option available for an additional charge (contact Louis for details). Other software can also perform this task. Adobe Acrobat can convert PDF documents to text. AABBYY FineReader, the software used for OCR in CONTENTdm, is also available as a stand-alone product.
  – If included in your project plans, OCR will be an additional step in the workflow. Not only will you need to run the OCR software in order to create the text version of your document, but you will also need a member of staff to perform quality control to ensure that the text converted properly. This will extend the length of time involved in adding items to your collection.

- What metadata fields do you want visible, searchable or hidden in the digital library? Configure them in CONTENTdm Administration (under "Collections -> field properties"). The LDL **requires** some metadata fields (see required fields below).

Questions to consider when creating a digital project plan (continued)

- Will you use a template? What fields will be included?

- Will you put the information about each item directly into CONTENTdm or use a spreadsheet?

- What will be your file naming scheme? See "Object File Name" below

- How will you catalog your objects?

  - CONTENTdm automatically provides The Library of Congress Thesaurus for Graphic Materials, but other thesauri can be used.
  - CONTENTdm also has option to build your own controlled vocabulary.
  - CONTENTdm Instructions: Using a controlled vocabulary.

- When will this project be staffed? How many items do you want added per week? Per month?

- Who in your institution will receive reports of your project status? How often?

Revise your Plan

When the workflow or timeline changes, review and alter your plan as needed. This plan is designed to help you, but it is up to you to decide how much time you need to spend on it. A project plan can be as simple or as detailed as you'd like to make it.

How to create and publish a new collection in the LDL

Begin by adding a new collection via the CONTENTdm Administration website. Instructions on how to do this can be found at "Adding a New Collection:" (http://www.contentdm.org/help6/server-admin/collections2.asp).

Send an e-mail to LDC support staff with a message to let them know that you have created a new collection. They will then set your permissions for that collection so that you can mark it as "unpublished" and begin working on it.

You will then want to configure your collection (including marking it as "unpublished" or "published") through "Collection Configuration" on the CONTENTdm Administration website. Instructions on how to do this can be found at "Accessing and Editing Collection Configuration" (http://www.contentdm.org/help6/collection-admin/configuration1.asp).

Set your field properties (add fields; determine which fields are searchable, hidden, and which will use controlled vocabularies; etc.). Instructions on how to do this begin at "Field Properties" (http://www.contentdm.org/help6/collection-admin/fields.asp).

Prepare to describe your items by creating a project in Project Client. You may either enter metadata directly into the Project Client or upload it from a spreadsheet/text file saved as tab-delimited text.

- Instructions on creating a project in Project Client begin at "Creating a New Project" (http://www.contentdm.org/help6/projectclient/projects2.asp).
- Instructions on using Project Client to enter metadata (including how to create a Metadata Template) begin at "Entering Metadata" (http://www.contentdm.org/help6/projectclient/entering.asp).
- Instructions on using tab-delimited text files begin at "Using Tab-Delimited Text Files" (http://www.contentdm.org/help6/projectclient/entering5.asp).
- If you choose to describe your items in a tab-delimited file, instructions on how to import those items into Project Client can be found at "Importing Multiple Files with Tab-Delimited Text" (http://www.contentdm.org/help6/projectclient/adding3a.asp).

In order to make appropriate scanning decisions for your items (resolution, color vs. grayscale vs. black and white, etc.), consult the ALA ALCTS document *Minimum Digitization Capture Recommendations* (http://www.ala.org/alcts/resources/preserv/minimum-digitization-capture-recommendations) and search for your item type in the contents (i.e. Art, Photos, Manuscripts, Rare Books, Audio, Video, etc.).

You may also choose to perform benchmark digitization to determine the best settings for your items:
- Upload 5-10 items in Project Client.
- Catalog all items.
- Upload items and metadata to CONTENTdm.
- Collection Administrators will approve and index the items.

- Browse the newly uploaded items and make necessary adjustments.
- Continue with the remainder of your project.

When items have been uploaded, Collection Administrators must approve them and index the collection in order for them to be visible online. Instructions on how to do this begin at:

- "Uploading Items to a Collection"
  (http://www.contentdm.org/help6/projectclient/uploading.asp)
- "Approving Items & Building the Text Index"
  (http://www.contentdm.org/help6/projectclient/approving.asp)

Use the Web Configuration Tool to publish a description of your collection on its landing page, upload a banner, configure navigation, and more. Instructions on how to do this begin at "Using the Website Configuration Tool" (http://www.contentdm.org/help6/custom/configure2.asp).

When all is ready to "go live," change the Collection status to "published." Instructions on where and how to do this can be found at "Accessing and Editing Collection Configuration" (scroll down to "Collection status") (http://www.contentdm.org/help6/collection-admin/configuration1.asp).

Let LDC support staff know your collection is published and ready to be added to the LDL homepage. Instructions on how to do this can be found in this document in the section "Publishing your collection" below.

Part 3. Describing your items (Metadata Guidelines)

Metadata is a generic term for the descriptive information about an item. In describing library materials, metadata consists of information like the title, date, subject, and author. Metadata helps users find the materials described. Metadata also can refer to information like scanning settings or the type of equipment used to capture a digital object.

Just as library catalogers strive to provide the best descriptions of books, LDL catalogers can help people find materials by providing complete descriptions of individual items. There are different types of metadata, but for the Louisiana Digital Library (LDL) you will mainly be concerned with Descriptive and Technical. Descriptive metadata describes the original item. Technical metadata provides information about the digital item and the process used to create it.

What does the LDL use?

The LDL uses the Dublin Core 15 metadata element set to catalog items. These 15 elements are described in detail at http://dublincore.org/documents/dces/, and instructions for their use in the LDL are provided in the next section. By Dublin Core rules, each element is optional and repeatable except for Title, although the LDL has its own list of mandatory elements (also below). CONTENTdm requires at least the Title field for each item.

Mapping Fields to Dublin Core Elements

> CONTENTdm gives you the ability to change a field's label, create custom fields, and map fields to their corresponding Dublin Core element. An effort should be made to map every field to an appropriate Dublin Core element. Read each element's description carefully to help choose the appropriate one.

> Fields can be mapped on the CONTENTdm Administration website through "Field Properties" under the "Collections" tab. Instructions on how to do this begin in "Editing Field Properties" (http://www.contentdm.org/help6/collection-admin/fields2.asp).

Authority Control, Subject Heads, etc.

> You should also decide what sort of authority control and content standards you will use before you begin describing your collection. Base this decision on the types of material in your collection and its content. Common choices that may be found in the LDL are:

> - *Anglo-American cataloging rules* **(AACr2)** Formatting rules/content standard long used in library cataloging.

> - *Archives, personal papers, and manuscripts* **(APPM)** A content standard for cataloging archival materials, principally at the collection level, which is compatible with catalogs that use AACR2.

- ***Art and Architecture Thesaurus* (AAT)** Standardized subject headings for art and architecture materials. Available freely online at http://www.getty.edu/research/tools/vocabularies/aat/index.html.
- ***Describing archives: a content standard* (DACS)** A content standard for the creation of archival inventories and finding aids. The Second Edition is available free online at http://files.archivists.org/pubs/DACS2E-2013.pdf.

- ***Getty Union List of Artist Names* (ULAN)** Standardized versions/formats of artists' names. Can be searched online at http://www.getty.edu/research/tools/vocabularies/ulan/.

- ***Library of Congress Name Authority File* (LCNAF)** Standardized versions/formats of names. Available freely online at http://authorities.loc.gov/ and http://id.loc.gov/.

- ***Library of Congress Subject Headings* (LCSH)** Standardized subject headings. Available freely online at http://authorities.loc.gov/ and http://id.loc.gov/.

- ***Library of Congress Thesaurus for Graphic Materials* (LCTGM or just TGM)** Standardized subject heading for visual materials (i.e. photographs). Available freely online at http://www.loc.gov/library/libarch-thesauri.html.

- ***Resource Description and Access* (RDA)** Formatting rules/content standard used in library cataloging. Heir apparent to AACR2.

Metadata Guidelines

Required fields in the LDL

- **Title**
- **Identifier**
- **Relation**
- **Contact Information**
- **Source**

However, you will probably want to include other fields to describe your materials. The LDL *recommends* the following fields and guidelines for LDL records:

Descriptive Metadata

Title. All items must have a title. Use "Untitled" only when the item is specifically named "Untitled." If no title exists, construct one using accepted standards. The title should describe the item in basic terms, but should not attempt to supply an exhaustive description. If available, use information provided on or with the original materials.

Creator. If no creator can be determined, leave the field blank. The cataloger can enter any explanatory information in the Notes field. If an item has more than one creator, separate each name with a semicolon. Follow accepted standards when entering or constructing names. For example, format according to the individual's entry in the LCNAF or ULAN. (See above for links.) If no entry can be found, format according to the following examples:

> Shakespeare, William, 1564-1616
> Joyce, James, 1882-1941
> Currier, Nathaniel, 1813-1888; Ives, James Merritt, d. 1895

Subject. Select a primary thesaurus to use for a collection. ContentDM provides the LCTGM as an imported list in the Project Client, but catalogers may use any other thesaurus or construct local-use terms. Enter multiple subject headings separated by semicolons. (See 'Authority Control, Subject Heads, etc.' above for links to controlled vocabularies and thesauri.)

Description. Use this field for a general description of the item. Catalogers can use this space to transcribe anything handwritten, stamped, or printed on the image, mat, or case. Include any descriptive information accompanying the item and any pertinent information not represented in other fields. Descriptive custom fields that are important to your collection but that don't correspond to any other of the 15 Dublin Core elements should probably be mapped to Description. (You are allowed to have multiple fields mapped to the Description element.) Remember, the settings in "Field Properties" can be edited to mark which fields are hidden.

Publisher. Enter any formal publication information in a standard format.

Date. Enter the date in a YYYY-MM-DD format. Use the following chart to construct the date:

Available information	Enter into the Date field:
Known day, month, and year	2001-10-19
Known month and year	2001-10
Known year	2001
Probable year	[2001?]
One year or another	[2001 or 2002]
Dates fewer than 20 years apart	[Between 1970 and
1982] Approximate date	[ca. 2001]

Type. Enter a Dublin Core Suggested Type:

Collection	Image	Software
Dataset	Interactive Resource	Sound
Event	Service	Text

Format. Enter the format of the original item. Examples:

TIFF	JPEG 2000	DOC
JPEG	PDF	HTML

Identifier. This is a required field. The "Identifier" is a unique URL for each item. ContentDM constructs an Identifier, called a "reference url," for each item and places a link to it on the navigation bar. Therefore, the LDC recommends that each Identifier field carry the following sentence to refer users to the unique URL:

See "reference url" on the navigation bar.

Source. This is a required field. This field points the user to the institution holding the original material. Enter the name of the institution and a web address if possible. Example:

McNeese State University (http://library.mcneese.edu)

Language. Use a standard code for the language of the item. Examples: en; fr; de; es

Relation. This is a required field. Copy the collection's LDL homepage URL and paste it here. For example:

http://www.louisianadigitallibrary.org/cdm4/index_**p120701colxx**.php?CISOROOT=/**p120701colxx**

The part in bold is your collection's alias.

Coverage-Spatial. Enter a geographical term for the area depicted in the original item. Examples:

        Lake Charles (La.)   Louisiana

        United States   Calcasieu Parish (La.)

Rights. This field contains information about the holder of an item's rights. Typically, the Rights field will contain a rights management statement for the resource, or reference a service providing such information. Rights information often encompasses Intellectual Property Rights, Copyright, and Physical Rights. You can use the same statement for all items in a collection, or you can tailor each statement to fit the particular item. Examples:

- The Calcasieu Parish Public Library retains ownership of the Maude Reid Scrapbooks. The Scrapbooks are under indefinite loan to the McNeese State University Department of Archives & Special Collections. Copyright is retained in accordance with U.S. Copyright laws.

- Physical rights are retained by McNeese State University. Copyright is retained in accordance with U.S. Copyright laws.

Non-Dublin Core Elements

Contact Information. The LDL requires each item to carry this field with contact information for the user. Example:

        For information or permission to use/publish, contact: archivesdept@mcneese.edu

Notes. The Notes field is a space for the cataloger to enter any important information not included in any other field. Catalogers can use this field to enter the physical dimensions of the original item, accession numbers, manuscript collection titles, etc.

Cataloged by. A field to enter the cataloger's initials.

Cataloged date. A field to enter the cataloged date. Use the same format as the Date field (above).

Object File Name. Use this field to enter the 9-character file name for single items or the 13-character file name for multi-page items. The first 3 characters are the collection code. The Object File Name field can be set to auto-fill in CONTENTdm's Project Client. See the CONTENTdm help here: http://www.contentdm.com/help6/projectclient/entering3a.asp. Examples:

        (Single page): psl000548

        (Multi-page): psl000095_0001

Technical Metadata

Technical metadata provides information about the digital item and the process used to create it. These fields are optional, but will help provide documentation of the digitization process for both the institution and the user.

Viewer Information. Catalogers can use this field to specify and special viewers or plug-ins needed to view an item and a link to the viewer. Most materials do not require special viewers.

Image Resolution. Enter the resolution in dots-per-inch (dpi).

Image Bit-Depth. Common bit-depths are 8-bit and 24-bit.

Color Mode. Enter the color mode of an image. Common modes are Color, Grayscale, and Black/White.

Extent. Enter the range of a digital object expressed in space or time. For example, the pixel dimensions of a digital image can be expressed as a ratio of width to height (1:1) or the actual number of pixels (3600 x 6000). The duration of an audio or video recording can be expressed as hours, minutes, seconds, and milliseconds or HHHH:MM:SS:SSS (2:04:34:003).

Image Manipulation. Enter information about enhancements applied to the digital image, such as sharpen mask, histogram levels, etc.

File Size. Enter the size of the file, typically expressed in kilobytes. The File Size field can be set to auto-fill in CONTENTdm's Project Client.

Hardware/Software. Enter the brand name and model number of the hardware and software used to create an item. Example:
> Hardware: Epson Expression 1640XL Scanner; Software: Adobe Photoshop 7.0.

Digitized By. Enter the initials of the person who digitized the item.

Digitized Date. Enter the date the item was digitized.

Part 4. Digitization Methods & Standards

Quick Reference Guide: Digital Imaging Best Practices

(Inspired by the Minnesota Digital Library's Quick Reference Guide and based on the ALA ALCTS PARS Preservation Standards & Practices Committee's Minimum Digitization Capture Recommendations. See the Minimum Digitization Capture Recommendations to see sample scans of different types of materials at resolutions ranging from 200ppi to 700 ppi. The Recommendations also address formats not listed below such as slides, photographic film, 3D objects, and more.)

Scanning (Static Visual Materials)

File Format	Master/Archival Copy: TIFF (uncompressed) Access Copy: JPEG, PDF See the Library of Congress's "Sustainability of Digital Formats" website
Resolution (PPI/DPI) Recommendations based on Minimum Digitization Capture Recommendations. Your needs may vary based on the type of material being scanned (i.e. slides, which require a much higher resolution) or the desired use of the final product, which may not require storage of the high-resolution master file.	Master/Archival Copy: 600 ppi Access Copy: 150 ppi
Image Type / Bit Depth	Color / 24-bit Grayscale / 8-bit Bitonal aka Black and White (no shades of gray) / 2-bit

Audio and Moving Images/Video

AUDIO

Minimum Resolution	Minimum Bit Depth
96000 kHz	24

VIDEO
(Chart copied from the PARS PS&P Minimum Digitization Capture Recommendations linked
above.)

	Min Resolution	Min Color Space	Min Bit Depth	Notes
Analog NTSC Video	720 x 486		8	Use 10-bit whenever possible.
Digital Video Source Tape, where possible to access bits	Native		Native	
Digital Video Source Tape, where not possible to access bits	Decompressed 720 x 486		8 or 10	
Digital Video File	Native			Subject to file format obsolescence evaluation. If deemed obsolete, decompress to 10-bit native raster (horizontal x vertical pixel count).
Video Optical Disc	Native		Native	Reformat to ISO disc image to capture all video, all angles, all subtitle and multiple languages, and menus.

MOVING IMAGE FILM

There is no standard recommendation on how to digitize film according to the Minimum
Digitization Capture Recommendations. This section will be updated as film digitization
becomes more standard and affordable.

Some Helpful Terms

Pixels
Pixels are a basic element of digital images. They are "points" or "dots" arranged in columns
and rows that when put together form a digital image. See "Resolution" below for an
explanation of PPI (pixels per inch).

Resolution
In regards to a static image (i.e. text, a photograph), resolution is the number of pixels per inch
in an image. This number of pixels per inch is called PPI but is also sometimes called DPI (Dots
Per Inch), which technically refers to printout resolution. For example, a digital image that is 72
dpi contains 72 "dots" of information per row, per inch, while a digital image of 300 dpi

contains 300 "dots" of information per row, per inch. Higher dpi will result in better quality scans, but will produce larger files. The goal should be to use the highest acceptable dpi. Determining which dpi to use can be achieved through benchmarking. Also, the ALA ALCTS document "Minimum Digitization Capture Recommendations" linked above illustrates different materials scanned at different resolutions from 200 to 700 ppi and can help in decision-making.

Image Types
Scanners typically offer several choices of image type, including bitonal black and white, 8-bit grayscale and 24-bit color. Black and white/bitonal scans have the smallest file sizes and are often useful when scanning plain text, but they also lack all shades of gray and can make imperfect text or stained pages very hard to read. Grayscale is a better choice for most "black and white" materials as a result but will also result in a larger file size. Color is obviously useful for color materials but may also be useful for black and white materials that are badly stained or discolored. Color files have the largest file size of the three image types.

Benchmarking
Benchmarking, in general, consists of taking sample scans at different resolutions and color values, and determining which resolution best conveys the acceptable appearance of the original. Select the smallest detail of an image that should be visible in its digital form– is that detail visible in the scanned image at 400 DPI? 300 DPI? How close can one zoom on the image and still see the detail? Is what you see acceptable?
Benchmarking standards are still emerging, but it is generally agreed that one should create the richest possible image to avoid repeated scanning of the item. Determination of specific PPI will vary by institution, and by project within an institution, depending on the materials. See the "Quick Reference Guide" above for general guidelines or the ALA's Minimum Digitization Capture Recommendations (linked above) for guidelines specific to your material type and sample scans at different resolutions.

Compression
Compression is a valuable tool for reducing file size, which reduces storage requirements and improves the download file for the end-user, but generally only Access Copies should be compressed and not Master Copies intended for digital preservation. Typically, compression lowers file size by reducing or eliminating information in the digital image. For example, JPEG is a compressed file format. When you convert a file from TIFF to JPEG, some information in the digital image is lost, but the file size is greatly reduced.
There are two basic types of compression:
- Lossless – Abbreviates the file's binary code without discarding any information.
- Lossy – Discards the least significant information. There is a permanent loss of information when using lossy compression. The information that is eliminated is often invisible to the eye but sometimes affects an images appearance when printed or when increased in size. An example of lossy compression is JPEG, which allows the user to select the degree of compression (high, medium, or low) during file conversion.

File Format
TIFF files have emerged as the standard for archival imaging. TIFF images should be saved as uncompressed, or with lossless compression. See the "Quick Reference Guide" above for more recommendations.

For more information, the Library of Congress has published the "Sustainability of Digital Formats" website for up-to-date listings of formats considered to be reliable:
- Still Images: http://www.digitalpreservation.gov/formats/content/still_preferences.shtml
- All Types of Media: http://www.digitalpreservation.gov/formats/intro/format_eval_rel.shtml
- Overall site for format sustainability: http://www.digitalpreservation.gov/formats/

File Naming - Louisiana Digital Library Naming Conventions

Participating institutions may construct their own file names. The LDC strongly recommends that institutions create file names following standard conventions. Listed below are some general guidelines to follow and links to other digital library standards.

- Use 8 or fewer characters in the file name, whenever possible. Eight character file names are backwards compatible with older operating systems. Shorter file names are easier to read and reduce the potential for error when typing the file name.
- Use a 3 character file extension (i.e. ".tif", not ".tiff").
- Use only alpha-numeric characters, except for dashes, - , and underscores, _ . Dashes and underscores may have special uses in other operating systems or software, such as UNIX and MySQL. DPAG reviewed the contexts in which these characters are reserved and determined that dashes and underscores can be used in file names without a technical conflict.
- Do not use special characters, such as, . \ / : * ? " < > |, except for dashes or underscores. These characters are often reserved for use by the operating system.
- All letters should be lower case. Some operating systems are case sensitive. Using lower case consistently prevents problems, if the files are migrated to a case-sensitive operating system.
- Do not use spaces in the file name. Browsers and some older operating systems do not handle spaces well.
- Use leading zeros. If the file name includes numbers use zeros as placeholders. For example, a collection with 999 items should be numbered: mac001.tif, mac002.tif … mac011.tif, mac012.tif, etc. (NOT mac1.tif, mac2.tif …). This practice facilitates sorting and file management.

Many LDL collections use a collection code to identify objects. A collection code is comprised of several characters used to represent a particular collection. For example, the Ogden Museum of Southern Art collection uses OMA for its collection code. Using OMA as the collection code, the naming convention of single page items is as follows:

om000001, om000002, … om000056, om000057

Naming convention for multiple-page items uses the same ten character naming convention as single-page items but adds a page extension. An example for multiple-page items follows:

<div align="center">

File   Page
om000001_0001
om000001_0002
om000001_0003

</div>

Links to other file naming conventions:

http://ucblibraries.colorado.edu/systems/digitalinitiatives/docs/filenameguidelines.pdf
https://lib.stanford.edu/data-management-services/file-naming
http://www.mnhs.org/preserve/records/electronicrecords/erfnaming.php

Quality Control
Check a sample of the images you have created. The National Archives suggests a Quality Control check of 10 images, or 10% of each batch, whichever is larger.
In conducting your quality control check, choose sample files, and determine the following:
- Do the files open and display properly?
- Are the files in the proper format?
- Is the color correct, be it grayscale, RGB, etc?
- General appearance? Are images straight? Has any information been cropped?

Storage
Store the images you create. Decisions will vary by institution, but common recommendations are to keep the original digital images on an external hard drive, or burned to archival quality CDs/DVDs.
Practical advice on Digital Preservation can be found at POWRR: Preserving (Digital) Objects With Restricted Resources (http://digitalpowrr.niu.edu/), and IMLS-funded project.

Part 5. Customizing your Collection home pages (also called landing pages)

The CONTENTdm Website Configuration Tool

The CONTENTdm Website Configuration Tool is a Web interface that allows you to customize the appearance and navigation of your CONTENTdm website and collections. It is also where Google Analytics code can be uploaded to track usage of each collection.

Instructions on how to use the Website Configuration Tool can be found at
http://www.contentdm.org/help6/custom/configure2.asp.

The Website Configuration Tool for the LDL's Production (PROD) server can be found at
https://cdm16313.contentdm.oclc.org/config/configtool.

Custom Banners for CONTENTdm Collections

The dimensions for custom banners are 282 x 76 pixels as of CONTENTdm version 6.x.

To add a custom banner, use the CONTENTdm Web Configuration Tool. Instructions on how to add a banner (a header) can be found at
http://www.contentdm.com/help6/custom/configure4.asp#header.

Publishing your collections in the Louisiana Collection of Collections

To get your newly published collection in the Louisiana Collection of Collections (LCOC), send the following information to the LDC support staff who will enter the data for each field into the LCOC. All of the fields listed below are required.

Collection Title: What is the official title of your new collection?

Description: Provide a short (3-4 sentences) description of the collection contents.

Subject: Choose from among the following subject terms to assign general subjects to your collection. You may select as many that apply.

Arts and Architecture	Land and Resources	Science and Technology
Business and Industry	Military and War	Textile Design
Community and Culture	People and Cultures	Drawings
Education	Polls and Surveys	Theses and Dissertations
Government and Politics	Race and Ethnicity	Transportation
Health and Medicine	Religion and Philosophy	Work and Labor
Institutional Repository		

Institution: Provide the name of your institution.

Original Media Format: Select from the list of media terms below those that apply to this new collection. If an appropriate term does not appear in the list below, include the new term and LDC support staff will add it to this list.

Audio	Photographs
Film	Prints
Maps	Textiles
Original works on paper	Text
Paintings	Video

Louisiana Parishes: list all parishes related to the collection. Example: Winn Parish; Orleans Parish.

U.S. Counties: list all counties related to the collection. Examples: Monroe County, Florida; Los Angeles County, California.

U.S. Cities and Towns: list all related to the collection. Examples: Baton Rouge, Louisiana; New York, New York.

U.S. States: list all states related to the collection. Examples: Louisiana; Texas.

Outside the U.S.: list all countries and foreign cities related to the collection. Examples: Hamburg, Germany; Japan.

Coverage-Temporal (Dates and Eras): Select all dates and eras from the list below that apply to your collection. If a range of dates applies, list all decades separately that should appear in the range.

1500	1720	1910
1500-1682 (Age of Discovery)	1730	1914-1919 (World War I)
1510	1740	1920
1520	1750	1930
1530	1760	1935-1943 (Works Progress Admin.)
1540	1763-1803 (Spanish Colonial)	1939-1945 (World War II)
1550	1770	1940
1560	1780	1950
1570	1790	1960
1580	1800	1970
1590	1804-1812 (Territorial)	1980
1600	1810	1990
1610	1813-1839 (Early Statehood)	2000
1619-1859 (Slavery)	1820	2001
1620	1830	2002
1630	1840	2003
1640	1840-1859 (Antebellum)	2004
1650	1850	2005
1660	1860	08-29-2005 (Hurricane Katrina)
1670	1861-1865 (American Civil War)	09/24/05 (Hurricane Rita)
1680	1865-1877 (Reconstruction)	2006
1683-1763 (French Colonial)	1870	2007
1690	1880	2008
1700	1890	2009
1710	1900	2010

Collection Code: Provide the collection code ("alias").

Contact Information: Provide the name, email, and telephone of the person to contact. This information will appear to the public. Example: For information or permission to use/publish, contact: archivesdept@mcneese.edu.

Custom Browse: If you created any custom browse URLs using the Custom Query and Results Wizard (CQR) provide that URL here.

Publicizing your Collection(s)

Since you have spent a lot of time and resources on your Louisiana Digital Library (LDL) project, you will probably want to publicize the project so people can learn more about it and use it.

Write a Press Release

The best way to begin publicizing your collection is to write a press release. If you've never written a press release before, you might want to consult more general resources for tips. Press releases should be short and to the point, including only enough information to engage the reader. See the examples below. Some basic information to include:

- An explanation of the LDL: what it is, who participates, etc.
- Title of the project
- What kinds of materials are included in the project: the subject area, geographic area, a particular format, etc.
- Why the project is important/Who will benefit
- Who participated in the project, including any grant information
- Links to the LDL
- Contact information

As always, have someone else look over your press release to make sure it is error-free and makes sense. After you've polished the press release, you can send it out as is or tailor it to a specific audience. Writing the press release first means that you will have the basic information written and in one place so that you can present it at a moment's notice. See Appendix C for sample press releases.

Tell people about your collection

Consider the content of your collection before you begin your marketing plan. If the materials would appeal to a certain group or people - for example, Botany students, professors, or enthusiasts - then start by posting information about your collection to their listservs, wikis, and professional organizations. Some other places to post information include:

- Advertise the project on your website.
- Ask other interested groups, such as local history societies, to link to your collection.
- Send a press release to local media.
- Send a press release to your institution's newsletter editor.
- Send a press release or an expanded article to professional organizations such as the Louisiana Archives and Manuscripts Association, the Louisiana Library Association, the Society of Southwest Archivists, etc. Consider giving a presentation about your collection or about your experiences digitizing a collection at a professional conference.

- If you are an academic institution, ask faculty to use the materials in their classrooms.
- If you are a public institution, ask teachers to use the materials in their classrooms.
- Make bookmarks or other handouts advertising the LDL or your collection or both.

Finally, consider incorporating a feedback component into your marketing plan. If you do ask educators to use your collection, ask them for feedback, even if it's informal. You can also incorporate a survey into your project, asking how patrons use the materials, what they would like to see more of, what worked, what didn't, etc.

Appendix A: Useful Websites

CONTENTdm
CONTENTdm Online Help Version 6 - http://www.contentdm.com/help6/

ContentDM User Support Center: http://www.contentdm.org/

Cataloging/Metadata
Dublin Core Element Set. http://dublincore.org/documents/dces/

The Getty Art & Architecture Thesaurus.
http://www.getty.edu/research/tools/vocabularies/aat/index.html

The Getty Thesaurus of Geographic Names.
http://www.getty.edu/research/tools/vocabularies/tgn/index.html

The Library of Congress Homepage. http://www.loc.gov/index.html

Library of Congress Authorities (including subject headings and names). http://authorities.loc.gov/

Library of Congress Thesauri (including the Thesaurus for Graphic Materials).
http://www.loc.gov/library/libarch-thesauri.html

Digitization Methods and Standards
Handbook for Digital Projects: A Management Tool for Preservation and Access. Maxine K. Sitts, Editor. Northeast Document Conservation Center, 2000.
https://www.nedcc.org/assets/media/documents/dman.pdf

A Framework of Guidance for Building Good Digital Collections, National Information Standards Organization (NISO) Framework Working Group http://www.niso.org/publications/rp/framework3.pdf

Digital Imaging Tutorial - Cornell University Library
http://www.library.cornell.edu/preservation/tutorial/contents.html

Califa Library Group / Planning a Digitization Project
http://califalibrarygroup.pbworks.com/w/page/12838245/ Planning%20a%20Digitization%20Project

Appendix B: Glossary

Archival Image or File. The "master" version of the digital image created through the initial scanning/capture process. This file is generally saved as a TIFF file because TIFF files have lossless compression.

Banding. A band of color and text attached to the bottom of an image. A band is usually used to indicate rights or ownership information for the image. Refer to the CONTENTdm help to add bands.

Bit depth (Same as dynamic range). The possible number of colors or shades of gray that a pixel can represent. Can be 8, 24, or 32.

Compression. When a file is saved, compression lowers the file size by reducing or eliminating hard to see or repeat information in the digital image. There are two basic types of compression: Lossless and Lossy.

Dpi (dots-per-inch). The number of pixels in each inch of a digital image.

Dublin Core Metadata Initiative. A set of interoperable online metadata standards that support a broad range of purposes and business models. The Louisiana DL uses Dublin Core metadata standards to describe digital items found in the collection.

Dynamic range (Same as bit depth). The possible number of colors or shades of gray that a pixel can represent. Can be 8, 24, or 32.

GIF (Graphic Image File Format). This format supports a 256-color palette and is often used for charts and other "line" graphics that don't require a larger color palette. It is supported by web browsers and uses lossy compression. Also supports and preserves transparency, which can be useful in web design.

Histogram. Illustrates how pixels in an image are distributed by graphing the number of pixels at each color intensity level.

Items. Objects imported from files into CONTENTdm (graphic images, documents, audio and video clips, etc.).

JPEG (Joint Photographic Experts Group). The standard format for images intended for Internet use and is supported by all web browsers. Uses lossy compression.

Lossless Compression. A way to reduce a large file into a smaller file size without losing information.

Lossy Compression. Data compression techniques in which some amount of data is lost. Lossy compression technologies attempt to eliminate redundant information therefore reducing the file size.

Metadata. Descriptive information that describes an item, its creation, the technology used to create and maintain it, etc. The LDL primarily uses the Dublin Core metadata standard .

Object File Name. The 8-character code for a specific digital item in a particular collection. Example: oma_0000045.

PDF (Portable Document Format). A file format that has captured all the   elements of a printed document as an electronic image that you can view, navigate, or print. PDF files are especially useful for documents such as translations or transcriptions in which you want to preserve the original graphic appearance online. A PDF file contains one or more page images and allows you to page forward and backward. PDF files are created using Adobe Acrobat, Acrobat Capture, or similar products.

Pixels. A basic element of bit-mapped digital images. They are "dots" arranged in columns and rows that when put together form a digital image.

Project Client. The Project client is the component of CONTENTdm Digital Collection Management Software that allows you to input, annotate, and upload all the multimedia items and data in your collection.

Resolution. Resolution is described in dots-per-inch (dpi) or pixels-per-inch (ppi). Measures the amount of digital information contained in a digital image.

TIFF (Tagged Image/Interchange File Format). The standard format for archival files. Uses lossless compression.

Thumbnail Image or file. The smallest version of the digital image. Used in the Louisiana Digital Library for previewing purposes while browsing or reviewing search results.

Unsharp Mask. A filter in Adobe Photoshop specifically designed to correct the blurring that occurs during the scanning process by sharpening the edges in the image.

Appendix C: Sample Press Releases

Example Press Release No. 1

The MSU Archives and Special Collections Department has joined the Louisiana Digital Library (LDL). Selected images from the MSU photograph collection are now online and freely accessible. The Archives staff collected the photographs from individual donations, purchases, and from "Photo Fairs" held in the area. The photographs document McNeese, Lake Charles, and the Imperial Calcasieu region from the early 1890s to the present.

Of particular note are the photographs Maude Reid collected. Miss Reid was the first public health nurse in Calcasieu Parish and established several free clinics for the poor. In addition to her work in public health, Reid served as the unofficial historian of Lake Charles, collecting photographs, postcards, pamphlets, and clippings into scrapbooks. Today her materials give researchers insight into daily life in Lake Charles in the early 1900s.

Photographs in the collection also document major events in the area's history, including the Great Fire of 1910, the 1918 Hurricane, Prohibition rallies, and Hurricane Audrey. Other photographs follow the history of McNeese State University, from its inception in 1939 to the present. Finally, the collection includes images of historic homes and buildings documenting Lake Charles architecture.

The LDL is an online library containing photographs, maps, manuscript materials, books, oral histories, and more that document Louisiana's history and culture. Libraries, museums, archives, historical groups, and other institutions across the State contribute materials to the LDL. This state-wide digital library is used by anyone with access to the internet and an interest in the materials.

Links:
LDL: http://www.Louisianadigitallibrary.org
MSU Collection on the LDL: http://www.Louisianadigitallibrary.org/cdm4/
index_PSL.php?CISOROOT=/PSL

Contact: Pati Threatt
Archivist
Frazar Memorial Library
Box 91445
McNeese State University Lake
Charles, LA 70609 337-475-5731
http://library.mcneese.edu/depts/archive

End of Example Press Release No. 1

The McNeese Archives recently cataloged its 2,000th image for the Louisiana Digital Library.

The Archives began digitizing its photographs in 2003. The 2,000th image depicts a raucous celebration at the Charleston Hotel marking the end of Prohibition on April 13, 1933. Isaac Murrey, a local professional photographer, captured the scene of L.S. Wharton and C.C. Suttle raising their glasses of Jax beer in a toast. Newspaper articles accompanying the photograph feature reporters recounting the joys of eating sandwiches and drinking cold beer in the afternoon.

The original image is part of the Maude Reid Scrapbooks. Miss Reid was the first public health nurse in Calcasieu Parish and established several free clinics for the poor. In addition to her work in public health, Reid served as the unofficial historian of Lake Charles, collecting photographs, postcards, pamphlets, and clippings into scrapbooks. Today her materials give researchers insight into daily life in Lake Charles in the early 1900s. Images like this one help our community understand the history and culture of Southwest Louisiana and illustrate the importance of preserving these images and presenting them to a wider audience.

The LDL is an online library containing photographs, maps, manuscript materials, books, oral histories, and more that document Louisiana's history and culture. Libraries, museums, archives, historical groups, and other institutions across the State contribute materials to the LDL. This state-wide digital library is used by anyone with access to the internet and an interest in the materials.

The digitization project is an on-going project to make the Archives Department's photograph collections available via the Internet. The Digital Library is accessible from the Archives Department website at library.mcneese.edu/depts/archive .

For further information, please contact:

Pati Threatt
Frazar Memorial Library
Box 91445
McNeese State University Lake
Charles, LA 70609 337-475-
5731
pthreatt@mcneese.edu

End of Example Press Release No. 2