

TULANE DIGITAL LIBRARY METADATA GUIDE

Acknowledgements

The *Tulane Digital Library Metadata Guidelines* draws heavily from the *CCDL Guidelines for Metadata Application in the Claremont Colleges Digital Library* Version 2 June 2007, the *LOUISiana Digital Library Style Manual for Scanning and Cataloging* Version 5 March 2005 and the *Dublin Core Metadata Initiative* web site.

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1. Introduction

1.1 Purpose of the Metadata Guidelines

The *Tulane Digital Library Metadata Guidelines* provides specifications for creating metadata records for digital resources disseminated in the Louisiana Digital Library (LDL). The LDL is a collaborative digital repository that supports Tulane's digital collections as well as those of participating higher education and cultural heritage institutions in Louisiana. This document updates and expands upon the guidelines presented in the *LOUISiana Digital Library Style Manual for Scanning and Cataloging Version 5*.

Application of these metadata best practices supports the following objectives:

- 1) Ensure quality control for metadata records.
- 2) Improve discovery of resources.
- 3) Increase interoperability across all collections created by the Tulane University.
- 4) Increase interoperability with other digital libraries participating in the Open Archives Initiative.
- 5) Inform users on the digital object structure and necessary viewers needed to view the digital resource.
- 6) Assist with management and long-term preservation of digital files.

1.2 Metadata Defined

Metadata is generally defined as descriptive information about digital resources. It supports the discovery, use, management, and preservation of digital resources. There are three commonly accepted metadata types with some overlap between the three.

- **Discovery/Descriptive metadata:** information used for the indexing, discovery and identification of a digital resource. Examples are resource title, creator of the resource, and subject of the resource to name a few.
- **Structural metadata:** information used to display and navigate digital resources; information on the internal organization of the digital resource; information on viewer or reader plug-in needed to open the digital resource.
- **Administrative metadata:** information needed to manage the resource over time, including technical information such as the resolution of the image, file size, file format, hardware/software used to produce the digital resource, etc.

1.3 What is Dublin Core?

Dublin Core is an internationally recognized metadata standard comprised of fifteen elements used to describe a resource. The semantics of these elements have been established through consensus by an international, cross-disciplinary group of professionals from the library, museum, publishing, computer science and text encoding communities and other related fields of scholarship. The Dublin Core Metadata Initiative (DCMI) Element Set has been approved by ANSI and assigned the number Z39.85.

The Louisiana Digital Library uses the Dublin Core Metadata Element Set and Qualifiers as its metadata schema as defined by the Dublin Core Metadata Initiative.

Characteristic of the Dublin Core element set are:

- Simplicity of creation and maintenance allowing a non-specialist to easily and efficiently create descriptive records for digital resources.
- Commonly understood terminology and semantics that are universally understood and supported.
- International in scope ensures that the standard will address the multicultural and multilingual nature of networked resources.
- Extensibility by allowing additional elements to be added that make sense within a specific discipline. Additional elements can be linked to Dublin Core to meet the need for extensibility to aid in additional resource discovery and granularity needed for access.

2. Using Dublin Core Metadata Elements

2.1 *Discovery Metadata*

Although each element is optional and repeatable in its standard form, the Tulane Digital Library has made specific recommendations for each element.

The Dublin Core Metadata Initiative issued a list of recommended Dublin Core Qualifiers in July of 2000 and is listed on page 21. These qualifiers are used with the 15 elements and are broken into two broad classes:

Element Refinement. These qualifiers make the meaning of an element narrower or more specific. A refined element shares the meaning of the unqualified element, but with a more restricted scope.

Encoding Scheme. These qualifiers identify schemes that aid in the interpretation of an element value. These schemes include controlled vocabularies and formal notations or parsing rules. The definitive description of an encoding scheme for qualifiers must be clearly identified and available for public use.

All metadata mapping is from Dublin Core to MARC21. Mapping can vary when going from MARC 21 to Dublin Core.

We recommend the ordering of the metadata elements as follows:

2.1.1. Element Name: Title

Label: Title

Definition: A name given to the resource.

Comment: Typically, Title will be a name by which the resource is formally known.

Repeatable: Yes

Mandatory: Yes
 Qualifier: Alternative Title

TDL Recommendations:

- All digital objects must have a title.
- Use “Untitled” only when the image is specifically named “Untitled.” If no title exists, construct one using Describing Archives: A Content Standard (DACS) or Cataloging Cultural Objects (CCO).
- If the cataloger assigns a title, create a title that best describes the image. The title should describe the image in basic terms, but should not attempt to provide an exhaustive description.
- Only the first word of the title is capitalized unless the title includes proper noun(s).
- Omit quotation marks, parenthesis, and brackets when constructing a title.
- Omit initial articles from title unless the article is an essential part of the title or supplied by the creator in the original title.

Examples:

Title	Original Object
Victor Schiro campaign brochure	Printed brochure
2006 Louisiana health & population survey	Webpage
Aeneas leaving Troy	Watercolor on paper
Huey and Earl Long at Overton trial	Photograph

The qualifier, Alternative Title, should be used in cases where the title is translated from another language or documented alternate titles exist.

Examples:

Title	Alternative title	Source
Arrêt de la cour de Parlement, 1788 Sept. 29	Judgment of the Court of Parliament, 1788 Sept. 29	<i>Title:</i> Original title. <i>Alternative title:</i> Title translated from French.
Daughters of Pæivæ, the sun, and of Kun, the moon	Daughters of the Sun and Moon	<i>Title:</i> Float bulletin title <i>Alternative title:</i> Title taken from painting recto
The unstrung harp; or, Mr. Earbrass writes a novel	The listing attic and the unstrung harp	<i>Title:</i> Edward Gorey’s American first edition <i>Alternative title:</i> Edward Gorey’s English first edition

2.1.2. Element Name: Creator

Label: Creator
 Definition: An entity primarily responsible for making the content of the resource.
 Comment: Examples of Creator include a person, an organization, or a service.
 Typically, the name of a creator should be used to indicate the entity.
 Repeatable: Yes
 Mandatory: If available

TDL Recommendations:

- If no creator can be determined leave blank.
- If the creator is not known, you may enter “creator unknown” in the Notes element.
- Data entry of the creator name follows the AACr2 format, generally, last name, first name. Creator entries should follow an authority file if available such as the Library of Congress Name Authority (<http://authorities.loc.gov/>).
- If an item has more than one creator, enter name(s) in the same creator field separated by a semi-colon.

Examples:

Title	Creator
3rd ward regular democratic ticket	McEnergy, Samuel Douglas, 1837-1910
10th ward anti-Ewing flyer	Wilkinson, Theodore S.; Harrison, Thomas; Weser, Gustave; Maloney, Robert J.; Bernius, John J.; Nulty, Edward; Smart, W.G.; Earhart, Fred A.
East Baton Rouge Parish aerial view	Louisiana. Dept. of Transportation and Development

2.1.3. Element Name: Contributor

Label: Contributor
 Definition: An entity responsible for making contributions to the content of the resource.
 Comment: Examples of Contributor include a person, an organization, or a service.
 Typically, the name of a Contributor should be used to indicate the entity.
 Repeatable: Yes
 Mandatory: No

TDL Recommendations: Examples of a contributor include editor, interviewer, transcriber, illustrator, etc. Follow the same guidelines as the Creator field.

- The role of the contributor may be included after the name in parenthesis.
- If no contributor can be determined leave blank.
- If the contributor is not known, you may enter “contributor unknown” in the Notes element.

- Data entry of the contributor name follows the AACR2 format, generally, last name, first name. Contributor entries should follow an authority file if available such as the Library of Congress Name Authority (<http://authorities.loc.gov/>).
- If an item has more than one contributor, enter names in the same contributor field separated by a semi-colon.

Examples:

Title	Contributor	Creator
Oral history interview of Bob Buford, 1999-12-22	Linkletter, Karen (interviewer)	Buford, Bob
CODEE Newsletter Summer-Fall 1997	Burrell, Neil (editor); West, Beverly Henderson, 1939- (executive editor)	Arnold, David; Borrelli, Robert L., 1932-; Noonberg, Anne

2.1.4. Element Name: Subject

Label: Subject

Definition: A topic of the content of the resource.

Comment: Typically, Subject will be expressed as keywords, key phrases or classification codes that describe a topic of the resource. Recommended best practice is to select a value from a controlled vocabulary or formal classification scheme.

Repeatable: Yes

Mandatory: Yes

Qualifier: LCSH
TGM I and II
MeSH
TGN
AAT

TDL Recommendations: An appropriate thesaurus will be determined at the commencement of a collection. When appropriate, use locally constructed thesaurus in a separate field.

- Use subject terms from an established thesaurus to be determined by collection administrator and metadata librarian. Terms specific to the collection and not found in the chosen thesaurus should be entered in another element labeled Subject – local.
- Multiple subject terms in an element should be separated by a semicolon and a space between terms
- Use the title, description, and resource itself to choose subject terms.
- Use specific or unique words rather than more general words (Example: If the object is a picture of Siamese cats, use the term “Siamese cats” instead of “Cats”)

- Subjects may include topics, places, events, genres, forms, and names of organizations or people.
- Use subject terms that describe what an object is about as well as what it is whenever possible. A ledger drawing might have a heading for “Kiowa Apache Indians” and “Appaloosa horse” to show the subject of the poem, and then another heading for “Indian ledger drawings” to show what the object is.

Examples:

Subject - LCSH	Derry (Northern Ireland); Ireland--History--Easter Rising, 1916
Subject - TGN	Londonderry
Subject - local	IRA Volunteers
Subject - LCSH	Publishers and publishing; Hospitality; Republic of Peru; Sears, Roebuck and Company
Subject - LCSH	College students
Subject - LCSH	Bakery employees; Balloons; Balls (Parties)

Recognized thesauri include:

The Library of Congress Subject Headings (LCSH) authority for textual documents, such as correspondence, transcripts or books.

Library of Congress Name Authority File (LCNAF) for names of people, groups, institutions, or organizations.

<http://authorities.loc.gov/>

The Library of Congress Thesaurus for Graphic Materials (TGM 1 and 2) for images created as works of art, for example, snapshots, documentary photographs, amateur photography, etc.

<http://www.loc.gov/rr/print/tgm1/>

<http://www.loc.gov/rr/print/tgm2/>

Getty Art and Architecture Thesaurus (AAT) for images created as works of art or that document architectural works.

http://www.getty.edu/research/conducting_research/vocabularies/aat/

Medical Subject Headings (MeSH) from the U.S. National Library of Medicine for biomedical and life sciences terms not found in Library of Congress Authorities or deemed more appropriate.

<http://www.nlm.nih.gov/mesh/>

Getty Thesaurus of Geographic Names (TGN) for geographic names not found in the Library of Congress Authorities or deemed more appropriate.

http://www.getty.edu/research/conducting_research/vocabularies/tgn/

Getty Union List of Artists Names Online (ULAN) for artist’s names not found in Library of Congress Authorities or deemed more appropriate.

http://www.getty.edu/research/conducting_research/vocabularies/ulan/

Geographic Names Information System (GNIS) for GIS coordinates

<http://geonames.usgs.gov/pls/gnispublic/f?p=151:1:9971188465970574362>

2.1.5. Element Name: Description

Label: Description
Definition: An account of the content of the resource.
Comment: Examples of Description include, but is not limited to: an abstract, table of contents, reference to a graphical representation of content or a free-text account of the content.
Repeatable: Yes
Mandatory: Yes, if applicable
Qualifier: Table of Contents
 Abstract

TDL Recommendations:

- Enter here a detailed description of the item including keywords that would be beneficial if retrieved in a search.
- Additional information garnered from examining the front and back of the original that may be valuable to record include;
 - annotations
 - captions
 - watermarks
 - contextual information
 - stamped information
- Include any descriptive information provided by the holding institution and/or any pertinent information not represented in other fields.

Examples:

Title	Source	Description
Alice in Wonderland	Watercolor, 16.5 x 20 inches; Proteus float designs	Float design from Krewe of Proteus 1900 parade. Theme: Tales of childhood.
Jesuit scrapbook 1869-1903	Scrapbook	The following scrapbook, inscribed Archives of the New Orleans Mission dates to the late 19th century and is a record of the men who served in the Society of Jesus, and the churches, schools and institutions they established in the South. Jesuits returned to

		the Southern United States 1836, but it was not until 1907 that they were designated the New Orleans Province of the American Assistancy. Previously they were administered as a Mission of the Lyon, France Province and as the Independent New Orleans Province. The Province includes the states of Louisiana, Texas, Alabama, Georgia, Florida, South Carolina, Tennessee, Arkansas, Mississippi and New Mexico. The photographs in this scrapbook include numerous portrait photographs of the Jesuits working in the South, group photographs of Jesuit Communities, major houses such as the College of the Immaculate Conception in New Orleans and St. Charles College in Grand Coteau, La.
10 or 15 miles below Dubuque	Drawing	Sketch of a river with wooded hills rising along the banks. Caption reads: 10 or 15 miles below Dubuque
2007 regional vision poll summary of findings	Text	Title from web page. Address as of June 21, 2007: http://www.louisianaspeaks.org/cache/documents/34/3431.pdf ; "Prepared by Collective Strength on behalf of Louisiana Speaks, a long-tern planning initiative of the Louisiana Recovery Authority."; PDF file format; Harvested from the web on 6/21/07

2.1.6. Element Name: Coverage

Label: Coverage
 Definition: The extent or scope of the content of the resource.
 Comment: Typically, Coverage will include spatial location (a place name or geographic coordinates), temporal period (a period label, date, or date range) or jurisdiction (such as a named administrative entity).
 Repeatable: Yes
 Mandatory: No
 Qualifier: Temporal
 Spatial

TDL Recommendations:

- Where appropriate, named places or time periods should be used in preference to numeric identifiers, such as sets of coordinates or date ranges.
- Use the qualifier, temporal to describe eras, time periods, which cover the content of the digital object.
- Use the qualifier, spatial to describe places or geographic coordinates covered by the content of the digital object.
- Use a controlled vocabulary such as;
 - Library of Congress Subject Headings (LCSH)
 - Art & Architecture Thesaurus (AAT)
 - USGS Geographic Names Information System (GNIS).

Examples:

Coverage - temporal	Meiji	AAT
Coverage - temporal	Early Victorian	AAT
Coverage - spatial	North America	LCSH
Coverage - spatial	Audubon Park (New Orleans, La.); Lat: 295551N, Long: 0900735W	GNIS

2.1.7. Element Name: Publisher

Label: Publisher
 Definition: An entity responsible for making the digital resource available
 Comment: Examples of Publisher include a person, an organization, or a service. Typically, the name of a Publisher should be used to indicate the entity.
 Repeatable: Yes
 Mandatory: Yes

TDL Recommendations:

- Information in this field should contain a name from the Library of Congress Name Authority File or local name authorities for the institutions responsible for making the digital resource available.

Examples:

Publisher	Newcomb Art Gallery
Publisher	Howard-Tilton Memorial Library. Louisiana Research Collection
Publisher	Tulane University. Amistad Research Center
Publisher - digital	Newcomb Art Gallery

- If an object existed in another form before being digitized, the publisher of this earlier form may be entered in another Publisher element, making a distinction between

“Publisher – digital” and “Publisher - original.” This enables information exported from art institutions to transfer cleanly.

- Use Library of Congress Authorities (<http://authorities.loc.gov>) or local authority terms
- Omit initial articles in publisher names.
- Enter group or organization names in full, direct form. In the case of a hierarchy, list the parts from the largest to smallest, separated by periods. (e.g., Tulane University. School of Architecture)
- If the publisher is the same as the creator, enter the name or entity in both the Publisher and Creator elements.

2.1.8. Element Name: Date

Label: Date

Definition: A date of an event in the lifecycle of the resource.

Comment: Typically, Date will be associated with the creation or availability of the resource. Recommended best practice for encoding the date value is defined in a profile of ISO 8601 [W3CDTF] and includes (among others) dates of the form YYYY-MM-DD.

Repeatable: Yes

Mandatory: No

TDL Recommendations: Use the date of the original resource in one of the following formats. If no date can be determined, leave blank.

Date Type	Enter into Date Field:
Known YYYY-MM-DD date	2001-10-19
Known YYYY-MM date	2001-10
Known year	2001
One year or another	1892 or 1893
Circa	circa 1843-01
Decade certain	1970s
Before a time period	before 1867
After a time period	after 1867

Examples:

Telling-Grandon Scrapbook	1903-02
Photograph of a boy from a WPA refugee camp for victims of the 1937 flood	1937-02-14

2.1.9. Element Name: Language

Label: Language
 Definition: A language of the intellectual content of the resource.
 Comment: Recommended best practice is to use RFC 3066 [RFC3066] which, in conjunction with ISO639 [ISO639]), defines two- and three-letter primary language tags with optional subtags. Examples include "en" or "eng" for English, "akk" for Akkadian", and "en-GB" for English used in the United Kingdom.
 Repeatable: Yes
 Mandatory: No

TDL Recommendation: Use the ISO Standard 3-letter code as follows:

- eng for English
- fre for French
- akk for Akkadian
- spa for Spanish
- ger for German
- ita for Italian
- chi for Chinese
- rus for Russian
- jpn for Japanese

If additional languages are needed see ISO Standard 3-letter code
<http://www.loc.gov/standards/iso639-2/langhome.html>

Examples:

Adelard Jacob letter, 1830 August 27	fr
Letter from the Greater New York fair and exposition to the Louisiana Commissioner of Agriculture	eng

2.1.10. Element Name: Type

Label: Digital Resource Type
 Definition: The nature or genre of the content of the resource.
 Comment: Type includes terms describing general categories, functions, genres, or aggregation levels for content. Recommended best practice is to select a value from a controlled vocabulary (for example, the DCMI Type Vocabulary [DCT1]). To describe the physical or digital manifestation of the resource, use the FORMAT element.
 Repeatable: Yes
 Mandatory: Yes

TDL Recommendations: Enter a Dublin Core Suggested Type

- Collection
- Dataset
- Event
- Image
- Interactive Resource
- Moving Image
- Service
- Software
- Sound
- Text

Example:

Guide to New Orleans and environs. Sixth edition	Text
Soma - the Moon	Image
Medical School Bill signing 1966	Moving Image

2.1.11. Element Name: Format

Label: Format

Definition: The physical or digital manifestation of the resource.

Comment:

- Typically, Format may include the media-type or dimensions of the resource.
- Format may be used to identify the software, hardware, or other equipment needed to display or operate the resource.
- Examples of dimensions include size and duration.
- Recommended best practice is to select a value from a controlled vocabulary (for example, the list of Internet Media Types [MIME] defining computer media formats) defining computer formats.

Repeatable: Yes

Mandatory: Yes

TDL Recommendations: Use controlled vocabulary from the list of Internet Media Types [MIME] <http://www.iana.org/assignments/media-types/>)

- jpeg
- jp2
- pdf
- tiff
- quicktime
- mpeg
- mp4

Example:

D'Aquin, part 1	mpeg
Soma - the Moon	jp2

2.1.12. Element Name: Identifier

Label: Resource Identifier

Definition: An unambiguous reference to the resource within a given context.

Comment: Recommended best practice is to identify the resource by means of a string or number conforming to a formal identification system. Formal identification systems include but are not limited to the Uniform Resource Identifier (URI) (including the Uniform Resource Locator (URL)), the Digital Object Identifier (DOI) and the International Standard Book Number (ISBN).

Repeatable: Yes

Mandatory: Yes

TDL Recommendations: This is assigned by CONTENTdm system. This field needs to remain but can be ignored.

2.1.13. Element Name: Source

Label: Source

Definition: A Reference to a resource from which the present resource is derived.

Comment: The present resource may be derived from the Source resource in whole or in part. Recommended best practice is to identify the referenced resource by means of a string or number conforming to a formal identification system.

Repeatable: Yes

Mandatory: No

TDL Recommendations:

- Use the source element to cite or describe any other resource from which the digital resource was derived, which may include free text combined with a formal identification system (such as an ISBN to describe a book).
- Resource type
- Can also include the dimensions of the original object. , quantity, number of pages
- Physical location

Examples:

Source	Comments
Watercolor, 18 x 20 inches; Proteus float designs	Digitized Carnival float design described in <i>Source</i> element
35 mm slide of a Newcomb Pottery dark blue vase, slide no. 215 in the Newcomb Pottery Slide Collection, The Historic New Orleans Collection	Digitized image from an original slide described in <i>Source</i> element
Travel diary, 1873 July 28 - 1876 August 22 1 item Half-leather ruled notebook, stamped on spine "Records," contains a 263 page manuscript travel diary in English. Pages are numbered 1-263; 2 pages between p. 225-226 are unnumbered. Pages 1-40 are the text of a lecture that Alice delivered in Belize, Honduras, 1878[?] for the benefit of the Catholic School, and subsequently published as her 1878 article "Notes on Yucatan." The diary begins on the next page. Tipped-in letters to Augustus Le Plongeon are from Palomino (p. 238), Peón de Regil (p. 242), and Irmilio Canton (p. 249). A newspaper article by Alice Le Plongeon, *Un sueño de las ruinas de Uxmal,* translated from an article in the World (New York), and published in a Mexican paper covers the end papers.	The diary of Alice Dixon Le Plongeon

2.1.14. Element Name: Relation

Label: Relation

Definition: A reference to a related resource.

Comment: Recommended best practice is to identify the referenced resource by means of a string or number conforming to a formal identification system.

Repeatable: Yes

Mandatory: Yes

TDL Recommendations:

- Include sufficient information in the Relation element to enable users to identify, cite, and either locate or link to the related resource.
- Record the URL to the collection home page When applicable, use one of the recommended Dublin Core refinement as follows:

Examples:

Refinement Label	Example
Relation – is part of	Carnival Collection - http://larc.tulane.edu/exhibits/carnival
Relation - is version of	Crater Lake limnological studies: final report Seattle, WA: National Park Service, Pacific Northwest Region, [1993] (OCoLC)29349967
Relation – is format of	Map of North Park Addition to Abilene, Texas [#1], OKHPB_0468, ark:/67531/metaph77936

2.1.15. Element Name: Rights

Label: Rights Management

Definition: Information about rights held in and over the resource.

Comment: Typically, Rights will contain a rights management statement for the resource, or reference a service providing such information. Rights information often encompasses Intellectual Property Rights (IPR), Copyright, and various Property Rights. If the Rights element is absent, no assumptions may be made about any rights held in or over the resource.

Repeatable: Yes

Mandatory: Yes

Title	Rights statement
Interface journal	Interface: An interdisciplinary journal of student research at Harvey Mudd College has non-exclusive publication rights to the articles contained in each issue. Permission is granted to quote from the journal with the customary acknowledgment of the source. Copyright for each article is retained by the author. Republication in any form requires permission from the author of the article.
Fine structure in detached, senescing tomato leaves	Only available to users on the Loyola University New Orleans campus.
[generic]	Physical rights are retained by the institution. Copyright is retained in accordance with U. S. Copyright laws

TDL Recommendations:

- Each collection can have its own rights management statement.
- If one is not created, then the following generic statement can be used:
 - Physical rights are retained by the institution. Copyright is retained in accordance with U. S. Copyright laws.

2.2 Dublin Core Elements Qualifiers

DCMES ELEMENT	ELEMENT REFINEMENTS	ELEMENT ENCODING SCHEME(S)
<i>Title</i>	Alternative	
<i>Creator</i>		
<i>Subject</i>		LCSH MeSH DDC LCC UDC
<i>Description</i>	Table of Contents Abstract	
<i>Publisher</i>		
<i>Contributor</i>		
<i>Date</i>	Created Valid Available Issued Modified	DCMI Period W3C-DTF
<i>Type</i>		DCMI Type Vocabulary
<i>Format</i>	Extent Medium	IMT
<i>Identifier</i>		URI
<i>Source</i>		URI
<i>Language</i>		ISO 639-2 RFC 1766
<i>Relation</i>	Is Version Of Has Version Is Replaced By Replaces Is Required By Requires Is Part Of Has Part Is Referenced By References Is Format Of Has Format	URI
<i>Coverage</i>	Spatial Temporal	DCMI Point ISO 3166 DCMI Box TGN DCMI Period W3C-DTF
<i>Rights</i>		

3. Recommended Non Dublin Core Elements

3.1. Notes

This is a general entry field for information the cataloger feels should be included in the record, but does not fit in any other field. Examples include but are not limited to:

- Creator unknown.
- Date unknown.
- Citations of sources used for researching the object.

3.2. Staff Only

The Staff Only field is for notes that are relevant to digital reference services and does not display to the patron.

3.3. Cataloged By

Cataloger's initials are entered in lowercase.

3.4. Catalog Date

Used to enter the date the digital item was cataloged. Enter the date the record is cataloged in YYYY-MM-DD format. Example: Catalog Date: 2001-10-12

3.5. Object File Name

Used to enter the eight-character file name for single page images or the thirteen character file name for multiple page images.

3.5.1. Example of Single Page Items: om000001

3.5.2. Example of Multiple Page Items: om000001_0001

4. Structural Metadata

4.1. Element Name: Viewer Information

Label: Viewer Information

Definition: Special plugins needed to see and/or hear this material and a link for downloading the special viewer.

Comments: Some collections can be seen and read without special viewers. However, in other collections you may provide sound recordings, films, additional high-resolution images, and text with enhanced navigation. Just as you need special equipment to play videotapes, cassettes, CDs, and DVDs at home, patrons will need special viewers to see and hear these materials.

4.2. Element Name: Object Structure

Label: Object Structure

Definition: Information that describes the arrangement of a multiple page object

(post cards, documents and monographs).

Comments: Information would include things like chapters, pages, etc.

5. Digital Records for Preservation

Creating digital resources is both labor intensive and costly, so we are challenged to ensure long-term access to digital resources. Effective preservation of digital resources requires (a) attention early in the life cycle, at the moment of creation, and (b) ongoing management (with attendant costs) to ensure continued usability. The preservation process is made more efficient when attention is paid to issues of consistency, format, standardization and metadata description. To aid in preservation and management, each digital resource must have accompanying structural and administrative metadata.

5.1. Administrative Metadata

Administrative metadata is technical information regarding how the files were created, the format in which they are stored, their size in kilobytes (KB) and use characteristics. Until an administrative metadata schema has been determined a standard, the LDL will capture the following information:

5.1.1. Element Name: Image Resolution

Label: Image Resolution

Definition: Dots-per-inch. Example: 300dpi, 600dpi

5.1.2. Element Name: Image Bit-Depth

Label: Image Bit-Depth

Definition: Number of different colors or shades of gray that can be stored in each pixel of an image. Examples: 8-bit, 24-bit

5.1.3. Element Name: Color Mode

Label: Color Mode

Definition: Color (no shades of gray) or Grayscale (no color tones) or Black/White

5.1.4. Element Name: Extent

Label: Extent

Definition: Indicates the range over which a digital object reaches as expressed in space or time. Digital object extent types include pixel dimensions for scanned image (WWWW:HHHH) and duration for playing time of an audio recording or motion picture (HHHH:MM:SS:SSS). Example: 1:1, 3600 x 6000.

5.1.5. Element Name: Image Manipulation

Label: Image Manipulation

Definition: Image enhancements such as applying sharpen mask, and adjusting histograms.

5.1.6. Element Name: File Size

Label: File Size

Definition: The number of Kilobytes (KB) comprising the digital image.

5.1.7. Element Name: Hardware/Software

Label: Hardware/Software

Definition: Brand name of hardware/software used in creating the digital image. Example:

Hardware: Phase One P30+ camera system; Capture One Pro 6 software

5.1.8. Element Name: Digitized By

Label: Digitized By

Definition: Initials of who digitized the item.

5.1.9. Element Name: Digitized Date

Label: Digitized Date

Definition: The date item was digitized.

6. Crosswalks

6.1. DC/VRA Metadata Crosswalk

DUBLIN CORE	VRA
Title	Title
Creator	Creator
Subject	Subject Style/Period
Description	Description
Publisher	
Contributor	Creator Location
Date	Date
Type	Type Record Type
Format	Measurements Material Format
Identifier	ID Number
Source	Source
Language	
Relation	Relation
Coverage	Date Location Style/Period Culture
Rights	Rights

6.2. MARC to Dublin Core Crosswalk (Qualified)

DC Element	DC Qualifier(s)	MARC Fields	Implementation notes
Title		245	
Title	Alternative	130, 210, 240, 242, 246, 730, 740	
Creator		100, 110, 111, 700, 710, 711 720	See Appendix 1 below.
Subject	LCSH	600, 610, 611, 630, 650	Second indicator=0
Subject	MeSH	600, 610, 611, 630, 650	Second indicator=2
Subject	LCC	050	
Subject	DDC	082	
Subject	UDC	080	
Description		500-599, except 505, 506, 520, 530, 540, 546	
Description	TableofContents	505	
Description	Abstract	520	First indicator=3
Contributor			See Appendix 1 below; Contributor element not used.
Publisher		260\$a\$b	
Date	Created	260\$c\$g 533\$d	
Date	Issued	260\$c 008/07-10	
Type	DCMI Type Vocabulary	Leader06, Leader07 655	See Appendix 2 for Leader-Type rules Subfield \$2=dct
Format	IMT	856\$q	
	Extent	300\$a 533\$e	
	Medium	340\$a	
Identifier	URI	856\$u	
Source	URI	786\$o	
Language	ISO 639-2	008/35-37 041	Multiple codes need to be parsed by threes.
	RFC1766	546	
Relation	IsVersionOf	775,786\$n\$t	
Relation	IsVersionOf	775,786\$o	

	URI		
Relation	HasVersion	775\$n\$t	
Relation	HasVersion URI	775\$o	
Relation	IsReplacedBy	785\$n\$t	
Relation	IsReplacedBy URI	785\$o	
Relation	Replaces	780\$n\$t	
Relation	Replaces URI	780\$o	
Relation	Requires	538	
Relation	IsPartOf	760,773\$n\$t 440, 490,800,810,811,830	
Relation	IsPartOf URI	760,773\$o	
Relation	HasPart	774\$n\$t	
Relation	HasPart URI	774\$o	
Relation	IsReferencedBy	510	
Relation	IsFormatOf	776\$n\$t	
Relation	IsFormatOf	530	
Relation	IsFormatOf URI	776\$o 530\$u	
Relation	HasFormat	776\$n\$t 530	
Relation	HasFormat URI	776\$o 530\$u	
Coverage	Spatial	522, 651	
		255	Some 255 information equivalent to DC encoding scheme but different syntax
		650\$z	
		752	
Coverage	Spatial ISO 3166	043\$c,044\$c	Defined in MARC in January 2001.
	Spatial TGN	651	Subfield \$2=tgn
Coverage	Temporal	513\$b	
		033\$a	
Rights		506, 540	No qualifiers defined.

7. Useful Websites for Metadata

Dublin Core Element Set. <http://dublincore.org/documents/dcmi-terms/#H2>

Dublin Core/MARC/GILS Crosswalk. <http://lcweb.loc.gov/marc/dccross.html>

ISO Standard 3-letter code <http://www.loc.gov/standards/iso639-2/langhome.html>

Library of Congress Home Page. <http://lcweb.loc.gov/>

MARC Home Page. <http://www.loc.gov/marc/marc.html>

8. Thesauri for Controlled Vocabulary

Library of Congress Authorities (LCSH) <http://authorities.loc.gov/>

Library of Congress Thesaurus for Graphic Material I (TGM I - Subject terms)
<http://www.loc.gov/rr/print/tgm1>

Library of Congress Thesaurus for Graphic Material II (TGM II - Genre and Physical
Characteristic Terms) <http://www.loc.gov/rr/print/tgm2/>

Medical Subject Headings (MeSH) <http://www.nlm.nih.gov/mesh/2K/MBrowser.html>

The Getty Art & Architecture Thesaurus (AAT)
http://www.getty.edu/research/conducting_research/vocabularies/aat/

The Getty Union List of Artist Names (ULAN)
http://www.getty.edu/research/conducting_research/vocabularies/ulan/

The Getty Thesaurus of Geographic Names (TGN)
http://www.getty.edu/research/conducting_research/vocabularies/tgn/