DEFENSE TECHNICAL INFORMATION CENTER
DEFENSE VIRTUAL LIBRARY

METADATA GUIDELINES

FOR

DIGITAL STILL IMAGES

11 October 2000, revised 19 June 2001

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GENERAL INFORMATION

General Description of Project

These guidelines contain general instructions for cataloging digital image files as part of the Defense Technical Information Center (DTIC) pilot Defense Virtual Library (DVL). This project was initiated by DTIC in cooperation with the Defense Advanced Research Projects Agency (DARPA) and the Corporation for National Research Initiatives (CNRI).

The guidelines are intended for use during DVL still image cataloging at the pilot and production level. They can also be used to evaluate the quality of bibliographic records provided by holding institutions participating in DVL in the future.[1] Metadata provided by the holding institution should be able to be mapped to the fields detailed. 60 fields are described in this manual, all of which conform to the Machine Readable Cataloging (MARC) format and *Anglo-American Cataloging Rules,* 2nd edition (AACR2) standards. MARC guidelines follow those in *MARC21 Format for Bibliographic Data*, a revision of earlier editions of the *USMARC Format for Bibliographic Data*.

Still image catalog records were created in Microsoft Word and subsequently converted to the MARC format, after DTIC selected Minaret software[2] for bibliographic data entry. DVL image cataloging uses customized versions of Minaret-supplied OCLC (Online Computer Library Catalog) workforms for data entry.

The still image portion of the DVL contains photographs documenting the Trinity Project digitized from the holdings at the Los Alamos National Laboratory, N.M. (LANL).

These guidelines serve as a generic base for cataloging digital still images. Although emphasis is placed on description of photographic materials, these guidelines can be used as a base for cataloging other graphic formats. Nevertheless, collections may be chosen for inclusion in the DVL that present special considerations not covered. Here, cataloging information about the most common descriptive elements and their use is presented, but all future cataloging will need to be examined on a project-by-project basis to determine any necessary changes or revisions to the guidelines. Although these guidelines focus on

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[1] This cataloging manual uses the term 'holding institution' to refer to the repository that contains the item that was used to create the electronic file for the DVL. For DVL purposes, these 'holding institutions' include producing agencies, sponsoring agencies, suppliers, creators, archives and others.
[2] Minaret is a product of Cactus Software, Inc., 10 W. 15th St., Suite 720, New York, NY 10011

describing digital images, practices outlined are also applicable to the description of images that do not exist in digital format.

DTIC contract number SP4700-97-M-0348 was issued to Silver Image Management in 1997 to create guidelines for describing still images. At that time, DVL guidelines did not include the use of fixed fields, indicators, or some other MARC coding. In 1999, DTIC contract number SP4700-99-M-0592 was issued to Silver Image Management, in part to revise the photograph guidelines to comply with the other DVL metadata guidelines. This version of the *Metadata Guidelines for Digital Still Images* corresponds to the format of the *Metadata Guidelines for Digital Sound* and the *Metadata Guidelines for Digital Moving Images.* This revision also includes fixed length fields, indicators, and MARC field information that was not required as part of the original contract. For several reasons, some examples from Trinity Project photograph cataloging do not conform to current practice. The 1997 project was loosely tied to MARC standards, but subsequent DVL components have more formally adopted the MARC format.[3]

Standardized Sources

Bibliographic records created conform to rules outlined in AACR2 and other specialized still image cataloging manuals (see bibliography). In particular, these guidelines conform to rules outlined in *Graphic Materials: Rules for Describing Original Items and Historical Collections* (GM). Standard subject headings for topical terms and genre and physical characteristics can be selected from the *Thesaurus for Graphic Materials* (TGM), the *Library of Congress Subject Headings* (LCSH), the *Art and Architecture Thesaurus* (AAT), and the *Defense Technical Information Center Thesaurus.* Names indexed as main or added entries match the Library of Congress Name Authority File (NAF) or are used with records that have no conflict with headings in the NAF at the time of creation.

For further cataloging questions about generic cataloging practices, refer to AACR2 and MARC21.

MARC Cataloging and Format of Metadata Guidelines

The guidelines are organized according to MARC field sequence. It includes information about MARC field usage, subfields, and indicators, as well as cataloging examples.

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[3] 1997 Trinity photograph cataloging and guidelines included non traditional approaches in such fields as the 545 (subject of image not related to main entry); 952 (listing all sources of cataloging information); 1XX (not implemented, with all responsible agents in 7xx); 300 (to provide data about the item scanned, not necessarily the original item); 653 (to collate by local subject); and 856 (in constant transition).

Fields are represented in MARC by a 3-digit number, or tag. Fields are input in numeric tag order.[4] **Indicators** are expressed in 2 character positions, following each tag. At times, one or both of the indicator positions has not been defined in MARC, and is left blank. In other cases, the indicators contain numerical codes or a blank. Some indicators represent **display constants,** which provide system generated terms or phrases at the beginning of the field. Fields also contain one or more **subfields** that are coded with letters of the alphabet or numbers.

MARC records also contain coded information that enables automated catalog systems in searching and retrieval. This includes the **leader** (a 24 character position field with coded information about the bibliographic record); **directory** (an automated description of the tags and number of characters within a record); and **fixed field codes** (including the 006, 007, and 008 fields).

Fixed fields are limited in length and contain codes, but do not contain indicators or subfields. The number of character positions for each fixed field is established, with each position representing a data element. The *Metadata Guidelines* highlight standard codes anticipated for regular use in photograph cataloging. Options identified for each character position are listed in alphabetical or numerical order following the position entry. Additional coding options are documented in MARC21.

Cataloging **examples** are presented in plain text and in coded MARC format if they are not composed solely of codes. Whenever possible, examples are drawn from DVL catalog records. When there is no example of field use within DVL, examples have either been taken from Library of Congress records or devised.

All of the fields, subfields, and codes that are available in MARC are not listed in these guidelines. An explanation of the use of the fields, indicators, subfields, and fixed fields can be found in published MARC documentation; these guidelines highlight standard coding practice anticipated for use in DVL photograph cataloging. Other options identified within MARC may be applicable to future DVL cataloging and description.

Technical metadata

MARC has been selected as the best resource discovery tool for populating the DVL. It was implemented at the inception of the project. Although it accommodates bibliographic description, it is not capable of providing the necessary shell to contain all technical metadata related to the digital object.[5] Instructions in use of MARC fields that are appropriate for technical metadata related to long-term digital preservation are included in these guidelines (these fields include but are not limited to the 533, 583 and 856).

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[4] Inputting according to numeric order follows practice established in the CONSER Cataloging Manual, Module 31, Remote Access Computer File Serials, Part 2, section 31.15 as well as other guidelines that no longer strictly adhere to AACR2 field order.
[5] The term technical metadata is used in these guidelines to describe administrative, structural and preservation metadata.

During another component of the project, an effort was made to identify essential technical metadata and map it to the MARC format so that all metadata could reside in a single system.[6] However, it appears that the MARC format as it stands in 2001 is not sufficient to accommodate the extensive metadata required for management of digital materials. DVL project managers expect to use another system to manage technical metadata that does not fit within the traditional MARC structure. It is anticipated that these data elements can be accommodated with the addition of an Extensible Markup Language (XML) Document Type Definition (DTD) that is specific to technical metadata. Exploration of digital long-term preservation has led the DVL to create preliminary guidelines identifying "Technical Metadata for the Long-Term Management of Digital Materials."[7] In cases where identified metadata is appropriate to both the MARC format and the technical metadata aspect, there may be some degree of redundancy. As systems or tools that manage technical metadata are developed, practice regarding maintenance of technical metadata will change.

Collections and items

In most cases, information is provided for item-level cataloging instead of collection-level cataloging. DVL photograph cataloging has followed cataloging practices established for sound recordings and moving images, which also focus on the item. Some fields described in these guidelines are only used in collection-level cataloging. In these cases, the field description indicates that the tag applies only to collection-level records.

Acknowledgements

DVL project officers were major contributors to the content and organization of the *Metadata Guidelines*.

The guidelines use formatting, structure and terminology from AACR2, MARC21 and Library of Congress Prints and Photographs Division in-house data dictionaries. Other reference sources consulted appear in the bibliography within these guidelines.

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[6] "Technical Metadata Essential to Preservation and Management of Digital Material" was included in the 10/11/2000 version of the *Metadata Guidelines for Digital Moving Images.*.
[7] Technical metadata documentation is no longer contained with the *Metadata Guidelines for Digital Moving Images.* The "Technical Metadata for the Long-Term Management of Digital Materials: Preliminary Guidelines" will be available in the near future on the Project Notes page of the DVL web site at http://dvl.dtic.mil.

MARC FIELD GUIDELINES

LEADER

MARC Tag (Field Name):

Leader

MARC	Definition (OCLC code)	Codes	Descriptions
/00-/04	Logical record length		5 character number recording the length of the record, generally system-supplied
/05	Record Status (RecStat:)	n	New
		c	Corrected, revised
/06	Type of record (Type:)	g	Projected medium
		k	2-D nonprojectable graphic
		m	Computer file
/07	Bibliographic level (Blvl:)	m	Monograph/item
/08	Type of control (Ctrl:)	/	Blank, no specified type
/09	Character coding scheme	/	Blank, MARC-8
/10	Indicator count	2	Number of positions used for indicators
/11	Subfield code count	2	Number of positions used for subfields
/12-/16	Base address of data		5 character number recording the location of the first variable control field in the record, generally system-supplied
/17	Encoding level (Elvl:)	7	Minimal level
/18	Descriptive cataloging form (Desc:)	a	AACR2
/19	Linked record requirement	/	Blank
/20	Length of the length of field	4	
/21	Length of the starting character position	5	
/22	Length of the implementation defined portion	0	
/23	Undefined	0	Undefined

Indicators:

Indicator codes and subfield codes are not defined for this field. Data elements are defined by their position.

Leader

Position/Spacing:

This field does not end with a mark of punctuation.

Default values:

Note that fixed field character positions begin with position zero (0), not one (1). Most of the characters in this field are system generated and can be defaulted into the record. The code in position /06 may vary from record to record. Use 'g' for projected mediums, like slides and transparencies. Use 'k' to represent photographs and negatives, as well as other two-dimensional graphics. The code in position /07 may vary from record to record in future implementations. For the DVL, the /07 position has been defaulted to m (monograph/item). This may change in future cataloging to represent subunits, collections, and monographic component part (codes d, c and a) as necessary.

Data Conventions/Comments:

The leader field is a fixed-length field of 24 characters that defines the parameters of the bibliographic record.

Examples:

Note: Plain text examples not provided for coded fields.

LEADER: 00000nkm//22000007a/4500

001
CONTROL NUMBER

MARC Tag (Field Name):

001   Control number   System-generated control number

Indicators:

Indicator codes and subfield codes are not defined for this field.

Punctuation/Spacing:

This field does not end with a mark of punctuation.

Data Conventions/Comments:

This field contains a unique control number (usually system-generated). The prefix "DTIC" is being used at the start of all DVL control numbers. A six-digit control number is being created with the use of leading zeros when generating the number. The DVL will not add a suffix code to identify specific collections in this field (for example, adding "/CM" to represent the Carnegie-Mellon collection), but may choose to add a project code to the 985 field in the future.

Examples:

DTIC-000001

001   DTIC-000001

005
DATE AND TIME OF LATEST TRANSACTION

MARC Tag (Field Name):

005   Date and time of latest transaction

Indicators:

Indicator codes and subfield codes are not defined for this field.

Punctuation/Spacing:

This field does not end with a mark of punctuation.

Data Conventions/Comments:

This is a field generated by the system at the moment of the latest record transaction. The field specifies the date and time that the record was most recently revised, according to the pattern yyyymmdd (4 positions for year, 2 for month, 2 for day) and hhmmss.f (2 positions for hour, 2 for minute, 2 for seconds, and 2 for fractions of a second, including the decimal point).

Examples:

Note: Plain text examples not provided for coded fields.

005 // 19990717101010.0
Represents: July 17, 1999, 10:10:10 p.m.

006
FIXED-LENGTH DATA ELEMENTS--ADDITIONAL MATERIAL CHARACTERISTICS

MARC Tag (Field Name):

006   Fixed-length data elements—Additional material characteristics

Coding for the /00 position for <u>computer files</u> is 'm.' This is an 18-character position field.

MARC	Definition (OCLC codes)	Codes	Descriptions
/00	Form of material	m	Computer file
/01-/04	Undefined	/	Blank
/05	Target audience	/	Blank; not specified
/06-/08	Undefined	/	Blank
/09	Type of computer file	d	Document
/10	Undefined	/	Blank
/11	Government publication	/	Blank, not a gov. pub.
		f	Federal/national
		u	Unknown
		z	Other
		|	No attempt to code
/12-/17	Undefined	/	Blank

Indicators:

Indicator codes and subfield codes are not defined for this field.

Punctuation/Spacing:

This field does not end with a mark of punctuation.

Default values:

Some of the characters in this field are constant and can be defaulted into the record.

Data Conventions/Comments:

Note that fixed field character positions begin with position zero (0), not one (1). The 006 field is a fixed-length field that describes characteristics of additional materials. Types of material are represented by codes. These codes correspond to the /18-/34 positions in the 008 field. This field can be used to record electronic aspects for items that are not coded in the Leader /06 as computer files.

Examples:

Note: Plain text examples not provided for coded fields.

006 m//////d/f//////
Represents: computer file, document, federal government publication

007
PHYSICAL DESCRIPTION FIXED FIELD

MARC Tag (Field Name):

007   Physical description fixed field

Note: This field includes coding information for projected graphics, nonprojected graphics, and computer files. Coding for each format is listed in the three separate charts that follow.

Coding for the /00 position for <u>projected graphics</u> is 'g.' This is a 9-character position field. See MARC 21 for additional options.

MARC	Definition (OCLC codes)	Codes	Descriptions
/00	Category of material (COM:)	g	Projected graphic
/01	Specific material designation (SMD:)	s	Slide
		t	Transparency
/02	Undefined (OR:)	/	Blank
/03	Color (CL:)	b	Black-and-white
		c	Multicolored
/04	Base of emulsion (PRS:)	j	Safety film
		k	Film, not safety
		u	Unknown
/05	Sound on medium (SEP:)	/	Blank, no sound
/06	Medium for sound (MDS:)	/	Blank, no sound
/07	Dimensions (WD:)	j	2x2 in. or 5x5 cm.
		s	4x5 in. or 10 x 13 cm.
		For other sizes, see code list.	
/08	Secondary support material (SSP:)	/	Blank, no secondary support
		For other options, see code list.	

Use | (pipe) for codes /01 through /08 to indicate that no attempt was made to code the position/s.

Coding for the /00 position for <u>nonprojected graphics</u> is 'k.' This is a 6-character position field. See MARC 21 for additional options.

MARC	Definition (OCLC codes)	Codes	Descriptions
/00	Category of material (COM:)	k	Nonprojected graphic
/01	Specific material designation (SMD:)	g	Photonegative
		h	Photoprint
		For other options, see code list.	
/02	Undefined (OR:)	/	Blank
/03	Color (CL:)	b	Black-and-white
		c	Multicolored
/04	Primary support material (PRS:)	o	Paper
		e	Synthetic
/05	Secondary support material (SSN:)	/	Blank, no secondary support

Use | (pipe) for codes /01 through /05 to indicate that no attempt was made to code the position/s.

Coding for the /00 position for <u>computer files</u> is 'c.' This is a 14-character position field. See MARC 21 for additional options.

MARC	Definition (OCLC codes)	Codes	Descriptions
/00	Category of material (COM:)	c	Computer file
/01	Specific material designation (SMD:)	o	Optical disc
		r	Remote
		u	Unspecified
/02	Undefined	/	Blank
/03	Color (CL:)	b	Black-and-white
		c	Multicolored
/04	Dimensions (DIM:)		See MARC 21 for options
/05	Sound (SND:)	/	No sound (silent); blank
/06-/08	Image bit depth (IMBD:)	001-999	Exact bit depth
/09	File formats (NFF:)	a	One file format
		m	Multiple file formats
/10	Quality assurance targets (QAT:)	a	Absent
		n	Not applicable
		p	Present
/11	Antecedent/source (SRC:)	a	File reproduced from original
		c	File reproduced from computer file
		d	File reproduced from an intermediate (not microform)
/12	Level of compression (COMP:)	a	Uncompressed
		b	Lossless
		d	Lossy
		m	Mixed
/13	Reformatting quality (REFQ:)	a	Access
		p	Preservation
		u	Unknown

Use | (pipe) for codes /01 through /13 to indicate that no attempt was made to code the position/s.

<u>Indicators:</u>

Indicator codes and subfield codes are not defined for this field.

<u>Punctuation/Spacing:</u>

This field does not end with a mark of punctuation.

007

<u>Default values:</u>

Some of the characters in this field are constant and can be defaulted into the record.

<u>Data Conventions/Comments:</u>

Note that fixed field character positions begin with position zero (0), not one (1). The 007 field is a physical description field. Types of materials are represented by codes.
Use | (pipe) to indicate that no attempt was made to code any position after the /00.
Another option is to code 'zm' in the 007/00-/01 to indicate that the field is unspecified.

This is a repeatable field that could be used in the DVL to code different physical formats represented by the bibliographical records, so that the same record could convey information about both the original material (i.e. negative) and the digital representation. To date, bibliographic records have not included the addition of the 007c to represent computer files.

<u>Examples:</u>

Note: Plain text examples not provided for coded fields.

007 gt/cj//s/
Represents: projected graphic, transparency, color, safety film, no sound, 4x5 in., no secondary support

007 kg/c||
Represents: nonprojected graphic, negative, color, no attempt to code support materials

007 co/ce/999mpdma
Represents: computer file, optical disc, color, 12 in., no sound, 999 image bit depth value, multiple file formats, quality assurance targets present, file reproduced from an intermediate (not microform), mixed compression level, access reformatting quality

008
FIXED LENGTH DATA ELEMENTS

MARC Tag (Field Name):

008   Fixed length data elements

Coding for photographic materials.

MARC	Definitions (OCLC codes)	Codes	Descriptions
/00-/05	Date entered on file (Entrd:)		System-generated
/06	Type of date (Dtst:)	s	Single date
		e	Detailed date
		q	Questionable date
		n	Unknown date
		i	Inclusive dates (collections only)
/07-/10	Date 1 (Dates:)		4-digit date
/11-/14	Date 2		4-digit date
/15-/17	Place of production (Ctry:)	xxu	United States
		xx/	Unknown
	For other countries, see code list.		
/18-/20	Running time (Time:)	nnn	Not applicable
/21	Undefined		
/22	Target audience (Audn:)	/	Not specified; blank.
/23-/27	Undefined		
/28	Government pub. (GPub:)	/	Not a gov't pub.; blank.
		f	Federal/national
		u	Unknown
		z	Other
/29	Form of item	/	None of the following
		s	Electronic
/30-32	Undefined	/	
/33	Type of visual mat. (TMat:)	k	Graphic
		s	Slide
		t	Transparency
/34	Technique (Tech:)	n	Not applicable
/35-/37	Language (Lang:)	///	No language; blank.
		eng	English
		und	Undetermined
	For other languages, see code list.		
/38	Modified record (Rec:)	/	Not modified; blank.
/39	Cataloging source (Srce:)	d	Other

Use | (pipe) for codes /18 through /39 to indicate that no attempt was made to code the position/s.

008

Indicators:

Indicator codes and subfield codes are not defined for this field.

Punctuation/Spacing:

This field does not end with a mark of punctuation.

Default values:

Some of the characters in this field are system-generated and can be defaulted into the record.

Data Conventions/Comments:

The 008 field contains coded information about the nature of the record and its special aspects. **This field is not repeatable.** Types of materials are represented by codes. The format for coding visual materials is provided here. This coding is used in cataloging photographic prints, negatives, slides, transparencies, and other graphic materials. This field describes properties of the primary material being described; the 006 field can be used in addition to the 008 to represent characteristics of additional materials, including multiple formats. For example, the 008 has been used with photographic codes, while the 006 could be implemented to describe properties related to digital photographic files.

Note that fixed field character positions begin with position zero (0), not one (1). This field contains 40 characters.

Refer to the MARC21 code list at http://lcweb.loc.gov/marc for additional country codes to enter in /15-17 or additional language codes to enter in /35-37.

Examples:

Note: Plain text examples not provided for coded fields.

008 990606e19911011xxunnn///f////kneng/d
Represents: record created 6 June 1999, exact date of item 11 October 1991, U.S. production, 12 minutes running time, target audience not specified, federal government publication, graphic, technique not applicable, English language, other cataloging source

033
DATE/TIME AND PLACE OF AN EVENT

MARC Tag (Field Name):

033   Date/time and place of event   a   Formatted date/time

Indicators: First   Type of date   Blank   No date information
                                            0   Single date
                                            1   Multiple single dates
                                            2   Range of dates

              Second   Type of event   Blank   No information provided
                                            0   Capture
                                            1   Broadcast
                                            2   Finding

Punctuation/Spacing:

Use a hyphen for any unknown digits in the first eight characters of the coded string. This field does not end with a mark of punctuation.

Data Conventions/Comments:

This field contains coded information about the date and time of the event, formatted as yyyymmddhhmm+/-hhmm (representing Time Differential Factor information). The first eight character positions yyyymmdd (4 positions for year, 2 for month and 2 for day) are mandatory if this field is used to convey date and time information. The next 9 character positions represent time (as hour and minute) and Time Differential Factor information. These positions are not anticipated to be necessary in DVL cataloging. Use of this field has not been implemented in the DVL to date.

Coded information used in this field is also entered as a note in the 518 field (Date/time and place of event).

Examples:

1945----

19900228

033 0/ Øa1945----

033 0/ Øa19900228

033

035
SYSTEM CONTROL NUMBER

MARC Tag (Field Name):

035   System control number   a   Number

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

This field does not have an ending mark of punctuation unless one is present as part of the data.

Data Conventions/Comments:

The field contains the identification number designed by DTIC for the DVL. DVL photograph control numbers begin with the prefix 'PH.' This identification number also serves as the Handle for the digital object and is used as the Uniform Resource Identifier (in field 856, subfield u).

Examples:

PH1

035 // ØaPH1

037
SOURCE OF ACQUISITION (ORDER NUMBER)

MARC Tag (Field Name):

037	Source of acquisition	a	Stock number
		b	Source of number
		c	Terms of availability

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

This field does not have an ending mark of punctuation unless one is present as part of the data.

Data Conventions/Comments:

This field contains acquisition information for ordering copies of images. It includes the order number (or other identifying number), source information, and a description of the type of reproduction available or its price. This field records identification numbers that specifically relate to the reproduction copy, not necessarily to the original version of the photograph.

Subfield b contains the code defining the source of the reproduction number. The codes for organizations are maintained at the Library of Congress. MARC Code Lists: Organizations can be accessed at http://lcweb.loc.gov/marc/organizations/. The organizational code for DTIC is **ViFbDTIC**.

DTIC policy is to input all DTIC ADA numbers in the 037 field without any punctuation, including the use of hyphens and spaces.

Examples:

J10F-17922 LANL (b&w film copy neg.)

037 // ØaJ10F-17922ØbLANLØc(b&w film copy neg.)

099
CALL NUMBER

MARC Tag (Field Name):

099   Local Call Number   a   Local call no.

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

This field does not end with a mark of punctuation.

Data Conventions/Comments:

This field contains the identification number supplied by the holding institution as the call number. This identification number is the number that the holding institution associates with the image. A local call number is not required when describing computer files.

Examples:

CIC-9:3206

TR-38

099 // ØaCIC-9:3206

099 // ØaTR-38

100
MAIN ENTRY: PERSONAL NAME

MARC Tag (Field Name):

100	Main Entry: Personal Name		a	Personal name
			b	Numeration
			c	Titles
			q	Fuller form of name
			d	Dates
			e	Relator term

Indicators:	First	Type of name	0	Forename
			1	Surname
			3	Family name
	Second	Undefined	Blank	

Note: Use the first indicator 0 (forename) for names to be formatted in direct order. Use the first indicator 1 (surname) for names to be formatted in inverted order, or names without a forename. Use the first indicator 1 (family name) for names that refer to a group.

Punctuation/Spacing:

Headings are entered exactly as they appear in the name authority file. If the heading contains initials, there is a space entered between them (e.g., Marsh, A. B., and not Marsh, A.B.). This field ends with a period or other mark of punctuation. If an open life date is used in the record, do not use a comma before entering the relator term and do not end with a period.

Data Conventions/Comments:

This field contains the name of the person responsible for the intellectual/artistic content of the material. If more than one individual is responsible, use this field for the person with primary responsibility and use an Added Entry (7xx) to list other responsible parties. Search the Library of Congress Name Authority File (NAF) for the proper form of this name, and enter the name exactly as it appears. A relator term can be added to designate the person's role in creation.

Relator terms that may be used in the DVL include the following: architect, artist, engineer, funder/sponsor, photographer, and publisher. Funder/sponsor is used for the

100

person or agency that issued the contract and/or furnished financial support for the production of the work. Do not add a relator term if the role in creation is unclear.[8]

There is only one main entry field used in each record, so a determination must be made about primary responsibility in selecting a Personal Name, Corporate Name, or Meeting Name. Other responsible agents can be included in the Added Entry fields (7xx). If the main entry name is not found in NAF, based on information available it can either be included in this field or recorded in a general note. All photographs from the Trinity Project have main entry under title rather than under a 1xx name, since information about primary responsibility was not available.

Examples:

Jackson, William Henry, 1843-1942, photographer.

Johnston, Frances Benjamin, 1864-1952, photographer.

100 10 ØaJackson, William Henry,Ød1843-1942,Øephotographer.

100 10 ØaJohnston, Frances Benjamin,Ød1864-1952,Øephotographer.

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[8] DVL uses the subfield e to clearly name the relationship between the name and the work. Another option is to use subfield 4 with relator codes like pht (photographer), pbl (publisher), and spn (sponsor). A code list of relator terms is maintained by the Library of Congress and is available at http://lcweb.loc.gov/marc.

110
MAIN ENTRY: CORPORATE NAME

MARC Tag (Field Name):

110	Main Entry: Corporate Name	a	Corporate name
		b	Subordinate units
		e	Relator term

Indicators:	First	Type of name	0	Inverted name
			1	Jurisdiction name
			2	Name in direct order
	Second	Undefined	Blank	

Punctuation/Spacing:

Headings are entered exactly as they appear in the name authority file. If the heading
contains initials, there is no space entered between them (e.g., W.B. Smith and Co., and
not W. B. Smith and Co.). This field ends with a period or other mark of punctuation.

Data Conventions/Comments:

This field contains the name of the corporate body chiefly responsible for the intellectual
content of the material. If more than one creator is responsible, use this field for the
corporate body with primary responsibility and use an Added Entry (7xx) to list other
responsible parties. Search the Library of Congress Name Authority File (NAF) for the
proper form of this name, and enter the name exactly as it appears. A relator term can be
added to designate the corporate role in creation.

Relator terms that may be used in the DVL include the following: architect, artist,
engineer, funder/sponsor, photographer, and publisher. Funder/sponsor is used for the
person or agency that issued the contract and/or furnished financial support for the
production of the work. Do not add a relator term if the role in creation is unclear.[9]

There is only one main entry field used in each record, so a determination must be made
about primary responsibility in selecting a Personal Name, Corporate Name, or Meeting
Name. If the main entry name is not found in NAF, based on the information available it
can either be included in this field or recorded in the general note.

---

[9] DVL uses the subfield e to clearly name the relationship between the name and the work. Another option
is to use subfield 4 with relator codes like pht (photographer), pbl (publisher), and spn (sponsor). A code
list of relator terms is maintained by the Library of Congress and is available at http://lcweb.loc.gov/marc.

For names not found in NAF, which do not conflict with NAF files, the name of the corporate body can be entered here or recorded in a note field. All photographs from the Trinity Project have main entry under title rather than under a 1xx name, since information about primary responsibility was not available.

Examples:

Walt Disney Productions, publisher.

United States. Army. Signal Corps, photographer.

110 2/ ØaWalt Disney Productions,Øepublisher.

110 1/ ØaUnited States.ØbArmy.ØbSignal Corps,Øephotographer.

111
MAIN ENTRY: MEETING NAME

MARC Tag (Field Name):

111	Main Entry: Meeting Name	a	Meeting name
		n	Number of meeting
		d	Date of meeting
		c	Location of meeting
		e	Subordinate unit

Indicators:	First	Type of name	0	Inverted name
			1	Jurisdiction name
			2	Name in direct order
	Second	Undefined	Blank	

Punctuation/Spacing:

Headings are entered exactly as they appear in the name authority file. This field ends
with a period or other mark of punctuation.

Data Conventions/Comments:

This field contains the name of the meeting chiefly responsible for the photograph.
Search the Library of Congress Name Authority File (NAF) for the proper form of this
name, and enter the name exactly as it appears. There is only one main entry field used in
each record, so a determination must be made about primary responsibility in selecting a
Personal Name, Corporate Name, or Meeting Name. Other responsible agents can be
included in the Added Entry fields (7xx). All photographs in the Trinity Project have
main entry under title rather than under a 1xx name, since information about primary
responsibility was not available.

Examples:

World's Columbian Exposition (1893 : Chicago, Ill.)

111 2/ ØaWorld's Columbian Exposition Ød(1893 :ØcChicago, Ill.)

111

130
MAIN ENTRY: UNIFORM TITLE

<u>MARC Tag (Field Name):</u>

130   Main Entry: Uniform Title   a   Uniform title

<u>Indicators:</u>   <u>First</u>   Nonfiling characters   0-9

                       <u>Second</u>   Undefined   Blank

Note: The first indicator is for nonfiling characters. This number can range from 0 to 9, based on the number of characters in the initial article/s to ignore (for example, if a title begins with 'The,' nonfiling characters would be 4, representing 3 characters of the word and the additional space before the next word).

<u>Punctuation/Spacing:</u>

Headings are entered exactly as they appear in the name authority file. This field ends with a period or other mark of punctuation.

<u>Data Conventions/Comments: for anonymous works</u>

This field contains a uniform title used as a main entry. Examples of the use of this field are for names of radio or television programs, motion pictures, videorecordings, treaties and intergovernmental agreements as well as serial titles.

Use the 130 field for a uniform title as the main entry, and use the 240 field (uniform title) to associate the uniform title with a main entry.

<u>Examples:</u>

Three little pigs.

130 0/ ØaThree little pigs.

240
UNIFORM TITLE

MARC Tag (Field Name):

240   Uniform title   a   Uniform title

Indicators: First   Not printed or displayed   0

                     Second   Nonfiling characters   0-9

Note: The second indicator is for nonfiling characters. This number can range from 0 to 9, based on the number of characters in the initial article/s to ignore (for example, if a title begins with 'The,' nonfiling characters would be 4, representing 3 characters of the word and the additional space before the next word).

Punctuation/Spacing:

This field does not end with a mark of punctuation unless one appears as part of the title, or it is required to end an abbreviation or initial.

Data Conventions/Comments:

This field is only used when there is also a 1xx main entry field. Use the 130 field for a uniform title as the main entry, and use the 240 field (uniform title) to associate the uniform title with a main entry (1XX). This field is used in addition to the 245 (Title) field, not instead of it.

A work that has appeared with various titles can be explained with the addition of a uniform title along with the title in the 245. Uniform titles can be found by searching the Library of Congress Name Authority File (NAF) for the proper form of the title, and entering the title exactly as it appears. This field will not commonly be used to catalog images in the DVL.

Examples:

The guidelines for this field do not currently include any examples.

245
TITLE

MARC Tag (Field Name):

245	Title		a	Title
			b	Remainder of title
			c	Remainder of transcription
			h	Medium
			n	Number of part
			p	Name of part

Indicators:	First	No main entry (1xx)	0
		Main entry (1xx)	1
	Second	Nonfiling characters	0-9

Note: The second indicator is for nonfiling characters. This number can range from 0 to 9, based on the number of characters in the initial article/s to ignore (for example, if a title begins with 'The,' nonfiling characters would be 4, representing 3 characters of the word and the additional space before the next word).

Punctuation/Spacing:

This field ends with a period. Enclose devised titles in brackets. Precede other title information with 'space, colon, space.' Precede the statement of responsibility with a 'space, slash, space.' Precede each statement of responsibility with a space, semicolon, space. The general material designation (GMD) is enclosed in brackets.

Generally, a comma or dashes can be substituted for other forms of punctuation (like a colon, slash, or equal sign) that appear in the title proper. Replace ellipsis or brackets with a dash or parentheses.

The field begins with subfields a (then subfield p if used) and h, followed by the subfields b, c, and n when used.

Data Conventions/Comments:

This field contains title information. Titles are to be based on the original title listed on the photograph (on the image itself or on associated material like the negative sleeve, label, or mount, or other associated materials) and transcribed as found. Title information should be taken from the primary source of information. For still images, the chief source of information is the item itself or accompanying materials like labels, mounts, and sleeves.

Bracketed information can be added to transcribed titles to clarify information or record inaccuracies. Misspelled words can be followed by [sic] or by the abbreviation "i.e." followed by a clarification (for example, "AEC [i.e. Atomic Energy Commission]"). Abbreviated words in a transcribed title that are readily apparent need not be clarified by a bracketed clarification (for example, use of bldg. to represent building).

The cataloger creates devised titles if no title appears on any primary documentation. The cataloger may choose to use information from secondary sources like reference books in devising a title when the primary documentation available is too scant to be useful or cannot be interpreted, or the cataloger can describe the content of the photograph. Patterns for devising titles may be created on a project-by-project basis. Enter all devised titles in brackets. When devising a title, it may not be necessary to also create a summary note (520); instead the title usually can contain the same information that would be placed in the summary note. Be as descriptive as possible when devising titles.

Information about responsible agents can be transcribed as found in the subfield Øc (Remainder of transcription). Responsible agents include photographers, publishers, and sponsors. If the area of responsibility is known, but is not on the primary source of information, the descriptive phrase can be included in brackets (for example, using [sponsor] prior to naming the sponsoring agent.

Use the general material designation (GMD) term graphic to represent visual materials, and enclose it in brackets.

Examples:

Jumbo on special flat car, at railroad siding, Pope, N.M. [graphic].

Gadget test on tower [graphic].

Apparatus in "D" building [graphic].

Horse patrol, AEC [i.e. Atomic Energy Commission] security [graphic].

[Formal portrait of J. Robert Oppenheimer] [graphic].

[Group portrait of unidentified men at Los Alamos holding bottles, center man posed with broom and wearing a false mustache] [graphic].

245 00 ØaJumbo on special flat car, at railroad siding, Pope, N.M. Øh[graphic].

245 00 ØaGadget test on towerØh[graphic].

245 00 ØaApparatus in "D" buildingØh[graphic].

245 00 ØaHorse patrol, AEC [i.e. Atomic Energy Commission] securityØh[graphic].

245 00 Øa[Formal portrait of J. Robert Oppenheimer]Øh[graphic].

245 00 Øa[Group portrait of unidentified men at Los Alamos holding bottles, center man posed with broom and wearing a false mustache]Øh[graphic].

246
VARIANT TITLE

MARC Tag (Field Name):

246	Variant title	a	Title
		b	Remainder of title

Indicators: First   No note, added entry   3

                  Second   Type of title   Blank   None specified

Punctuation/Spacing:

This field does not end with a mark of punctuation unless the ending word of the field contains a mark of punctuation.

Data Conventions/Comments:

This field contains varying or alternative forms of the title that appear on the material. It is a repeatable field. Use this field in addition to the title (in the 245 field) only if it adds to the identification of the item beyond the title. This field will not commonly be used to catalog still images in the DVL.

The second indicator in this field can contain codes ranging from 0 through 8, which represent the type of varying title being identified. See MARC21 for a complete list of these options. To record other title variations, begin the field with the subfield i (Display text). This subfield contains a description of the source of the title when 2nd indicator descriptions are not appropriate. When used, subfield i precedes subfield a.

Examples:

The guidelines for this field do not currently include any examples.

250
EDITION STATEMENT

MARC Tag (Field Name):

250   Edition statement   a   Edition statement

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

This field ends with a period.

Data Conventions/Comments:

This field is used to record the version of the original material. This field is used for
transcribed statements. Edition statements are not anticipated to be incorporated
frequently in the DVL. For instances where edition information is devised by the
cataloger, use the 562 field.

Examples:

2nd American edition.

250 // Øa2nd American edition.

260
DATE OF EXECUTION

MARC Tag (Field Name):

260	Publication (date)	a	Place of publication, distribution
		b	Publisher, distributor
		c	Date of publication, distribution, execution
		e	Place of manufacture
		f	Manufacturer

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

This field ends with a period or other ending mark of punctuation (square bracket or closing parentheses). Precede the name of the distributor with a 'space, colon, space.' Precede the date with a comma.

Data Conventions/Comments:

Publication information and information about the date of execution, issue, release, or production is contained in this field. The primary source to be used is the material itself or the catalog record. Secondary sources can be used to determine the date if it is not provided. A general note (field 500) can be used to state source of date if not taken from the material. Unpublished material uses only the date of execution field (subfield c). Include month and day when that information is available. Subfields a, b, e and f are used for publication information.

When there is no information available about the distribution and release of the material, or if the material is unpublished, include only date information in subfield c. Optionally, when cataloging published material where no place of publication is listed, enter the location as: [United States] if probable location; [United States?] if possible location; or [S.l.] (i.e. sine loco) if location is completely unknown. If the publisher or distributor name is not known, and the item has been published, enter [s.n.] (i.e. sine nomine).

The name and location of the publisher is entered in subfields a and b. This publisher information can be followed with the name and location of the distributor, including the Defense Technical Information Center (also in repeated subfields a and b). If the publisher is not known, but the distributor is identified, provide only distributor information. Use the designation [distributor] following the name to qualify the role of the agency. Additionally, other information about the role of the publisher or distributor can be provided in brackets. In selecting the publisher name, the trade name is the most

commonly used. Place and name of the manufacturer is also included in this field, if known.

In selecting a date format, choose the date pattern that is most specific to the material being described. Use ca. (i.e. circa) for material estimated to have been created within a decade at either end of the range (for example, ca. 1940 to represent approximately 1930 to 1950). If it is certain that the image was made between a span of years, use [between 1941 and 1949]. If the image was copyrighted, and the date of copyright is known, enter this date in the 260 field preceded immediately with the letter 'c' (for example, c1910).

Abbreviations for months:
> Jan.
> Feb.
> Mar.
> Apr.
> May
> June
> July
> Aug.
> Sept.
> Oct.
> Nov.
> Dec.

Examples:

For additional examples of dating practices, see Graphic Materials, p. 74.

1945.

1946 July 10.

1943?
Represents: probable date.

[ca. 1943]
Represents: approximate date.

[between 1941 and 1943]
Represents: a year within this time frame.

[ca. 1943, copy negative 1979]

[between 1943 and 1979; copy negative 1979]

260 // Øc1945.

260 // Øc1946 July 10.

260 // Øc1943?
Represents: probable date.

260 // Øc[ca. 1943]
Represents: approximate date.

260 // Øc[between 1941 and 1943]
Represents: a year within this time frame.

260 // Øc[ca. 1943, copy negative 1979]

260 // Øc[between 1943 and 1979, copy negative 1979]

300
PHYSICAL DESCRIPTION

<u>MARC Tag (Field Name):</u>

300	Physical description	a		Extent
		b		Other physical details
		c		Dimensions
		e		Accompanying material

<u>Indicators:</u>

Indicator codes are not defined for this field.

<u>Punctuation/Spacing:</u>

This field ends with a period or other ending mark of punctuation (square bracket or closing parentheses). Precede other physical details with a 'space, colon, space.' Precede dimensions with a 'space, semicolon, space.'

<u>Data Conventions/Comments:</u>

This field provides information about the image from which the digital image file was made. Describe the physical properties of the image that was scanned to create the electronic file. In some cases, the item scanned is not a vintage negative or original photographic print, but a copy of that image. Information about which generation was used in scanning is not included in this field, but can be recorded in the electronic location field (856, subfield 3).

Use subfield b to specify other physical details about the image, when known. This includes the addition of information about the format of the image. Use the *Thesaurus for Graphic Materials II* (TGMII) and the *Art and Architecture Thesaurus* (AAT) for format terminology to be used in the subfields a and b.

This subfield should be used to specify if the image is in color, whether it is a negative or a photographic print, although it is not necessary to include 'b&w' in cases where black-and-white images are described. If the item being scanned is in color, but the electronic version is in black-and-white, be certain to specify the color aspect of the original item and include a note to clarify that the electronic version was created only in black-and-white.

Entering specific physical details, like dimension, is not required. This information can be included when it is readily available. When entering dimensions for standard sizes of photographic prints and negatives, it is acceptable to record them in inches instead of millimeters.

Examples:

1 photographic print ; 4 x 5 in.

1 negative : safety film ; 4 x 5 in.

1 negative : safety film ; 8 x 10 in.

1 negative : safety film ; 35 mm.

1 slide : color.

1 transparency : film, color ; 4 x 5 in.

300 // Øa1 photographic print ;Øc4 x 5 in.

300 // Øa1 negative :Øbsafety film ;Øc4 x 5 in.

300 // Øa1 negative :Øbsafety film ;Øc8 x 10 in.

300 // Øa1 negative :Øbsafety film ;Øc35 mm.

300 // Øa1 slide :Øbcolor.

300 // Øa1 transparency :Øbfilm, color ;Øc4 x 5 in.

351
ORGANIZATION AND ARRANGEMENT

MARC Tag (Field Name):

351   Organization and arrangement   a   Organization
                                               b   Arrangement

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

A period or other ending mark of punctuation is always at the end of this field. A semi-colon separates the subfield a and subfield b.

Data Conventions/Comments:

This field describes the organization and arrangement of a collection. It is to be used in collection level cataloging only. The organization subfield contains a description of the organization of the material and the arrangement subfield contains terms used to describe the pattern of arrangement (such as alphabetical, chronological, or by country).

Examples:

Organized into the following series: […]; Each arranged chronologically.

Organized into 2 sections : biographical and subject; Each section arranged alphabetically by surname or subject.

351 // ØaOrganized into the following series: […];ØbEach arranged chronologically.

351 // ØaOrganized into 2 sections : biographical and subject;ØbEach arranged alphabetically by surname or subject.

440
SERIES STATEMENT/ADDED ENTRY (TITLE)

MARC Tag (Field Name):

440	Series/statement/Added entry (Title)	a	Title
		n	Number or part/section
		p	Name of part/section
		v	Volume number

Indicators:	First	Undefined	Blank
	Second	Nonfiling characters	0-9

Note: The second indicator is for nonfiling characters. This number can range from 0 to 9, based on the number of characters in the initial article/s to ignore (for example, if a title begins with 'The,' nonfiling characters would be 4, representing 3 characters of the word and the additional space before the next word).

Punctuation/Spacing:

This field does not end with a mark of punctuation unless the ending word of the field contains a mark of punctuation.

Data Conventions/Comments:

This field contains a series title as found on the primary source of information itself. It is not anticipated to be used in most instances throughout the DVL. A series statement groups together works that are related by a common factor (like a publisher's series or a collection of works). Use of this field can be paired with the 8XX field, but the 8XX field is not expected to be used as part of the DVL.

Examples:

Civil War collection.

440 // ØaCivil War collection.

500
GENERAL NOTE

<u>MARC Tag (Field Name):</u>

500   General note   a   General note

<u>Indicators:</u>

Indicator codes are not defined for this field.

<u>Punctuation/Spacing:</u>

A period or other ending mark of punctuation is always at the end of this field.

<u>Data Conventions/Comments:</u>

Notes are used to record such information as the source of the date, title, or responsible
agents as well as additional information, which does not clearly fit into other fields but is
still useful for documenting image. Use this note field when information does not belong
in any other specified fields in these guidelines. Some examples include translations
from foreign languages, copyright claimant information, the name of related collections,
information about responsible agents, and miscellaneous numbers.

One option for a note is the addition of information about the digital file created.
Examples of possible notes explaining that the electronic image was not obtained directly
from the original include the following: 1) Modern copy negative made from original
negative used to create electronic image, and 2) Photographic copy of original image
used to create electronic image; location of original image unknown.

500

Examples:

Title devised by cataloger.

Title from negative sleeve.

Date based on …

Written on negative sleeve: Slate 21A.

Typed on negative sleeve: Dunbar 245.

Photographer identified on negative sleeve: Garner.

Brixner Photography Group.

Photographer unknown.

Possibly photographed by…

Probably photographed by…

Variously attributed to:

500 // ØaTitle devised by cataloger.

500 // ØaTitle from negative sleeve.

500 // ØaDate based on …

500 // ØaWritten on negative sleeve: Slate 21A.

500 // ØaTyped on negative sleeve: Dunbar 245.

500 // ØaPhotographer identified on negative sleeve: Garner.

500 // ØaBrixner Photography Group.

500 // ØaPhotographer unknown.

500 // ØaPossibly photographed by…

500 // ØaProbably photographed by…

500 // ØaVariously attributed to:

500

506
RESTRICTIONS ON ACCESS NOTE

MARC Tag (Field Name):

506	Restrictions on access note	a	Terms governing access
		b	Jurisdiction
		d	Authorized users
		e	Authorization

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

A period or other ending mark of punctuation is always at the end of this field.

Data Conventions/Comments:

A note can be added to each record or supplied only at the collection level to provide information regarding access to the collections at the holdings institution. Access relates to physical, legal or procedural situations. This field contains information related to access to the physical property of the holdings institution. It is also used to document instances when a password is required for access, access is granted for official use only, or a subscription is required for access.

Examples:

Available only to DTIC staff. Defense Virtual Library, Defense Technical Information Center; Department of Defense authorized persons. Source of authority for restriction (ex.: Title, chapter).

For official use only.

Contact Los Alamos National Laboratory, Los Alamos, N.M. for further information on access to original material.

506 // ØaAvailable only to DTIC staff.ØbDefense Virtual Library, Defense Technical Information Center;ØdDepartment of Defense authorized persons.ØeSource of authority for restriction (ex.: Title, chapter).

506 // ØaFor official use only.

506 // ØaContact Los Alamos National Laboratory, Los Alamos, N.M. for further information on access to original material.

510
CITATION/REFERENCES NOTE

MARC Tag (Field Name):

| 510 | Citation/References Note | a | Name of source |
| | | c | Location within source |

Indicators: First   Location in source not given   3
                        Location in source given   4

              Second   Undefined   Blank

Punctuation/Spacing:

This field does not end with a mark of punctuation.

Data Conventions/Comments:

This field contains notes and citations or references to published descriptions of the image. It is used to provide a reference to publications where an item has been cited. No attempt should be made to create a complete list of citations. This field can be used in cases where the source cited refers to a checklist or catalog, rather than the source in which the image was subsequently published.

Examples:

Prop art / Gary Yanker. New York : Darien House, 1972, p. 25.

510 4   ØaProp art / Gary Yanker. New York : Darien House, 1972,Øcp. 25.

518
DATE/TIME AND PLACE OF EVENT

MARC Tag (Field Name):

518   Date/time and place of event   a   Note

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

A period or other ending mark of punctuation is always at the end of this field.

Data Conventions/Comments:

This field contains information about the date, time and place of the event documented. This field uses natural language in its description; the 033 field (date/time and place of event) is coded.

Examples:

Photo printed ca. 1985, from negative made in Virginia studio in 1904.

Explosion of first atomic bomb at Trinity Site, New Mexico on July 16, 1945 at 5:29:45 a.m., Mountain War Time.

Recorded…

518 // ØaPhoto printed ca. 1985, from negative made in Virginia studio in 1904.

518 // ØaExplosion of first atomic bomb at Trinity Site, New Mexico on July 16, 1945 at 5:29:45 a.m., Mountain War Time.

518 // ØaRecorded…

520
SUMMARY NOTE

MARC Tag (Field Name):

520   Summary, abstract, scope note   a   Summary note

Indicators: First   No display constant   8
                                        Display constant 'Subject:'   0
                                        Display constant 'Summary:'   Blank

                         Second   Undefined   Blank

Note: First indicator can generally be set to 8.

Punctuation/Spacing:

A period or other ending mark of punctuation is always at the end of this field.

Data Conventions/Comments:

This field contains a succinct objective summary note describing the image. A summary
note is not required and should be used only to enrich information available to the
researcher by viewing the electronic file or reading the bibliographic record. It is not
necessary to add a summary description to each bibliographic record, but this note can be
added when textual description will enhance understanding of the material.

520

Examples:

Commissary at Los Alamos Scientific Laboratory, N.M.
Used to clarify title: Store with meat market.

Plutonium buttons stored at Los Alamos Scientific Laboratory.
Used to clarify title: Apparatus in "D" bldg.

Herb Lehr carrying the assembled bomb core in a shock-proof case at McDonald Ranch.
Used to clarify title: Active material.

520 8/ ØaCommissary at Los Alamos Scientific Laboratory, N.M.
Used to clarify title: Store with meat market.

520 8/ ØaPlutonium buttons stored at Los Alamos Scientific Laboratory.
Used to clarify title: Apparatus in "D" bldg.

520 8/ ØaHerb Lehr carrying the assembled bomb core in a shock-proof case at
McDonald Ranch.
Used to clarify title: Active material.

530
ADDITIONAL PHYSICAL FORM AVAILABLE NOTE

MARC Tag (Field Name):

530	Additional physical form note	a	Note
		b	Availability source
		c	Availability conditions
		d	Order number

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

A period or other ending mark of punctuation is always at the end of this field.

Data Conventions/Comments:

This field can be used optionally to refer to surrogates of the material, including other formats like microfilm, reference copies, and digital images.

Examples:

Reference copy available...

Use electronic surrogate.

530 // ØaReference copy available...

530 // ØaUse electronic surrogate.

530

533
REPRODUCTION NOTE

MARC Tag (Field Name):

533	Reproduction note	a	Type of reproduction
		b	Place of reproduction
		c	Responsible agency
		d	Date of reproduction
		e	Physical description of repro.
		f	Series statement of repro.
		m	Date of issues reproduced
		n	Note about reproduction
		7	Fixed length elements

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

A period or other ending mark of punctuation is always at the end of this field. If use of the subfield 7 (fixed-length elements) is implemented, the period of ending mark of punctuation precedes the Ø7. Place of reproduction is separated by the name of the responsible agency with a 'space, colon, space.' The series statement can be enclosed in parentheses.

Data Conventions/Comments:

This field describes a reproduction of original material when the original item is described in the main body of the bibliographic record. Do not use this field when describing images that have not been reformatted for the DVL. This field has generally been used for reproductions of serials, most commonly for reproductive microforms, but use could be implemented in other instances.

The subfield n (Note about reproduction) can be repeated if more than one note is necessary to convey details about the reproduction process.

The fixed-length data element (subfield 7) is composed of 15 character positions that describe elements about the reproduction that correspond to those contained in the 008 field for the original material (including type of date, dates 1 and 2, place of publication, frequency, regularity, and form of item). Frequency and regularity relate to serials cataloging. If incorporated into the DVL, an example of subfield coding is: **s2000////xxun/s** (representing single date, reproduced in year 2000, no second date, reproduced in the U.S., frequency and regularity not applicable, electronic form of item).

This subfield information may also be located in other fields, and may not be implemented in the DVL.

Additional MARC fields identified that may contain information about electronic reproductions include the 583 field (Action note) and the 856 field (Electronic location and access).

Refer to the Research Libraries Group's Working Group on Preservation Issues of Metadata. Appendix 2. Preservation-Related Metadata Recorded in USMARC Records (http://www.rlg.org/preserv/metaapp2.html) for options of using field 533 for digital version information. RLG initially supported the implementation of both the 533 and the 583 to record preservation-related metadata within the MARC record. Since that time, there has been greater support for the use of the 583 field for this information. Determinations about which field to use and the manner in which the field would be implemented remain in flux. An example of possible implementation based on the RLG documentation for electronic reproductions is included here.

Examples:

Computer file. 1999 Feb. 21 Fort Belvoir, VA : Defense Technical Information Center, 10 May 2000. Physical description of reproduction. DTIC reformatted electronic file. s2000////xxun/s

533 // ØaComputer file.Øm1999 Feb. 21ØbFort Belvoir, VA :ØcDefense Technical Information Center,Ød10 May 2000.Øephysical description of repro.ØnDTIC reformatted electronic file.Ø7s2000////xxun/s

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533

535
LOCATION OF ORIGINALS/DUPLICATES NOTE

MARC Tag (Field Name):

535 Location of originals/duplicates note a Custodian
                        b Postal address
                        c Country
                        d Telecommunication address
                        3 Materials specified

Indicators: First   Custodian: holder of originals 1
                  Custodian: holder of duplicates 2

          Second   Undefined   Blank

Punctuation/Spacing:

A period or other ending mark of punctuation is always at the end of this field. Optionally, separate data between subfields with a semicolon.

Data Conventions/Comments:

This field names the holding institution that has custody over the original or duplicate material described in the record. Use this field only when the material is located in a repository that is different from the institution described in the bibliographic record. This field can be used in conjunction with the 562 field (Copy and version identification note) to convey information about the institution that has the original material.

Examples:

Duplicate photograph Smithsonian Institution; Washington, D.C. USA; 202-020-2020

535 2/ Ø3Duplicate photographØaSmithsonian Institution;ØbWashington, D.C.;ØcUSA;Ød202-020-2020

535

540
TERMS GOVERNING USE & REPRODUCTION NOTE

MARC Tag (Field Name):

540   Terms governing use & repro.   a   Terms
                                                             b   Jurisdiction
                                                             c   Authorization
                                                             d   Authorized users

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

A period or other ending mark of punctuation is always at the end of this field.

Data Conventions/Comments:

This field contains a general statement describing terms governing use and reproduction after access has been provided. This statement is usually constructed with assistance from the holding institution, and could be defaulted in every record associated with a single collection.

It may be possible to incorporate use of this field into the records to describe terms of use and reproduction that relate to the electronic item as well as the original material. These terms could include information about authorized groups and access rights for use and reproduction of the digitized image file.

The examples that follow include some possible notes related to copyrighted materials. DVL will follow departmental policies concerning copyrighted materials. If DVL material has copyright restrictions, information about restrictions on use and reproduction can be contained in this field. Optionally, broader information related to copyright can be included in a separate web page that explains restrictions on use and users' responsibilities.

Examples:

Credit line: Los Alamos National Laboratory, N.M.; no reproduction restrictions.

Credit line: Office of the Chief of Naval Operations, Washington, DC; reproduction prohibited.

May be restricted: Information on reproduction rights available at…

No reproduction restrictions known.

Reproduction rights may be restricted through copyright.

Copyright owned by…

Duplication not permitted.

Permission required to cite, quote, and reproduce; contact repository for information.

Restrictions: It is unlawful to download, copy, print or utilize in any other form this material without written consent from the copyright holder.

540 // ØaCredit line: Los Alamos National Laboratory, N.M.; no reproduction restrictions.

540 // ØaCredit line: Office of the Chief of Naval Operations, Washington, DC; reproduction prohibited.

540 // ØaMay be restricted: Information on reproduction rights available at…

540 // ØaNo reproduction restrictions known.

540 // ØaReproduction rights may be restricted through copyright.

540 // ØaCopyright owned by …

540 // ØaDuplication not permitted.

540 // ØaPermission required to cite, quote, and reproduce; contact repository for information.

540 // ØaRestrictions: It is unlawful to download, copy, print or utilize in any other form this material without written consent from the copyright holder.

541
IMMEDIATE SOURCE OF ACQUISITION NOTE

MARC Tag (Field Name):

541   Immediate source of acquisition   c   Method of acquisition
                                                   a   Source of acquisition
                                                   d   Date of acquisition
                                                   e   Accession number

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

A period or other ending mark of punctuation is always at the end of this field. A
semicolon separates each subfield.

Data Conventions/Comments:

This field contains information about the source of acquisition of this material by the
holding institution. This information is generally included in the accession record. To
date, use of this field has not been implemented since this information has not been
relevant to the materials currently contained in the DVL.

Examples:

Gift; John Smith; 1943.

541 // ØcGift; ØaJohn Smith;Ød1943.

545
BIOGRAPHICAL OR HISTORICAL NOTE

MARC Tag (Field Name):

545   Biographical or historical note   a   Note

Indicators: First   Type of data   Blank   No information provided

        Second   Undefined   Blank

Punctuation/Spacing:

A period or other ending mark of punctuation is always at the end of this field.

Data Conventions/Comments:

This field contains a brief history related to the organization that created the image, or biographical information about the creator. This note should relate biographical or historical information about the main entry. It is not required, but can be used to place creation of the image in context. This field will not commonly be used to catalog images in the DVL. It is generally used in collection level records.

The Trinity Project used this field to incorporate notes aiding in the interpretation of the image, providing historical information about image content and context. The note was used to enrich understanding of what the image is 'about.'

Examples:

McDonald Ranch was used for the final assembly of the active material in creating the first atomic bomb.
Trinity Project example.

The Detroit Photographic Company began as a photographic publishing firm in the late 1890s. The founders, Detroit businessman and publisher William A. Livingston, Jr., and photographer and photopublisher Edwin H. Husher, obtained the exclusive rights to use the Swiss color photolithography "Photochrom" process. This process permitted the mass production of color postcards, prints, and albums for sale to the American market. In 1897 William Henry Jackson became a partner in the firm, adding thousands of negatives to the inventory. The company became known as the Detroit Publishing Company in 1905. It was one of the largest American publishers of postcards and photographic views during the early decades of the twentieth century. The Detroit Publishing Company went into receivership in 1924, and liquidated its assets in 1932.
LC P&P example.

545 // ØaMcDonald Ranch was used for the final assembly of the active material in creating the first atomic bomb.
Trinity Project example.

545 // ØaThe Detroit Photographic Company began as a photographic publishing firm in the late 1890s. The founders, Detroit businessman and publisher William A. Livingston, Jr., and photographer and photopublisher Edwin H. Husher, obtained the exclusive rights to use the Swiss color photolithography "Photochrom" process. This process permitted the mass production of color postcards, prints, and albums for sale to the American market. In 1897 William Henry Jackson became a partner in the firm, adding thousands of negatives to the inventory. The company became known as the Detroit Publishing Company in 1905. It was one of the largest American publishers of postcards and photographic views during the early decades of the twentieth century. The Detroit Publishing Company went into receivership in 1924, and liquidated its assets in 1932.
LC P&P example.

555
CUMULATIVE INDEX/FINDING AIDS NOTE

MARC Tag (Field Name):

555   Cumulative index/finding aids note   a   Note

Indicators: First   No display constant generated   8

                   Second   Undefined   Blank

Punctuation/Spacing:

A period or other ending mark of punctuation is always at the end of this field.

Data Conventions/Comments:

This field contains information identifying indexes and finding aids available that focus
on the described collection. It is used in collection level cataloging only. This field
describes details about the level of control the index or finding aid provides.

Examples:

Unpublished guide.

Name index available.

Detailed information is available through the in-house automated catalog.

555 // ØaUnpublished guide.

555 // ØaName index available.

555 // ØaDetailed information is available through the in-house automated catalog.

555

562
COPY AND VERSION IDENTIFICATION NOTE

MARC Tag (Field Name):

562	Copy and version identification note	a	Identifying markings
		b	Copy identification
		c	Version identification
		d	Presentation format
		3	Materials specified

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

A period or other ending mark of punctuation is always at the end of this field.

Data Conventions/Comments:

This field is used to distinguish between copies of materials when more than one copy or version exists. It is used in cases where edition or version information is supplied by the cataloger. Use the 250 field (Edition statement) in instances where this information is transcribed directly from the primary source of information. This field can be used in conjunction with the 535 field (Location of originals/duplicates note) to provide information about both the original and the copy.

There is a possibility that use of this field might be implemented for information about electronic versions of images. Currently, enter information about digitized versions created as part of DVL in the 533 field, 583 field (Actions note) or the 856 field (Electronic location and access).

Examples:

The guidelines for this field do not currently include any examples.

580
LINKING ENTRY COMPLEXITY NOTE

MARC Tag (Field Name):

580   Linking entry complexity note   a   Note

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

A period or other ending mark of punctuation is always at the end of this field.

Data Conventions/Comments:

This field is used to express the relationship between the item described in the bibliographic record and other related records. It is used at the subunit or item level to relate to the collection record.

This field can also used in conjunction with linking entry fields to explain the link between related items in cases where this linkage cannot be expressed solely with the 787 field. For example, a linkage between an image and a related written report can be further detailed by using the this field in conjunction with the 787 field (nonspecific relationship entry), although use of the 580 has not been required or implemented to date. It is possible that future electronic linkage to related items will utilize the 856 field.

Examples:

Forms part of the XYZ collection.

Accompanies: Defense Technical Information Center technical report titled, "Look and Feel: Haptic Interaction for Biomedicine" (AD-A286 984).

580 // ØaForms part of the XYZ collection.

580 // ØaAccompanies: Defense Technical Information Center technical report titled, "Look and Feel: Haptic Interaction for Biomedicine" (AD-A286 984).

581
PUBLICATIONS NOTE

<u>MARC Tag (Field Name):</u>

581   Publications Note   a   Note

<u>Indicators:</u>   <u>First</u>   No display constant generated   8

                         <u>Second</u>   Undefined   Blank

<u>Punctuation/Spacing:</u>

A period or other ending mark of punctuation is always at the end of this field. Follow the
format supplied in the *Chicago Manual of Style* (for example: Published in: Title /
Author. Place of publication : Publisher, Date, p. #).

<u>Data Conventions/Comments:</u>

Use this field to cite a publication in which an image was subsequently published.
Citations can be provided for sources that use the image to illustrate a text or support a
thesis. Use the introductory expression "Published in:" to cite sources where the image
appears; use the introductory expression "Discussed in:" to cite sources where the image
was discussed.[10] List all relevant pages in the citation.

Note: In cases where the source cited refers to a checklist or catalog, MARC field 510
may be used.

For additional information related to the use of this field, see *Graphic Materials* (5B12),
Archives, Personal Papers, and Manuscripts (1.7B14.), and *Anglo-American Cataloging
Rules*, 2nd edition (1.7A4.).

<u>Examples:</u>

Published in: Los Alamos: Beginning of an Era. Los Alamos, New Mexico : Los Alamos
Historical Society, 1986, p. 30.

581 8/ ØaPublished in: Los Alamos: Beginning of an Era. Los Alamos, New Mexico :
Los Alamos Historical Society, 1986, p. 30.

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[10] For the Trinity Project, this field was implemented for administrative purposes only and is not expected
to display online.

<div align="center">581</div>

583
ACTION NOTE

MARC Tag (Field Name):

583	Action note	a	Action note
		b	Action identification
		c	Time/date of action
		d	Action interval
		f	Authorization
		i	Method of action
		j	Site of action
		k	Action agent
		l	Status
		x	Nonpublic note
		z	Public note

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

This field does not end with a mark of punctuation unless the ending word of the field contains a mark of punctuation. Optionally, separate data between subfields with a semicolon.

Data Conventions/Comments:

This field is used to record information about the status of processing and preservation actions, including processing related to digitization. It can be repeated to describe different actions performed during processing or preservation. This field may contain reformatting information related to electronic actions. This field is for use in cases where the material was reformatted, but not for material where there was no processing or preservation treatment.

Many 583 subfields are repeatable within each field (Øa and Ø3 are two subfields that are not repeatable). Multiple versions are identified with the use of the materials specified subfield, while multiple actions are identified with the use of separate repeated 583 fields.

The subfield a (Action note) can use standard terminology (see http://lcweb.loc.gov/marc/bibliographic/583terms.html). Terms include: reformatted (to be used with Øi or Øl) and will reformat (to be used with Øc and Ød).

The subfields x (Nonpublic note) and z (Public note) can be repeated if more than one note is necessary to convey details about the digitization process.

Additional MARC fields identified that may contain information about electronic reproductions include the 533 field (Reproduction note) and the 856 field (Electronic location and access).

Refer to the Research Libraries Group's Working Group on Preservation Issues of Metadata. Appendix 2. Preservation-Related Metadata Recorded in USMARC Records (http://www.rlg.org/preserv/metaapp2.html) for options of using field 583 for digital version information. An example of possible implementation of this field for electronic reproductions is included here.

Examples:

reformatted; PH250; 20000701; XYZ Imaging; John Q. Scan. Nonpublic note with imaging details. Digitally remastered by DTIC for the Defense Virtual Library.

583 // Øareformatted; ØbPH250; Øc20000701; ØjXYZ Imaging; ØkJohn Q. Scan. ØxNonpublic note with imaging details. ØzDigitally remastered by DTIC for the Defense Virtual Library.

583

600
SUBJECT ADDED ENTRY: PERSONAL NAME

MARC Tag (Field Name):

600	Subject added entry: Personal	a	Personal name
		b	Numeration
		c	Titles
		q	Fuller form of name
		d	Dates
		x	General subdivision
		z	Geographic subdivision

Note: Information in subfields a-q is to be taken directly from online searching of LC files. General subdivisions (subfield x) are supplied in Appendix B of the *Thesaurus for Graphic Materials.*

Indicators:	First	Type of personal name	0	Forename
			1	Surname
			3	Family name
	Second	Subject heading system	0	LC authority
			4	Source not specified
			7	Source in Ø2

Note: When general subdivisions from the *Thesaurus for Graphic Materials* are incorporated into the heading, use a second indicator '4' (source not specified).

Punctuation/Spacing:

Punctuation follows the format provided in the Library of Congress Name Authority File (NAF). When an open-ended life date is at the end of the field, end the field with the hyphen, not a period.

When adding general subdivisions, hyphens are usually system-supplied between the subfields from the name as found in NAF and the subfields for the subdivision.

Data Conventions/Comments:

This field contains a personal name used as a subject indexing term. Use this field to index images whose subject is a person. Search NAF for the proper form of the name and enter the name exactly as it appears.   If the name is not found in NAF, based on the information available it can either be included in this field or recorded in a note field.

It is preferable not to index group portraits with the names of all individuals present if there are more than a few (for example, three). Instead, if it is desirable to list personal

600

names, include full names in the devised title or in a note and use topical index term to describe the entire group.

Examples:

Fermi, Enrico, 1901-1954.

Bethe, Hans Albrecht, 1906- --Homes & haunts--New Mexico--Los Alamos.
For image of Hans Bethe's rooms during stay at Los Alamos during Trinity Project.

Bacher, Robert F. (Robert Fox), 1905-

600 10 ØaFermi, Enrico,Ød1901-1954.

600 14 ØaBethe, Hans Albrecht,Ød1906-ØxHomes & hauntsØzNew MexicoØzLos Alamos.

600 10 ØaBacher, Robert F.Øq(Robert Fox),Ød1905-

610
SUBJECT ADDED ENTRY: CORPORATE NAME

MARC Tag (Field Name):

610	Subject added entry: Corporate	a	Corporate name
		b	Subordinate units
		x	General subdivision
		y	Chronological subdivision
		z	Geographic subdivision

Note: Information in subfields a-b is to be taken directly from online searching of LC files. General subdivisions (subfield x) are supplied in Appendix D of the *Thesaurus for Graphic Materials.*

Indicators:	First	Type of name	0	Inverted name
			1	Jurisdiction name
			2	Name in direct order
	Second	Subject heading system	0	LC authority
			4	Source not specified
			7	Source in Ø2

Note: When general subdivisions from the *Thesaurus for Graphic Materials* or date spans are incorporated into the heading, use a second indicator '4' (source not specified).

Punctuation/Spacing:

Punctuation follows the format provided in the Library of Congress Name Authority File (NAF). Note that corporate names ending with a closing parentheses do not use a period at the end of the line.

When adding general subdivisions from Appendix D of the *Thesaurus for Graphic Materials*, do not insert a comma or period after the corporate name (hyphens between subfields should be system-supplied).

Data Conventions/Comments:

This field contains the name of the corporate body used as a subject indexing term. Use this field to index images whose subject is a corporate name. Search NAF for the proper form of this name, and enter the name exactly as it is found. If the name is not found in NAF, based on the information available it can either be included in this field or recorded in a note field.

This field can be subdivided with a chronological subdivision. For further information on chronological subdivisions, refer to the description in the notes relating to the 650 field. Corporate terms can also be subdivided geographically.

Examples:

United States. Congress. Senate.

Los Alamos Scientific Laboratory--Buildings--New Mexico--Los Alamos--1940-1950.

Manhattan Project (U.S.)--1940-1950.

610 10 ØaUnited States.ØbCongress.ØbSenate.

610 24 ØaLos Alamos Scientific LaboratoryØxBuildingsØzNew MexicoØzLos AlamosØy1940-1950.

610 24 ØaManhattan Project (U.S.)Øy1940-1950.

611
SUBJECT ADDED ENTRY: MEEETING NAME

MARC Tag (Field Name):

611   Subject added entry: Meeting   a   Meeting name

	a	Meeting name
	n	Number of meeting
	d	Date of meeting
	c	Location of meeting
	e	Subordinate unit
	x	General subdivision

Indicators: First   Type of meeting name

	0	Inverted name
	1	Jurisdiction name
	2	Name in direct order

Second   Subject heading system

	0	LC authority
	4	Source not specified
	7	Source in Ø2

Punctuation/Spacing:

Punctuation follows the format provided in the Library of Congress Name Authority File.

Data Conventions/Comments:

This field contains a meeting name as a subject of the image. Search the Library of Congress Name Authority File (NAF) for the proper form of this name, and enter the name exactly as it is found. If the name is not found in NAF, based on the information available it can either be included in this field or recorded in a note field.

Examples:

Olympic Games (23rd : 1984 : Los Angeles, Calif.)

611 20 ØaOlympic GamesØn(23rd :Ød1984 :ØcLos Angeles, Calif.)

630
SUBJECT ADDED ENTRY: UNIFORM TITLE

MARC Tag (Field Name):

630   Subject added entry: Uniform title   a   Uniform title

Indicators: First   Nonfiling characters   0-9

               Second   Subject heading system   0   LC authority
                                                        4   Source not specified
                                                        7   Source in Ø2

Note: The first indicator is for nonfiling characters. This number can range from 0 to 9,
based on the number of characters in the initial article/s to ignore (for example, if a title
begins with 'The,' nonfiling characters would be 4, representing 3 characters of the word
and the additional space before the next word).

Punctuation/Spacing:

Punctuation follows the format provided in the Library of Congress Name Authority File
(NAF).

Data Conventions/Comments:

This field contains titles of songs, comic strips, movies, radio programs, motion pictures
and television programs as a subject. Search NAF for the proper form of this name, and
enter the name exactly as it is found. If the name is not found in NAF, based on the
information available it can either be included in this field or recorded in a note field.

Examples:

Yankee Doodle (Song)

630 00 ØaYankee Doodle (Song)

650
SUBJECT ADDED ENTRY: TOPICAL TERM

MARC Tag (Field Name):

650	Subject added entry: Topical	a	Topical term
		x	General subdivision
		y	Chronological subdivision
		z	Geographical subdivision
		2	Source of heading

Note: Information in subfields a is to be taken directly from online searching of LC files. General subdivisions (subfield x) are supplied in Appendix A and B of the *Thesaurus for Graphic Materials.*

Indicators:	First	Level of subject	Blank	No information provided
	Second	Subject heading system	0	LCSH
			4	Source not specified
			7	Source in Ø2

Note: When general subdivisions from the *Thesaurus for Graphic Materials* or date spans are incorporated into the heading, use a second indicator '4' (source not specified).

Punctuation/Spacing:

A period or ending mark of parentheses is at the end of this field. Subfields are separated by system-supplied hyphens. If subfield 2 is the last subfield entered, the mark of punctuation or closing parentheses precedes the subfield, system-supplied hyphens do not precede the subfield 2, and there is no ending mark of punctuation following the subfield 2.

Data Conventions/Comments:

Select topical terms that describe the subject/s of the image. If there is a summary note, all indexing terms selected should relate to the description in the summary note (520) or title (245); however, not all concepts expressed in the summary note need to have corresponding index terms. It is also appropriate to index subjects when no summary note (520) is used in the bibliographic record.

When possible, index terms should be selected from the *Thesaurus for Graphic Materials* (TGM), accessible online through the Library of Congress. Proper noun subjects should be selected from *Library of Congress Subject Headings* (LCSH) accessible online through the Library of Congress Name Authority File (NAF). Names of wars are an example of proper noun subjects used in this field. If the most appropriate index term is found in LCSH, but does not appear in TGM, that term can be submitted to the Library of

650

Congress Prints and Photographs Division (Processing Section). Proposed headings are evaluated by staff and when accepted are added to TGM. If the appropriate term is found in another source (like the *Defense Technical Information Center Thesaurus*) or has been created as part of the DVL, that term can also be proposed to the Library of Congress Prints and Photographs Division (Processing Section) for inclusion inTGM.

TGM is available at: http://lcweb.loc.gov/rr/print/cataloging.html

It is not necessary to include topical subject headings in every catalog record. When topical subject headings are used, they may use one or more indexing terms without any subdivisions, or they may incorporate subdivisions for general, geographical, and/or chronological categories.

General subdivisions can be taken from the appropriate appendix in TGM. Appendix A contains general subdivisions for groups and classes of people. Appendix B contains general subdivisions used with the names of wars.

Geographical subdivisions provide a hierarchical description of the location depicted in the image. Use standard geographic place names as found in Library of Congress Name Authority Files (NAF) or follow standard patterns for creating such names. An example of a heading not found in NAF, but used as a geographical subdivision in the Trinity Project is the term 'Trinity Site.'

Chronological subdivisions provide a date range for the date depicted in the image. Use span dates for the chronological subdivision (rounded to the nearest decade span) unless the date is a single year ending in zero (for example, 1940).

If the date is listed in the date field (260) as 1945, enter the date span as a chronological subdivision as 1940-1950.
If the date is listed in the date field (260) as [between 1943 and 1945; reproduction 1979], enter the date span as a chronological subdivision as 1940-1950.
If the date is listed in the date field (260) as [between 1941 and 1965], enter the date span as a chronological subdivision as 1940-1970.
If the date is listed in the date field (260) as [ca. 1940], enter the date as a chronological subdivision as 1930-1950.
If the date is listed in the date field (260) as 1950, enter the date as a chronological subdivision as 1950.

If the appropriate term is not found in specified standardized sources, that term can be entered in the 650 with the second indicator set to indicate the source of the term. Optionally, the term can be entered in the 653 field (uncontrolled index term) instead.

When using headings that are not from LCSH, cite the source in subfield 2, and set the indicator to 7 to show that the subject heading system is specified. Use the subfield 2 when using terms from the *Thesaurus for Graphic Materials* or the *Art and Architecture Thesaurus*. Enter the code 'lctgm' for TGM terms or 'aat' for AAT terms. If the

650

cataloging source is not specified and is not LCSH (possibly when using DTIC thesaurus terms), change the indicator to 4.

Examples:

Atomic bombs--New Mexico--1940-1950. lctgm
This is an example of a term that was not in TGM, but was listed in LCSH. DVL's proposal to add the term to TGM has been accepted.

Ordnance testing--American--New Mexico--Trinity Site--1940-1950. lctgm

Living rooms--New Mexico--Los Alamos--1940-1950. lctgm

Housing--New Mexico--Los Alamos--1940-1950. lctgm

World War, 1939-1945--Military life—American--New Mexico--Los Alamos.

Afro-Americans--Military service--1940-1950.

650   /7 ØaAtomic bombsØzNew MexicoØy1940-1950.Ø2lctgm
This is an example of a term that was not in TGM, but was listed in LCSH. DVL's proposal to add the term to TGM has been accepted.

650   /7 ØaOrdnance testingØxAmericanØzNew MexicoØzTrinity SiteØy1940-1950.Ø2lctgm

650   /7 ØaLiving roomsØzNew MexicoØzLos AlamosØy1940-1950.Ø2lctgm

650   /7 ØaHousingØzNew MexicoØzLos AlamosØy1940-1950.Ø2lctgm

650   /4 ØaWorld War, 1939-1945ØxMilitary lifeØxAmericanØzNew MexicoØzLos Alamos.

650   /4 ØaAfro-AmericansØxMilitary serviceØy1940-1950.

651
SUBJECT ADDED ENTRY: GEOGRAPHIC NAME

MARC Tag (Field Name):

651	Subject added entry: Geographic	a	Topical term
		x	General subdivision
		y	Chronological subdivision

Note: Information in subfields a is to be taken directly from online searching of LC files. General subdivisions for names of wars (subfield x) are supplied in Appendix D of the *Thesaurus for Graphic Materials.*

Indicators: First   Undefined   Blank

	Second	Subject heading system	0	LC authority
			4	Source not specified
			7	Source in Ø2

Punctuation/Spacing:

A period or other ending mark of punctuation is always at the end of this field. Subfields are separated by system-supplied hyphens. If the field ends with closing parentheses, do not add a period following the closing parentheses.

Data Conventions/Comments:

This field contains a geographic name used as an indexing term. Use this field only if the image show the geographic location specifically or is 'about' that locale. Search the Library of Congress Name Authority File (NAF) for the proper form of the name and enter it exactly as it is found.

Most entries using this field will use only the subfield a and y. The additional subfields are used in some ambiguous geographic headings, like the names of some wars, military parks, and forts.

Examples:

United States--History--Civil War, 1861-1865--Military life.

Los Alamos (N.M.)

651 /4 ØaUnited StatesØxHistoryØyCivil War, 1861-1865ØxMilitary life.

651 /4 ØaLos Alamos (N.M.)

651

653
SUBJECT ADDED ENTRY: UNCONTROLLED INDEX TERM

MARC Tag (Field Name):

653   Subject Added Entry: Uncontrolled   a   Index term

Indicators: First   Level of index term   Blank   No information provided

                Second   Undefined   Blank

Punctuation/Spacing:

The field does not end with a mark of punctuation unless the punctuation is part of the data.

Data Conventions/Comments:

This field contains index terms that are not derived from a controlled subject heading system or thesaurus. For the DVL, this field can be used to list the bucket terms in consideration for display purposes or for exhibit pages (for example, it can be used to group files related to one theme into a group). The subfield a can be repeated when more than one index term is assigned.

Examples:

Lifestyles

Explosions

653 // ØaLifestylesØaExplosions

655
SUBJECT ADDED ENTRY: FORM/GENRE

MARC Tag (Field Name):

655	Subject added entry: Form/Genre	a	Form/Genre
		v	Form subdivision
		x	General subdivision
		y	Chronological subdivision
		2	Source of term

Indicators: First   Type of heading   Blank   Basic

                Second   Source specified in subfield 2   7

Punctuation/Spacing:

A period is always at the end of this field. Each subfield should be separated by system-supplied hyphens.

Data Conventions/Comments:

Form and genre terms can be used to describe characteristics of the image. Subject headings can be used from the *Thesaurus for Graphic Materials* (TGMII) or from the *Art and Architecture Thesaurus* (AAT) as appropriate. To date, the DVL uses form and genre terms selected from TGMII.

TGMII is available online at: http://lcweb.loc.gov/rr/print/cataloging.html
The AAT is available online at: http://www.ahip.getty.edu/aat_browser

Subject headings are assigned to index genre terminology in this field. Subject headings can be assigned for the physical form of the image being described (for example, indexing with the term albumen print or photographic print), but for DVL images in the Trinity Project, the use of access points for physical characteristics has not been implemented.

When appropriate, subdivide the heading with a general subdivision (subfield x) indicating 'Color.'

When using TGMII headings, set the indicator to 7 to show that the subject heading system is specified. Use the subfield 2 when using terms from the *Thesaurus for Graphic Materials* or the *Art and Architecture Thesaurus*. Enter the code 'gmgpc' for TGMII terms and 'aat' for AAT terms.

655

Examples:

Infared photographs--1940-1950. gmgpc

Portrait photographs--1940-1950. gmgpc

Aerial photographs--1940-1950. gmgpc

Group portraits--1940-1960. gmgpc

655 /7 ØaInfared photographsØy1940-1950.Ø2gmgpc

655 /7 ØaPortrait photographsØy1940-1950.Ø2gmgpc

655 /7 ØaAerial photographsØy1940-1950.Ø2gmgpc

655 /7 ØaGroup portraitsØy1940-1950.Ø2gmgpc

700
ADDED ENTRY: PERSONAL NAME

MARC Tag (Field Name):

700	Added entry: Personal Name	a		Personal name
		b		Numeration
		c		Titles
		q		Fuller form of name
		d		Dates
		e		Relator term

Indicators:	First	Type of personal name	0		Forename
			1		Surname
			3		Family name
	Second	Type of added entry	Blank		No information provided

Punctuation/Spacing:

Enter data exactly as it appears in the Library of Congress Name Authority Files (NAF).
A comma follows personal name data except when preceding a fuller form of the name in
parentheses. A comma follows the fuller form of the name supplied in parentheses. A
period comes at the end of the field. In the case where a life date is open-ended, do not
add any punctuation.

Data Conventions/Comments:

Personal name added entries are provided for persons having a role in the creation of the
image. Search NAF for the accepted style of entry for each name, and enter data exactly
as it is found. This field may be repeated.

Relator terms can be added to the end of the field to indicate the person's relationship to
the image or project. Relator terms that may be used in the DVL include the following:
artist, engineer, funder/sponsor, photographer, and publisher. Funder/sponsor is used to
name the person that issued the contract and/or furnished financial support for the
production of the work. Do not add a relator term if the role in creation is unclear.[11]

If a name is not found in NAF, based on the information available the name can either be
included in this field or recorded in a note field.

---

[11] DVL uses the subfield e to clearly name the relationship between the name and the work. Another option
is to use subfield 4 with relator codes like art (artist), pht (photographer), and pbl (publisher). A code list of
relator terms is maintained by the Library of Congress and is available at http://lcweb.loc.gov/marc.

700

Examples:

Brixner, Berlin, b. 1910, photographer.

700 1/ ØaBrixner, Berlin,Ødb. 1910,Øephotographer.

710
ADDED ENTRY: CORPORATE NAME

MARC Tag (Field Name):

710	Added entry: Corporate Name	a	Corporate name
		b	Subordinate units
		e	Relator terms

Indicators: First   Type of corporate name   0   Inverted name
                                              1   Jurisdiction name
                                              2   Name in direct order

            Second   Type of added entry   Blank   No information provided

Punctuation/Spacing:

This field ends with a period or other mark of punctuation. A comma precedes the relator term; otherwise follow the same form of name listed in the Library of Congress Name Authority File (NAF).

Data Conventions/Comments:

This field contains names of corporate bodies directly responsible for the image or project. Search NAF for the accepted style of entry for each name, and enter data exactly as it is found This field may be repeated. If the name is not found in NAF, based on the information available the name can either be included in this field or recorded in a note field.

Relator terms can be added to the end of the field to indicate the corporate relationship to the image or project. Relator terms that may be used in the DVL include the following: artist, engineer, funder/sponsor, photographer, and publisher. Funder/sponsor is used to name the person that issued the contract and/or furnished financial support for the production of the work. Do not add a relator term if the role in creation is unclear.[12]

---

[12] DVL uses the subfield e to clearly name the relationship between the name and the work. Another option is to use subfield 4 with relator codes like art (artist), pht (photographer), and pbl (publisher). A code list of relator terms is maintained by the Library of Congress and is available at http://lcweb.loc.gov/marc.

710

Examples:

Los Alamos Scientific Laboratory, funder/sponsor.
Note: Use this heading only when the photographer is known to have worked for LASL.

United States. Army, funder/sponsor.

710 2/ ØaLos Alamos Scientific Laboratory,Øefunder/sponsor.
Note: Use this heading only when the photographer is known to have worked for LASL.

710 1/ ØaUnited States.ØbArmy,Øefunder/sponsor.

711
ADDED ENTRY: MEETING NAME

MARC Tag (Field Name):

711	Added entry: Meeting name	a	Meeting name
		n	Number of meeting
		d	Date of meeting
		c	Location of meeting
		e	Subordinate unit

Indicators:	First	Type of meeting name	0	Inverted name
			1	Jurisdiction name
			2	Name in direct order

| | Second | Type of added entry | Blank | No information provided |

Punctuation/Spacing:

A period or other ending mark of punctuation is at the end of this field, unless the field ends with a closing parentheses.

Data Conventions/Comments:

This field contains a meeting or conference name used as an added entry.   Examples include such meetings are exhibitions, expeditions, festivals, and seminars. Search the Library of Congress Name Authority File (NAF) for the accepted style of entry for each name, and enter data exactly as it is found. If the name is not found in NAF, based on the information available it can either be included in this field or recorded in a note field.

Examples:

Century of Progress International Exposition (1933-1934 : Chicago, Ill.)

711 21 ØaCentury of Progress International ExpositionØd(1933-1934 :ØcChicago, Ill.)

711

730
ADDED ENTRY: UNIFORM TITLE

MARC Tag (Field Name):

730	Added entry: Uniform title	a	Uniform title
		d	Date of treaty
		f	Date of work

Indicators: First   Nonfiling characters   0-9

               Second   Type of added entry   Blank   No information provided

Note: The first indicator is for nonfiling characters. This number can range from 0 to 9, based on the number of characters in the initial article/s to ignore (for example, if a title begins with 'The,' nonfiling characters would be 4, representing 3 characters of the word and the additional space before the next word).

Punctuation/Spacing:

A period or other ending mark of punctuation is the end of this field, unless the field ends with a closing parentheses.

Data Conventions/Comments:

This field contains an added entry for a version of the title that is a uniform title. Use this field to convey uniform title information that is not entered as part of the main entry in the 130 or uniform title in the 240. This field can also be used for added entries for radio and television programs, motion pictures, songs, and anonymous works.

Examples:

The guidelines for this field do not currently include any examples.

740
ADDED ENTRY: UNCONTROLLED RELATED/ANALYTICAL TITLE

MARC Tag (Field Name):

740	Uncontrolled related analytical title	a	Title
		n	Number
		p	Name

Indicators:	First	Nonfiling characters	0-9	
	Second	Type of added entry	Blank	No information provided

Note: The first indicator is for nonfiling characters. This number can range from 0 to 9, based on the number of characters in the initial article/s to ignore (for example, if a title begins with 'The,' nonfiling characters would be 4, representing 3 characters of the word and the additional space before the next word).

Punctuation/Spacing:

A period or other ending mark of punctuation is the end of this field, unless the field ends with a closing parentheses.

Data Conventions/Comments:

This field contains a title that varies from the title listed in the 245 (title) field. Use the 246 (variant title) field for varying forms of the title, the 730 (uniform title) field for added uniform titles, and the 740 field for uncontrolled titles. The field is not anticipated to be used with any regularity in the DVL.

Examples:

The guidelines for this field do not currently include any examples.

752
ADDED ENTRY: HIERARCHICAL PLACE NAME

MARC Tag (Field Name):

752	Hierarchical place name	a	Country
		b	State, province, etc.
		c	County, region, etc.
		d	City

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

A period or other ending mark of punctuation is always at the end of this field. There is no punctuation between subfields.

Data Conventions/Comments:

This field contains the hierarchical form of geographic names. Originally used by rare book catalogers to refer to place of publication or printing, the field has more recently been used in visual image cataloging. For example, cataloging of the Gottscho-Schleisner Collection of photographs at the Library of Congress implemented use of this field. Use of this field has not been implemented in DVL.

Examples:

United States--New Mexico--Los Alamos.

752 // ØaUnited StatesØbNew MexicoØdLos Alamos.

773
HOST ITEM ENTRY

MARC Tag (Field Name):

| 773 | Host Item Entry | t | Title |
| | | w | Control number |

Indicators: First   Note controller   0   Display note

              Second   Display constant controller   8   No display constant generated

Punctuation/Spacing:

There is no closing mark of punctuation in this field.

Data Conventions/Comments:

This field is used in component part for subunit records to refer to the 'host,' creating linkage between these various levels. Using the subfields referring to collection level title and collection level record control number creates a textual and numerical link between component parts. It is used at the subunit or item level to relate to the collection level record.

Examples:

Gottscho-Schleisner Collection (Library of Congress) (DLC) 85861312

773 0/ ØtGottscho-Schleisner Collection (Library of Congress)Øw(DLC) 85861312

787
NONSPECIFIC RELATIONSHIP ENTRY

MARC Tag (Field Name):

787	Nonspecific relationship entry	i	Display text
		n	Note
		o	Other item identifier
		t	Title
		w	Record control number

Indicators: First   Note controller   0   Display note

                      Second   Display constant controller   8   No display constant generated

Punctuation/Spacing:

This field does not end with a mark of punctuation unless the ending word of the field contains a mark of punctuation.

Data Conventions/Comments:

This field provides information about related materials. It can be used in conjunction with the 580 field (linking entry complexity note) when additional detail is required to define the relationship. For example, the field is used to express the linkage between DTIC videorecordings and the related technical report. It is possible that future electronic linkage to technical reports will utilize the 856 field. The field can include a record control number to provide linkage to a system control number, but use of the subfield w has not yet been implemented.

Examples:

Accompanies: Defense Technical Information Center technical report AD-A286 984
Look and Feel: Haptic Interaction for Biomedicine 00000978
The record control number has been fabricated for this example.

787 08 ØiAccompanies:Øn Defense Technical Information Center technical report
ØoAD-A286 984ØtLook and Feel: Haptic Interaction for BiomedicineØw00000978
The record control number has been fabricated for this example.

852
LOCATION

MARC Tag (Field Name):

852	Location		a	Location
			b	Sublocation
			e	Address
			n	Country

Indicators: First   Shelving scheme   Blank   No information provided

                Second   Shelving order   Blank   No information provided

Punctuation/Spacing:

There is no closing mark of punctuation in this field.

Data Conventions/Comments:

This field contains information about the location of the material. This includes the name and address of the institution that holds the item or provides access to it. These holding institutions may have the original material used to create the digital image file or the digital image file itself. The data in this field can be defaulted into every record from a particular holding institution.

Examples:

Los Alamos National Laboratory, Los Alamos, N.M. 87545 USA

852 // ØaLos Alamos National Laboratory,ØeLos Alamos, N.M. 87545ØnUSA

856
ELECTRONIC LOCATION & ACCESS

MARC Tag (Field Name):

856	Electronic location & access	a	Host name
		c	Compression info.
		d	Path
		f	Electronic name
		j	Bits per second
		n	Name of host
		q	Electronic format type
		s	File size
		u	Uniform Resource Identifier
		x	Nonpublic note
		z	Public note
		2	Access method
		3	Materials specified

Indicators:	First	Access method	0	Email
			1	FTP
			3	Dial-up
			4	HTTP
			7	Method specified in Ø2
	Second	Relationship	0	Resource
			1	Version of resource

Note: When the first indicator is coded with a '0' the display constant *Electronic resource:* may be generated by the system; when the second indicator is coded with a '1' the display constant *Electronic version:* may be generated by the system.

Punctuation/Spacing:

There is no closing mark of punctuation in this field.

Data Conventions/Comments:

This field contains information required to identify, locate and retrieve an electronic item. These guidelines document current usage of naming conventions, subfield selection, and field format. As metadata requirements for long-term preservation and access to digital material are refined, the use of this field will be revised.

Subfield a (host name) is http:dvl.dtic.mil.

Subfield f contains the electronic file name. The Los Alamos National Laboratory assigned electronic file names for photographs in the Trinity Project during scanning. DVL file names used in the Trinity Project use these LANL identification numbers followed by the extension representing the digital format (i.e., 00164.gif or tr0277.jpg). Electronic file names could also use the handle as the root of the identification number, followed by the extension representing the digital format (i.e., PH33.gif or PH53.jpg). The file name may or may not include a file extension. Some current cataloging has not implemented file name in the subfield f because there have been too many files to enter individually in order to provide the level of reference required to be of use. When it has been used repeatedly within the field, the subfields f and s are paired together so that the file name and corresponding file size directly follow one another (using the order ØfØsØfØs).

Subfield n (name of host) is defaulted to "Defense Technical Information Center, Fort Belvoir, Virginia."

Subfield q can be used to identify the type of resource identified in the subfield u of the 856 (i.e. JPEG or GIF).

Subfield s is used to record file size. DVL practice is to enter file size using kilobytes instead of bytes. Some current cataloging has not implemented file size in the subfield s because there have been too many files to enter individually in order to provide the level of reference required to be of use. When it has been used repeatedly within the field, the subfields f and s are paired together so that the file name and corresponding file size directly follow one another (using the order ØfØsØfØs).

Subfield u contains the Uniform Resource Name, or handle. It begins with the acronym 'hdl:.' The handle in subfield u must be represented with upper case letters. The handle prefix for all photographs is "PH." This is followed by an item identification number, which can incorporate previously assigned numbering or be arbitrary. All photograph handles have used an arbitrarily assigned number (for example, PH2).

Subfield x contains nonpublic notes and can be used for administrative information.

Subfield z (Public note) is intended for public display. Records can use this subfield for textual information about how the user can access the digital image file. This field is repeatable and can be used to communicate information about the file to the user.

Subfield 3 (Materials specified) is used for a textual description of the aspect of the digital image resource that is available.
The standard phrasing for this field includes:

> original
> b&w film copy neg.
> color film copy transparency

856

Information about associated technical reports is provided in the 787 field (Nonspecific relationship entry). The 787 field includes the link to the electronic file for the technical report, but the linkage to this electronic file may be migrated to the 856 field in the future.

Compression information, path, bits per second, and access method are other subfields that may be implemented in future DVL work.

For further information about the use of this field, review *Guidelines for the Use of Field 856* (revised August 1999), prepared by the Network Development and MARC Standards Office, Library of Congress (http://lcweb.loc.gov/marc/856guide.html).

Additional MARC fields identified that may contain information about electronic reproductions include the 533 field (Reproduction note) and the 583 field (Action note).

Examples:

Electronic version:dvl.dtic.mil 03665.gif 03665.jpg Defense Technical Information Center, Fort Belvoir, Virginia hdl:100.1/PH23

856 41 Øadvl.dtic.milØf03665.gifØf03665.jpgØnDefense Technical Information Center, Fort Belvoir, VirginiaØuhdl:100.1/PH23

9XX
EQUIVALENCE AND CROSS-REFERENCE FIELDS

Field Name (MARC Tag):

9XX   Equivalence and cross-reference fields   a   Note

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

None.

Data Conventions/Comments:

Data Conventions/Comments:

9XX fields could be defined to incorporate structural and administrative metadata that does not fit into any established MARC field. Local fields can contain information needed for long-term management of digital materials.

For example, the University of Rochester Libraries created Guidelines for Coding 999 (Local Internet Description) Field (see http://128.151.244.128/cat/code999.htm). They use their local field to facilitate access to remote electronic resources. The field has been designed to have a single subfield, although it is possible to enter four information elements there: a resource designation term, a university cataloging agency, the word Internet, and a temporary designation.

Any implementation of a local field will be documented in these guidelines to provide standardization of DVL practice. Design and format of data entry in these fields is to be defined by DVL project managers.

Examples:

The guidelines for this field do not currently include any examples

9XX

952
CATALOGER'S NOTE

MARC Tag (Field Name):

952   Cataloger's note   a   Note

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

A period or other ending mark of punctuation is always at the end of this field.

Data Conventions/Comments:

This field is used to convey information not intended for use by the public. Examples
include information about the condition of the image, or a listing of sources consulted in
compiling notes.

This field can be used to record in-house information noting citations to publications and
other resources used to compile the catalog record. Although it is not necessary to
document the origin of all cataloger-supplied information, the DVL includes nonpublic
notes related to sources.

Examples:

Summary information from publication:

Title information from publication:

Title and date supplied by: Roger Meade, LANL.

Historical information from Los Alamos: Beginning of an era, pp. 62-64; City of fire, p. 29; and LANL archivist, Bob Brewer.

Biographical information from publication:

Date based on date range for series no. 4783.

952 // ØaSummary information from publication:

952 // ØaTitle information from publication:

952 // ØaTitle and date supplied by: Roger Meade, LANL.

952 // ØaHistorical information from Los Alamos: Beginning of an era, pp. 62-64; City of fire, p. 29; and LANL archivist, Bob Brewer.

952 // ØaBiographical information from publication:

952 // ØaDate based on date range for series no. 4783

969
SHORT TERM TEMPORARY NOTE

MARC Tag (Field Name):

969   Short term temporary note   a   Note

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

None.

Data Conventions/Comments:

This field is used to record information during the process of cataloging and review, such as comments related to the record or reminders about additional work to be performed before the record is complete. The field should not contain information after cataloging is complete and verified. No standard punctuation or formatting is necessary in this temporary field.

This field can be used to indicate the status of the record during cataloging. Use standard terminology to describe the status of the record, like "In progress" and "Verified."

Examples:

Fields to review: Plutonium not in tgm; found in LCSH. Propose.

Record status: In progress.

Record status: Verified.

969 // ØaFields to review: Plutonium not in tgm; found in LCSH. Propose.

969 // ØaRecord status: In progress.

969 // ØaRecord status: Verified.

**985
LOCAL RECORD HISTORY**

MARC Tag (Field Name):

| 985 | Local record history | a | Agency |
| | | e | Project name |

Indicators:

Indicator codes are not defined for this field.

Punctuation/Spacing:

There is no closing mark of punctuation in this field.

Data Conventions/Comments:

This field is a Library of Congress in-house field used to identify the creator of the records and a project code. It can be used to distinguish the various projects within the DVL, and link the record with the appropriate project. The codes used in the example below are possible acronyms.   They can be revised to better serve DVL needs. For example, it may be preferable to provide a textual description or title for each project instead of using coded descriptions.

To date, the codes used represent the format of the item (for example, mi for moving image, aud for audio, and ph for photo), but codes could be established that specify particular projects within a format (for example, using mi-cm for Carnegie-Mellon or mi-dtic for DTIC materials).

Examples:

dtic/ph dvl

985 // Øadtic/phØedvl

SAMPLE RECORDS

OCLC: DTIC-000005   Rec stat: n Entrd: 990000 Used: 20000808
Type: k   Elvl: 7   Srce: d   Audn: /   Ctrl: Lang: eng
Blvl: m   TMat: k   GPub: f   AccM: //// MRec: /   Ctry: xxu
Desc: a   Time: nnn Tech: n   Dtst: s   Dates: 1945,////
 COM:g FMD: OR: CL: PRS: SEP: MDS: WD: SSP:
 COM:k FMD:g   OR: CL:b PRS: SSN: COM:t FMD:

035   ØaPH3
099   ØaCIC-9: 00164
245 00 Øa[Formal portrait of J. Robert Oppenheimer] Øh[graphic].
260   Øc[ca. 1945]
300   Øa1 negative : Øbsafety film ; Øc8x10 in.
500   ØaTitle supplied by: Los Alamos National Laboratory.
500   ØaPhotographer unknown.
506   ØaContact Los Alamos National Laboratory, Los Alamos, N.M. for further
information on access to original material.
540   ØaCredit line: Los Alamos National Laboratory, N.M.; no reproduction
restrictions.
545   ØaJ. Robert Oppenheimer was born in New York City in 1904. He studied science
and classical languages at Harvard and earned his Ph.D. in physics from the University of
Goettingen, Germany. He had already been thinking about the possibility of building an
atomic bomb when approached by General Leslie R. Groves, who asked him to work on
the Manhattan Project. Dr. Oppenheimer served as director of the Los Alamos Scientific
Laboratory from April 1943 until October 1945.
600 14 ØaOppenheimer, J. Robert, Ød1904-1967.
610 24 ØaLos Alamos National Laboratory ØxPeople ØzNew Mexico ØzLos Alamos
Øy1940-1950.
655 7 ØaPortrait photographs Øy1940-1950. Ø2gmgpc
852   ØaLos Alamos National Laboratory ØeLos Alamos, N.M. 87545 ØnUSA
856 41 Øadvl.dtic.mil Ø3original Øf00164.gif Øf00164.jpg ØnDefense Technical
Information Center, Fort Belvoir, Virginia Øuhdl:100.1/PH3
952   ØaPublished in: City of fire: Los Alamos and the Atomic Age, 1943-1945 / by
James W. Kunetka. Albuquerque: University of New Mexico Press, 1979, caption to
photograph facing p. 118.
952   ØaSee also 0047
900   Øa1999/00/00 Øcsuper Øm2000/08/08 Øusuper
985   Øadtic/ph Øedvl

OCLC: DTIC-000011   Rec stat: n Entrd: 990000 Used: 20000808
Type: k   Elvl: 7   Srce: d   Audn: /   Ctrl: Lang: eng
Blvl: m   TMat: k   GPub: f   AccM: //// MRec: /   Ctry: xxu
Desc: a   Time: nnn Tech: n   Dtst: s   Dates: 1945,////
 COM:g FMD: OR: CL: PRS: SEP: MDS: WD: SSP:
 COM:k FMD:g OR: CL:b PRS: SSN: COM:t FMD:

035   ØaPH9
099   ØaTR-277
245 00 ØaActive material, H. M. Lehr Øh[graphic].
260   Øc[ca. 1945]
300   Øa1 negative : Øbsafety film ; Øc4x5 in.
500   ØaTitle from negative sleeve.
500   ØaPhotographer unknown.
500   ØaBrixner Photography Group.
500   ØaVariant spellings include: MacDonald and McDonald.
506   ØaContact Los Alamos National Laboratory, Los Alamos, N.M. for further
information on access to original material.
520 0 ØaHerb M. Lehr carrying the assembled bomb core in a shock-proof case at
McDonald Ranch.
540   ØaCredit line: Los Alamos National Laboratory, N.M.; no reproduction
restrictions.
610 24 ØaManhattan Project (U.S.) ØxPeople ØzNew Mexico ØzTrinity Site Øy1940-
1950.
650 7 ØaRadioactive substances ØzNew Mexico ØzTrinity Site Øy1940-1950. Ø2lctgm
852   ØaLos Alamos National Laboratory ØeLos Alamos, N.M. 87545 ØnUSA
856 41 Øadvl.dtic.mil Ø3b&w film copy neg. Øftr0277.gif Øftr0277.jpg ØnDefense
Technical Information Center, Fort Belvoir, Virginia Øuhdl:100.1/PH9
952   ØaSummary from publication: Los Alamos: Beginning of an era. Los Alamos,
New Mexico: Los Alamos Historical Society, 1996.
952   ØaPublished in: 1) Los Alamos: Beginning of an era. Los Alamos, New Mexico:
Los Alamos Historical Society, 1996, p. 47; 2) Picturing the bomb : photographs from
the secret world of the Manhattan Project / by Rachel Fermi and Esther Samra. New
York: Harry N.   Abrams, Inc., 1995, p. 138.
900   Øa1999/00/00 Øcsuper Øm2000/08/08 Øusuper
985   Øadtic/ph Øedvl

REQUIRED AND OPTIONAL DATA ELEMENTS
PHOTOGRAPHIC MATERIALS
MARC FIELDS

Required fields appear in bold typeface.

MARC TAG	FIELD NAME		SUBFIELD and SUBFIELD NAME
LEADER			
001	**Control Number**		**System generated number**
005	**Date and time of latest transaction**		
006	Additional materials fixed field		
007	**Physical description fixed field**		
008	**Fixed length data elements**		
033	Date/time and place of event	a	Formatted date/time
035	**System control number**	**a**	**Number**
037	Source of acquisition	a	Stock number
		b	Source of number
		c	Terms
040	Cataloging source	a	Original agency
		d	Modifying agency
		e	Description conventions
099	Local call number	a	Local call no.
1XX	**Main entry: One Field Only**		
100	Personal name	a	Personal name
		b	Numeration
		c	Titles
		q	Fuller form of name
		d	Dates
		e	Relator term
110	Main entry: Corporate name	a	Corporate name
		b	Subordinate units
		e	Relator term
111	Main entry: Meeting name	a	Meeting name
		n	Number of meeting
		d	Date of meeting
		c	Location of meeting
		e	Subordinate unit
130	Main entry: Uniform title	a	Uniform title
240	Uniform title	a	Uniform title

MARC TAG	FIELD NAME	SUBFIELD and SUBFIELD NAME	
245	**Title**	**a**	**Title**
		b	Remainder of title
		c	Remainder of transcription
		h	**Medium**
		n	Number of part
		p	Name of part
246	Variant title	a	Title
		b	Remainder of title
250	Edition statement	a	Edition statement
260	**Publication (Date)**	a	Place of publication
		b	Publisher
		c	**Date of execution**
		e	Place of manufacture
		f	Manufacturer
300	**Physical description**	**a**	**Extent**
		b	Other physical details
		c	Dimensions
		e	Accompanying material
351	Organization & arrangement	a	Organization
		b	Arrangement
440	Series statement/Added entry (Title)	a	Title
		n	Number of part/section
		p	Name of part/section
		v	Volume number
500	General note	a	General note
506	Restrictions on access note	a	Terms governing access
		b	Jurisdiction
		d	Authorized users
		e	Authorization
510	Citation/References note	a	Name of source
		c	Location in source
518	Date/time and place of event	a	Note
520	Summary, abstract, scope note	a	Summary note
530	Additional physical form note	a	Note
		b	Availability source
		c	Availability conditions
		d	Order number
533	Reproduction note	a	Type of reproduction
		b	Place of reproduction
		c	Responsible agency
		d	Date
		e	Physical description
		f	Series statement

MARC TAG	FIELD NAME	SUBFIELD and SUBFIELD NAME	
		m	Date of publication
		n	Note about reproduction
		7	Fixed length elements
535	Location of originals/duplicates note	a	Custodian
		b	Postal address
		c	Country
		d	Telecommunication address
		3	Materials specified
540	Terms governing use & reproduction	a	Terms note
		b	Jurisdiction
		c	Authorization
		d	Authorized users
541	Immediate source of acquisition	c	Method of acquisition
		a	Source of acquisition
		d	Date of acquisition
		e	Accession number
545	Biographical/Historical note	a	Note
555	Cumulative index/finding aid note	a	Note
562	Copy and version identification note	a	Identifying markings
		b	Copy identification
		c	Version identification
		d	Presentation format
		3	Materials specified
580	Linking entry complexity note	a	Note
581	Publications note	a	Note
583	Action note	a	Action
		b	Action identification
		c	Time of action
		d	Action interval
		f	Authorization
		i	Method of action
		j	Site of action
		k	Action agent
		l	Status
		x	Nonpublic note
		z	Public note
600	Subject added entry: Personal	a	Personal name
		b	Numeration
		c	Titles
		q	Fuller form of name
		d	Dates
		x	General subdivision
		z	Geographic subdivision

MARC TAG	FIELD NAME	SUBFIELD and SUBFIELD NAME	
610	Subject added entry: Corporate	a	Corporate name
		b	Subordinate units
		x	General subdivision
		y	Chronological subdivision
		z	Geographic subdivision
611	Subject added entry: Meeting	a	Meeting name
		n	Number of meeting
		d	Date of meeting
		c	Location of meeting
		e	Subordinate unit
		x	General subdivision
630	Subject added entry: Uniform title	a	Uniform title
650	Subject added entry: Topical term	a	Topical term
		x	General subdivision
		y	Chronological subdivision
		z	Geographical subdivision
		2	Source of heading
651	Subject added entry: Geographic	a	Topical term
		x	General subdivision
		y	Chronological subdivision
653	Subject added entry: Uncontrolled	a	Index term
655	Subject added entry: Form/Genre	a	Form/Genre
		v	Form subdivision
		x	General subdivision
		y	Chronological subdivision
		2	Source of term
700	Added entry: Personal name	a	Personal name
		b	Numeration
		c	Titles
		q	Fuller form of name
		d	Dates
		e	Relator term
710	Added entry: Corporate name	a	Corporate name
		b	Subordinate units
		e	Relator term
711	Added entry: Meeting name	a	Meeting name
		n	Number of meeting
		d	Date of meeting
		c	Location of meeting
		e	Subordinate unit
730	Added entry: Uniform title	a	Uniform title
		d	Date of treaty

MARC TAG	FIELD NAME	SUBFIELD and SUBFIELD NAME	
740	Added entry: Variant title	a	Title
		n	Number
		p	Name
752	Added entry: Hierarchical place name	a	Country
		b	State
		c	County
		d	City
773	Host item entry	t	Title
		w	Control number
787	Nonspecific relationship entry	i	Display text
		n	Note
		o	Other item ID
		t	Title
		w	Record control number
852	**Location**	**a**	**Location**
		b	**Sublocation**
		e	**Address**
		n	**Country**
856	**Electronic location and access**	**a**	**Host name**
		c	**Compression info.**
		d	Path
		f	**Electronic name**
		j	Bits per second
		n	**Name of location of host**
		q	Electronic format type
		s	**File size**
		u	**URI**
		x	Nonpublic note
		z	Public note
		2	Access method
		3	**Materials specified**
9XX	Equivalence and cross reference fields		
952	Cataloger's note	a	Note
969	Short term temporary note	a	Note
985	**Local record history**	**a**	**Agency**
		e	**Project name**

END OF FIELD PUNCTUATION

LEADER	None
0XX	None
1XX	Period unless an open life date with no relator term or closing parentheses
240	None, unless ending text contains initial letters or an abbreviation
245	Period
246	None, unless ending text contains initial letters or an abbreviation
250	Period or other closing punctuation
260	Period or other closing punctuation
300	Period or other closing punctuation
351	Period or other closing punctuation
440	None, unless ending text contains initial letters or an abbreviation
500	Period (even when closing parentheses or bracket is used) or other ending mark of punctuation
506	Period or other closing punctuation
510	None
518-581	Period or other closing punctuation
583	None, unless ending text contains initial letters or an abbreviation
600	Period, unless an open life date
610	Period or other closing punctuation, unless field ends with closing parentheses
611	Period or other closing punctuation
630	Period or other closing punctuation
650	Period or other closing punctuation, unless field ends with closing parentheses
651	Period or other closing punctuation
653	None
655	Period or other closing punctuation. None if Ø2 ends the field
700	Period unless an open life date with no relator term or closing parentheses
710	Period or other closing punctuation
711	Period or other closing punctuation, unless field ends with closing parentheses
730-752	Period or other closing punctuation
773	None
787	None, unless ending text contains initial letters or an abbreviation
8XX-9XX	None
952	Period or other closing punctuation

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