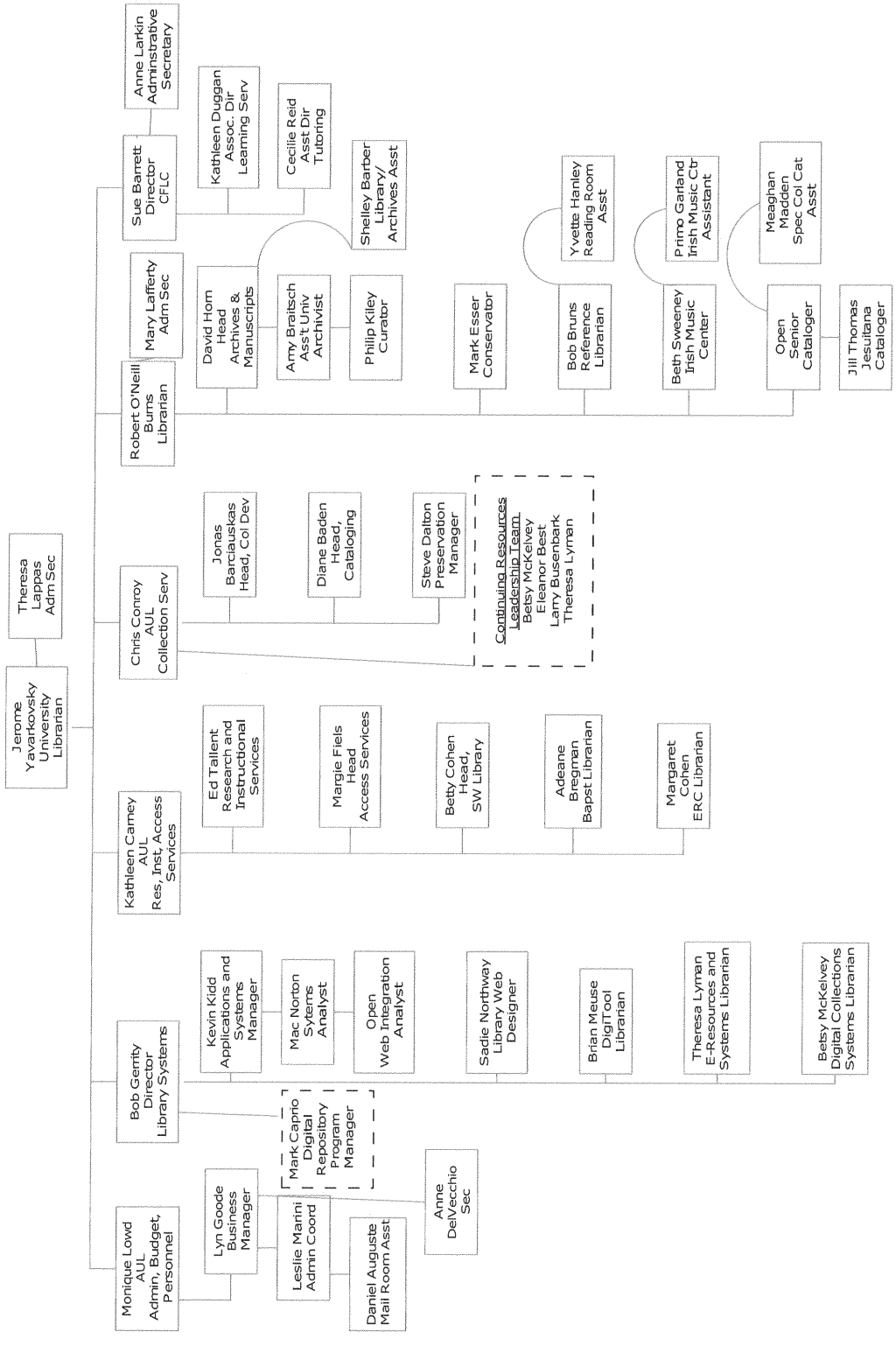
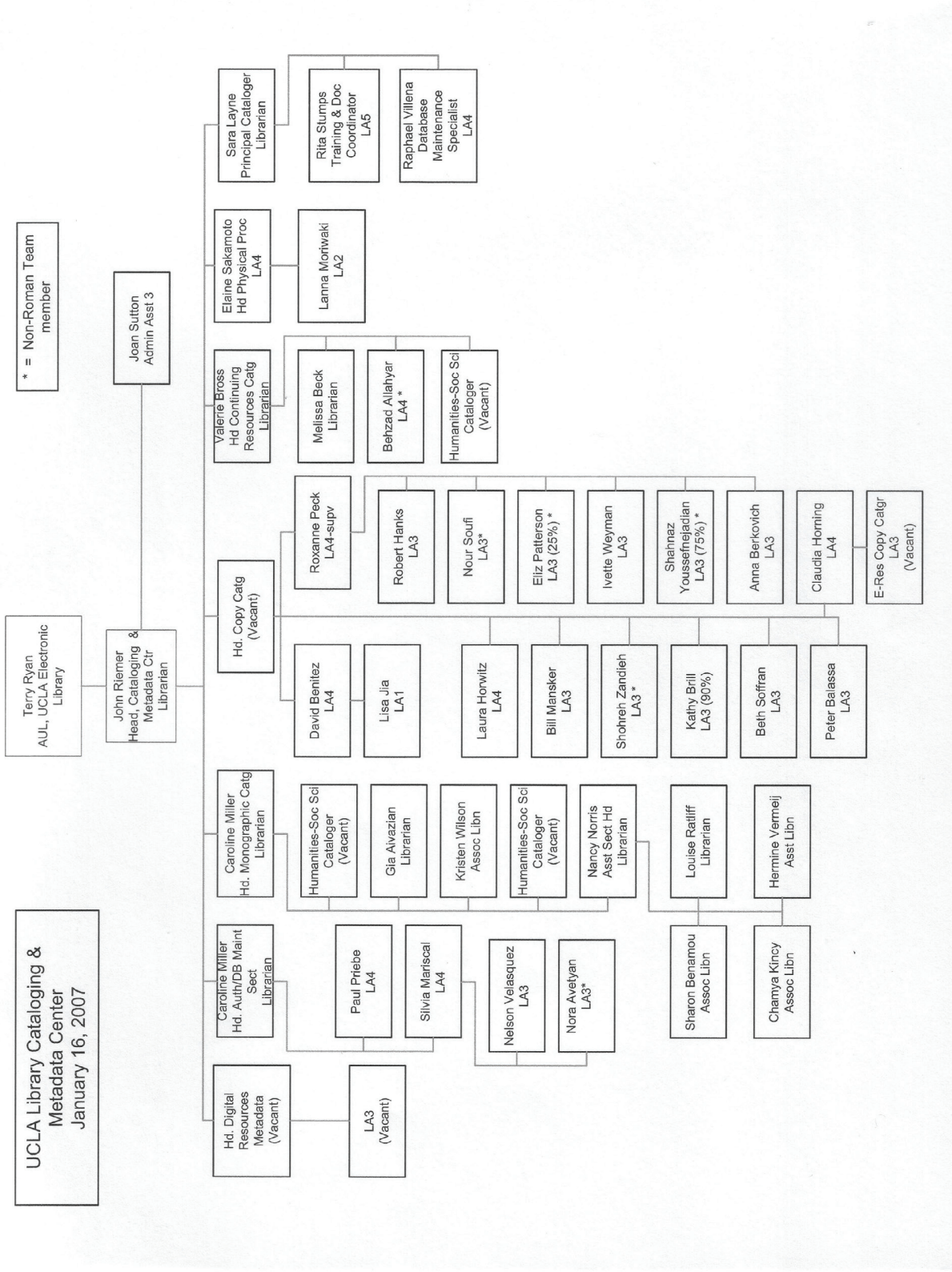
REPRESENTATIVE DOCUMENTS

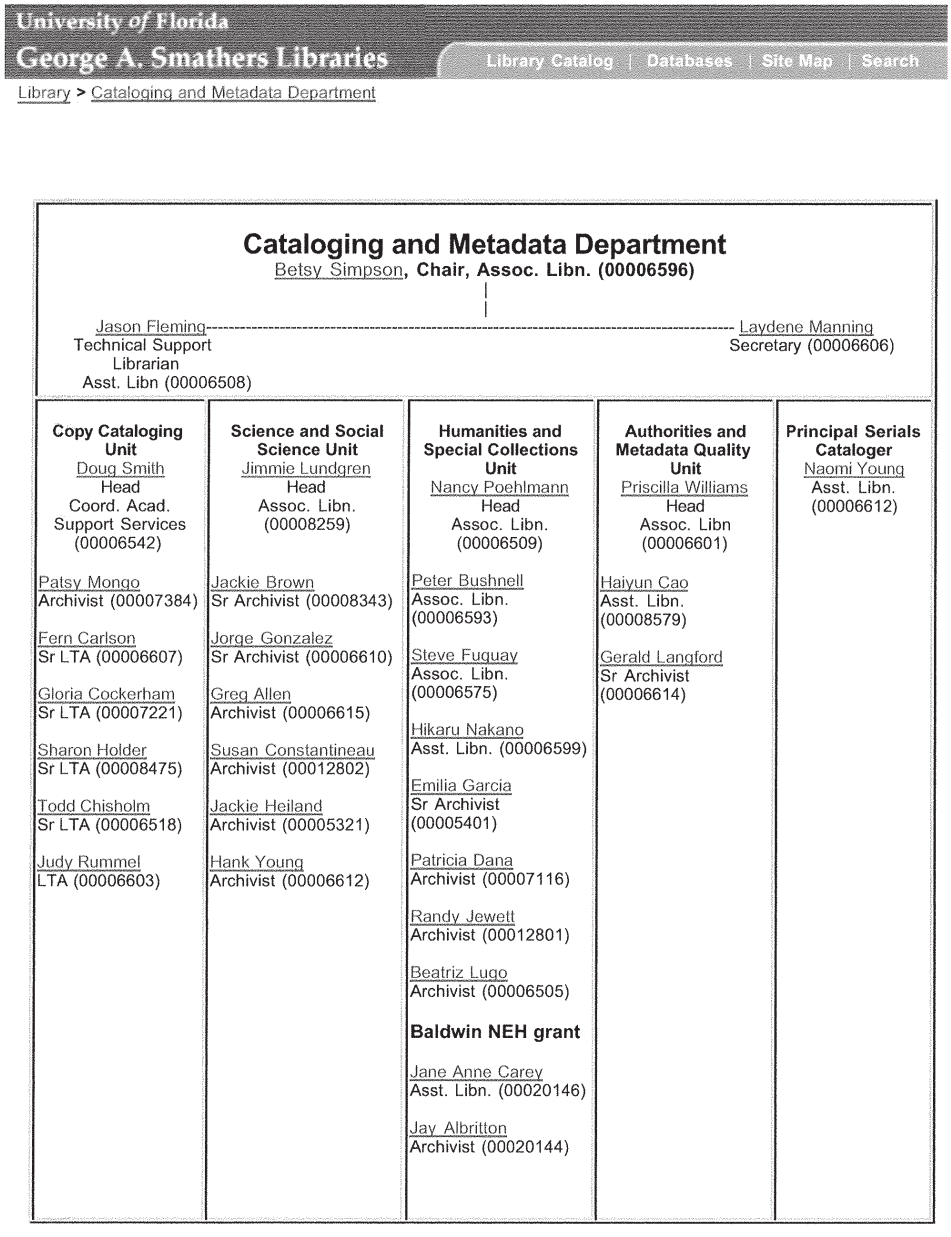
Organization Charts


Jerome Yavarkovsky University Librarian
Theresa Lappas Adm Sec
Monique Lowd AUL Admin, Budget, Personnel
Lyn Goode Business Manager
Leslie Marini Admin Coord
Daniel Auguste Mail Room Asst
Anne DelVecchio Sec
Bob Gerrity Director Library Systems
Mark Caprio Digital Repository Program Manager
Kevin Kidd Applications and Systems Manager
Mac Norton Sytems Analyst
Open Web Integration Analyst
Sadie Northway Library Web Designer
Brian Meuse DigiTool Librarian
Theresa Lyman E-Resources and Systems Librarian
Betsy McKelvey Digital Collections Systems Librarian
Kathleen Carney AUL Res, Inst, Access Services
Ed Tallent Research and Instructional Services
Margie Fiels Head Access Services
Betty Cohen Head, SW Library
Adeane Bregman Bapst Librarian
Margaret Cohen ERC Librarian
Chris Conroy AUL Collection Serv
Jonas Barciauskas Head, Col Dev
Diane Baden Head, Cataloging
Steve Dalton Preservation Manager
Continuing Resources Leadership Team
Betsy McKelvey
Eleanor Best
Larry Busenbark
Theresa Lyman
Robert O'Neill Burns Librarian
Mary Lafferty Adm Sec
David Horn Head Archives & Manuscripts
Amy Braitsch Ass't Univ Archivist
Philip Kiley Curator
Shelley Barber Library/ Archives Asst
Mark Esser Conservator
Bob Bruns Reference Librarian
Yvette Hanley Reading Room Asst
Beth Sweeney Irish Music Center
Primo Garland Irish Music Ctr Assistant
Open Senior Cataloger
Meaghan Madden Spec Col Cat Asst
Jill Thomas Jesuitana Cataloger
Sue Barrett Director CFLC
Anne Larkin Administrative Secretary
Kathleen Duggan Assoc. Dir Learning Serv
Cecilie Reid Asst Dir Tutoring

http://unitproj.library.ucla.edu/cataloging/admin/catcenterorg2007Jan.pdf



http://www.library.cornell.edu/dlit/DSSorgchart0610171.pdf



University of Florida
George A. Smathers Libraries
Library Catalog | Databases | Site Map | Search
Library > Cataloging and Metadata Department

Cataloging and Metadata Department

Betsy Simpson, **Chair, Assoc. Libn. (00006596)**

Jason Fleming
Technical Support Librarian
Asst. Libn (00006508)

Laydene Manning
Secretary (00006606)

Copy Cataloging Unit
Doug Smith
Head
Coord. Acad. Support Services
(00006542)

Patsy Mongo
Archivist (00007384)

Fern Carlson
Sr LTA (00006607)

Gloria Cockerham
Sr LTA (00007221)

Sharon Holder
Sr LTA (00008475)

Todd Chisholm
Sr LTA (00006518)

Judy Rummel
LTA (00006603)

Science and Social Science Unit
Jimmie Lundgren
Head
Assoc. Libn.
(00008259)

Jackie Brown
Sr Archivist (00008343)

Jorge Gonzalez
Sr Archivist (00006610)

Greg Allen
Archivist (00006615)

Susan Constantineau
Archivist (00012802)

Jackie Heiland
Archivist (00005321)

Hank Young
Archivist (00006612)

Humanities and Special Collections Unit
Nancy Poehlmann
Head
Assoc. Libn.
(00006509)

Peter Bushnell
Assoc. Libn.
(00006593)

Steve Fuquay
Assoc. Libn.
(00006575)

Hikaru Nakano
Asst. Libn. (00006599)

Emilia Garcia
Sr Archivist
(00005401)

Patricia Dana
Archivist (00007116)

Randy Jewett
Archivist (00012801)

Beatriz Lugo
Archivist (00006505)

Baldwin NEH grant

Jane Anne Carey
Asst. Libn. (00020146)

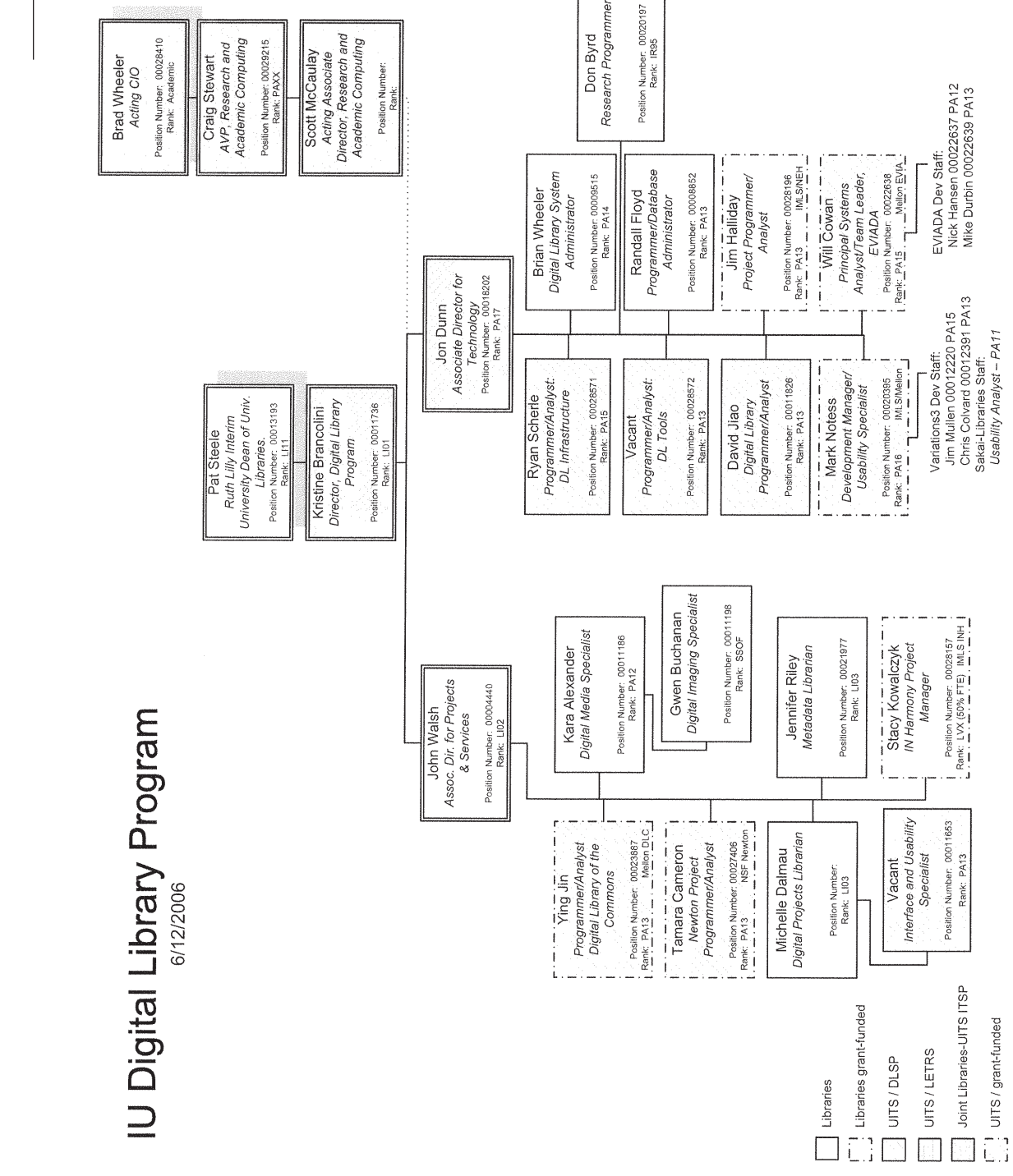
Jay Albritton
Archivist (00020144)

Authorities and Metadata Quality Unit
Priscilla Williams
Head
Assoc. Libn
(00006601)

Haiyun Cao
Asst. Libn.
(00008579)

Gerald Langford
Sr Archivist
(00006614)

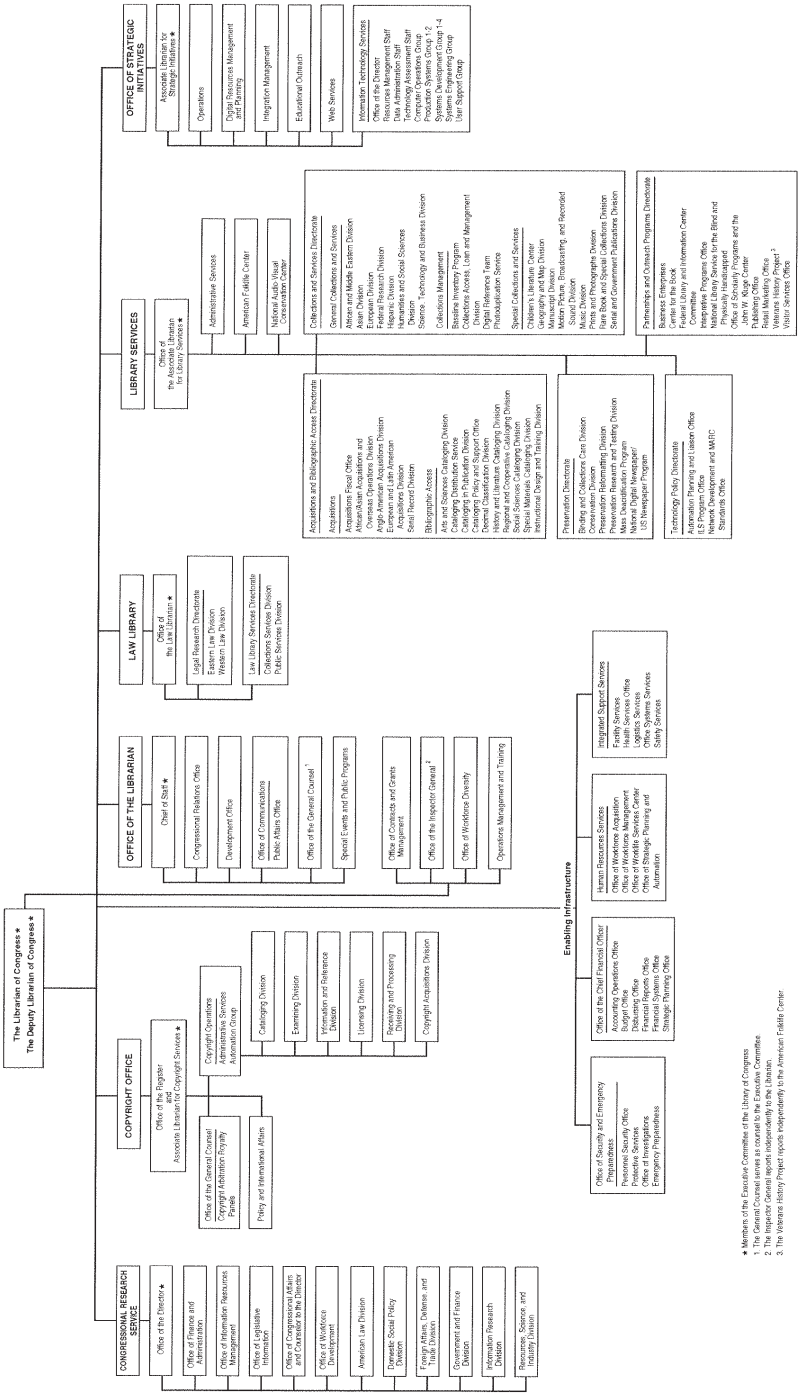
Principal Serials Cataloger
Naomi Young
Asst. Libn.
(00006612)


IU Digital Library Program
6/12/2006
Brad Wheeler
Acting CIO
Position Number: 00028410
Rank: Academic
Craig Stewart
AVP, Research and Academic Computing
Position Number: 00029215
Rank: PAXX
Scott McCaulay
Acting Associate Director, Research and Academic Computing
Position Number:
Rank:
Pat Steele
Ruth Lilly Interim University Dean of Univ. Libraries.
Position Number: 00013193
Rank: LH1
Kristine Brancolini
Director, Digital Library Program
Position Number: 00011736
Rank: LI01
Jon Dunn
Associate Director for Technology
Position Number: 00018202
Rank: PA17
John Walsh
Assoc. Dir. for Projects & Services
Position Number: 00004440
Rank: LI02
Brian Wheeler
Digital Library System Administrator
Position Number: 00009515
Rank: PA14
Don Byrd
Research Programmer
Position Number: 00020197
Rank: IR95
Ryan Scherle
Programmer/Analyst: DL Infrastructure
Position Number: 00028571
Rank: PA15
Randall Floyd
Programmer/Database Administrator
Position Number: 00008852
Rank: PA13
Vacant
Programmer/Analyst: DL Tools
Position Number: 00028572
Rank: PA13
Jim Halliday
Project Programmer/ Analyst
Position Number: 00028196
Rank: PA13
IMLS/NEH
David Jiao
Digital Library Programmer/Analyst
Position Number: 00011826
Rank: PA13
Will Cowan
Principal Systems Analyst/Team Leader, EVIADA
Position Number: 00022638
Rank: PA15
Mellon EVIA
Mark Notess
Development Manager/ Usability Specialist
Position Number: 00020395
Rank: PA16
IMLS/Mellon
Variations3 Dev Staff:
Jim Mullen 00012220 PA15
Chris Colvard 00012391 PA13
Sakai-Libraries Staff:
Usability Analyst – PA11
EVIADA Dev Staff:
Nick Hansen 00022637 PA12
Mike Durbin 00022639 PA13
Kara Alexander
Digital Media Specialist
Position Number: 00011186
Rank: PA12
Gwen Buchanan
Digital Imaging Specialist
Position Number: 00011198
Rank: SSOF
Jennifer Riley
Metadata Librarian
Position Number: 00021977
Rank: LI03
Stacy Kowalczyk
IN Harmony Project Manager
Position Number: 00028157
Rank: LVX (50% FTE) IMLS INH
Ying Jin
Programmer/Analyst Digital Library of the Commons
Position Number: 00023887
Rank: PA13
Mellon DLC
Tamara Cameron
Newton Project Programmer/Analyst
Position Number: 00027406
Rank: PA13
NSF Newton
Michelle Dalmau
Digital Projects Librarian
Position Number:
Rank: LI03
Vacant
Interface and Usability Specialist
Position Number: 00011663
Rank: PA13
Libraries
Libraries grant-funded
UITS / DLSP
UITS / LETRS
Joint Libraries-UITS ITSP
UITS / grant-funded

http://loc.gov/about/LC_org_Sep04.pdf

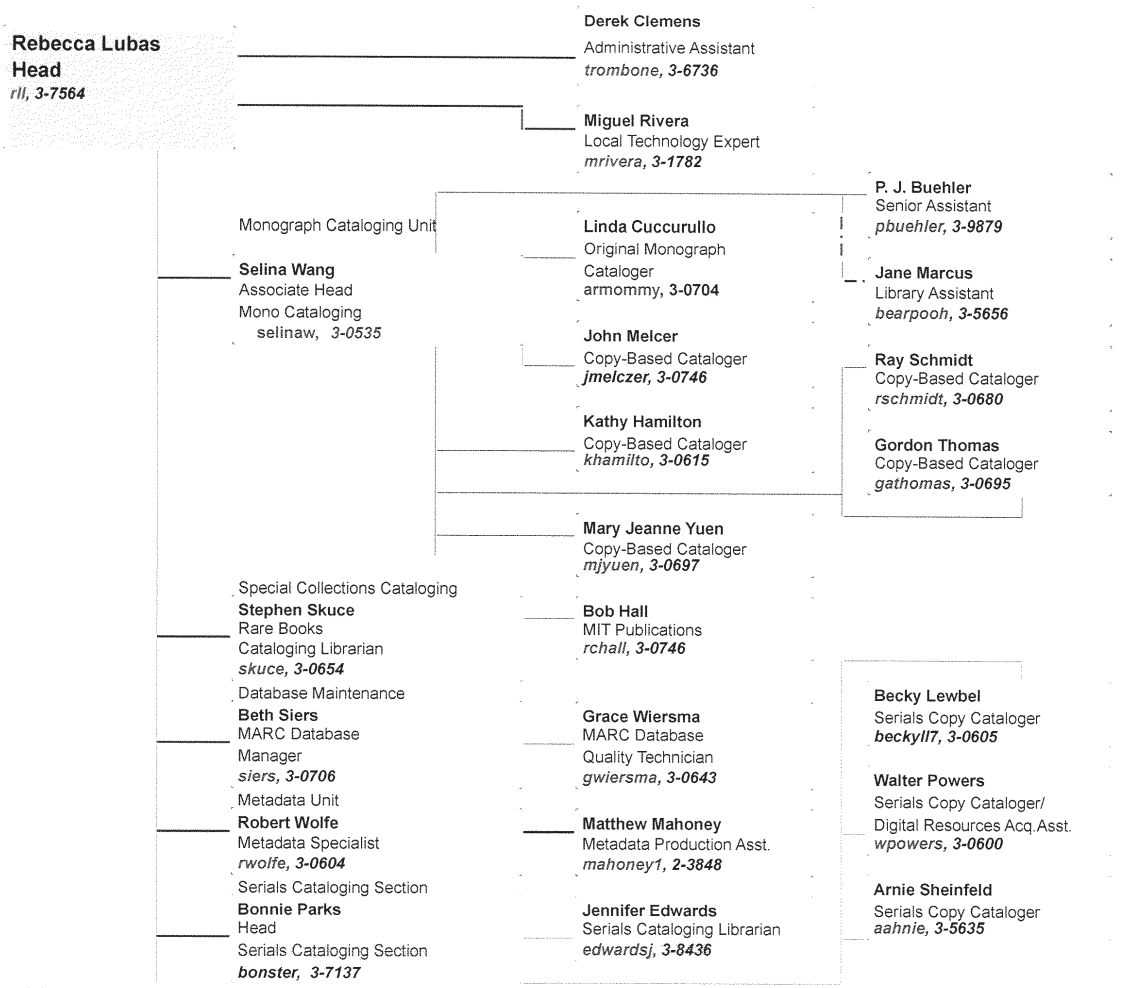
ORGANIZATION CHART

as of September 30, 2004



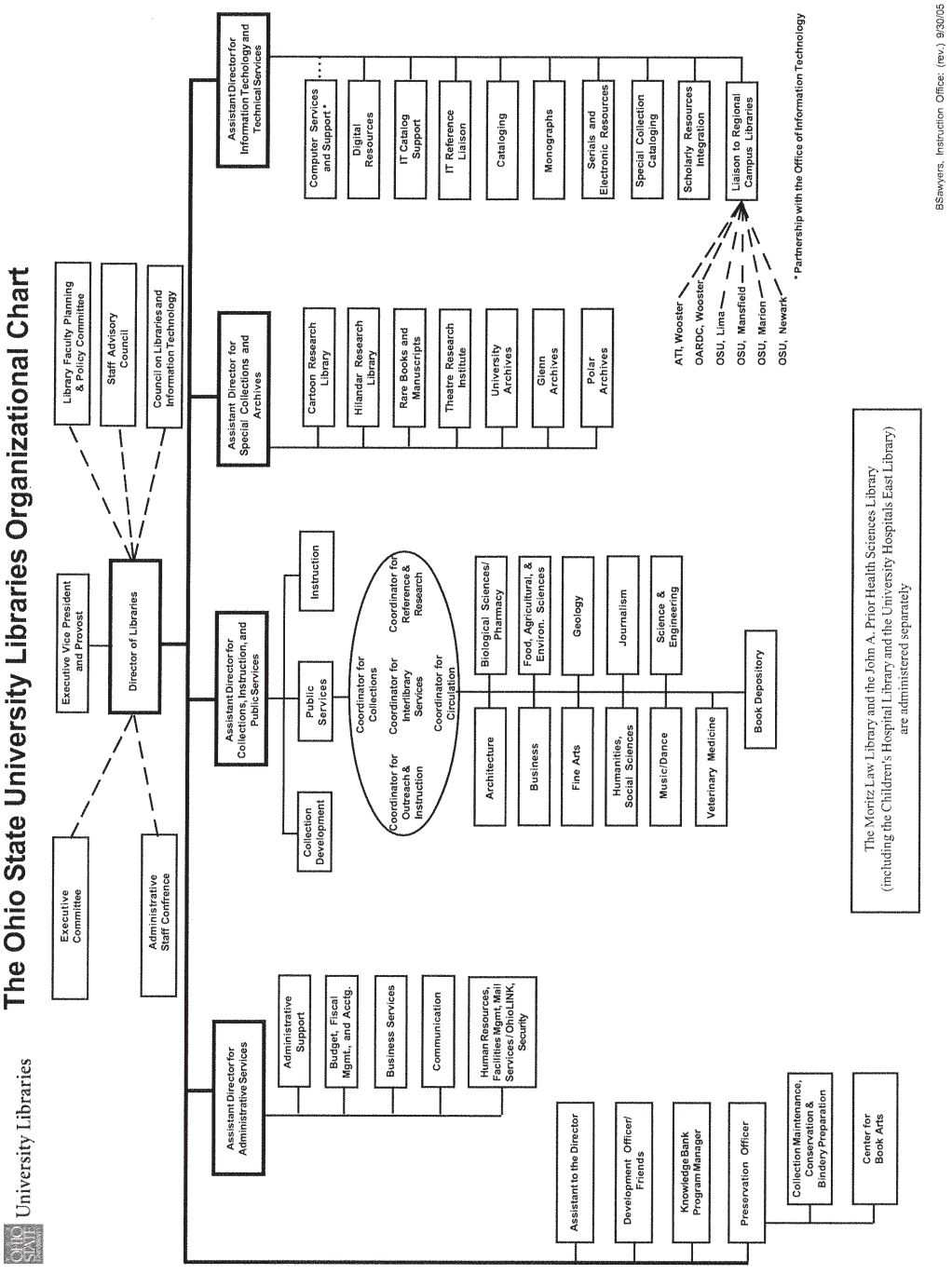
★ Members of the Executive Committee of the Library of Congress
1. The General Counsel serves as counsel to the Executive Committee.
2. The Inspector General reports independently to the Librarian.
3. The Veterans History Project reports independently to the American Folklife Center.

CATALOGING AND METADATA SERVICES



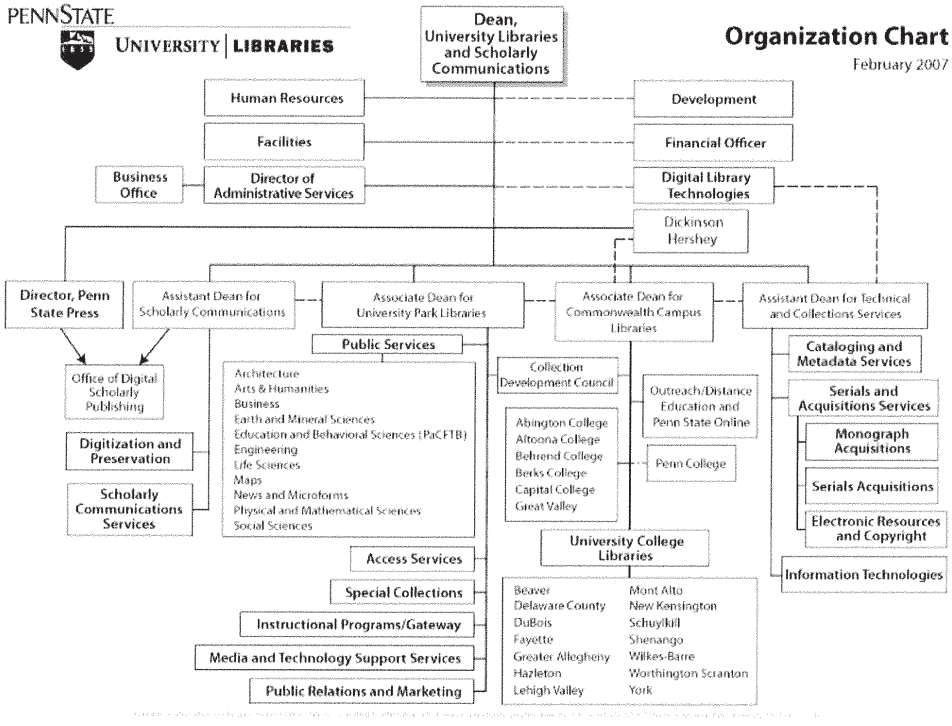
11/6/2006

http://library.osu.edu/sites/libinfo/orgchart.pdf



PENNSYLVANIA STATE UNIVERSITY

http://www.libraries.psu.edu/pubinfo/organization.html



(Libraries and departments with public Web pages are clickable)

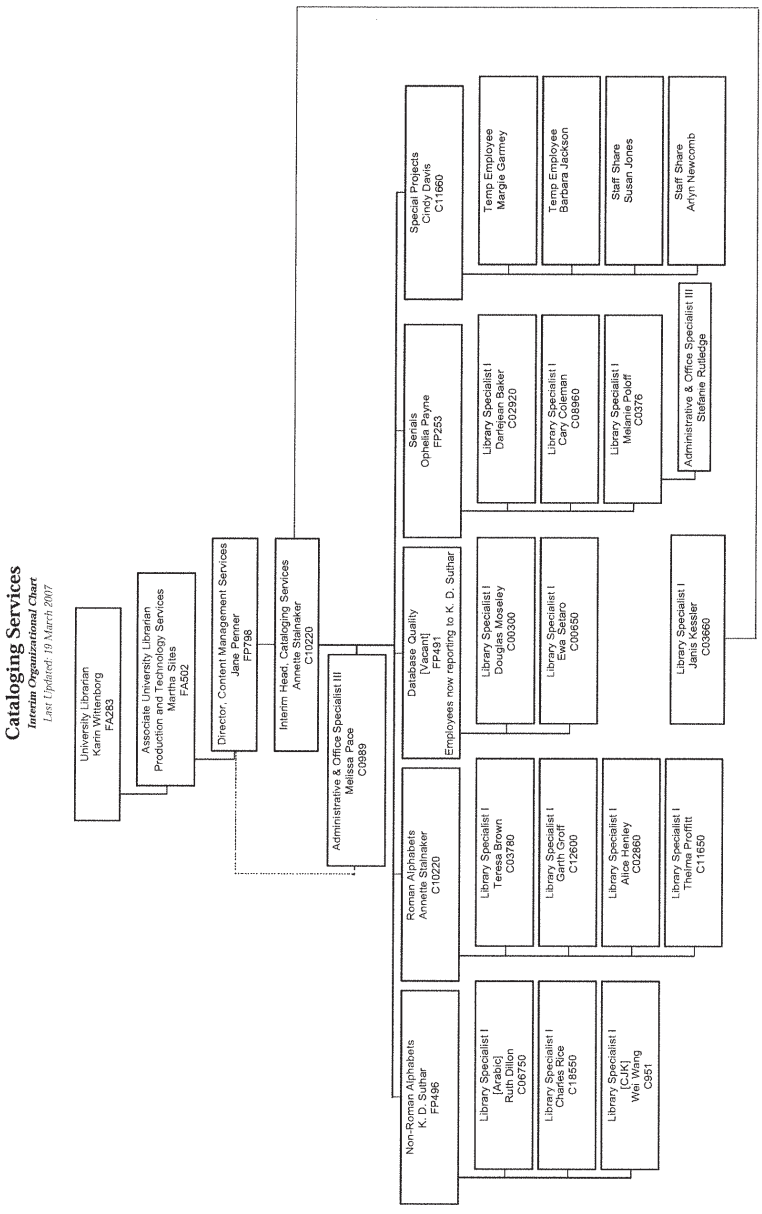
Download a printable PDF of this chart

About the Libraries | University Libraries Home | Penn State Home | Search the Libraries | Search Penn State

This information is available in alternative format on request

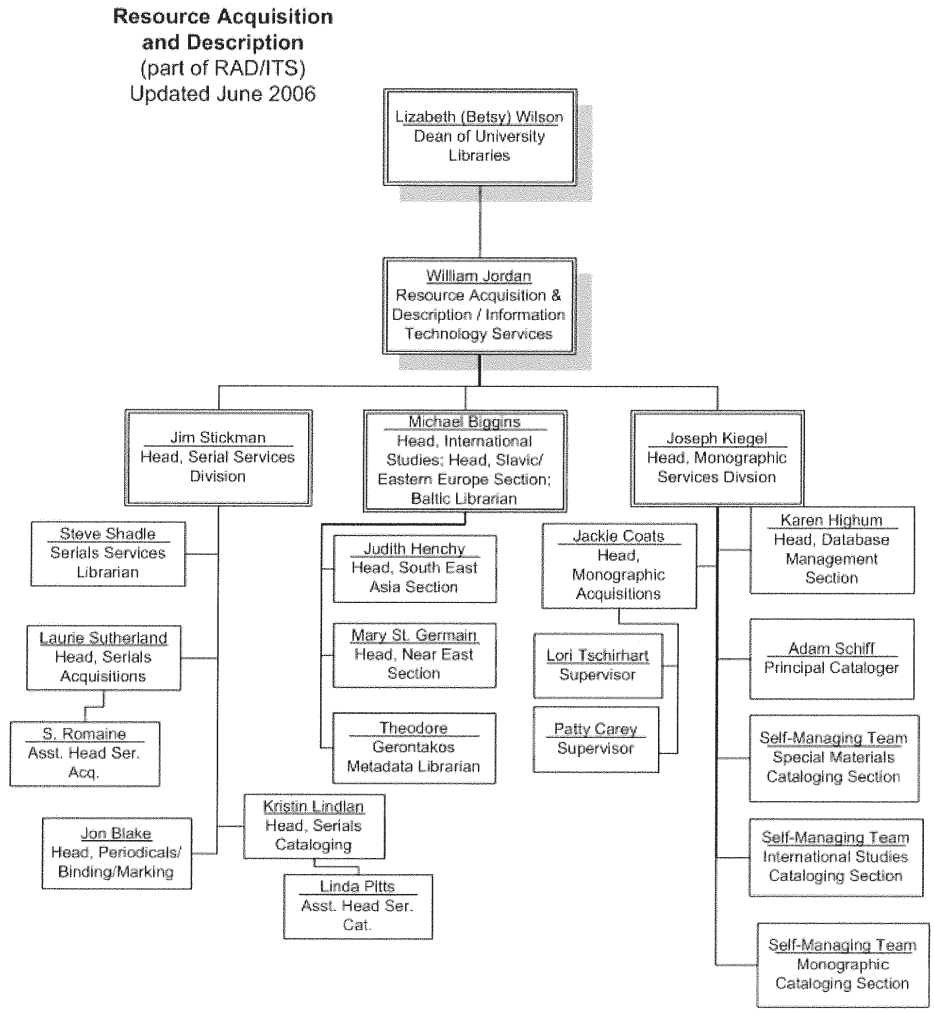
Page Last Updated 2/9/07 - Wilson Hutton
U.Ed. LIB 07-53

http://staff.lib.virginia.edu/HR/orgcharts/cataloging.pdf

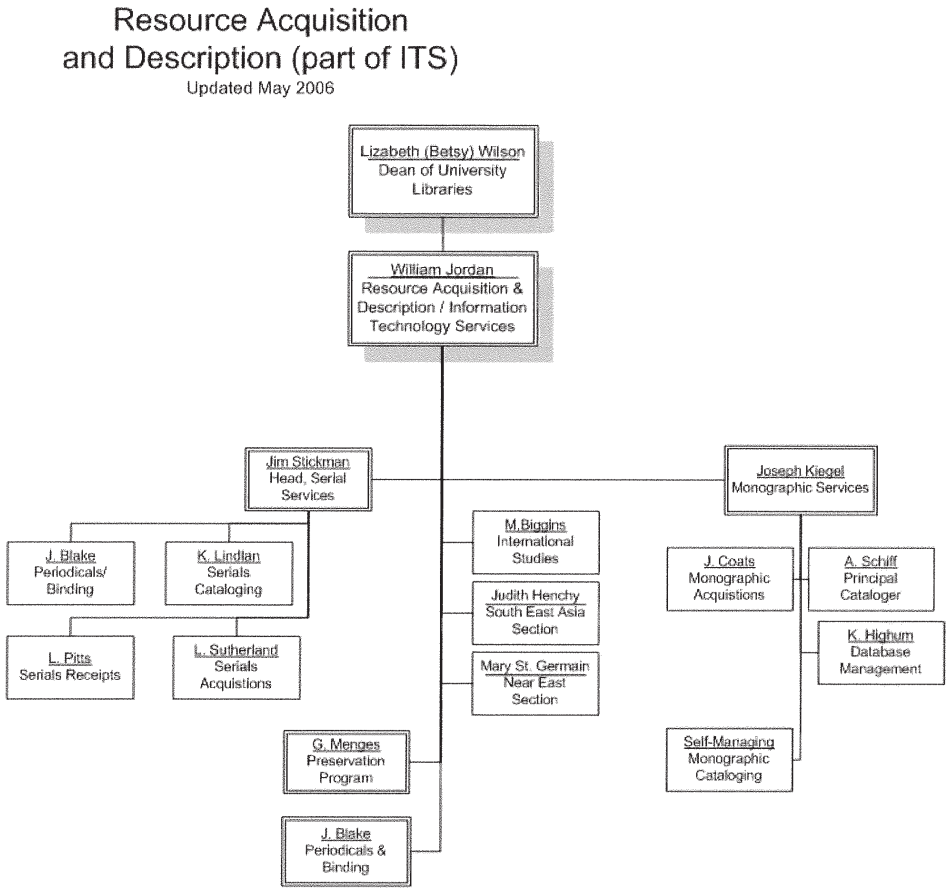


UNIVERSITY OF WASHINGTON

http://www.lib.washington.edu/dean/docs/orgchart-2006.pdf

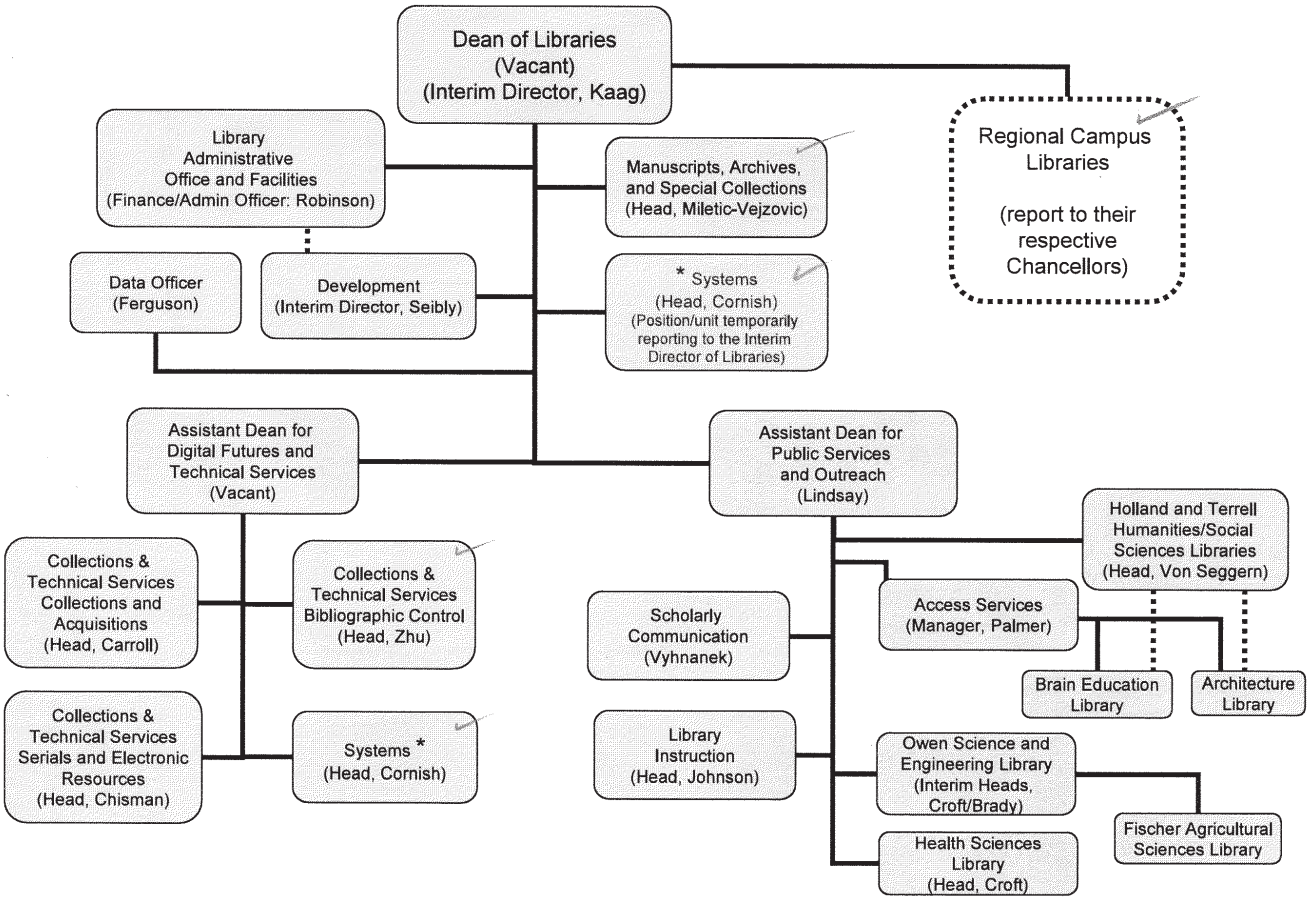


http://www.lib.washington.edu/dean/docs/orgchart-2006.pdf



Washington State University Libraries
All Libraries
Organization Chart – January 1, 2007

Metadata services in checked accts.



Position Descriptions

University of Alberta Library
Librarian Position Description

I.POSITION INFORMATION

INCUMBENT: Susan Dahl **DATE:** 3 May 2002

POSITION: Metadata and Cataloguing Librarian

ADMINISTRATIVE UNIT (including work unit): Bibliographic Services

SUPERVISOR: Coordinator, Bibliographic Services

II.GENERAL STATEMENT OF RESPONSIBILITY

(I) PRIMARY JOB FUNCTION (one sentence)

Using established and emerging methods, provides cataloguing services to facilitate intellectual access to the Library's collections, with an emphasis on digital materials.

(ii) NATURE AND SCOPE OF RESPONSIBILITY

Working in team environments and under the general direction of the Coordinator, Bibliographic Services, this position evaluates and applies established (AACR, MARC, LC classification, etc.) and emerging (DC, TEI, EAD, etc.) metadata schemes. The position provides expertise and leadership in policy development relating to metadata for electronic resources including external and locally developed digital collections. May have responsibility for providing reference services or collection management/liaison services. In these capacities the position is responsible for carrying out assignments, determining methods of accomplishment and timeframes; interpreting existing policy and contributing to policy development.

III.WORKING RELATIONSHIPS AND COMMUNICATIONS

(i) INTERNAL

Within Bibliographic Services, works closely with supervisory and cataloguing staff. As part of a digital library initiatives team, works with the System Coordinator for Digital Projects, the Web Development Librarian, the Electronic Access Coordinator ad the Digital Initiatives Technology Librarian. Contacts involve consultation on problems, presenting suggestions or recommendations, obtaining cooperation and/or approval of action at the unit level.

(ii) EXTERNAL

Contacts with librarians at other insititutions and with vendor staff involving consulting on problems, gathering of information, presenting suggestions or recommendations.
Contacts are required to coordinate projects between the library and other institutions and involve circumstances which may result in loss of goodwill or prestige.

IV.COMMITTEES AND PROFESSIONAL INVOLVEMENT

(committee responsibilities REQUIRED by the position and the position held on each committee)

Member of the Acquisitions and Cataloguing Team (ACT), the Interfaces Team and the Digital Initiatives Working Group.

Participation in service to the general public and to the profession is required by the position.

V. SPECIFIC RESPONSIBILITIES
(five to seven statements which describe what your position is intended to accomplish and the duties involved)

- Catalogue and classify materials in various formats using both traditional (AACR, LCSH, LC classification, MARC21) and emerging schemes
- Monitor developments in metadata standards and supporting technologies such as Dublin Core, CORC, MARC, AACR, EAD, TEI, XML, RDF, persistent identifiers for networked resources, and integration/linkages among various resources and access systems
- Analyse, design, implement, and evaluate metadata schemes for various types of electronic resources including library digitization projects
- Evaluate and select or design tools to support metadata creation, harvesting and migration
- Act as a system-wide resource and provide staff training and awareness relating to creation and use of catalogue records and other metadata
- Develop and apply performance measures for the effectiveness of metadata in meeting user needs
- Liaise with consortial partners and other campus groups, and collaborate with them on projects. Participate when appropriate in regional, national and international initiatives to promote shared development and use of metadata and its standards and practices.

SIGNED:

INCUMBENT:_____ **DATE:**_____

SUPERVISOR:_____ **DATE:**_____

ADMINISTRATIVE LIBRARIAN:_____ **DATE:**_____

BOSTON COLLEGE
Role Description

Digital Resources Cataloger

O'Neill Library, Cataloging

Role Summary

Ensures that the descriptive metadata for O'Neill Libraries' physical and digital collections, whether created in-house or obtained from other sources, adheres to recognized standards. Works closely with staff in Cataloging, Systems, and Public Services in planning and implementing digital initiatives, including but not limited to eScholarship@BC, Electronic Theses and Dissertations (ETDs), and DigiTool projects. Investigates and applies new approaches to description, subject analysis, and classification in the digital environment. Serves as a cataloging/descriptive metadata resource to all members of the department as well as to staff in special libraries (ERC, Burns). Reviews vendor supplied MARC records for print and electronic collections. Provides management support to the Head of Cataloging. Shares responsibility for designing projects for weekly project meetings, including documentation, support, and evaluation. Identifies opportunities for database cleanup. Catalogs English and foreign language materials; print, electronic and digital reproductions; and sound recordings. Reviews original work of catalogers and copy catalogers for quality control. Resolves complex problems from copy catalogers and catalogers. Provides direct supervision to one copy cataloging position. Serves on Indexing working group to ensure the functionality of indexing in Aleph.

Scope

- Provides leadership and guidance in the creation of descriptive metadata and the selection of metadata schema for digital initiatives.
- Develops and coordinates strategies for organizing and providing access to digital information.
- Serves as a resource person for other staff concerning cataloging standards, classification, database maintenance, vendor-supplied record review and workflow issues.
- Creates original and enhances existing cataloging records in OCLC, an international database.
- Performs quality control review of the work of other professional catalogers.
- Supervises staff.
- Works with staff in other departments regularly, including Systems, Government Documents, Preservation, Collection Development, and Reference, as well as all professional catalogers in the University Libraries.
- Responsible for department wide implementation and application of national and local cataloging policies, the implementation of new cataloging tools and software, and ongoing quality control within the department
- Serves as a resource to the Systems Department on indexing in Aleph.

Functional and Technical Competencies

- Extensive knowledge of USMARC formats (bibliographic, authorities, holdings), AACR2, OCLC, RLIN, ANSI/NISO standard interpretation and application, ISBD punctuation
- Thorough knowledge of cataloging, including metadata standards and controlled vocabularies
- Knowledge of software applications including Catalogers' Desktop, and Macro Express.
- Comprehensive knowledge of academic library operations.
- Ability to teach and provide feedback to all levels of staff.
- Ability to interpret and develop policy and apply to local practices.
- Ability to catalog materials in many languages.

Education/Training and Certification, Licensure, Registration Requirements

MLS from an ALA-accredited program

Experience

- Five years of cataloging in an academic library environment.
- Experience working in or with other technical services functions, including acquisitions and preservation.
- Substantive experience with AACR2, LCRI, LCSH, LC classification, and USMARC formats.
- Experience performing original cataloging in multiple bibliographic formats and languages, and a comprehensive understanding of copy cataloging issues.

- Experience managing workflow, in a dynamic environment.
- Experience in training, developing, and supervising staff, and the ability to instruct diverse learning styles.

Effective Date: _____

UNIVERSITY OF CALIFORNIA, DAVIS
GENERAL LIBRARY

STATEMENT OF PRIMARY RESPONSIBILITIES

NAME: _____ DEPARTMENT: Monographs

PAYROLL TITLE: Associate Librarian WORKING TITLE: Electronic Resources Librarian

NAMES & PAYROLL TITLES OF THOSE WHOSE WORK IS REVIEWED: N/A

REVIEW INITIATOR'S NAME AND PAYROLL TITLE: Librarian

DESCRIPTION OF RESPONSIBILITIES ASSIGNED IN COMMON:

Prepares original cataloging for material lacking bibliographic records: determines main and added entries, subject headings, and classification numbers; provides descriptive cataloging and other data necessary to create bibliographic records for input into OCLC, according to current standards for electronic storage and retrieval. Also evaluates and revises selected bibliographic records supplied by other libraries through national and international bibliographic databases. Follows guidelines and standards set forth in AACR2 Revised; Library of Congress Rule Interpretations, Subject Headings List, and Classification Schedules; and local policies. Maintains name and subject authority control for the Library's bibliographic database by consulting the national authority files and establishing forms and reference structures for names and subjects accordingly. Keeps current with developments and innovations in the discipline through professional reading, electronic forums, and departmental and professional meetings. Performs collateral duties and projects as required.

DESCRIPTION OF UNIQUE RESPONSIBILITIES:

Provides expertise and collaborates with the Digital Initiatives Librarian to define and supply appropriate access to the Library's electronic collections. Responsible for MARC cataloging records and non-MARC descriptive metadata records for electronic resources. Provides procedures for bibliographic access to electronic resources, including digital texts, digital images, digital audio, websites, and online databases. Participates in the development of strategies for the bibliographic control of digital collections, and provides leadership for coordinating current cataloging practices with developing national standards and shifting local needs.

Provides leadership for access to electronic resources and access to in-house and remote electronic resources. Collaborates with other Library units/personnel in defining and using metadata for digital library collections. Addresses issues related to topics such as standards, persistent identifiers for networked resources, record format and record contents (MARC, XML, Dublin Core, TEI, EAD, RDF, multiple versions) for digital resources, the relationship of new access mechanisms to traditional catalogs, and linkages among various access systems.

Collaborates with the Library's Digital Initiatives Librarian to provide bibliographic access to electronic content using Library standards and best practices, as they develop. Participates in digital initiatives projects (approximately 50%).

Collaborates with the Library's web development team to apply database technologies and metadata standards to the Library's web presence.

Works with the Principal Cataloger and appropriate catalog supervisors to assign resources for cataloging operations and projects.

Apprises and advises other Library personnel on all department policies and procedural changes.

Represents the Library in state and national organizations, as appropriate.

Remains current with library trends, issues, and practices, and apprises colleagues of developments.

_____
(Signature of employee)

_____
(Signature of Review Initiator)

_____
(Signature of Department Head if not the Review Initiator)

_____
(Date)

http://library.case.edu/ksl/admin/jobs/head_bib_metadata_200701.pdf

CASE
CASE WESTERN RESERVE UNIVERSITY

POSITION DESCRIPTION

Title: Head of Bibliographic/Metadata Services (Librarian Level 3)

Department: Kelvin Smith Library

Management Center: University General

Location: 201 Kelvin Smith Library

Incumbent:

Supervisor Name and Title: Timothy Robson, Deputy Director

I. POSITION OBJECTIVE

The Head of Bibliographic/Metadata Services reports to the Deputy Director of Kelvin Smith Library and is a part of the Technical Services Council which includes the Head of Bibliographic/Metadata Services, the Head of Serials, the Head of Acquisitions and the Head of Preservation. The Head of Bibliographic/Metadata Services is responsible for planning, organizing, implementing and evaluating services and procedures that enhance bibliographic access and indexing for collections and resources of Kelvin Smith Library. The Head works closely with other department heads, both in Technical Services and elsewhere in the library to facilitate effective communication and working relationships among the departments. The Head provides leadership in resource management and allocation for the department. The Head supervises department staff and establishes departmental goals in keeping with those of the Kelvin Smith Library. The Head participates in the Technical Services/Collection Development Strategic Initiatives Group to foster good working relationships and efficient operations between collection development staff and Technical Services departments. The Head also undertakes special project assignments as assigned.

II. ESSENTIAL FUNCTIONS

- Manages the day-to-day operations and activities of the Bibliographic/Metadata Services Department, including, but not limited to, cataloging of new materials, reclassification/recataloging, authority control, physical processing, XML markup of digital books and creation of metadata records using such standards as Dublin Core, METS, MODS, etc.
- Supervises department staff, including hiring, scheduling, training and evaluating.
- Represents the department on the Technical Services Council, the Technical Services/Collection Development Strategic Initiatives Group, KSL Department Heads and other internal library committees.
- Works closely with the Head of Digital Library Initiatives in creating metadata for digital materials in the library's digital library, *Digital Case*.
- Works closely with the Head of Acquisitions to ensure a smooth workflow of new materials through the department.
- Develops and implements plans for effective and efficient workflow through the department, as well as mechanisms for evaluating that effectiveness.
- Develops yearly budget requests for the department and oversees the operational budget of the department

- Provides leadership in promoting opportunities for ongoing training and development for the staff of the department.
- Provides leadership in taking advantage of the use of the library's online library system and other available technologies.
- Provides leadership for external projects such as NACO, and may serve on appropriate OhioLINK committees and task forces.
- Prepares statistical and other management reports for the purposes of library administration and outside reporting agencies.
- Participates in cooperative activities with the other Case libraries.
- Plans and participates in special project assignments related to bibliographic access and control.
- Stays abreast of current trends and best practices in areas of responsibility and takes steps as necessary to integrate these into the operations of Kelvin Smith Library
- Maintains and documents a plan for ongoing professional growth and development and involvement in appropriate professional activities and organizations.

III. NON-ESSENTIAL FUNCTIONS

Participates in library-wide projects and special assignments.

IV. CONTACTS

A. Within your department/division or management center

Daily contact with library staff (professional, support, administrative) at all levels.

B. Within the university

Frequent contact with staff at other Case libraries; occasional contact with faculty and outside users of the library.

C. External to university

Occasional contact with OhioLINK staff and vendors.

D. Students

Supervision of student assistants in department; infrequent contact with other students

V. SUPERVISORY RESPONSIBILITY

This position directly supervises 2 FTE professional librarians, 3.5 FTE support staff , several student assistants and may occasionally supervises part- or full-time temporary employees.

VI. REQUIREMENTS

A. Experience

1. At least five years experience in a cataloging/metadata department of an academic or large public library required.
2. Supervisory experience required.

B. Education

M.L.S. required.

C. Essential skills

1. Ability to effectively supervise and evaluate the work of others.
2. Good oral and written communication skills.
3. Excellent interpersonal skills.
4. Must be able to use initiative and be able to work with minimal supervision, as well as part of a team in a collegial environment.
5. Must be able to assume responsibility and accomplish goals by thorough project planning and implementation.
6. Must have good problem solving skills and flexibility by exercising sound judgment in dealing with a variety of issues, sometimes in ambiguous circumstances.

D. Technical skills

1. Experience working with a variety of computer-based resources in support of cataloging required.
2. Knowledge of AACR2R, LCR1, LCSH, MARC formats, LC and Dewey classifications, and OCLC required.
3. Knowledge and demonstrated experience with metadata and other XML standards such as METS, MODS, Dublin Core, TEI, etc. required.
4. Experience working with an automated library system to catalog library materials required; experience using Innovative Interfaces INNOPAC strongly preferred.

VII. WORKING CONDITIONS

General office environment. Most work requires use of computer workstation. Some work requires interaction with old and dirty library materials.

Technical Services Archivist/Encoding Specialist

Reporting to the Head of Technical Services in the Rare Book, Manuscript, and Special Collections Library (RBMSCL), the Technical Services Archivist accessions and processes manuscripts and archival material in a variety of subject areas, and is responsible for digital media and providing leadership and technical support for encoding activities. S/He creates encoded collection finding aids, including preliminary container lists, and inventories, participates in the development of Technical Services procedures and provides some reference service.

Responsibilities

- Accessions, processes, and describes incoming manuscript and archival collections; analyzes accessioned manuscript collections to determine organization, arrangement, preservation, and description needs, seeking consultation with Collection Development and Research Services staff as needed; prepares preliminary descriptive tools for manuscript and archival collections, including printed and encoded inventories or container lists, databases, and subject and other indexing.
- Provides primary leadership, expertise, and support for RBMSCL EAD encoding activities; develops, in collaboration with other staff, internal encoding standards; evaluates and deploys software for use in encoding and display; serves as department liaison to Information Systems Support for mounting encoded finding aids on Library servers; provides training for staff, interns, and student assistants in encoding standards.
- Performs and supervises processing and description of manuscript and archival collections; provides for base-level processing for manuscript and archival collections and fuller processing when appropriate; develops and approves processing proposals.
- Analyzes digital material acquired by RBMSCL as part of manuscript and archival collections and, working with Information Systems Support staff, provides for appropriate description and preservation; develops policies for media migration, reformatting, storage, and server space; stays current with issues and knowledge of digital preservation and communicates with other RBMSCL staff; maintains procedures for Technical Services Manual.
- Supervises, trains and evaluates Rare Materials/Archival Assistant, student assistants, interns, and casual labor workers as needed to provide assistance in the accessioning and processing of manuscript collections.
- Participates in the planning, review, and implementation of the Department's mission and technical procedures.
- Provides reference service for RBMSCL on a rotating Saturday and holiday schedule.
- Performs other duties as assigned.

Qualifications

It is the expectation that all Perkins Library System staff members will demonstrate exceptional workplace behaviors in the execution of their specific position responsibilities. These behaviors are customer focus, collaboration, creative problem solving, continuous learning and a commitment to diversity. In addition, managers and supervisors are expected to help develop a common vision by providing clear direction and priorities, clarifying roles and responsibilities, and promoting mutual understanding through effective communication. They are also expected to take the time to effectively plan and evaluate performance, provide feedback, recognition and coaching, and develop employees to achieve their personal and organizational goals.

EDUCATION:
Required: MLS from an ALA-accredited program, advanced degree in archival studies or an academic field related to RBMSCL holdings and/or relevant combination of education and experience.

EXPERIENCE:
Required: At least two years of experience in accessioning and processing manuscripts and archival material; working knowledge of and experience with standard archival procedures, *DACS*, MARC cataloging, Library of Congress Subject Headings and Encoded Archival Description; attentive to details; familiarity with computer systems and with migration protocols for a variety of digital media; excellent interpersonal, oral and written communication skills; flexibility and ability to adapt to change; ability to work independently and as a member of a team; working knowledge of MS Office applications; demonstrated commitment to providing outstanding customer services; must be able to lift 30 pounds and unpack, shelve and shift large quantities of library materials; must be able to work in an environment in which exposure to materials containing dust and mold is possible. .

Preferred: Prior experience working in an academic research library; experience with library databases, AACR2 cataloging and EAD encoding software.

Salary and Benefits

Salary and librarian rank dependent on qualifications and experience; anticipated hiring range of $38,000 – 43,000. Comprehensive benefits package includes 20 days vacation, 13 holidays, 12 days sick leave; health, dental, disability and life insurance; retirement plan options; and educational assistance and tuition grants.

Environment

The libraries of Duke University consist of the William R. Perkins Library and its six branches on campus: Rare Book, Manuscript and Special Collections, Biological and Environmental Sciences, Chemistry, Engineering and Math-Physics, Lilly and Music; the library at the Duke Marine Laboratory in Beaufort; and the independently administered libraries of the professional schools: The Ford Library at the Fuqua School of Business, Divinity School Library, Duke Law Library and the Medical Center Library. Duke's library holdings of 5.1 million volumes are among the largest of private universities in the United States. Duke is a member of the Triangle Research Libraries Network which promotes collaboration in the areas of collection development and management, access services, information technology, and human resources among the libraries of Duke University, the University of North Carolina-Chapel Hill, North Carolina Central University and North Carolina State University.

Duke University and Durham are located in the Research Triangle, a region that encompasses one of the nation's premier concentrations of academic, corporate, and public research. The Triangle region is rated among the most desirable areas in North America to live and work and has been identified by *Money* magazine as one of the "Best Places to Live" in the U.S.

Application

Please e-mail cover letter, detailed resume and the names, addresses (mailing and e-mail), and telephone numbers of three references to library-jobs@duke.edu. Please include ***TECH***

ARCHIVIST in the subject line. (Please send e-mail in plain text format, *not* HTML). If you do not have access to e-mail, please send applications via regular mail to: Teresa Tillman, Box 90194, Duke University, Durham, NC 27708.

Review of applications will begin in early July and will continue until the position is filled.

Duke University is an Equal Opportunity/Affirmative Action employer. The Perkins Library System has a strong commitment to Affirmative Action and is actively seeking to increase the racial and ethnic diversity of our staff.

INFORMATION TECHNOLOGY SERVICES
PERKINS LIBRARY, DUKE UNIVERSITY

POSITION DESCRIPTION

POSITION: Metadata Architect/Programmer
HR CLASSIFICATION: Analyst, Information Technology
DEPARTMENT: Research and Content Development

General Description

Serves as primary metadata architect and software analyst/programmer for digital library projects. Works with project stakeholders to select or define taxonomies and metadata schemas and to develop crosswalks between them. Performs analysis, design, program development, prototyping, and testing of tools and systems that implement these metadata schemes. This position reports to the Head of the Office of Research and Content Development, Information Technology Services.

Duties

1. Working closely with project stakeholders and other ITS staff, identifies and documents metadata needs and requirements. Researches and identifies existing metadata standards, schemes, and tools for applicability, or develops and documents new ones where necessary. Assists in development of project specifications and project plans. Assists in performing cost analysis of system changes and feasibility studies.

2. Researches and evaluates software systems and tools for their applicability to defined specifications. Analyzes, installs, configures, customizes, and prototypes systems and tools to meet these specifications. Where existing functionality is not available, designs, develops, and prototypes custom tools. Develops and implements metadata crosswalks and programs to provide connectivity between systems as needed.

3. Serves on cross-functional project teams within the ITS department as well as across library and University departments. Provides consulting and training on issues related to work being performed.

4. Prepares reports and analyses setting forth progress, adverse trends and appropriate recommendations or conclusions. Compiles documentation of models and programs.

5. May assign work and establish priorities, instruct and train in methods and procedures, and coordinate and review the work of other staff.

6. Maintains interface with vendor representatives to gather information and resolve software problems.

7. Maintains liaison with representatives of other University information technology operations, professional and standards organizations and software vendors to ensure knowledge of current principles and techniques and interoperability with relevant systems. Monitors print and online sources to keep up-to-date on metadata standards and tools, software systems, operation procedures, and technological developments in systems and programming.

8. Performs other related duties as assigned.

Qualifications

Required:

- Bachelor's degree in computer science, software engineering, or equivalent education or experience.
- Experience with software development in a Unix environment, in particular with developing Internet applications.
- Experience with complex metadata modeling and structures, particularly in a digital library environment.
- Experience with XML, RDF, and related standards and technologies, especially with respect to established schemas such as EAD, TEI, and Dublin Core.
- Demonstrated written and oral communication skills.
- Experience with programming in at least two of these languages: C++, Java, Perl, JavaScript, Python.

Desirable:

- Experience working in a research library or academic computing environment.
- Master's degree in Information or Library Science.
- Experience with UML and/or related standards and technologies.
- Experience with Unix system administration (Solaris and Linux).
- Experience working with RDBMS and/or OODBMS applications.

INDIANA UNIVERSITY LIBRARIES
Bloomington, Indiana 47405

LIBRARY FACULTY POSITION DESCRIPTION FORM

Name: Jenn Riley Years covered: 2006

Position Title: Metadata Librarian

If other than full time, please indicate:

Campus: Bloomington

Library/Branch/Department: Wells Library/Digital Library Program

Immediate Supervisor(s): Stacy Kowalczyk, Associate Director for Projects & Services, Digital Library Program

Department Head: (vacant)

I. Primary responsibilities

Please list here, in tabular form, those duties which you regularly or occasionally perform on which the majority of your time is spent. The duties should be directly connected with the title of your position and the function of your department. If these duties include any significant one-time projects, please specify.

1. Plans long-term metadata strategy for the Indiana University Libraries and Digital Library Program.
2. Advises on the application of and provides written instructions for the creation, capture, and quality control of descriptive, administrative, structural, and technical metadata for digital projects and collections in the Indiana University Libraries and Digital Library Program.
3. Works with collection managers and subject specialists to identify appropriate metadata standards for use in digital projects covering a variety of media, including text, music, still images, audio, and video.
4. Creates, proofreads, and edits descriptive, administrative, structural, and technical metadata for digital projects.
5. Designs and/or adapts DTDs, XML Schemas, and XSLT stylesheets for metadata for digital projects.
6. Participates in the translation of metadata between formats and the integration of metadata from a variety of sources.

7. Collaboratively develops specifications for the use of metadata in the search and browse functions of delivery applications for digital projects.
8. Assists in development of specifications for tools for the creation of metadata for digital projects.
9. Serves as a liaison between the Digital Library Program and IU Libraries Technical Services for metadata issues.
10. As required, hires, trains, and supervises hourly and grant-funded personnel assigned to create metadata for specific projects.

II. Secondary responsibilities

Please list here, in tabular form, those duties which you regularly or occasionally perform but which do not require the majority of your time. These duties should include regularly scheduled departmental or administrative meetings, but should not include committee appointments unless service is ex-officio.

1. Helps to identify sources of external funding and participates in writing grant proposals to fund digital projects.
2. Serves as a member of the DLP Administrative Team.
3. Serves as a convener of the IU Libraries EAD Working Group.
4. Consults with other members of the Indiana University community on selection and implementation of metadata schemas for digital projects.

III. Qualifications

Please list here any special qualifications for the completion of your primary responsibilities. If previous library experience is essential, please indicate its length and nature. Other qualifications might include language skills, advanced degrees in non-library areas, non-library experience, etc. If such qualifications would be merely helpful rather than essential, please do indicate.

- ALA-accredited master's degree in library or information science or equivalent combination of degrees and experience.
- Knowledge of the concepts and applications used in the standards and practices of organizing information
- Experience with metadata standards including MARC, EAD, TEI, VRA Core, Dublin Core, MODS, and METS
- Experience with creation and/or knowledge and management of digital objects in various text, image, sound, and/or video formats
- Ability to plan, coordinate, and implement projects
- Experience with XML/SGML and related standards
- Experience with multiple computer platforms including Linux, UNIX, Windows, and MacOS
- Experience with Perl or Java helpful
- Experience in writing grant proposals and/or in managing grants helpful
- Good organization skills and an aptitude for complex analytical and detailed work
- Ability to work independently as well as collegially in a complex, rapidly changing and culturally diverse environment with various groups of library staff

- Excellent written and oral communication skills
- Ability to meet the requirements of a tenure-track appointment

The Metadata Librarian position at the Johns Hopkins University Libraries' offers an opportunity for an energetic, service oriented librarian with strong communications skills to provide leadership and technical expertise in the application of descriptive metadata for locally digitized resources included in the Johns Hopkins University's institutional repository. Reporting to the Head of Technical Services, the Metadata Librarian will:

- Coordinate the creation and management of descriptive metadata including compose data dictionaries, define input standards, establish local policies and procedures;
- Devise metadata structures and search interfaces that facilitate discovery and retrieval of locally digitized information;
- Develops tools to transform metadata into multiple schema using XSLT
- Collaborate with staff in the Center for Educational Resources, Digital Library Program, Special Collections as well as campus departments and external organizations to design schema, to identify and coordinate implementation of enhancements based on user needs and developing standards;
- Collaborate with programmers to implement new enhancements
- Provide outreach to the academic community to educate users about products and gather feedback
- Analyze metadata provided by external vendors to determine conversions and enhancements needed to support local access through the Hopkins' digital library
- Train students, staff, content creators in the application of descriptive metadata
- Participate in local and national discussions through professional development and service activities

Required Qualifications: ALA accredited MLS, or information science, computer science or a related field. Experience with computer applications in libraries, including knowledge of non-MARC metadata schemes and evolving standards (e.g., Dublin Core, VRA Core Categories, or Content Standard for Digital Geospatial Metadata). Knowledge of XML and XSLT . Knowledge of frameworks for managing intellectual content/information in digital form (e.g., TEI, DOI, or RDF).Ability to plan, coordinate, and implement projects. Strong service orientation. Demonstrated organizational, analytical, problem solving, communication, and training skills. Flexibility and initiative in carrying out assignments in a rapidly changing environment. Ability to prioritize work to ensure that departmental and library goals are realized. Ability to work independently as well as part of a team in a production-oriented, dynamic environment, and with a commitment to professional development and growth.

Preferred Qualifications: Familarity with thesaurus design and construction. Familarity with relational databases and information retrieval software. Understanding of networked architecture. Project management experience.Working knowledge of current national cataloging standards.

The MIT Libraries seek an innovative and energetic professional with a grounding in metadata skills to develop and supervise a Metadata Services Unit. This Unit review and create metadata for objects in MIT's OpenCourseWare project. The Metadata Librarian will learn all aspects of the OCW metadata input system and workflow, and will participate in metadata processes, including but not limited to editing the SCORM descriptive metadata and the technical metadata for non-text formats, and supplying subject terms as necessary. The Metadata Librarian will serve as the Libraries' liaison to the OCW project and ensure fulfillment of production requirements. He/she will plan and implement the Unit's activities, developing workflows and documentation, and will supervise a half-time support staff position responsible for routine descriptive metadata editing. The Metadata Librarian will also identify other potential clients for metadata services, gradually expanding the service on a cost recovery basis. He/she will provide consulting services, such as conducting metadata needs assessments, and drafting metadata components of grant proposals.

Reporting to the Head, Cataloging and Metadata Services, the Metadata Librarian will collaborate with colleagues in that department as well as those in the Libraries' Digital Library Research Group. Assistance and guidance will be provided for an initial period of six months by the Special Formats Cataloger, who has worked with OCW to plan this new service. The Metadata Librarian will be expected to develop expertise in and keep current with standards such as SCORM, IEEE LOM, CIP, and various formats of technical metadata. He/ she will develop familiarity with subject thesauri in order to be able to recommend specific thesauri for various projects. He/she will participate in committees, projects, and development activities within the MIT Libraries and beyond.

Requirements:

M.L.S or equivalent degree from an ALA-accredited university strongly preferred, although candidates with applicable alternative educational background and experience will be considered. Cataloging and/or metadata experience in a research library preferred; solid evidence of metadata skills and understanding of some metadata schema required. Experience working with academic departments will be very useful. All of the following are required: Strong collegial, interpersonal and communication skills; Ability to work in a team setting in a complex, rapidly changing environment; Experience in or demonstrated potential for supervisory responsibility; Evidence of consistency in and aptitude for detailed work.

Electronic Resources Cataloger Job Description

Description

The Electronic Resources Cataloger serves as a specialist and liaison for the Catalog Dept. on issues of bibliographic control and metadata related to electronic resources of all types. He/she works in a collegial environment of cataloging specialists and within a library that is increasingly active in creating and managing digital content. The position is in the Monographic Original Cataloging section of the Catalog Dept. in Davis Library.

This position's primary responsibilities:

- Catalog electronic resources including CD-ROMs, DVD-ROMs, E-books, electronic databases, websites and other electronic formats (primarily monographs and integrating resources) acquired for Davis Library and the branch libraries that it serves. Cataloging is done using OCLC's Connexion Client and the library's Innovative Interfaces local system.

- Develop and maintain local policies and documentation, keep abreast of current trends, and work with other library staff, as necessary, on issues involving cataloging of e-resources.

- Assume responsibility as the lead cataloging specialist for the library's digital library initiatives and actively participate in library digital planning and projects.

- Serve as a general resource person for the library on metadata issues

- Participate in the NACO and BIBCO programs of the Library of Congress' Program for Cooperative Cataloging.

- Take on special cataloging projects as needed, especially when they expand access to previously uncataloged material.

Qualifications

Required: ALA-accredited MLS. Demonstrated interest in cataloging through extra courses, internships or work experience. Working knowledge of online library systems, AACR2R, LCRI, LCSH, MARC21 formats, and authority control. Demonstrated interest in working with electronic material through familiarity with library metadata and standards such as Dublin Core, TEI Headers, EAD, HTML and XML, METS, MODS and other components of digital libraries. Good computer skills including spreadsheet and database applications. Excellent oral and written communication skills. Effective organizational and interpersonal skills, and the ability to work cooperatively and flexibly

with a wide variety of staff in a rapidly changing environment. Commitment to professional growth in areas relevant to the position of Electronic Resources Cataloger.

Preferred: Cataloging experience in an academic or research library setting or cataloging experience with electronic resources. Experience with: Innovative's Millennium system; NACO or other PCC programs. Reading knowledge of one or more European or Asian languages.

Metadata Librarian

The Pennsylvania State University Libraries seeks an innovative and highly motivated librarian to provide creative leadership and expertise in developing and maintaining metadata to effectively provide access to the Libraries' digital resources covering all subjects and languages according to nationally recognized standards. This is a tenure track faculty position and the Metadata Librarian is a member of the University Libraries faculty.

Responsibilities: Reporting to the head of Cataloging and Metadata Services, the successful candidate will be responsible for providing expertise and leadership to the Libraries' digital and scholarly communications initiatives by providing metadata and metadata guidelines for digital collections. Collaborate with other librarians and library staff, Penn State Press staff, Penn State faculty, and colleagues in other research institutions to evaluate and apply appropriate metadata schemas for digital collections held by the Libraries and University. Provide leadership in the development of standards, policies and procedures across Technical Services, with particular responsibility for digital resources. As a member of the Digital Technology Advisory Group, manage and coordinate the process of implementing metadata, including needs assessment, metadata scheme adaptation, metadata interoperability, project management, and working with partners from various units. Serve as a resource for faculty and staff throughout the Libraries concerning access to library materials. Present information about digital initiatives and metadata in particular to a variety of audiences. Create and maintain local documentation on metadata standards and metadata application guidelines . Monitor and contribute to the development of national standards regarding the bibliographic control of digital resources. Explore new technologies and developments in digital applications and metadata implementation. Train staff to provide metadata for digital resources and provide quality control for digital object metadata. Participate in departmental and Libraries-wide committees, task forces and teams.

Qualifications: MLS from an ALA-accredited program or equivalent degree; experience with one or more of the following standards: EAD, Dublin Core, XML, OAI, METS, VRACore and PBCore; knowledge of AACR2r, LCSH, LC classification, USMARC formats, integrated library system software, and OCLC Connexion; strong technical skills and problem-solving abilities; excellent oral, written, and interpersonal communication skills; strong commitment to excellent service and the

ability to work independently and collaboratively; reading knowledge of a foreign language; ability to work well with a diverse employee and user community and to work within a collegial environment. Preferred: Two years experience with initiatives to provide access to digital resources.

The University Libraries: Established in 1855, Penn State is a Carnegie I comprehensive research university with a strong land grant mission. " America 's Best Colleges 2004" in U.S. News & World Reports, ranks Penn State 15th among top national doctoral universities. The University Libraries, with an annual budget of $41 million and a collection of over 5 million volumes, ranks among the top fifteen ARL research libraries in North America . The University Libraries comprise 38 libraries located on 24 Penn State campuses throughout the Commonwealth of Pennsylvania . 159 librarians and professional staff, 403 support staff, and 89 FTE student assistants serve 84,000 students and 6,500 faculty. Libraries memberships include ARL, OCLC, RLG, PALCI (Pennsylvania Academic Library Consortium, Inc.), Palinet, CRL, DLF, and the CIC (Big Ten) consortium.

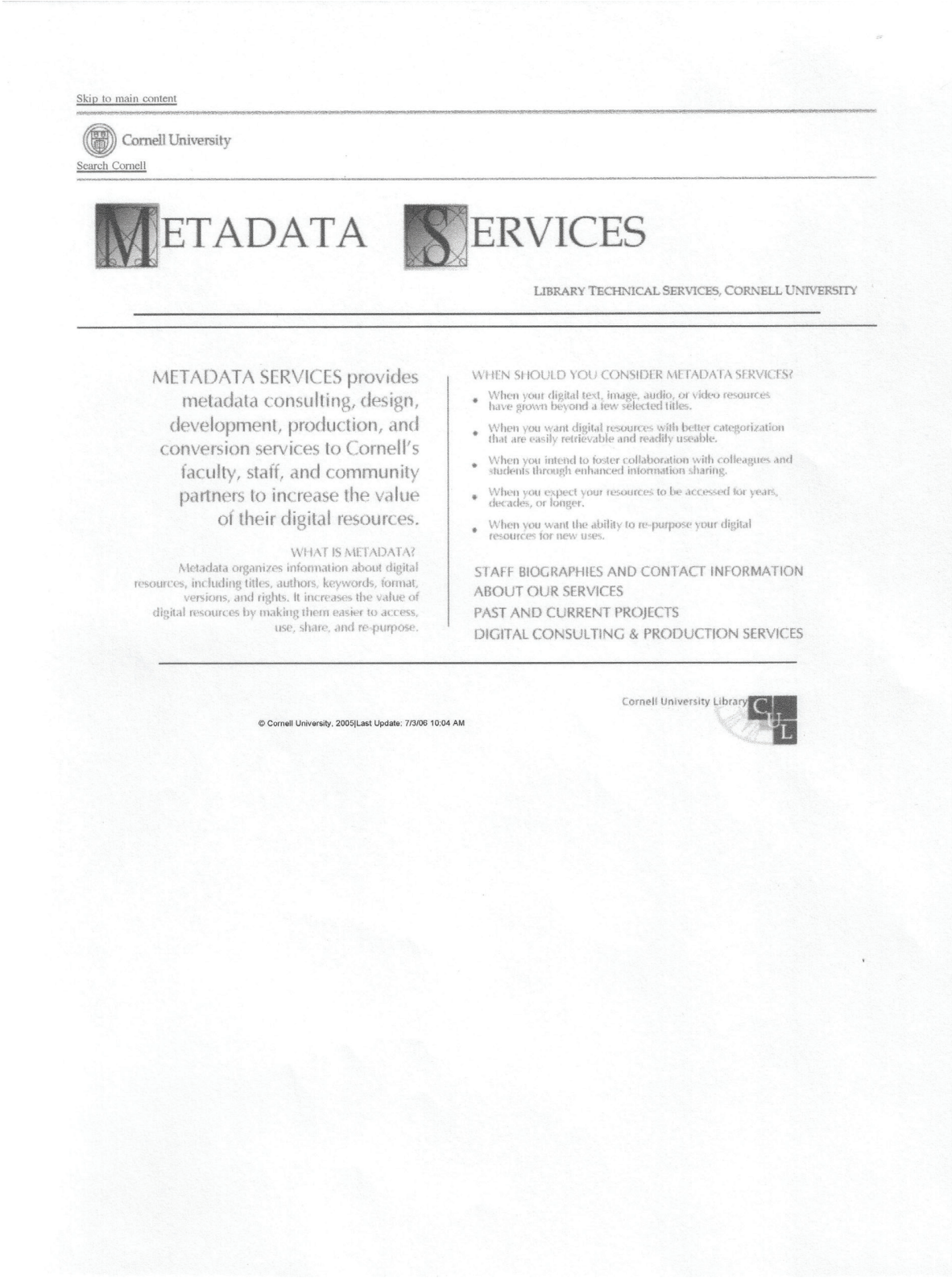
Salary and Benefits: Potential for promotion and tenure will be considered based upon University standards in librarianship, research, service, and outreach. Salary and rank commensurate with qualifications and experience. Excellent fringe benefits include liberal vacation, excellent insurance and health care coverage. State or TIAA/CREF retirement options, and educational privileges.

Applications: To apply, send nominations or letters of application (including current resume and name and contact information of three professional references) to: Libraries Human Resources, Box MDL-PSUL, The Pennsylvania State University, 511 Paterno Library, University Park , PA 16802 . Review of resumes will begin on November 8, 2006 and continue until the position is filled.

Penn State is committed to affirmative action, equal opportunity and diversity of its workforce.

Mission Statements and Group Charges

http://metadata.library.cornell.edu/



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Cornell University

Search Cornell

METADATA SERVICES

LIBRARY TECHNICAL SERVICES, CORNELL UNIVERSITY

METADATA SERVICES provides metadata consulting, design, development, production, and conversion services to Cornell's faculty, staff, and community partners to increase the value of their digital resources.

WHAT IS METADATA?

Metadata organizes information about digital resources, including titles, authors, keywords, format, versions, and rights. It increases the value of digital resources by making them easier to access, use, share, and re-purpose.

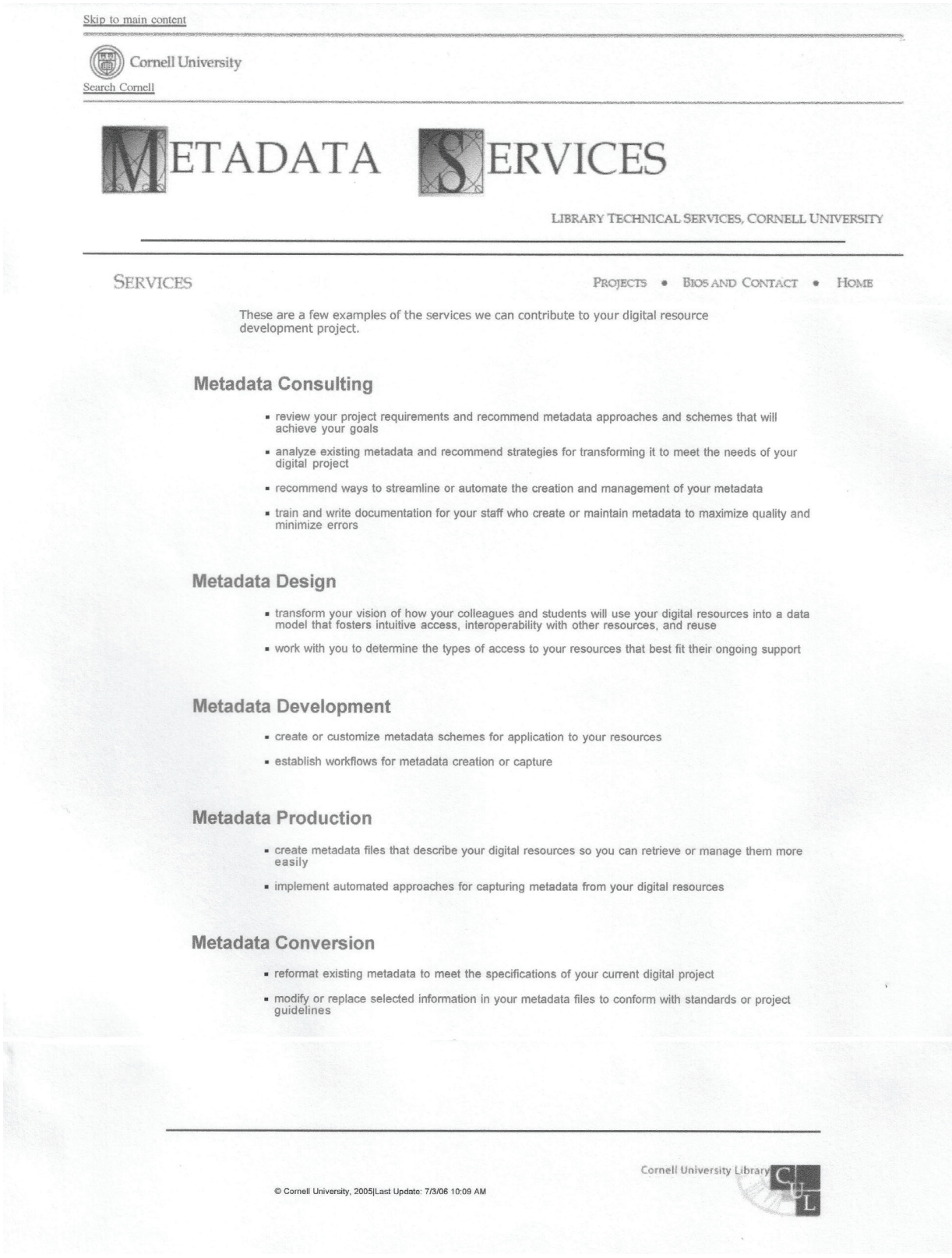
WHEN SHOULD YOU CONSIDER METADATA SERVICES?

- When your digital text, image, audio, or video resources have grown beyond a few selected titles.
- When you want digital resources with better categorization that are easily retrievable and readily useable.
- When you intend to foster collaboration with colleagues and students through enhanced information sharing.
- When you expect your resources to be accessed for years, decades, or longer.
- When you want the ability to re-purpose your digital resources for new uses.

STAFF BIOGRAPHIES AND CONTACT INFORMATION
ABOUT OUR SERVICES
PAST AND CURRENT PROJECTS
DIGITAL CONSULTING & PRODUCTION SERVICES

Cornell University Library

http://metadata.library.cornell.edu/services.html



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Cornell University

Search Cornell

METADATA SERVICES

LIBRARY TECHNICAL SERVICES, CORNELL UNIVERSITY

SERVICES

PROJECTS • BIOS AND CONTACT • HOME

These are a few examples of the services we can contribute to your digital resource development project.

Metadata Consulting

- review your project requirements and recommend metadata approaches and schemes that will achieve your goals
- analyze existing metadata and recommend strategies for transforming it to meet the needs of your digital project
- recommend ways to streamline or automate the creation and management of your metadata
- train and write documentation for your staff who create or maintain metadata to maximize quality and minimize errors

Metadata Design

- transform your vision of how your colleagues and students will use your digital resources into a data model that fosters intuitive access, interoperability with other resources, and reuse
- work with you to determine the types of access to your resources that best fit their ongoing support

Metadata Development

- create or customize metadata schemes for application to your resources
- establish workflows for metadata creation or capture

Metadata Production

- create metadata files that describe your digital resources so you can retrieve or manage them more easily
- implement automated approaches for capturing metadata from your digital resources

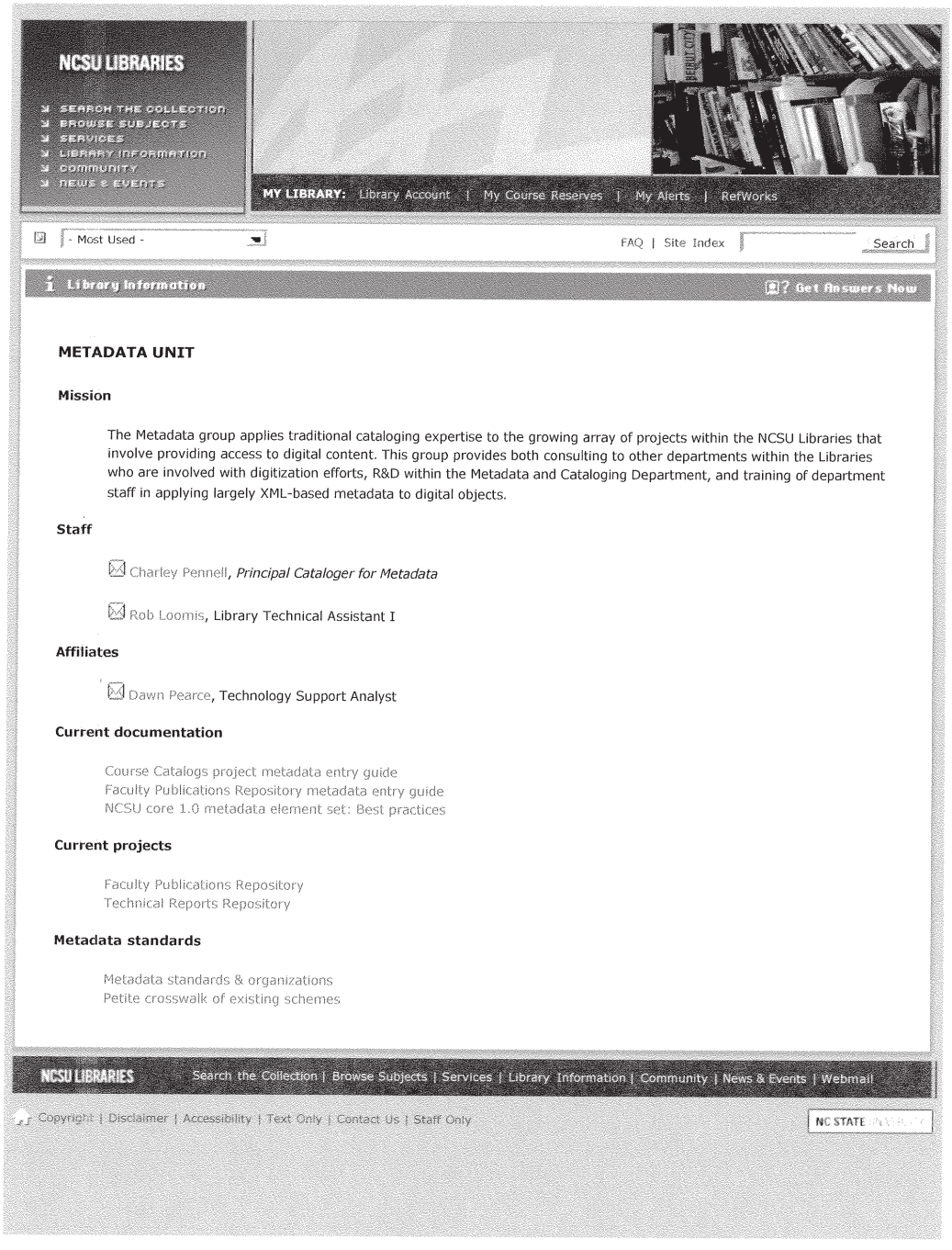
Metadata Conversion

- reformat existing metadata to meet the specifications of your current digital project
- modify or replace selected information in your metadata files to conform with standards or project guidelines

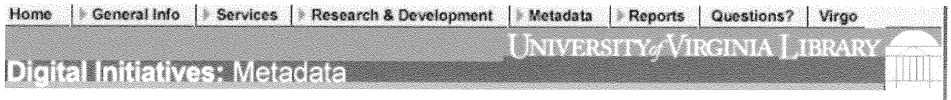
Cornell University Library

NORTH CAROLINA STATE UNIVERSITY

http://www.lib.ncsu.edu/cataloging/dept/metadata.html



http://lib.virginia.edu/digital/metadata/msg.html



Metadata Steering Group

Metadata Home > Metadata Steering Group

Charge & Membership

The charge of the Metadata Steering Group (MSG) is to approve and maintain metadata standards for the Library's digital initiatives. This group also establishes best practices for data content and approves new local practices for the application of existing standards. This group engages the perspectives of Library experts in the various international standards (TEI, MARC, VRA….) and is responsible for keeping up with changes and adjusting mappings and the metadata schema for the UVa Digital Library to stay aligned with external standards. The Group creates short-term working groups as needed, which may consist of representatives of the various standards and/or content domains (science, music, etc.) along with MSG members. The Group distributes its minutes to the lib-metadata email list and reports its recommendations to Martha Sites, Associate University Library for Production and Technology Services, for discussion and prioritization among her managers' group.

Members:

Erin Stalberg, *Chair* (Cataloging Services)
Elizabeth Gushee (Fine Arts Library)
Janis Kessler (Cataloging Services)
Sherry Lake (Brown Science & Engineering Library)
Mary Prendergast (Music Library)
Bess Sadler (Digital Research & Instruction Services)
Thorny Staples (Digital Library Research & Development)

Library standards/content experts

Beth Blanton-Kent (Science)
Bradley Daigle (EAD)
Leslie Johnston (Central Digital Repository)
Carla Lee (Science)
Greg Murray (TEI)
Christine Routolo (TEI)
Judith Thomas (Images/Audio/Video)
Ross Wayland (Central Digital Repository)

Lib-metadata Email List and Archives

The purpose of this list is to bring together everyone involved with and/or interested in the creation of metadata and metadata/cataloging standards for the UVa Digital Library. The list is open to all in the University of Virginia community.

Subscription information
View the archives (the archive is only available to the list members)

MSG Minutes

The first meeting of the MSG was September 25, 2003. Minutes are posted here as they become available, as well as to lib-metadata.

MSG Reports & Recommendations

Policy reports and recommendations that have been approved by the Library's administrative groups.

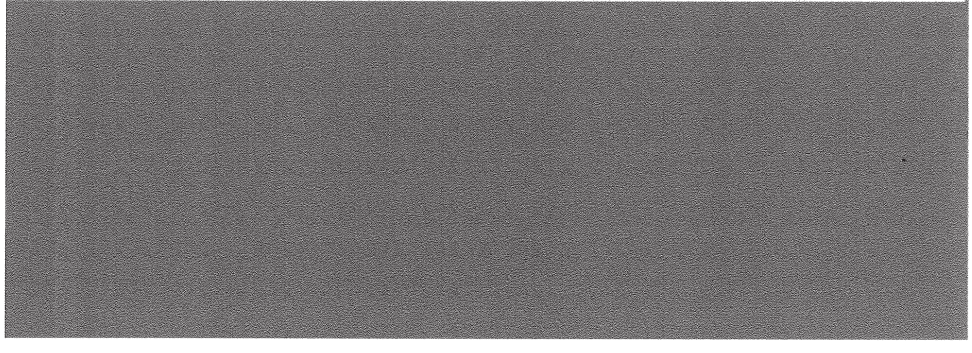
Earlier efforts

Digital Library Metadata Review and Planning Group Report (5/2003)

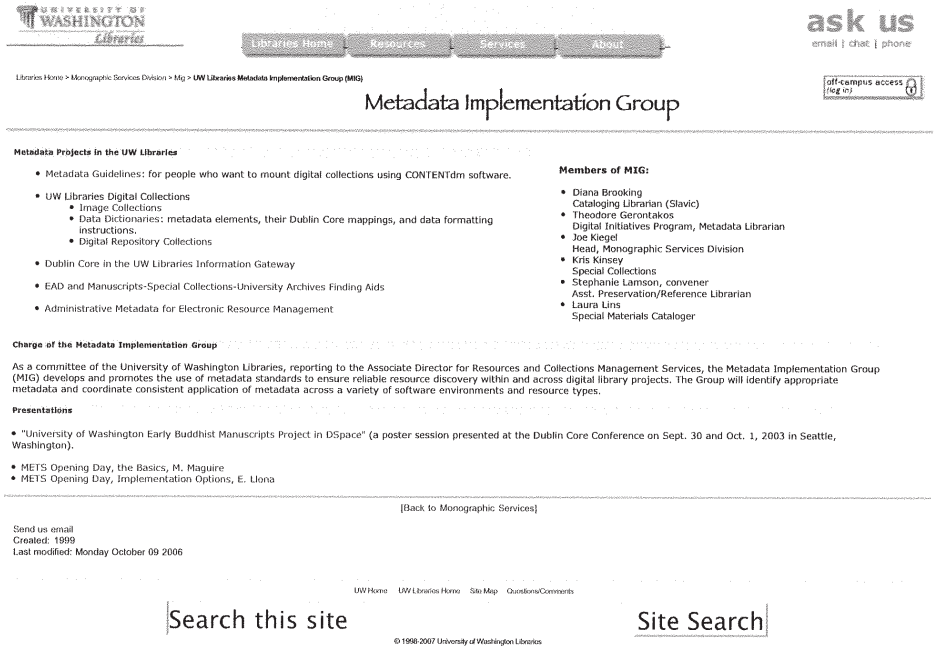
Minimum metadata element standards, and initial recommendations on local practice.

Digital Initiatives
University of Virginia
PO Box 400112
Charlottesville, VA 22904-4112

Maintained by: dl@virginia.edu
Last Modified: Friday, July 06, 2007



http://www.lib.washington.edu/msd/mig/default.html



UNIVERSITY OF WASHINGTON Libraries

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email | chat | phone

Libraries Home > Monographic Services Division > Mig > **UW Libraries Metadata Implementation Group (MIG)**

off-campus access (log in)

Metadata Implementation Group

Metadata Projects in the UW Libraries

- Metadata Guidelines: for people who want to mount digital collections using CONTENTdm software.
- UW Libraries Digital Collections
  - Image Collections
  - Data Dictionaries: metadata elements, their Dublin Core mappings, and data formatting instructions.
  - Digital Repository Collections
- Dublin Core in the UW Libraries Information Gateway
- EAD and Manuscripts-Special Collections-University Archives Finding Aids
- Administrative Metadata for Electronic Resource Management

Members of MIG:

- Diana Brooking
  Cataloging Librarian (Slavic)
- Theodore Gerontakos
  Digital Initiatives Program, Metadata Librarian
- Joe Kiegel
  Head, Monographic Services Division
- Kris Kinsey
  Special Collections
- Stephanie Lamson, convener
  Asst. Preservation/Reference Librarian
- Laura Lins
  Special Materials Cataloger

Charge of the Metadata Implementation Group

As a committee of the University of Washington Libraries, reporting to the Associate Director for Resources and Collections Management Services, the Metadata Implementation Group (MIG) develops and promotes the use of metadata standards to ensure reliable resource discovery within and across digital library projects. The Group will identify appropriate metadata and coordinate consistent application of metadata across a variety of software environments and resource types.

Presentations

- "University of Washington Early Buddhist Manuscripts Project in DSpace" (a poster session presented at the Dublin Core Conference on Sept. 30 and Oct. 1, 2003 in Seattle, Washington).
- METS Opening Day, the Basics, M. Maguire
- METS Opening Day, Implementation Options, E. Llona

[Back to Monographic Services]

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Last modified: Monday October 09 2006

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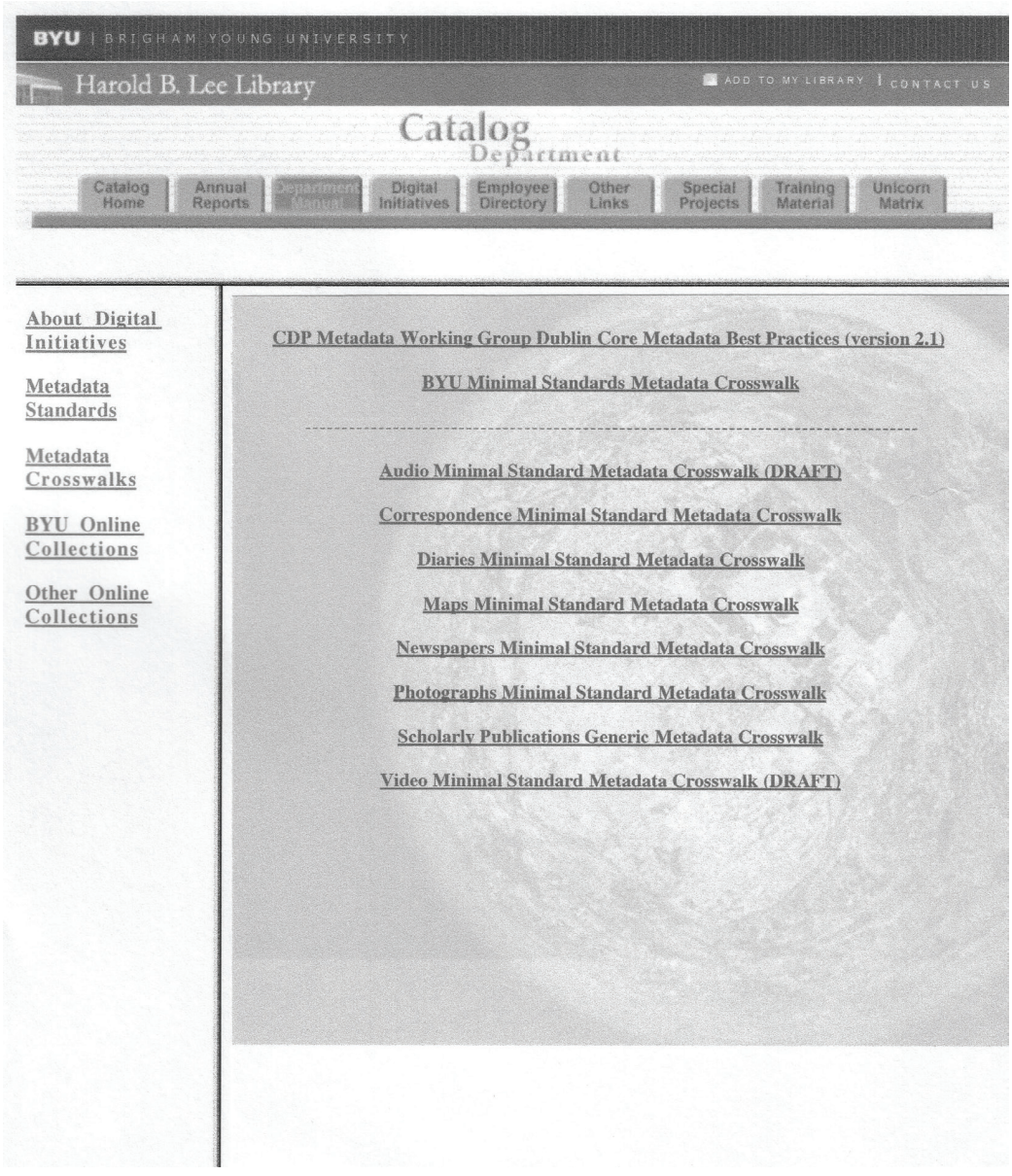
Policies, Procedures, and Guidelines

BRIGHAM YOUNG UNIVERSITY

http://net.lib.byu.edu/~catalog/catalogwebsite/digitalinitiatives.htm



http://net.lib.byu.edu/~catalog/catalogwebsite/digitalinitiatives/crosswalks/Western States.pdf

BYU Minimal Standard Metadata Crosswalk

CDP / Western States Dublin Core Set Required/ Optional Fields

Marc	Field Name	Dublin Core	Field Description	Searchable	Hidden	Auth Cntl
100,111,110	*Creator (Author) if AVAIL	**Creator**	Lastname, Firstname - Use LCSH form of term	Yes	No	Yes LCSH
	Contributor	**Contributors**	Secondary authors and/or editors/translators/illustrators	Yes	No	Yes LCSH
245|a|b	*Title	**Title**	Title of the work--created by creator/publisher or supplied	Yes	No	
242,130,240	Title Alternative	Title	Translated title, Uniform title, other title	Yes	No	
	*Description	**Description**	Account of content of resource (may be Abstract or TofContents)	Yes	No	
250	*Edition	Description	Edition (usually Electronic reproduction)	Yes	No	
260	Publisher Original	**Publisher**	Publisher of the Paper or original copy if born digital	Yes	No	
260|c or 008 7-10	*Date Original	**Date**	Date original copy yyyy-mm-dd	Yes	No	
	Publisher Digital	Publisher	Name of department, Brigham Young University	Yes	No	
	*Date Digital	Date	Date of the digital creation yyyy-mm-dd	Yes	No	
300	Physical Description	Description	Physical description of the pagination, Illus, size of original if avail	No	No	
	*Holding Institution (Owning Institution)	**Source**	Owning institution--UALC maps to Source for AGG Server	No	No	
6XX	*Subject	**Subject**	STRONGLY recommended from an established Thesaurus; UALC adopted LCSH	Yes	No	Yes LCSH
	*Language	**Language**	Two and three letter codes for language---BYU also spells it out	Yes	No	Yes LOC
	Relation (Collection)	**Relation-Is-Part-Of**	BYU uses for Collection name	Yes	No	Yes Local
	Coverage	**Coverage**	Spatial or temporal coverage (RelEd has used time span)	Yes	No	
	*Rights (Patron Usage...)	**Rights**	BYU uses 3 fields: Patron Usage Instructions, Copyright, Access	No	No	
	Copyright Status/Owner	Rights	Legal Copyright owner and status of the copyright	No	No	
256	Type	**Type**	Broad term describing nature of the resource	No	No	Yes Dublin Core
516	*Format.Use (Format)	**Format**	text/pdf	No	No	Yes ISI
	*Format.Creation		Technical info about hardware/software/process to create digital; BYU uses File Size, Metadata Entry Tool, Digital Lab information	No	Yes	
	Source	Source	Cite resource from which digital resource was derived	Yes	No	
	Contributor Metadata Entry		Lastname, Firstname, 1900-1955 (use LCSH established form)	No	Yes	
	Metadata Entry Date		yyyy-mm	No	Yes	
	Metadata Entry Tool		Part of Format.Creation. Software programs used in the metadata creation of the object.	No	Yes	
	Full text	Description	Full text of the document (as long as CONTENTdm supports)	Yes	No	
583	Refresh		yyyy-mm	Yes	Yes	
	*Identifier	**Identifier**	Call #, other Identification Schemes (SIRSI ID), File name, URL	Yes	No	
	File Size	Format	Size of the computer file to display- Part of Format.Creation	No	No	

REQUIRED
BYU FIELDS
AUTOLOADED

CDL CALIFORNIA DIGITAL LIBRARY

1 Introduction

1.1 Scope

The CDL Guidelines for Digital Objects (CDL GDO, this document) provides specifications for all *new* digital objects prepared by institutions for submission to CDL for access and preservation services. They are not intended to cover all of the administrative, operational, and technical issues surrounding the creation of digital object collections.

The guidelines seek to support the following objectives:

- Ensure a basic level of uniformity in the structure and encoding of non-licensed digital content managed by the CDL
- Advance interoperability among digital content from diverse institutions
- Promote efficient ingest procedures
- Support the orderly management of digital content
- Facilitate access to digital content by users
- Minimize costs

These guidelines do not set requirements for digital materials submitted to or collected by the CDL through other means:

- Metadata exposed to CDL harvesting systems via the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH)
- Metadata targeted by federated search systems
- Web-crawled resources

In addition, these guidelines do not address requirements for collections delivered to the CDL/University of California Office of Scholarly Communication's (OSC) eScholarship Repository or for the UC Image Service. Institutions interested in submitting content to these repositories should consult the projects' web sites.

1.2 Service Levels

Digital materials of ever-increasing variety and complexity are seen to be worth collecting and preserving by memory organizations such as libraries, archives, and museums. Materials include objects converted into digital form from existing collections of manuscripts, maps, visual images, and sound files, as well as born-digital materials such as web sites, videos, and data sets. Submitted objects consist of metadata, a set of content files, and something called a METS digital wrapper file.

In order to create coherent and cost-effective services for such diverse collections, the CDL and other digital libraries sometimes require certain common digital object features that offer strategic points of leverage. This is a delicate undertaking, as it tends to involve a reduction in diversity that implies a loss of information, and every imposed requirement incurs the risk of rejecting valuable materials that fail to meet it. Simply meeting requirements is often hard because funding is unavailable or the original producer of the digital objects cannot be reached.

To mitigate these difficulties, the CDL adopts "sliding scale" guidelines: the more points at which a digital object can be made to conform, the more preservation and access services can be provided for it. The CDL GDO sets forth minimum submission requirements for digital objects submitted to the CDL.

At the lower end of the scale, given no information about the structure and semantics of a set of files comprising an object, the level of preservation that we can promise is limited to bit-level preservation and identifier-based retrieval -- the bits of a digital object that you submit will be the same bits that you are able to retrieve, and the only access is by known identifier or by any internal data that happens to be discoverable and indexable (e.g., content files in the form of text). In short, no metadata is required. However, providing metadata may allow access to additional preservation services while also enhancing value for future users.

At the mid-level of the scale, given a small (or "kernel") set of structured metadata encoded in a METS wrapper, the CDL will be better equipped to manage the objects and provide preservation and kernel metadata-based retrieval services. (For more information about kernel metadata, see the Dublin Core web site).

Moving up the scale, generally speaking, the more metadata encoded in a METS wrapper that you supply, the better we will be able to provide you with preservation and access services. Our systems may not be able to take advantage of every distinct metadata element that you supply, but the ability to act on any element may be developed over time as our systems evolve. The higher end of the scale includes the ability to customize the formatting and grouping of collection objects, which depends on a combination of XSL style sheets and your provision of metadata elements that our systems can recognize.

The CDL GDO specifies requirements for two primary levels of services offered by the CDL:

- **Basic Service Level**: sufficient for the ingest of digital objects into the UC Libraries Digital Preservation Repository (DPR), this level is designed to support the orderly management of objects in the DPR, hence our ability to provide at least bit-level preservation without turning away valuable materials. It currently does not support the presentation of digital assets via CDL web sites. This service level does not require any metadata, but strongly encourages kernel metadata. A range of content file formats is supported at this level.
- **Enhanced Service Level**: includes the presentation of digital assets via CDL web sites. It is also sufficient for increased preservation services in the DPR. This level is a detailed extension of the Basic Service Level digital object specification, and therefore prescribes for additional metadata encoding. Particular content file formats are supported at this level.

1.3 Terminology

For an explanation of general terms used throughout these guidelines, see the CDL Glossary. For an explanation of concepts and terms pertaining to metadata in particular, consult the RLG Cultural Materials Descriptive Metadata Guidelines.

1.4 How to Use These Guidelines

Consult the appropriate section of the guidelines, based on the level of CDL service that your institution is interested in utilizing:

- **Basic Service Level**: consult Section 2 Basic Service Level Requirements only.
- **Enhanced Service Level**: consult Section 3 Enhanced Service Level Requirements only.

2 Basic Service Level Requirements

2.1 METS

METS Profiles

CDL ingests content in the form of METS (Metadata Encoding and Transmission Standard) encoded digital objects. CDL depends upon METS Profiles to successfully process submitted objects.

METS profiles describe classes of METS digital objects that share common characteristics, such as content file formats (e.g., digital images, TEI texts) or metadata encoding formats (e.g., MODS or Dublin Core). Profiles should include enough details to enable METS creators and programmers to create and process METS-encoded digital objects conforming with a particular profile. A METS profile itself is an XML document that should adhere to the METS XML Profile Schema. For information about METS profiles, see the METS web site.

METS files must conform to valid METS profiles, which must be declared during pre-submission discussions with CDL staff.

Content File Requirements

The METS Content File Section <fileSec> must contain links to network-exposed (i.e., online) content files using File Location <FLocat> elements. Each <FLocat> element must contain a xlink:href attribute that identifies a link to its associated content file.

The METS file and associated content files must be well formed and uncorrupted.

Unique Identifier

The METS top-level <mets> element must have an OBJID attribute containing an ARK for the digital object. If an ARK is not supplied, a unique local identifier must be supplied as the OBJID. Under this scenario, CDL will generate an ARK when ingesting the object, and will use this ARK as the primary identifier and consider the supplied local identifier to be the equivalent of the <metsHdr><altRecordID> element.

For more information about ARKs, visit the Archival Resource Key (ARK) page.

Linking from Digital Objects to External Metadata: General Use of the <mdRef> Metadata Reference Element

Although METS allows for linking to external metadata using <mdRef>, the DPR ingest process will not capture this information. If you want to preserve external metadata, link to the file in the <fileSec> using <file><FLocat>.

2.2 Metadata

2.2.1. Descriptive Metadata

The Basic Service Level does not require any metadata, but strongly encourages that you supply the following kernel metadata:

Descriptive Metadata Recommendations (Summary)

[NOTE: See "Appendix A. Descriptive Metadata Guidelines (Detailed)" on page 15 for detailed descriptions of each element.]

- Identifier
- Title
- Creator (or Contributor or Publisher)
- Date
- Description
- Format/Physical Description

The descriptive metadata mappings provided in Appendix A are for MODS and qualified Dublin Core. Other descriptive metadata schemas may be used, but must be defined as part of the pre-submission negotiation and will require either A) a mapping of the metadata to Dublin Core, or B) an XSL style sheet that performs the mapping.

The following data are generated by the CDL during the DPR ingest process, and can identify and provide access to digital objects submitted with no descriptive metadata. Only the most basic and fundamental of DPR services will be available for such objects. CDL-generated data:

- Object ID
- altObject ID
- Access Group ID
- Inventory (Collection) ID
- Date Ingested

2.2.2 Technical Metadata

The CDL generates the technical metadata required to support the orderly management of digital objects in its repositories. Currently, the CDL utilizes the JSTOR/Harvard Object Validation Environment (JHOVE) tool to derive technical metadata for accepted content file types.

You are encouraged to submit any additional technical metadata associated with a particular digital object (such as information based on NISO's Data Dictionary: Technical Metadata for Still Images), but are not required to do so. CDL preservation services will store any supplied additional metadata with the object.

Note that all supplied technical metadata should be encoded using valid XML extension schemas as specified by CDL-supported METS profiles (such as in the NISO Metadata for Images in XML Schema (MIX) format). If a given set of metadata does not conform to a valid XML extension schema, then you should create a schema to embed the metadata and facilitate validation of the METS file. Otherwise, the metadata should be stored independently of the METS file and referred to using the METS <mdRef> Metadata Reference from within the METS file.

2.3 Content Files

The following content file formats are currently supported by the DPR:

- **Images**: GIF, JPG, JPG-2000, TIFF, MrSid, PDF
- **Texts**: HTML, XML, PDF, UTF-8, ASCII
- **Audio**: AIFF, WAVE
- **Containers**: GZIP, ZIP

New or unknown file formats may be submitted to the DPR, but must be established as part of the pre-submission negotiation. In addition, DPR administrators will not necessarily guarantee that all of the DPR services will be available for unknown file formats (i.e. migration or transformation processes) and will only guarantee preservation of the original bit stream.

All content files must be online or exposed over a network for the DPR software to be able to retrieve them during the ingest process. The exception is when content files are embedded within the METS wrapper using the <FContent> File Content element.

Each content file should have a file name that is unique to your institution (i.e., not necessarily globally unique); often the unique identifier is used to name the content file itself.

Examples:

- cacupchc_0423.tiff
- kt2g502035_fig05.gif

3 Enhanced Service Level Requirements

3.1 METS

METS Profiles

CDL ingests content in the form of METS (Metadata Encoding and Transmission Standard) encoded digital objects. CDL depends upon METS Profiles to successfully process submitted objects.

METS profiles describe classes of METS digital objects that share common characteristics, such as content file formats (e.g., digital images, TEI texts) or metadata encoding formats (e.g., MODS or Dublin Core). Profiles should include enough details to enable METS creators and programmers to create and process METS-encoded digital objects conforming with a particular profile. A METS profile itself is an XML document that must adhere to the METS XML Profile Schema. For information about METS profiles, see the METS web site.

METS files must conform to valid METS profiles, which must be declared during pre-submission discussions with CDL staff.

Content File Requirements

The METS Content File Section <fileSec> must contain links to network-exposed (i.e., online) content files using File Location <FLocat> elements. Each <FLocat> element must contain a xlink:href attribute that identifies a link to its associated content file.

The METS file and associated content files must be well formed and uncorrupted.

Unique Identifier

The METS top-level <mets>element must have an OBJID attribute containing an ARK for the digital object.

If an ARK is not supplied, a unique local identifier must be supplied as the OBJID value. Under this scenario, CDL will generate an ARK when ingesting the object. CDL will then use this ARK as the value for OBJID and move the supplied local identifier to the <metsHdr><altRecordID> element.

For more information about ARKs, visit the Archival Resource Key (ARK) page.

Content File Types: <file> File Element MIMETYPE attribute

In addition to conforming to CDL-supported METS profiles, all digital objects must explicitly state content file format MIME types (Multipurpose Internet Mail Extensions) for each <file> File Element tag in the METS document (see the bolded example).

Example of a TIFF digital image file reference:
<mets:file ID="FID1" MIMETYPE="**image/tiff**" SEQ="1" CREATED="1999-06-17T00:00:00" ADMID="ADM1A" GROUPID="GID1">

For a list of MIME type content type and subtype values, see the MIME Media Types from the Internet Assigned Numbers Authority.

Linking from Digital Objects to Collection Descriptions: Specialized Use of the <mdRef> Metadata Reference Element

For guidelines on linking digital objects to associated, parent-level collection descriptions (represented either in the form of a MARC record or an EAD finding aid), see "Appendix C. Linking from Digital Objects to Collection Descriptions" on page 33.

3.2 Metadata

3.2.1 Using Metadata Schemas

Metadata mappings are for extant XML extension metadata schemas such as MODS and qualified Dublin Core.

Encode metadata consistently based on the specific usage guidelines established for the schema. For example, if encoding in Dublin Core, follow the Dublin Core usage guidelines for each element.

Do not include HTML markup within metadata encoding, in cases where a metadata schema does not support it.

Granularity

Whenever possible, provide the most granular and richest metadata possible. For example, if encoding in Dublin Core, encode your metadata in qualified Dublin Core.

Repeatability of Elements and Data Values

Elements may be used repeatedly. Note that it may be necessary to supply multiple elements for the same piece of information, e.g., a general form of the date of creation of a resource ("January 1, 1999") in addition to an ISO8601 normalized form of that date ("1999-01-01").

However, avoid combining different kinds of data values or repeating the same type of data values within a single element; use separate elements for each data value. For example, avoid encoding multiple subject terms ("Municipal government; City Council members") in a single element. Instead, encode the two different terms within their own elements.

Character Encoding

Use UTF-8 or UTF-16 standard character sets or encodings. The CDL recommends using standardized forms of names for character sets, as documented by the Internet Assigned Numbers Authority (e.g., use "UTF-8" and not "UTF8").

If using the UTF-8 character set in particular, encode directly in Unicode or use Unicode decimal or hexadecimal character references. All decimal character references should begin with an ampersand and pound sign, and end with a semicolon (use the syntax "&#D;" where D is a decimal number). All hexadecimal character references should begin with an ampersand, pound sign, and lower- or uppercase "x", and end with a semicolon (use the syntax "&#xH;" or "&#XH;" where H is a hexadecimal number); see the Unicode Code Charts for hexadecimal character reference codes.

For more detailed information about UTF-8 Unicode, see the W3C/Unicode Consortium document Unicode in XML and other Markup Languages.

> *Example using UTF-8 Unicode hexadecimal character references to encode the letter "é" in the term "émigrés":*
>
> ... The papers also document trends in high school and university education among Russian émigrés...

Characters reserved for XML markup delimiters (ampersand, left angle bracket, and right angle bracket) need to be replaced with the following character entities.

Character	Character Name	Character Entity
&	Ampersand	&amp;
<	Left angle bracket	&lt;
>	Right angle bracket	&rt;
‘	Single quote	&apos;

Character	Character Name	Character Entity
“	Double quote	"

Headings, Labels, Punctuation, and Formatting

Do not include headings or labels, line breaks, list formatting or other any formatting controls within the body of elements.

Some XML extension schemas (e.g., MODS) provide label attributes on particular elements. In these cases, institutions may encode data values (e.g., text comprising concise headings or descriptions) within those label attributes as permitted by those schemas.

Note that the CDL GDO supports the creation of digital objects that are largely independent of a particular online presentation. The encoding can be manipulated and repurposed through the application of customized style sheets to meet custom display needs and formatting preferences. This includes the special formatting of text, the ordering and positioning of text, the addition of headings and labels, and punctuation.

In order to provide a consistent user experience, CDL style sheets support a standard presentation that may not accommodate local preferences. Your institution may devise and implement local style sheets for presenting customized views of its digital objects.

3.2.2 Descriptive Metadata

Using Descriptive Metadata Schemas

The CDL strongly supports the assertion that Dublin Core does not provide enough encoding granularity. The CDL therefore prefers that descriptive metadata is encoded in a richer format, such as MODS. Institutions should use qualified Dublin Core only in cases where MODS is not locally supported.

Object Description

Descriptive metadata can be used to describe different expressions of a given resource. In the case of analog objects that have been digitized, the descriptive metadata may apply to the source analog object or the digital surrogate. For example, the “creator” of a resource may apply to an illustrator of a graphic book or the name of the technician responsible for scanning an image from that book. Likewise, the “date of creation” of a resource may apply to the date of printing for a graphic book or the date of scanning an image from that book. In the case of born digital objects, the descriptive metadata pertains to the born digital object itself.

Some descriptive metadata schemes do not allow encoders to clearly disambiguate between uses of a given element to apply to source analog objects versus digital surrogates. Therefore, when creating descriptive

metadata for an analog object that has been digitized, we suggest that you consider the following two points:

- Be consistent in your use of descriptive metadata elements: emphasize the description of *either* the source analog object *or* the digital surrogate.
- Provide descriptive metadata that supports user access to and discovery of the digital object. Information about the source analog object may be more relevant to users.

Descriptive Metadata Guidelines (Summary)

[NOTE: See "Appendix A. Descriptive Metadata Guidelines (Detailed)" on page 15 for detailed descriptions of each element.]

Element	Status
Identifier	Recommended element
Title	Required element
Creator	Required element. If no name can be supplied, provide a name in **Contributor** and/or **Publisher**.
Date	Required element
Description	Required element
Language	Recommended element
Subject (Name)	Recommended element
Subject (Title)	Recommended element
Subject (Place)	Recommended element
Subject (Topic, Function, or Occupation)	Recommended element
Genre	Recommended element
Type	Required element
Format/Physical Description	Required element
Related Collection/Project	Recommended element
Institution/Repository	Required element
Contributor	Recommended element
Publisher	Recommended element

3.2.3 Rights Management Administrative Metadata

CDL's Rights Management Group (RMG) has developed a Rights Management Framework that may assist institutions contributing content to CDL preservation and access services in thinking about copyright and fair use issues for digital objects. The CDL strongly encourages contributors to provide rights information whenever possible, using one of the following methods:

- Use a rights-related element in the schema chosen for supplying descriptive metadata (e.g., <rights> in DC, <accessCondition> in MODS). Elements in these schemas are repeatable, so if more than one rights-

related element is used, contributors should provide clarifying information about each piece of rights information either using a label attribute (MODS) or by providing a label as part of the element's content (DC).

- Supply rights information using METSRights, an approved extension schema for METS.

Rights Management Administrative Metadata Recommendations (Summary)

[NOTE: See Appendix B for detailed descriptions of each element. Element names below are also linked to those descriptions]

Element	Status
Copyright Status	Recommended element
Copyright Statement	Recommended element
Copyright Date	Recommended element
Copyright Owner Name	Recommended element
Copyright Owner Contact Notification	Recommended element

3.2.4 Structural Metadata

Structural metadata must be encoded in the METS format: structural metadata is represented in the <structMap> Structural Map section of a METS document. This section defines a structure that allows users of the digital object to navigate through its hierarchical organization. Guidelines for preparing Structural Maps are documented in CDL-supported METS profiles.

3.2.5 Technical Metadata

The CDL generates the technical metadata required to support the orderly management of digital objects in its repositories. Currently, the CDL utilizes the JSTOR/Harvard Object Validation Environment (JHOVE) tool to derive technical metadata for accepted content file types.

You are encouraged to submit any additional technical metadata associated with a particular digital object (such as information based on NISO's Data Dictionary: Technical Metadata for Still Images), but are not required to do so. CDL preservation services will store any supplied additional metadata with the object.

Note that all supplied technical metadata should be encoded using valid XML extension schemas as specified by CDL-supported METS profiles (such as in the NISO Metadata for Images in XML Schema (MIX) format). If a given set of metadata does not conform to a valid XML extension schema, then you

should create a schema to embed the metadata and facilitate validation of the METS file. Otherwise, the metadata should be stored independently of the METS file and referred to using the METS <mdRef> Metadata Reference from within the METS file.

3.2.6 Other Metadata (Digital Provenance Administrative Metadata, Source Administrative Metadata, and Behaviors Metadata)

You may submit any additional metadata associated with a particular digital object, but are not required to do so. CDL preservation services will store any additional metadata with the object. CDL access services (OAC, Calisphere) will not necessarily display supplemental metadata to users.

Note that all supplied metadata should be encoded using valid XML extension schemas as specified by CDL-supported METS profiles. If a given set of metadata does not conform to a valid XML extension schema, then you should create a schema to embed the metadata and facilitate validation of the METS file. Otherwise, the metadata should be stored independently of the METS file and referred to using the METS <mdRef> Metadata Reference from within the METS file.

3.3 Content Files

The following content file types are currently supported by the CDL for the Enhanced Service Level. Consult the appropriate guidelines for preparing these content file types:

Content File Type	Content File Guidelines
Images	Image files should comply with the CDL Guidelines for Digital Images.
TEI texts	TEI text files should comply with the CDL Structured Text Working Group TEI Encoding Guidelines *[Note: this is a draft version]*

Each content file should have a file name that is unique to your institution (i.e., not necessarily globally unique); often the unique identifier is used to name the content file itself.

http://www.lib.uchicago.edu/staffweb/groups/metadata/guidelines/TechnicalMetadataGuidelines2005.pdf

Guidelines for Use of Technical Metadata in the University of Chicago Digital Library

TABLE OF CONTENTS

Technical Metadata Dictionary

	Name	Description	Examples	Notes	Optional (O), Mandatory (M), Repeatable (R)
Project					
	compression level	designates the level of compression used	1) None		M
	edit software	software used for editing scans	1) Adobe Photoshop		M
	edit software version	version number of the software used for editing scans	1) version 6.0		M
	ICC profile storage	designates where the ICC profile is physically located	1) embedded url 2) CD		M
	methodology	designates the rationale for the methodology to digitize an object or collection	1) "meeting publisher requirements"	free text	O, R
	processing agency	name of the organization producing the digital object	1) University of Chicago Library 2) ACME		M, R
Image Capture					
Elements that can be automatically extracted	bitspersample	the number of bits per component (channel, sample) for each pixel: also know as Bit Depth	1) 8, 8, 8 2) 8 3) 16 4) 1	1) RGB Color 2) 8 bit grayscale 3) 16 bit grayscale 4) 1 = bitonal	M
Elements that can be automatically extracted	byteorder	designates the byte order in which multi byte numbers are stored	1) big-endian 2) little-endian		M

http://www.lib.uchicago.edu/staffweb/groups/metadata/guidelines/TechnicalMetadataGuidelines2005.pdf

Guidelines for Use of Technical Metadata

	Name	Description	Examples	Notes	Optional (O), Mandatory (M), Repeatable (R)
Elements that must be entered manually	capturenote	free text notes regarding problems with the capture of the file	1) "rubberstamped out corners" 2) "repaired torn image"	use if capture process requires explanation, or to document physical attributes of the item that affect accuracy or quality of digital image; notes about file not source material; how master has been altered for clarity	O, R
Elements that can be automatically extracted	compressionscheme	designates the compression scheme used to store the image data	1) CCITT Group 4 2) LZW 3) None	1) black & white 2) grayscale or color	M
Elements that can be automatically extracted	datecreated	date the object was scanned	YYYY-MM-DD	ISO 8601	M
Elements that must be entered manually	display orientation	designates the orientation in which the image should be presented to a conventional monitor with a 3.2 aspect ratio	1) 0=portrait 2) 1=landscape		O
Elements that must be entered manually	editsoftonaladj	editing software tonal adjustment	Auto contrast –ac; brightness – br; color cast correstion – cc; contrast – ct; curves – cur; discard color information – dci; levels – lev; shadow/highlight correction – sh/hl; sharpening – usm		O

http://www.lib.uchicago.edu/staffweb/groups/metadata/guidelines/TechnicalMetadataGuidelines2005.pdf

Guidelines for Use of Technical Metadata

	Name	Description	Examples	Notes	Optional (O), Mandatory (M), Repeatable (R)
Elements that can be automatically extracted	filesize	extent of image in number of bytes	1) 94115636	not rounded and no commas	M
Elements that can be automatically extracted	format	name of master file format and version	1) TIFF 6.0 2) PDF 1.2		M
Elements that can be automatically extracted	ICC Profile Name	the well defined name of the image's working space profile	1) Adobe RGB (1998) 2) Gamma 2.2 3) Gamma 1.8 4) None		M
Elements that can be automatically extracted	imageheight	pixel dimensions of file in height; vertical y axis	4561	no commas	M
Elements that can be automatically extracted	imagewidth	pixel dimensions of file in width; horizontal x axis	6878	no commas	M
Elements that can be automatically extracted	mimetype	...for digital still image formats	1) image/tiff 2) image/jpeg	optional per project; see also MIME type list	O
Elements that can be automatically extracted	photometricinterpretation	designates the color model of the decompressed image data	1) min-is-white 2) min-is-black 3) RGB		M
Elements that can be automatically extracted	resolution	the settings on the input scanning device	1) 300 dpi 2) 600 dpi		M
Elements that must be entered manually	ruler	is ruler included in scan?	yes or no		O
Elements that can be automatically extracted	samples per pixel	designates the number of color components per pixel	1) 1 2) 3 3) 4		M
Elements that must be entered manually	scansofttonaladj	scanning software tonal adjustment	gamma, highlight, midtone, shadow		O

Guidelines for Use of Technical Metadata

	Name	Description	Examples	Notes	Optional (O), Mandatory (M), Repeatable (R)
	source	designates the physical attributes of the source material relevant to interpreting digital image accuracy and/or quality	(format plus narrative)	make optional	O
	source x dimensions	specifies the width of the scanned object	#		M
	source x dimensions unit	specifies the unit of measure used in source x dimension	cm (metric)		M
	source y dimension	specifies the height (ie vertical dimension) of the scanned object	#		M
	source y dimension unit	specifies the unit of measure used in source y dimension	cm (metric)		M
Elements that must be entered manually	target type	refers to the color bar location	internal or external		M, R
Elements that must be entered manually	unique id	persistent identifier required at prime object level; must be unique within the local system	1) apf2-00905 2) chopin406-001	http://www.lib.uchicago.edu/staffweb/depts/dldc/dl/filenaming.html	M
Equipment					
	lightsource	for scanner	1) xenon gas cold cathode florescent lamp 2) white cold cathode florescent lamp	type of bulb in scanner; see specs that come with scanner	O
	optical resolution	maximum true resolution of scanner	1) 1600 dpi 2) 800 dpi		O

http://www.lib.uchicago.edu/staffweb/groups/metadata/guidelines/TechnicalMetadataGuidelines2005.pdf

Guidelines for Use of Technical Metadata

	Name	Description	Examples	Notes	Optional (O), Mandatory (M), Repeatable (R)
	scanner manufacturer	the manufacturer of the scanner used to create the image	1) Epson 2) Minolta 3) HP		O
	scanner model name	the model name of the scanner used to create the image	1) Expression 2) DuoScan		O
	scanner model number	the model number of the scanner used to create the image	1) 1640XL		O
	scanner serial number	the serial number of the scanner used to create the image		unique to each machine	O
	scanner software name	the name of the capture software used to create the image	1) Silverfast 2) Epson	Epson has its own home grown scanner software	O
	scanner software version number	The number of the version of the software used to create the image			O
Derivative creation					
	compression level	designates the level of compression used	1) "make level match software"		M
(automatic extraction possible)	compression scheme	designates the compression scheme used to store the image data	1) jpeg 2) LZW		M
	processing software name	the name of the image processing software used to edit or transform the image data	1) Adobe Photoshop 2) Equilibrium Debabelizer 3) LibTiff 4) Image Magick		M

Guidelines for Use of Technical Metadata

	Name	Description	Examples	Notes	Optional (O), Mandatory (M), Repeatable (R)
	processing software version	the version number of the image processing software used to edit or transform the image data	1) 5.0 2) 6.0 3) 8.0		M
Digital camera	*This type of metadata may be recorded if the Library performs the camera work.*				
	color temp	specifies the actual color temperature value of the scene illumin			
	digital camera manufacturer	the manufacturer of the digital camera used to create the image			
	digital camera model	the model name of the digital camera used to create the image			
	digital camera model number	the model number of the digital camera used to create the image			
	digital camera serial number	the serial number of the digital camera used to create the image			
	exposureindex	specifies the exposure index setting used	1) ISO 80 2) ISO 200		
	exposuretime	specifies the exposure time used when the image was captured, recorded in seconds	1) 1/60		

http://www.lib.uchicago.edu/staffweb/groups/metadata/guidelines/TechnicalMetadataGuidelines2005.pdf

Guidelines for Use of Technical Metadata

	Name	Description	Examples	Notes	Optional (O), Mandatory (M), Repeatable (R)
	Fnumber	specifies the lens f-number (ratio of lens aperture to focal length) used when the image was captured	1) F8 2) F16 3) F11	aka. Aperture	
	focallength	specifies the lens focal length in meters used to capture the image	1) 60mm 2) 100 mm		
	light source	should be specific to settings for this scan (f-stop, electronic shutter speed, filtering, illumination level); may be necessary in later evaluation of color capture. Again, may be specific to each image or by inheritance to collections of images a via a separate descriptive file (with anomalies indicated per image as needed)			
	print aspect ratio	specifies the print aspect ratio selected by the user when the picture was taken	1) landscape 2) portrait		
	sampling freq plane	the reference plane location for which x sampling frequency and y sampling frequency are designated			
	sampling freq unit	the unit of measurement for x sampling frequency and y sampling frequency			

http://www.lib.uchicago.edu/staffweb/groups/metadata/guidelines/TechnicalMetadataGuidelines2005.pdf

	Name	Description	Examples	Notes	Optional (O), Mandatory (M), Repeatable (R)
	scene illuminant	specifies the light source that was present when the image was captured			
	X print aspect ratio	unit of X ratio			
	Y print aspect ratio	unit of Y ratio			

http://web.uflib.ufl.edu/ufdc/technical/Metadata/UFDC_METS.pdf

METS Files for Digital Resources in UFDC

Created for University of Florida Digital Collections
Documentation written by Mark V. Sullivan
Last Updated on February 14, 2006

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Table of Contents

1. Introduction

This document describes METS files that are used to add new digital resources to the University of Florida Digital Collections [UFDC].

It is not recommended that these files be hand coded, since the following document does not explicitly state which elements are required, and which are optional. Tools are (or will be) available to create these METS files.

For more information on METS, visit the METS webpage. (http://www.loc.gov/standards/mets/)

2. METS Document Components

A METS document conforming to the UFDC profile consists of five main sections.

Each file begins with a METS header containing descriptive metadata about the METS document. This is indicated with the metsHdr tag. This section also contains references to any outside schemas which should be used to validate the METS document.

Next, one or more Descriptive metadata sections are included. These contain descriptive information about the digital resource. Acceptable schemes to include in this section include the Dublin Core extension metadata and the UFDC extension metadata scheme. These sections are wrapped in dmdSec tags. The bulk of the data in the extension schemes utilizes XML.

The next section is for administrative metadata, which includes rights and access information. In the future, this will include rights information about the digital resource and may contain additional technical information about the images. For now, this section will contain information necessary for the Digital Archive at FCLA, or be left empty. Administrative metadata is wrapped in amdSec tags.

The fourth section is the file section. This lists all the files which are related to this digital resource. This section also allows different file types to be associated with one another. In a digitized book, for example, you may wish to associate the digital master with its derivatives, including jpeg and text files. This section is wrapped in a fileSec tag.

The last section is the structural map, which is wrapped in a structMap tag. This outlines the hierarchical structure of a digital resource and references the files included in the previous section. This section is used to build the table of contents for the resource.

Each of these main sections in the METS document will be examined in the forthcoming document.

3. METS Header

The first section is the METS header information. This contains information on how to validate this package. It also contains basic information about who created this package, and what software was used during the creation. The second and third line can be left out, as can the references to daitts, if this will not be sent to the Digital Archive at FCLA.

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no" ?>
<?fcla fda="yes"?>
<?fcla dl="no"?>
<METS:mets OBJID="UF00028333_VID00001"
              xmlns:METS="http://www.loc.gov/METS/"
              xmlns:dc="http://purl.org/dc/elements/1.1/"
              xmlns:ufdc="http://www.uflib.ufl.edu/digital/metadata/ufdc/"
              xmlns:xlink="http://www.w3.org/1999/xlink"
              xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
              xmlns:daitss="http://www.fcla.edu/dls/md/daitss/"
       xsi:schemaLocation="http://www.loc.gov/METS/
              http://www.loc.gov/standards/mets/mets.xsd
              http://purl.org/dc/elements/1.1/
              http://dublincore.org/schemas/xmls/simpledc20021212.xsd
              http://www.uflib.ufl.edu/digital/metadata/ufdc/
              http://www.uflib.ufl.edu/digital/metadata/ufdc/ufdc.xsd
              http://www.fcla.edu/dls/md/daitss/
              http://www.fcla.edu/dls/md/daitss/daitss.xsd">
<METS:metsHdr CREATEDATE="2005-10-27T14:49:11Z" ID="UF00028333_VID00001" LASTMODDATE="2006-01-
20T08:06:11Z" RECORDSTATUS="NEW">
       <METS:agent ROLE="CREATOR" TYPE="ORGANIZATION">
              <METS:name>UF</METS:name>
       </METS:agent>
       <METS:agent OTHERTYPE="SOFTWARE" ROLE="CREATOR" TYPE="OTHER">
              <METS:name>Quality Control Application, 3.1.6</METS:name>
       </METS:agent>
       <METS:agent ROLE="CREATOR" TYPE="INDIVIDUAL">
              <METS:name>SMATHERSLIB\jpen</METS:name>
       </METS:agent>
</METS:metsHdr>
```

The record status attribute of the header tag must be one of the following values:

NEW	New package, with metadata and images This package is rejected if an object with the same object id already exists.
REPLACEMENT	Replacement package with metadata and images. The original package is deleted, and completely replaced with the new package.
DELETE	Deletes the package from UFDC.
METADATA_UPDATE	Updates just the metadata, does not need to include all of the images. The fileSec of this new package must match the existing fileSec exactly, or this package is rejected.

The rest of the data in the metsHdr section is simply retained in case of later questions.

4. METS Descriptive Metadata

One or more Descriptive metadata sections are included. These contain descriptive information about the digital resource. Acceptable schemes to include in this section include the Dublin Core extension metadata and the UFDC extension metadata scheme. These sections are wrapped in dmdSec tags. The bulk of the data in the extension schemes utilizes XML.

DCMI Simple DC XML Schema

Many of the 15 Dublin Core elements have been excluded from our implementation of METS. Although most of these elements can be used, only five of the elements arte recommended. It is recommended that the METS package utilizes UFDC Schema elements for the remainder.

The following elements are supported and recommend:

Element Name	Description	Format
Date	Publication Date	`<dc:date> date </dc:date>`
Description*	General Description	`<dc:description> description </dc:description>`
Format	Format	`<dc:format> format </dc:format>`
Language*	Language(s)	`<dc:language> language </dc:language>`
Title	Title	`<dc:title> title </dc:title>`

* = this element is repeatable

The list below shows the Dublin Core elements that have been deprecated in favor of new UFDC elements. Although the data will be read from these Dublin core elements, the UFDC schema defined elements provide additional functionality and are recommended.

Dublin Core Element Name	UFDC Element Name
Contributor	Contributor
Creator	Creator
Publisher	Publisher
Subject	Subject
Coverage	Spatial, TemporalSubject
Identifier	Identifier
Source	Source
Rights	Rights
Type	Type

The Dublin Core elements must be wrapped in their own METS descriptive metadata section, and an indication the section is in XML, complying with the Dublin Core namespace. The structure for this section appears below:

```
<METS:dmdSec ID="DMD1">
 <METS:mdWrap MIMETYPE="text/xml" MDType="DC">
  <METS:xmlData>
   <dc:date> date </dc:date>
   <dc:description> description </dc:description>
   <dc:format> format </dc:format>
   <dc:language> language </dc:language>
   <dc:title> title </dc:title>
  </METS:xmlData>
 </METS:mdWrap>
</METS:dmdSec>
```

UFDC XML Schema

There are two main sections for the UFDC XML Schema. One section includes parameters which assist with general processing instructions and affects the display of the item in UFDC. This section is wrapped in <procParam> tags. The second section includes data about the bibliographic object. This section is wrapped in <bibDesc> tags.

These elements must be wrapped in a METS descriptive metadata section separate from the Dublin Core elements listed first. Again, an indication the section is in XML, complying with the UFDC namespace, must be added.

Additional XML extension schemas may be utilized here, but the references for the schema must be included in the METS header. One such available schema is a small extension for oral interviews which includes interviewer, interview, and interview date. Information on this schema can be found in Appendix 2.

Processing Parameters

There are nine custom UFDC elements which may be included in the METS file in the <procParam> tags. They are listed below:

Element Name	Description	Format
Collection.Primary *(required)*	Primary Collection Code	`<ufdc:Collection.Primary> JUV </ufdc:Collection.Primary>`
Collection.Alternate	Alternate Collection Code	`<ufdc:Collection.Alternate> DLOC </ufdc:Collection.Alternate>` `<ufdc:Collection.Alternate> MAPC </ufdc:Collection.Alternate>`
SubCollection*	Subcollection codes	`<ufdc:SubCollection>MAPFL</ufdc:SubCollection>` `<ufdc:SubCollection>MAPNA</ufdc:SubCollection>`
TextDisplayable	Should text be displayable ?	`<ufdc:TextDisplayable>false</ufdc:TextDisplayable>`
TextSearchable	Should text be searchable ?	`<ufdc:TextSearchable>true</ufdc:TextSearchable>`
MainThumbnail	Main thumbnail file	`<ufdc:MainThumbnail> 0001.jpg </ufdc:MainThumbnail>`

Index Sheet	Custom Index Sheet	<ufdc:MainThumbnail> thisIndex.htm </ufdc:MainThumbnail>
Icon**	Icons to display with item	<ufdc:Icon> <ufdc:url name="NEH"> http:\\www...jpg </ufdc:url> <ufdc:url name="IMLS"> http:\\www....jpg </ufdc:url> </ufdc:Icon>
Download**	Available downloads	<ufdc:Download> <ufdc:url type="PDF" size="12.1"> http:\\www...pdf </ufdc:url> <ufdc:url type="JPEG2000"> http:\\www....jp2 </ufdc:url> </ufdc:Download>
URL	Resource URL	<ufdc:URL> http://www..... </ufdc:URL>

* Entire element is repeatable
** Sub-element is repeatable

A sample processing parameter section appears below:

```
<METS:dmdSec ID="DMD2">
   <METS:mdWrap MIMETYPE="text/xml" MDTYPE="OTHER" LABEL="University of Florida Digital
Collections Metadata">
    <METS:xmlData>
          <ufdc:procParam>
           <ufdc:Collection.Primary>JUV</ufdc:Collection.Primary>
           <ufdc:SubCollection>JUV</ufdc:SubCollection>
           <ufdc:TextDisplayable>true</ufdc:TextDisplayable>
           <ufdc:TextSearchable>true</ufdc:TextSearchable>
           <ufdc:MainThumbnail>00001thm.jpg</ufdc:MainThumbnail>
           <ufdc:IndexSheet>index.html</ufdc:IndexSheet>
           <ufdc:Icon>
              <ufdc:url name="NEH">http://www....jpg</ufdc:url>
           </ufdc:Icon>
           <ufdc:Download>
             <ufdc:url type="PDF" size="8">
                          http://smathersdlcl2.uflib.ufl.edu/docsb/UFDC/JUV/UF00026638.pdf
             </ufdc:url>
           </ufdc:Download>
         </ufdc:procParam>
    </METS:xmlData>
   </METS:mdWrap>
</METS:dmdSec>
```

Bibliographic Description

The elements in the <bibDesc> tags describe the bibliographic resource. Most of these items will appear in the metadata displayed under Full Citation in the UFDC. There are 22 elements which can appear in this section:

Element Name	Description	Format
Abstract**	Abstract	<ufdc:abstract> <ufdc:text language="en"> Abstract </ufdc:text> <ufdc:text language="fr"> Résumé </ufdc:text> </ufdc:abstract>
AltTitle*	Alternate Title	<ufdc:AltTitle> Alternate Title </ufdc:AltTitle> <ufdc:AltTitle language="fr">Titre Alternatif </ufdc:AltTitle>

Attribution*	Attribution Statement	<ufdc:Attribution> Attribution </ufdc:Attribution>
BibID *(required)*	Bibliographic Identifier	<ufdc:BibID> UF00000000 </ufdc:BibID>
Contributor**	Contributor to original	<ufdc:Contributor> <ufdc:name role="role" dates="dates" location="loc" affiliation="affiliation"> Contrib </ufdc:name> <ufdc:name role="Illustrator"> Williams Engraving </ufdc:name> </ufdc:Contributor>
Copyrighted	Is the material copyrighted?	<ufdc:Copyrighted> true </ufdc:Copyrighted>
Creator	Creator of original	<ufdc:Creator> <ufdc:name role="role" dates="dates" location="loc" affiliation="affiliation"> Creator </ufdc:name> <ufdc:name role="Author"> Twain, Mark </ufdc:name> </ufdc:Creator>
Donor	Donor	<ufdc:Donor> Williams, Teddy </ufdc:Donor>
Identifier**	Any item identifiers	<ufdc:Identifier> <ufdc:id type="ead"> ufdl1221 </ufdc:id> <ufdc:id type="sip"> 001201022 </ufdc:id> <ufdc:id type="aleph"> 02320449 </ufdc:id> <ufdc:id type="notis"> AAA1212 </ufdc:id> </ufdc:Identifier>
Genre*	Genre	<ufdc:Genre>Childrens Literature</ufdc:Genre> <ufdc:Genre scheme="lcsh"> Childrens Literature</ufdc:Genre>
Holding	Holding location	<ufdc:Holding> <ufdc:statement code="MCPL">Monroe County Public Library</ufdc:statement> </ufdc:Holding>
Publisher**	Publisher	<ufdc:Publisher> <ufdc:name place="New York, NY"> Publisher </ufdc:name> </ufdc:Publisher>
Note	Resource Notes	<ufdc:Note> Resource Notes </ufdc:Note>
Rights	Rights Statement	<ufdc:Rights> All righs reserved </ufdc:Rights>
Scale	Scale (for maps)	<ufdc:Scale> 1:1000 </ufdc:Scale>
SeriesTitle	Title for a series	<ufdc:SeriesTitle> Series Title </ufdc:SeriesTitle>
Source	Source institution	<ufdc:Source> <ufdc:statement code="UF">University of Florida</ufdc:statement> </ufdc:Source>
Spatial**	Spatial coverage	<ufdc:Spatial> <ufdc:name scheme="fips"> 12011 </ufdc:name> <ufdc:name scheme="lcsh"> Gainesville -- Florida </ufdc:name> </ufdc:Spatial>
Subject**	Subject Keywords	<ufdc:Subject> <ufdc:name> Building Materials </ufdc:name> <ufdc:name scheme="lcsh"> Tin Roof Shack -- Florida </ufdc:name> </ufdc:Subject>
Temporal**	Temporal subject	<ufdc:Temporal> <ufdc:period start="1945" end="1973">post-WW II</ufdc:period> </ufdc:Temporal>

Type *(required)*	Material Type	<ufdc:Type>PHOTOGRAPH</ufdc:Type>
UniformTitle	Uniform title	<ufdc:UniformTitle> Uniform Title </ufdc:UniformTitle>
VID *(required)*	Volume Identifier	<ufdc:VID>00001</ufdc:VID>

* Entire element is repeatable
** Sub-element is repeatable

The structure for this section appears below:

```
<METS:dmdSec ID="DMD2">
   <METS:mdWrap MIMETYPE="text/xml" MDTYPE="OTHER" LABEL="University of Florida Digital
Collections Metadata">
    <METS:xmlData>
     <ufdc:bibDesc>
    <ufdc:BibID> UF00000000 </ufdc:BibID>
    <ufdc:VID>00001</ufdc:VID>
    <ufdc:Abstract>
       <ufdc:text language="en"> Abstract </ufdc:text>
       <ufdc:text language="fr"> Résumé </ufdc:text>
      </ufdc:Abstract>
    <ufdc:AltTitle> Alternate Title </ufdc:AltTitle>
    <ufdc:Attribution> Attribution </ufdc:Attribution>
    <ufdc:Contributor>
       <ufdc:name role="role" dates="dates" location="location">Contrib</ufdc:name>
       <ufdc:name role="Illustrator"> Williams Engraving </ufdc:name>
    </ufdc:Contributor>
    <ufdc:Creator>
       <ufdc:name role="role" dates="dates" location="location"> Creator </ufdc:name>
       <ufdc:name role="Author"> Twain, Mark </ufdc:name>
    </ufdc:Creator>
    <ufdc:Donor> Williams, Teddy </ufdc:Donor>
    <ufdc:Identifier>
       <ufdc:id type="ead"> ufdl1221 </ufdc:id>
       <ufdc:id type="sip"> 001201022 </ufdc:id>
       <ufdc:id type="aleph"> 02320449 </ufdc:id>
       <ufdc:id type="notis"> AAA1212 </ufdc:id>
    </ufdc:Identifier>
    <ufdc:Genre>Childrens Literature</ufdc:Genre>
    <ufdc:Holding>
       <ufdc:statement code="MCPL">Monroe County Public Library</ufdc:statement>
    </ufdc:Holding>
    <ufdc:Publisher>
       <ufdc:name place="New York, NY"> Publisher </ufdc:name>
    </ufdc:Publisher>
    <ufdc:Note> Resource Notes </ufdc:Note>
    <ufdc:Rights> All righs reserved </ufdc:Rights>
    <ufdc:Scale> 1:1000 </ufdc:Scale>
    <ufdc:SeriesTitle> Series Title </ufdc:SeriesTitle>
    <ufdc:Source>
       <ufdc:statement code="UF">University of Florida</ufdc:statement>
    </ufdc:Source>
    <ufdc:Spatial>
       <ufdc:name scheme="fips"> 12011 </ufdc:name>
       <ufdc:name scheme="lcsh"> Gainesville -- Florida </ufdc:name>
    </ufdc:Spatial>
          <ufdc:Subject>
               <ufdc:name>building materials</ufdc:name>
               <ufdc:name scheme="lcsh">Tin roof shacks -- Florida</ufdc:name>
      </ufdc:Subject>
    <ufdc:Temporal>
       <ufdc:period start="1945" end="1973">post-World War II</ufdc:period>
    </ufdc:Temporal>
    <ufdc:Type> BOOK </ufdc:Type>
    <ufdc:UniformTitle> Uniform Title </ufdc:UniformTitle>
```

```
      </ufdc:bibDesc>
     </METS:xmlData>
    </METS:mdWrap>
</METS:dmdSec>
```

5. METS Administrative Metadata

The next section is for administrative metadata, which includes rights and access information. In the future, this will include rights information about the digital resource and may contain additional technical information about the images. For now, this section will contain information necessary for the Digital Archive at FCLA, or be left empty. Administrative metadata is wrapped in amdSec tags.

The following administrative section should be included in all METS files which will be sent to the digital archive. The account code and project code information will be supplied at a later date, when there is a signed agreement.

```
<METS:amdSec>
    <METS:digiprovMD>
      <METS:mdWrap>
        <METS:xmlData>
          <daitss:daitss>
            <daitss:AGREEMENT_INFO ACCOUNT="[required FDA account code]"
              SUB_ACCOUNT="[optional FDA subaccount code]"
              PROJECT="[required FDA project code]" />
          </daitss:daitss>
        </METS:xmlData>
      </METS:mdWrap>
    </METS:digiprovMD>
  </METS:amdSec>
```

If this material is not destined for the Digital Archive at FCLA, the empty tag should be used as appears below.

```
<METS:amdSec />
```

6. METS File Section Metadata

The fourth section is the file section. This lists all of this files which are related to this digital resource. This section also allows different file types to be associated with one another. In a digitized book, for example, you may wish to associate the digital master with its derivatives, including jpeg and text files. This section is wrapped in a fileSec tag.

Each file type is listed in a separate fileGrp tag. However, the GroupID links the different related file types together.

Within each file section, the system name will always appear. The TrackinDB number will only appear on METS files generated locally at the University of Florida. Additionally, each file section should include attributes for the checksum and checksum type. These attributes will be used to ensure the files were safely transferred to the final destination. Thus the file tag should appear like:

```
<METS:file CHECKSUM="f21..43" CHECKSUMTYPE="MD5" GROUPID="P32656" ID="F104135" MIMETYPE="image/tiff 6.0">
```

An example without the checksums appears below.

```
<METS:fileSec>
  <METS:fileGrp>
  <METS:file GROUPID="P32656" ID="F104135" MIMETYPE="image/tiff 6.0">
    <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00001.tif" />
    <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104135" />
   </METS:file>
   <METS:file GROUPID="P32657" ID="F104136" MIMETYPE="image/tiff 6.0">
   <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00002.tif" />
   <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104136" />
   </METS:file>
   <METS:file GROUPID="P32658" ID="F104137" MIMETYPE="image/tiff 6.0">
   <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00003.tif" />
   <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104137" />
   </METS:file>
   <METS:file GROUPID="P32659" ID="F104138" MIMETYPE="image/tiff 6.0">
   <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00004.tif" />
   <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104138" />
  </METS:file>
  <METS:file GROUPID="P32660" ID="F104139" MIMETYPE="image/tiff 6.0">
  <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00005.tif" />
  <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104139" />
   </METS:file>
  <METS:file GROUPID="P32661" ID="F104140" MIMETYPE="image/tiff 6.0">
  <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00006.tif" />
  <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104140" />
   </METS:file>
  <METS:file GROUPID="P32662" ID="F104141" MIMETYPE="image/tiff 6.0">
  <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00007.tif" />
  <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104141" />
   </METS:file>
  <METS:file GROUPID="P32663" ID="F104142" MIMETYPE="image/tiff 6.0">
  <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00008.tif" />
  <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104142" />
  </METS:file>
  <METS:file GROUPID="P32664" ID="F104143" MIMETYPE="image/tiff 6.0">
  <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00009.tif" />
  <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104143" />
   </METS:file>
  <METS:file GROUPID="P32665" ID="F104144" MIMETYPE="image/tiff 6.0">
  <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00010.tif" />
  <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104144" />
   </METS:file>
</METS:fileGrp>
<METS:fileGrp>
  <METS:file GROUPID="P32656" ID="T104135" MIMETYPE="text/plain">
  <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00001.txt" />
  <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104135" />
   </METS:file>
```

http://web.uflib.ufl.edu/ufdc/technical/Metadata/UFDC_METS.pdf

```
    <METS:file GROUPID="P32657" ID="T104136" MIMETYPE="text/plain">
    <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00002.txt" />
    <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104136" />
     </METS:file>
    <METS:file GROUPID="P32658" ID="T104137" MIMETYPE="text/plain">
    <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00003.txt" />
    <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104137" />
     </METS:file>
    <METS:file GROUPID="P32659" ID="T104138" MIMETYPE="text/plain">
    <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00004.txt" />
    <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104138" />
     </METS:file>
      <METS:file GROUPID="P32660" ID="T104139" MIMETYPE="text/plain">
      <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00005.txt" />
      <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104139" />
       </METS:file>
      <METS:file GROUPID="P32661" ID="T104140" MIMETYPE="text/plain">
      <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00006.txt" />
      <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104140" />
       </METS:file>
      <METS:file GROUPID="P32662" ID="T104141" MIMETYPE="text/plain">
      <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00007.txt" />
      <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104141" />
       </METS:file>
      <METS:file GROUPID="P32663" ID="T104142" MIMETYPE="text/plain">
      <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00008.txt" />
      <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104142" />
       </METS:file>
       <METS:file GROUPID="P32664" ID="T104143" MIMETYPE="text/plain">
        <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00009.txt" />
        <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104143" />
         </METS:file>
     <METS:file GROUPID="P32665" ID="T104144" MIMETYPE="text/plain">
       <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="SYSTEM" xlink:href="00010.txt" />
       <METS:FLocat LOCTYPE="OTHER" OTHERLOCTYPE="TRACKINGDB" xlink:type="simple" xlink:href="F104144" />
        </METS:file>
    </METS:fileGrp>
  </METS:fileSec>
```

7. METS Structural Map Metadata

The last section is the structural map, which is wrapped in a structMap tag. This outlines the hierarchical structure of a digital resource and references the files included in the previous section. This section is used to build the table of contents for the resource.

A very simple example below is included below. While this example does not include sections within the chapters, this is also supported. Divisions can be placed within divisions hierarchically.

```
<METS:structMap TYPE="mixed">
   <METS:div DMDID="DMD1 DMD2" LABEL="Grammar in rhyme" ORDER="0" TYPE="main">
    <METS:div ID="D2455" ORDER="1" TYPE="Cover">
     <METS:div ID="P32656" ORDER="1" TYPE="page">
      <METS:fptr FILEID="F104135" />
      <METS:fptr FILEID="T104135" />
       </METS:div>
    </METS:div>
    <METS:div ID="D2468" LABEL="Grammar" ORDER="2" TYPE="Chapter">
     <METS:div ID="P32657" ORDER="1" TYPE="page">
      <METS:fptr FILEID="F104136" />
      <METS:fptr FILEID="T104136" />
       </METS:div>
     <METS:div ID="P32658" ORDER="2" TYPE="page">
      <METS:fptr FILEID="F104137" />
      <METS:fptr FILEID="T104137" />
       </METS:div>
     <METS:div ID="P32659" ORDER="3" TYPE="page">
      <METS:fptr FILEID="F104138" />
      <METS:fptr FILEID="T104138" />
       </METS:div>
     <METS:div ID="P32660" ORDER="4" TYPE="page">
      <METS:fptr FILEID="F104139" />
      <METS:fptr FILEID="T104139" />
       </METS:div>
     <METS:div ID="P32661" ORDER="5" TYPE="page">
      <METS:fptr FILEID="F104140" />
      <METS:fptr FILEID="T104140" />
       </METS:div>
     <METS:div ID="P32662" ORDER="6" TYPE="page">
      <METS:fptr FILEID="F104141" />
      <METS:fptr FILEID="T104141" />
       </METS:div>
     <METS:div ID="P32663" ORDER="7" TYPE="page">
      <METS:fptr FILEID="F104142" />
      <METS:fptr FILEID="T104142" />
       </METS:div>
     <METS:div ID="P32664" ORDER="8" TYPE="page">
      <METS:fptr FILEID="F104143" />
      <METS:fptr FILEID="T104143" />
       </METS:div>
    </METS:div>
    <METS:div ID="D2469" ORDER="3" TYPE="Cover">
     <METS:div ID="P32665" ORDER="1" TYPE="page">
      <METS:fptr FILEID="F104144" />
      <METS:fptr FILEID="T104144" />
       </METS:div>
    </METS:div>
   </METS:div>
</METS:structMap>
```

ALL DIGITAL OBJECTS:

	REQUIRED FIELDS	REQUIRED IF APPLICABLE	OPTIONAL FIELDS
TITLE STUFF	Title		Alternative Title
CREATOR STUFF		Creator Contributor	Creator Nationality
DATE STUFF	Creation Date Date	Search by Decade	
DESCRIPTION STUFF	Original Form Resource Type	Description Subject:TGM Subject:Name Subject:Topical Subject:Geographic Geographic Location Language Code Language Physical Description of Original	Transcription Style/Period Culture Title Note Caption Contributor Note Notes Medium of Original
SOURCE, RELATION, PUBLISHER STUFF	NC Ed Standard Digital Collection Repository Host	Collection in Repository Is Part Of Has Part Of Is Format Of Is Version Of	Holding Institution
IDENTIFIER STUFF	path filename URL	Raw Scan Filename Local Identifier Creator Identifier	Citation
TECHNICAL STUFF **Note that all fields are listed as required if applicable because of the various ways digital objects come into being (scanned, born that way, etc.)**		Digital Scan Date: Raw Scan Digital Scan Date: filename Creator: Raw Scan Creator: filename Hardware: Raw Scan Hardware: filename Software: Raw Scan Software: filename Pixel Array: Raw Scan Pixel Array: filename Bit Depth: Raw Scan Bit Depth: filename Color Space: Raw Scan Color Space: filename File Format: Raw Scan File Format: filename	
OTHER STUFF		Copyright Holder Usage Rights Sponsor	

TITLE STUFF

FIELD LABEL	DUBLIN CORE	DESCRIPTION/NOTES
Title --required --searchable --do not repeat --viewable	**Title**	A concise statement that identifies the digital object. This may be a formal title (a title appearing on the original item) or a title supplied by the institution. (See *DACS* 2.3 for a discussion of formal and supplied titles, including how to write supplied titles at least for materials described archivally.) Since the title appears next to the thumbnail and is therefore the first descriptive information the user sees, non-specific titles (e.g., "untitled") may not be helpful to users. Note that a caption may sometimes be used as a title, but that at other times, the caption will be more appropriate in the **Caption** field. The decision about whether or not to use a caption as a title should be based primarily on the definition of **Title** as a concise statement. It may be useful to use the **Title Note** field to routinely specify where a title comes from (e.g., "Title taken from caption"; "Title supplied by repository"). There is a stop list for the purposes of searching in CONTENTdm. This list is not operative, however, when CONTENTdm alphabetizes titles. To avoid alphabetized lists with entries beginning *A*, *The*, *Los*, etc., omit initial articles in titles. Use **Alternative Title** if you need to express fuller title segments or title variations. Use **Title** for the title of an article within a journal (use **Relation.IsPartOf** for the journal title). Note that there has been some experimentation with the label for this field (e.g., **Descriptive Title**). Usability studies will determine whether or not there needs to be consistent labeling of this and other fields across collections.
Alternative Title --optional --searchable --repeatable --viewable	**Title**	Another, secondary title for the digital object. Examples include long secondary titles that appear after a colon and translations of titles into other languages. Note that this field is mapped to dc.Title instead of dc.Title.Alternative because CONTENTdm does not index dc,Title.Alternative along with dc.Title. Therefore, if we want these other titles to be searchable, they will have to be mapped to dc.Title. Same deal as **Creator** and **Contributor** below.

CREATOR STUFF

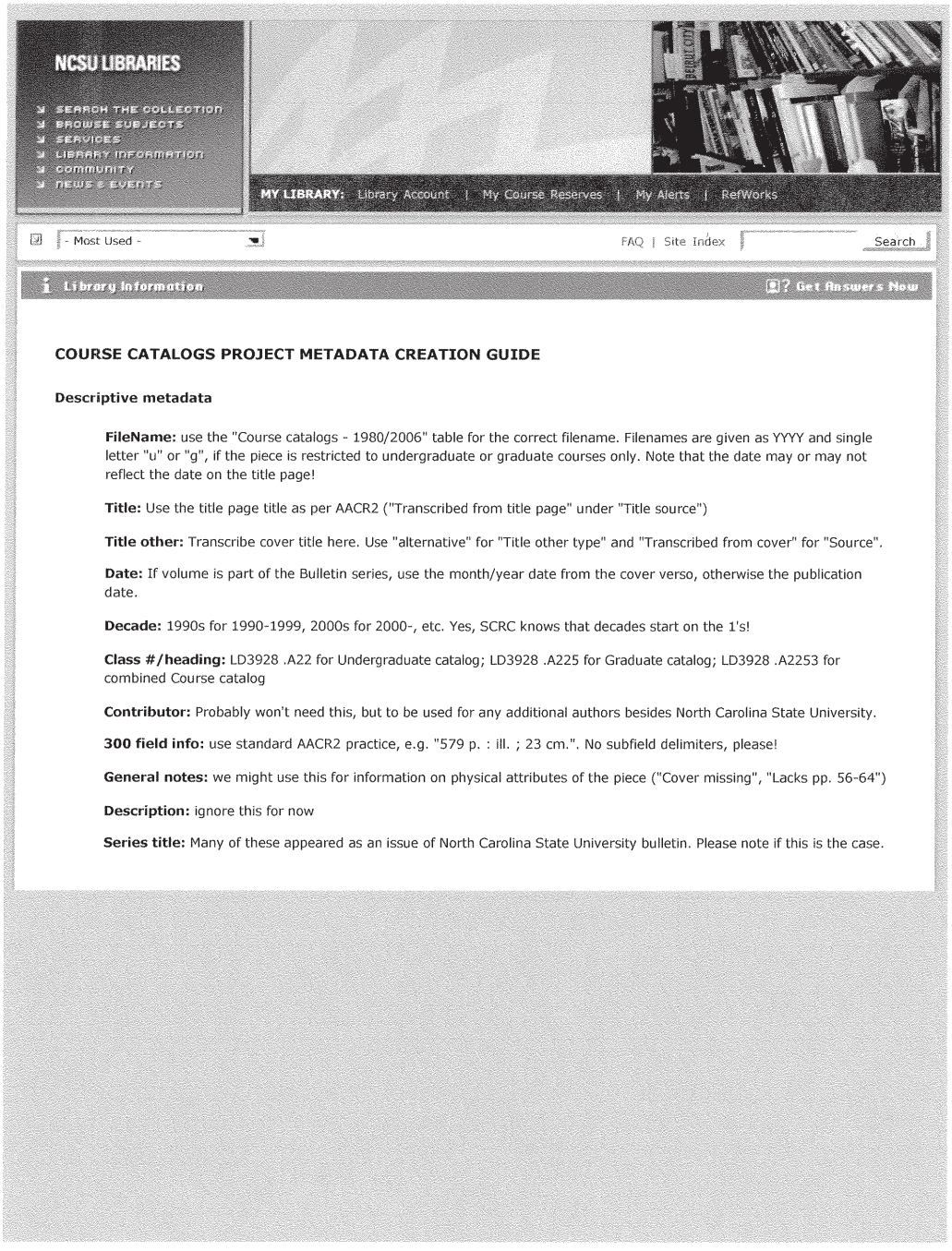
FIELD LABEL	DUBLIN CORE	DESCRIPTION/NOTES
Creator **Controlled Vocabulary Field**--required if applicable --searchable --repeatable --viewable	**Creator**	**CONTROLLED VOCABULARY FIELD**[1] Name of entity principally responsible for creation of the original from which the digital object was derived (e.g., the photographer, cartographer). The creator can be a personal (individual or family) or corporate name. It is possible that the label for this field may be changed from collection to collection to reflect the role of the creator. If there are multiple creators, separate the names with semi-colons. Authority work will normally be performed on these names; the authority version of the name should be used or the name should be written in a standardized authority form. *LCNAF* form is mandatory: Sanford, Terry, 1917- Friday, William C. (William Clyde) Gilmer, Jeremy Francis, 1818-1883. It is the responsibility of the project director to make sure that a project's workflow includes provision for authority work.
Contributor **Controlled Vocabulary Field**--required if applicable --searchable --repeatable --viewable	**Creator**	**CONTROLLED VOCABULARY FIELD** (see footnote 1) Personal or corporate body names that are NOT specified in the **Creator** field, but that made a significant contribution to the original from which the digital object was derived (but not as significant a contribution as the creator). These names should be subjected to the same authority control procedures applied to **Creator** field names. Use the **Contributor Note** to describe the role(s) of contributor(s). *AACR2* 21.29 says to make **Contributor** entries (added entries in *AACR2*) for persons or corporate bodies to provide access in addition to the **Creator** (main entry in *AACR2*). *AACR2* 21.30 (with *LCRIs* relating to very specific types of materials) offers assistance in determining when to make these entries. Briefly, make entries when there are two or more person or bodies involved in the creation of an item (normally only one can be the **Creator**, although there could be exceptions here); when there is an editor, compiler, illustrator, translator who needs to be noted; when there is a corporate body that has a greater role than that of publisher, distributor, or manufacturer; and, perhaps most importantly, generally when there is a name that would provide an important access point (unless the relationship between the name and the item is purely that of a subject--in which case see **Subject**). In fact, 21.29D says that, if you feel the need to make an entry, you should make it. If it is not clear why you have made an entry (a blind reference), 21.29F says to use a note (use the **Description**, **Note**, or other field as appropriate) to clarify the reason. Mapping: In the best of possible worlds, this field would be mapped to dc.Contributor. In CONTENTdm, however, dc.Creator and dc.Contributor are NOT indexed together (unlike the parallel MARC fields (1XXs and 7XXs)) and so not searched together. It seems better to map both **Creator** and **Contributor** to dc.Creator to avoid users having to perform both a **Creator** search and a **Contributor** search (one of those "why should users have to know that" instances). Same deal as **Title** and **Alternative Title** above.

[1] UNDER INVESTIGATION: Tim has had some success in figuring out how to make these controlled vocabulary lists available across collections. Eventually, all controlled vocabulary fields should have controlled vocabulary lists that are available to all CONTENTdm collections and searchable together. This means that the default for all controlled vocabularies will be that they are sharable. Stay tuned.

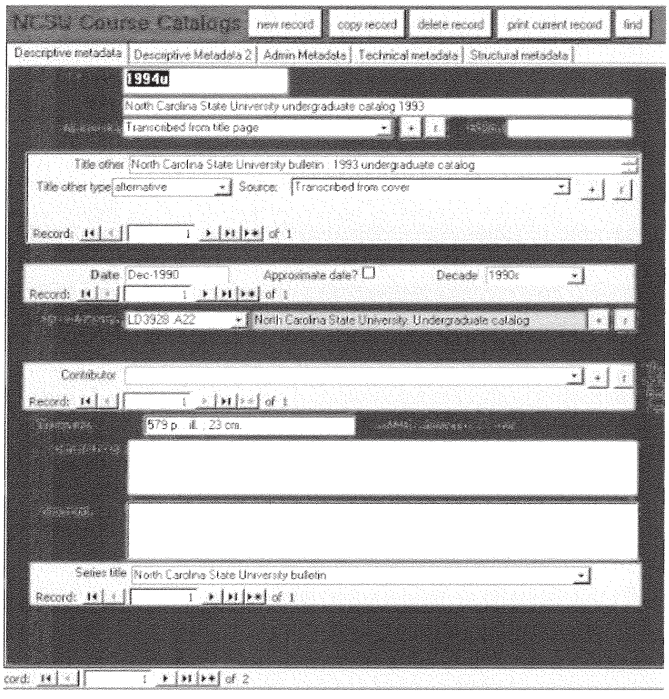
CREATOR STUFF (continued)

FIELD LABEL	DUBLIN CORE	DESCRIPTION/NOTES
Creator Nationality --optional --searchable --repeatable --viewable	**None**	Nationality of the creator. This field will operate with a controlled vocabulary, but one that is NOT to be integrated into the controlled vocabularies that relate to footnote 1. This field was added at the request of the art slide library to coordinate with the VRA CCO term of the same name.

http://www.lib.ncsu.edu/cataloging/metadata/CourseCatalogs/CourseCatalogsMetadataGuide.html



http://www.lib.ncsu.edu/cataloging/metadata/CourseCatalogs/CourseCatalogsMetadataGuide.html



Descriptive metadata 2

This area can be ignored as this data is constant and has been supplied automatically.

Admin metadata

Add your name as MD creator when adding record for new volume. Other information will be supplied when scanning is completed and files put on Web.

Technical metadata

This can be ignored, as this data will be supplied automatically.

Structural metadata

divisionTypeID: Use the appropriate descriptor from the drop-down list. In general, we will be using the following (in approximate order of encounter):

- **Cover:** use for both front and back covers, counting verso as pageSequenceNumber 0002 in each case
- **Title page:** use for title page, verso & preliminaries up to TOC
- **Contents:** for table of contents, which is usually called "Contents" on piece
- **Introduction:** in most volumes, this will have divisionTitle "North Carolina State University" and includes pages up to the next section (usually "Calendar" or "NCSU Administration and Offices")
- **Section:** use for the other headers checked on the TOC photocopies. Do not attempt to control the form of these names in divisionTitle. Rather, use the form as it appears in piece.
- **Index:** use for index near back of monograph

divisionSequenceNumber: four-digit number padded with left zeros. Number should change for each new division encountered (based on change in divisionTitle, not divisionTypeID). Start a new divisionSequenceNumber for each division with "x" on TOC photocopy. Rob has scripted this so that chosing a divisionTypeID will automatically increment the sequence # by one. This can be overridden by simply typing over the supplied number if needed.

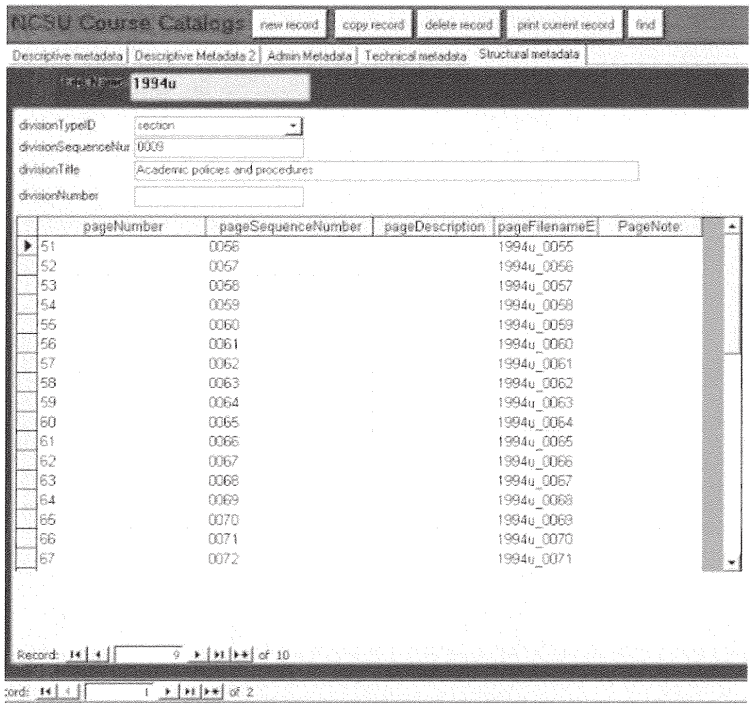
divisionTitle: Use the title as it appears in the header itself. Use AACR2/ISBD practice for capitalization (capitalize only the first word in phrase, plus any proper nouns. Remember, just those that are checked off on the photocopied TOC!

divisionNumber: Ignore

pageNumber, pageSequenceNumber, pageDescription, pageFilenameE, PageNote: There are three numbered sequences here, and they don't necessarily all increment at the same time! Provide pageNumber only where one appears in print. For the covers, there will be no page number, nor for the campus map. The pageSequenceNumber is the only number that will always increment by one, since this is what controls the sequence of Structural Metadata records. PageFilenameE will usually increment by one, but not in those cases where one section ends and another begins on the same page. For these, the page number and filename will remain the same, but the sequence number will still increase by one.

Note that double clicking on pageNumber will add the other two numbers and increment them by one. You will have to manually enter the page number until (unless) Rob figures out how to increment this as well! The increment feature also carries over to new sections.

You may add PageNote to note pages which contain photographs, maps, tables, etc. If in doubt, please feel free to ask!



http://www.lib.virginia.edu/digital/metadata/gdms.html

GDMS (General Descriptive Modeling Scheme)

Metadata Home > GDMS

Introduction
Examples
DTD

Introduction

The General Descriptive Modeling Scheme (GDMS) is a project to create a formal information structure that can be used to construct descriptive models of real-world or imaginary phenomena to create contexts for collections of digital resources. The underlying data structure is provided by an XML DTD, which allows the model to be as hierarchical or as flat, as is appropriate, and provides ways to cross reference data within or among models. Some examples of applications of the GDMS are descriptions of collections that have a complex structure (such as a set of architectural images or a set of resources related to an archeological site), annotated bibliographies of digital resources, virtual exhibitions and descriptions of historic or artistic events.

The content of a model begins with a single division or div element which can contain any number of div elements, recursively. A division description or divdesc can be included to give some meaning to the div; it contains a set of general descriptive metadata fields, each of which is optional and repeatable, that can be used in a wide variety of ways to make the div element a meaningful context for groups of resources. Each resource is included within a res element which also includes a set of Dublin core tags to describe the resource. For more details about the use of the tag set see "Usage".

The project aims to create a tool set that includes the DTD itself, and software that allows XML instances to be created, edited, searched and rendered for display using XSL stylesheets. The tool set is built around a general XML editor that allows a user to create and edit a single GDMS instance. A variety of other modules are planned that provide a way to more efficiently process and include different kinds of digital resources and to make it easy to manipulate a model for particular uses. All software developed for the project will be made freely available when it is ready.

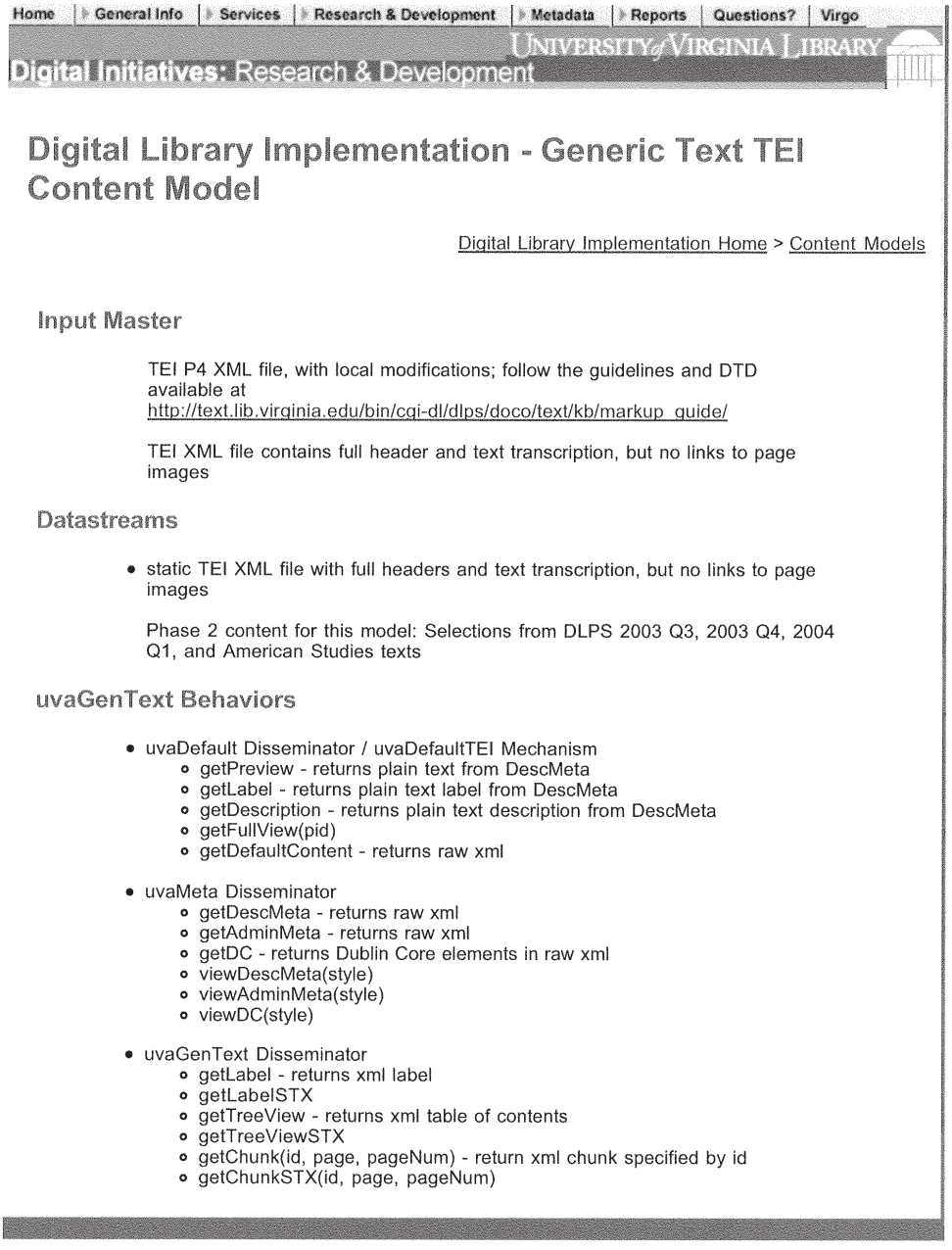
Examples

A Virtual Exhibition

This example shows one way to mark up a virtual exhibition of the works of a particular painter. The exhibition, on the website of the Smithsonian American Art Museum, is a series of HTML pages that describe the works of Abbott Handerson Thayer. It consists of two sections, an introduction that has 3 short essays and a "Paintings" section that contains four thematic collections of paintings, each of which has an introductory essay.

The Smithsonian Online Exhibition
The UVa GDMS Representation

http://www.lib.virginia.edu/digital/resndev/fedora_imp/models_tei_gtext.htm



Digital Library Implementation - Generic Text TEI Content Model

Input Master

TEI P4 XML file, with local modifications; follow the guidelines and DTD available at http://text.lib.virginia.edu/bin/cgi-dl/dlps/doco/text/kb/markup_guide/

TEI XML file contains full header and text transcription, but no links to page images

Datastreams

- static TEI XML file with full headers and text transcription, but no links to page images

  Phase 2 content for this model: Selections from DLPS 2003 Q3, 2003 Q4, 2004 Q1, and American Studies texts

uvaGenText Behaviors

- uvaDefault Disseminator / uvaDefaultTEI Mechanism
  - getPreview - returns plain text from DescMeta
  - getLabel - returns plain text label from DescMeta
  - getDescription - returns plain text description from DescMeta
  - getFullView(pid)
  - getDefaultContent - returns raw xml
- uvaMeta Disseminator
  - getDescMeta - returns raw xml
  - getAdminMeta - returns raw xml
  - getDC - returns Dublin Core elements in raw xml
  - viewDescMeta(style)
  - viewAdminMeta(style)
  - viewDC(style)
- uvaGenText Disseminator
  - getLabel - returns xml label
  - getLabelSTX
  - getTreeView - returns xml table of contents
  - getTreeViewSTX
  - getChunk(id, page, pageNum) - return xml chunk specified by id
  - getChunkSTX(id, page, pageNum)

    - getDynamicView(pid*, behav*, refb, id, page, pageNum) - returns cocoon app of dynamic view
    - getXML - returns raw xml

- uvaOKI Disseminator
    - getAssetDefs(childPid, parentPid) - returns asset definitions as xml

- uvaRelation Disseminator / uvaRelationTEI behavior
    - getChildDescMeta(childPid) - returns descriptive metadata for childPid

- Other
    - getCitation - returns a true bibliographic citation, plus an actionable, persistent link to the text object. This contains additional elements than are included in the getPreview behavior in the uvaDefault disseminator. **Scheduled for later implementation.**
    - getHeader - returns the header from the TEI datastream file, rather than metadata from the DescMeta elements in the Fedora object. **Scheduled for later implementation.**

uvaBook Behaviors (Transcribed texts with page images)

- uvaDefault Disseminator / uvaDefaultTEI Mechanism
    - getPreview - returns plain text from DescMeta
    - getLabel - returns plain text label from DescMeta
    - getDescription - returns plain text description from DescMeta
    - getFullView(pid)
    - getDefaultContent - returns raw xml

- uvaMeta Disseminator
    - getDescMeta - returns raw xml
    - getAdminMeta - returns raw xml
    - getDC - returns Dublin Core elements in raw xml
    - viewDescMeta(style)
    - viewAdminMeta(style)
    - viewDC(style)

- uvaGenText Disseminator
    - getLabel - returns xml label
    - getLabelSTX
    - getTreeView - returns xml table of contents
    - getTreeViewSTX
    - getChunk(id, page, pageNum) - return xml chunk specified by id
    - getChunkSTX(id, page, pageNum)
    - getDynamicView(pid*, behav*, refb, id, page, pageNum) - returns cocoon app of dynamic view
    - getXML - returns raw xml

- uvaPageBook Disseminator
    - getLabel - returns xml label
    - getLabelSTX
    - getTreeView - returns xml table of contents
    - getTreeViewSTX
    - getPageTurner(pid*, behav*, refb, id, page, pageNum, snum, sblk) - returns cocoon app of page turner
    - getXML - returns raw xml

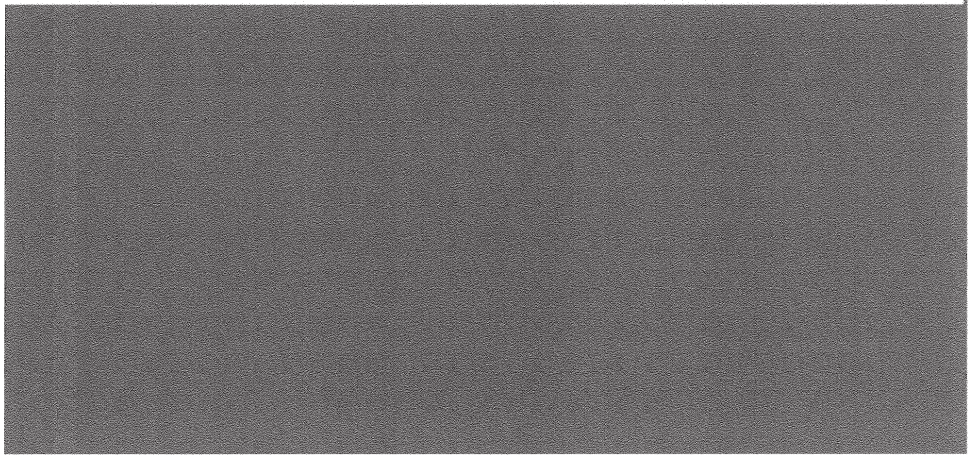
- uvaOKI Disseminator
  - getAssetDefs(childPid, parentPid) - returns asset definitions as xml
- uvaRelation Disseminator / uvaRelationTEI behavior
  - getChildDescMeta(childPid) - returns descriptive metadata for childPid
- Other
  - getCitation - returns a true bibliographic citation, plus an actionable, persistent link to the text object. This contains additional elements than are included in the getPreview behavior in the uvaDefault disseminator. **Scheduled for later implementation.**
  - getHeader - returns the header from the TEI datastream file, rather than metadata from the DescMeta elements in the Fedora object. **Scheduled for later implementation.**

Recommendation: Three TEI models are required to handle the great variation between fully transcribed texts without page images, fully transcribed texts with page images, and page image-only texts without transcriptions.

The existing mechanisms for transcription display can be used on variations of TEI encoding provided we are willing to accept that some elements may be rendered (or not) with the different encoding versions. To have a single TEI content model we must either update the markup to bring all to same encoding standard (over and above parsing against the same DTD), or make the mechanisms more flexible to handle the variations. There are costs in terms of people resources and time to do either.

February 18, 2004; revised April 27, May 19, July 23, August 27, and September 17, 2004

Digital Initiatives
University of Virginia
PO Box 400112
Charlottesville, VA 22904-4112



http://www.lib.washington.edu/msd/mig/advice/default.html

UNIVERSITY OF WASHINGTON Libraries

Libraries Home | Resources | Services | About

ask us
email | chat | phone

Libraries Home > Monographic Services Division > Mig > Advice > **UW Libraries Metadata Guidelines for CONTENT Collections**

Metadata Implementation Group

off-campus access (log in)

UW Libraries Metadata Implementation Group Image Collections Data Dictionaries

Resources about Metadata and Digital Libraries collected by the International Federation of Library Associations (IFLA)

Metadata Guidelines for Collections using CONTENTdm

How metadata is used in CONTENTdm

Setting up CONTENTdm field properties
Includes an introduction to Dublin Core mapping

Basic decisions about metadata
Thinking about your collection and how it will be used

"Flattening complex reality"
Keeping it simple

Formatting data
The importance of consistency and standards

Field properties table
Specific advice about choosing field names, mapping to Dublin Core, formatting data, and choosing controlled vocabularies

How metadata is used in CONTENTdm

A CONTENTdm collection contains digitized images or text. Each of these digital resources has a description (or "metadata") attached to it. It is important to know that the description will not only be displayed with the resource, but that the data contained in it can also be used for searching your collection by itself or in combination with other collections.

Click here to see how CONTENTdm displays metadata

Basic decisions about metadata

Description: What kind of information do you need to describe each resource? What do your users need to know about what the resource is, where it came from, who created it, what its significance is? How much detail do you need to go into?

Retrieval: How will users find resources in your collection? What will they be looking for? What aspects will they be interested in? At what level do you need to distinguish one resource from another, and at what level do you want to bring like resources together?

Formatting data

Using standards for inputting your data is very important. Standards insure consistency, which

- increases coherence and intelligibility of description
- enhances reliability of retrieval
- enables compatibility with other collections (cross-database searching)
- makes maintenance and possible migration of data easier

Data should be formatted in a standard way. Actually, which format you choose may not be as important as always using the same format for data in the same field.

Examples:

- In a field called "Date" make sure that dates are always formatted in the same way.
- In a field called "Photographer" the same person's name should always appear in the same form.
- Similarly, the resources about the same topic should have the same term used to describe them. For example, a user looking for images of retail stores using the field "Subject" should be able to do a single search to find all the relevant images. If different terms are used, the user may not even realize that more than one search is necessary.

This is where a "controlled vocabulary" or "authority file" can be useful. A standard list of authorized terms can eliminate the ambiguity that arises from synonymous terms, homonyms, variant spellings and other pitfalls. There are controlled vocabularies that already exist for many subject areas and disciplines, or you could create your own standardized list of terms if it were reasonably short and you needed something very specialized for your collection. Either way, with a controlled vocabulary you don't have to monitor your own consistency as you input metadata--the act of adhering to the list in itself will create the consistency you need. This is especially useful if more than one person will be inputting metadata in your collection.

Setting up CONTENTdm field properties for your collection

You can set up your metadata fields in the CONTENTdm Server Administration module under "View/edit collection field properties." CONTENTdm allows you to:

- have as many fields in the description as you want
- create your own field names
- decide whether each field will be searchable or will display
- put the fields in any order you want
- make fields available for cross-database searching

CONTENTdm has the capability to search multiple collections at once. In order to achieve this, CONTENTdm uses underlying mapping to simple Dublin Core (DC) elements to create a crosswalk between similar fields with different field names in different collections. (The Dublin Core is an internationally agreed upon basic metadata scheme that defines 15 general descriptive elements, for example, Creator, Title, Date, Subject, Publisher). You may map each field in your collection to a corresponding Dublin Core element. Or you could choose not to map certain fields to any DC element if the fields did not fit well into the DC schema, or if you didn't want to make these fields available for cross-database searching.

Example: The fields in the table below are from different databases and all somehow represent the name of a person (or organization) involved in the creation of a resource. Since all these fields have been mapped to the Dublin Core element "Creator", a cross-database search across multiple collections in the field "Creator" will retrieve the appropriate resources from whichever collection they are in, no matter what the collection-specific field name is.

Collection	Collection-Specific Field Name	DC Mapping
Collection A	Architect	Creator
Collection A	Photographer	Creator
Collection B	Author	Creator
Collection C	Person Interviewed	Creator

"Flattening Complex Reality"

"By 'pretending' that a cross-section of resources is uniformly simple we thereby make it possible to search for them in a simple manner."
--Carl Lagoze, Accommodating Simplicity and Complexity in Metadata, 2000

CONTENTdm's database structure right now is flat. There is no way structurally to distinguish between metadata for different physical manifestations of a resource, for example, between the original object, the photograph of the object, and the digitized scan of the photograph.

http://www.lib.washington.edu/msd/mig/advice/default.html

The UW Libraries has not attempted to follow a strict 1:1 correspondence between metadata and the particular manifestation of the resource. Whatever information seemed important for users of a particular collection was included in the metadata. For example, in a collection of photographs of buildings, both the photographer and the architect are important for searching, so both fields were included and both were mapped to the underlying Dublin Core element "Creator". The name of the person who did the scanning was not considered significant and was completely left out.

Field Properties Table

To set field properties in CONTENTdm, use the Server Administration module, and select "View/edit collection field properties."

Shown below are the default values for field properties as they appear in the CONTENTdm Server Administration module. *Remember*, the field properties as they originally appear in the Administration module are just a starting point–you can add, delete, and reorder the fields in any way, without affecting searching within the collection or across multiple collections. (It is the DC mapping that controls searching across multiple collections, not the order of the fields.)

We have added extra explanatory information to the sample table below. Click on a field property (headers at the top) or on a field name to see advice about how to use the field.

You can also see examples of how other CONTENTdm collections at the UW Libraries have set up their metadata by looking at their data dictionaries. We recommend recording all metadata decisions about your collection in a data dictionary, which would have much more detail than the CONTENTdm field properties table can contain. For instance, in CONTENTdm administration of field properties, there is no place to record decisions about formatting standards, but this can be recorded in your data dictionary.

Field name	DC mapping	Data type	Big field	Searchable	Hidden	ControlVoc
Title	Title	Text	No	Yes	No	No
Subject	Subject	Text	No	Yes	No	No
Description	Description	Text	Yes	Yes	No	No
Creator	Creator	Text	No	No	No	No
Publisher	Publisher	Text	No	No	No	No
Contributors	Contributors	Text	No	No	No	No
Date	Date	Text	No	No	No	No
Type	Type	Text	No	No	No	No
Format	Format	Text	No	No	No	No
Identifier	Identifier	Text	No	No	No	No
Source	Source	Text	No	No	No	No
Language	Language	Text	No	No	No	No
Relation	Relation	Text	No	No	No	No
Coverage	Coverage	Text	No	No	No	No
Rights	Rights	Text	No	No	No	No

Questions? Comments? Click here to contact UW Libraries Metadata Implementation Group
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