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Indiana University
Variations2 Digital Music Library Project

DATA DICTIONARY: METADATA ELEMENTS FOR VERSION 1

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This document describes descriptive, structural, relational, and administrative metadata elements associated with each entity (Contributor, Work, Instantiation, and Media object). Each type of metadata is color-coded as follows:

Yellow	Descriptive
Tan	Structural
Blue	Relational/Connective
Green	Administrative

OVERVIEW OF METADATA TYPES

Descriptive Metadata

The main purpose of Descriptive Metadata in the Digital Music Library project is to assist users in identification of various music representation objects through searching and browsing. The main concerns in the process of determination of descriptive metadata elements include:

- Defining the need for and purpose of each element
- Defining the entity with which the element should be associated
- Defining the source(s) for the elements
- Determining the elements' syntactical constraints
- Determining the necessary controlled vocabularies and thesauri

Structural Metadata

Structural metadata will be used for arranging the entities (i.e., works, containers) into logical and physical divisions. The primary uses of structural metadata in the system include:

- Representing logical divisions of musical works and their corresponding divisions in various music representations (e.g., scores, recordings, video, etc.)
- Displaying the internal structure of music representations
- Navigating the internal structure of music representations
- Providing a place for finer-grain descriptive metadata to enable searching and browsing on the level of internal structure of musical works (e.g., movements)

Relationships

The purpose of the relationships is to connect various types of metadata elements as well as the entities themselves to enable efficient and effective searching, browsing, and navigating of various music representation objects. The primary functions of the relationships include:

- Linking contributor names and types of contribution among various objects in the system
- Linking works and their corresponding music representations
- Linking structures of works and their corresponding music representations
- Providing unique identification for the objects

Administrative Metadata

Administrative metadata will accommodate various managerial concerns regarding:

- Record creation and maintenance
- Properties of the digital objects in the system
- Access information
- Intellectual property rights information
- External Unique Identifiers

DESCRIPTIONS OF THE COLUMNS IN THE TABLES BELOW

Field Name	Indicates the field's name.
Database Multiplicity	Indicates the required and/or possible number of data entries for each field.
Brief Record	Indicates whether the field is required for the Brief Record (minimum cataloging requirements).
Data Type	Indicates the format in which data is to be entered into the system.
Source	Indicates the authoritative (ARN) or bibliographic (BIB) source record number or other source of information, such as the <i>New Grove</i> (NG). Currently, this field also indicates whether the information from the above sources should be pulled from a thesaurus/list (for controlled fields). This field is included here for internal purposes only (cataloging, etc.). In the actual system, there will be another Source field, which will include source information for a limited number of fields for the purposes of validation, including Uniform Contributor Name (Contributor), Uniform Contributor Date (Contributor), Uniform Title (Work), LCSH (Container, Instantiation), and Uniform Series Title (Container). These five fields are currently marked with "Yes" in their corresponding Source fields.
Scope Notes	Describes the nature, scope, and properties of the field and suggests some cataloging guidelines.
ARN	Refers to the OCLC Authority File Number.
BIB	Refers to the OCLC BIB File Number.
NG	Refers to the New Grove Dictionary of Music and Musicians (Title and URL).

CONTRIBUTOR RECORD MODEL

Field Name	Database Multiplicity	Brief Record	Data Type	Source	Scope Notes
Type	1		Person or Group		Specifies the type of contributor as a person or a group.
Uniform Name	1	Y	Name	ARN or NG or BIB Yes	<p>Specifies the full uniform name of the contributor. All Uniform Contributors should fulfill the standards of the AACR2 cataloging rules. The sources for this field in order of preference and/or availability include:</p> <ul style="list-style-type: none"> • OCLC Authority File (supply ARN number) • <i>The New Grove Dictionary of Music and Musicians</i> (supply the article name/URL) • OCLC Bibliographic File (supply OCLC BIB number) • Constructed anew based on the name on the container and the rules described in AACR2 <p>Begins with the last name separated by a delimiter (comma) from the rest of the name. In the case of group names (e.g., "Haydn Quartet") or absence of a clear last name (e.g., "Anonymous II"), the whole name is entered before the delimiting comma.</p>
Variant Name(s)	0...Many		Name	ARN	<p>Specifies the contributor's variant name(s), as indicated in the OCLC Authority File. This field does not accommodate all the actual names from the Container / Instantiation records. It includes only the names specified in the OCLC Authority Files 4XX field. The purpose of the Variant Contributor(s) field is to accommodate those common variant names that might not appear anywhere else in the system (e.g., container or instantiation) but could be employed by users in constructing their search terms.</p> <p>Begins with the last name separated by a delimiter (comma) from the rest of the name. In the case of group names (e.g., "Haydn Quartet") or absence of a clear last name (e.g., "Anonymous II"), the whole name is entered before the delimiting comma.</p>
Date(s)	0...Many	Y	Typed Date	ARN or NG or BIB	<p>Specifies the contributor's dates of birth and death, dates of flourishing, or other appropriate dates associated with the contributor. The sources for this field in order of preference and/or availability include:</p> <ul style="list-style-type: none"> • <i>The New Grove Dictionary of Music and Musicians</i> (supply the article name/URL) • OCLC Authority File (supply ARN number) • OCLC Bibliographic File (supply OCLC BIB number)
Variant Date(s)	0...Many		Typed Date	ARN or BIB or NG Yes	<p>Specifies variant or alternate contributor dates, as indicated in the OCLC Authority File, the <i>New Grove Dictionary</i>, or OCLC BIB file.</p> <p>This field does not accommodate all the actual dates from the Work / Container / Instantiation records. This field will also accommodate the "old style" (Julian calendar) dates after 1582 as well as other common variant dates specified in the sources for this field.</p>

Place of Origin	0...1		Place	NG or ARN or BIB translated into controlled geographic list / thesaurus	Specifies the city and/or country of birth (for individual persons) or city and/or country of foundation (for orchestras, choirs, ensembles, etc.). Syntax should accommodate unknown and/or locations in question. The sources for this field in order of preference and/or availability include: <ul style="list-style-type: none"> • <i>The New Grove Dictionary of Music and Musicians</i> (supply the article name/URL) • OCLC Authority File (supply ARN number) • OCLC Bibliographic File (supply OCLC BIB number)
Note(s)	0...Many		Note		Accommodates additional necessary information about the Contributor record.
Related Resource(s)	0...Many		Resource	NG URL, other URL, and printed sources	Includes NG article title/URL or other URLs as well as printed sources and grows dynamically.
ID	1		ID		Indicates unique identifier for the Contributor record, generated automatically.
Record Creation	1		Access Info		Indicates the date on which the record was created and the ID of the cataloger who created the record, generated automatically.
Last Record Update	1		Access Info		Indicates most recent update time and the ID of the cataloger who performed the update, generated automatically.
Record Status	1		Status Descriptor		Specifies the status of the record using record status descriptors (e.g., "available for public access," "not available for public access," etc.)

WORK RECORD MODEL

Field Name	Database Multiplicity	Brief Record	Data Type	Source	Scope Notes
Type	1		Single or Collective		Specifies whether the Work is a Single or Collective work.
Uniform Title	1	Y	Text	ARN or BIB or NG or constructed anew based on cataloging rules Yes	<p>Specifies the uniform title of the Work. All Uniform Titles should fulfill the standards of the AACR2 cataloging rules. The sources could be (in order of preference and/or availability):</p> <ul style="list-style-type: none"> • OCLC authority file (supply ARN number) • OCLC BIB file (supply OCLC number) • <i>The New Grove Dictionary of Music and Musicians</i> (supply the article name/URL, convert into the AACR2 syntax) • Constructed anew based on the cataloging rules described in AACR2. <p>This field could serve as the unique Work record identifier.</p>
Variant Title(s)	0...Many		Text	ARN	Specifies the Work's variant title(s), as indicated in the OCLC authority file (supply ARN number). Accommodates catalog numbers that are not present in the Uniform title (additional catalog or opus numbers, alternate numbers, etc.). This field does not accommodate all the actual titles from the Container / Instantiation records. It includes only the titles specified in the OCLC Authority Files.
Date of Composition	0...1		Date	NG or ARN or BIB	<p>Specifies the date of composition, if available. The sources could be (in order of preference and/or availability):</p> <ul style="list-style-type: none"> • <i>The New Grove Dictionary of Music and Musicians</i> (supply the article name/URL) • OCLC authority file (supply ARN number) • OCLC BIB file (supply OCLC number)
Place of Composition	0...1		Place	NG, geographic list or thesaurus	<p>Specifies location of composition (city and country, if available). Syntax is based on thesaurus (standard list of geographical locations).</p> <p>The source is:</p> <ul style="list-style-type: none"> • <i>The New Grove Dictionary of Music and Musicians</i> (supply the article name/URL)
Date of First Performance	0...1		Date	NG	<p>Specifies location of first performance (city and country, if available). Syntax is based on thesaurus (standard list of geographical locations).</p> <p>The source is:</p> <ul style="list-style-type: none"> • <i>The New Grove Dictionary of Music and Musicians</i> (supply the article name/URL)
Date of First Publication	0...1		Date	NG	<p>Specifies the date of first publication, if available.</p> <p>The source is:</p> <ul style="list-style-type: none"> • <i>The New Grove Dictionary of Music and Musicians</i> (supply the article name/URL).

Field Name	Database Multiplicity	Brief Record	Data Type	Source	Scope Notes
Original Text Title	0...1		Text	NG or ARN or BIB	Specifies the complete title of the non-musical work, whose text was used in the musical work. The sources could be (in order of preference and/or availability): <ul style="list-style-type: none"> • <i>The New Grove Dictionary of Music and Musicians</i> (supply the article name/URL) • OCLC authority file (supply ARN number) • OCLC BIB file (supply OCLC number)
Language(s)	0...Many		Language Use	Work translated to list or thesaurus of languages and types of application	Indicates the languages used in the work and associated locations/contexts of those languages (e.g., language employed in the program supplied by the composer such as in Berlioz's <i>Symphonie Fantastique</i> , etc.). <p>Some "Language location/context" categories for Work record include:</p> <ul style="list-style-type: none"> • Program • Preface • Postscript • Dedication • Epigraph • Performance directions • Lyrics
Subject Heading(s)	0...Many		Text	ARN or OCLC Yes	Specifies the Library of Congress Subject Heading appropriate for the given work. Follows the Library of Congress syntax. Subject headings for existing records will be transferred from OCLC records or otherwise constructed according to the cataloging rules and Library of Congress syntax. Will be transferred from OCLC.
Class Number	0...1		Text	ARN or BIB	Specifies the class number appropriate for the given work. Follows the Library of Congress syntax. Class numbers for existing records will be transferred from OCLC records or otherwise constructed according to the cataloging rules and Library of Congress syntax. Will be transferred from OCLC.
Instrumentation	0...Many	Y	Instrument Info	NG or ARN or BIB, instrumentation list or thesaurus	Specifies performance forces of the given work. Syntax based on the controlled instrumentation list/thesaurus. Cataloger will be able to pick appropriate instruments from list or thesaurus. The sources could be (in order of preference and/or availability): <ul style="list-style-type: none"> • <i>The New Grove Dictionary of Music and Musicians</i> (supply the article name/URL) • OCLC authority file (supply ARN number) • OCLC BIB file (supply OCLC number) <p>This field includes a numeric subfield, which accommodates the number of associated type of instruments (e.g., 3), while the text subfield identifies the type of instruments (e.g., clarinet)</p>
Genre, Form, and Style	0...Many		Genre, Form, Style descriptor	List or thesaurus	Specifies appropriate descriptors from the controlled list of descriptors identifying the work's genre, form, and style attributes (Music Thesaurus). Cataloger picks appropriate genre/form/style descriptors from list or thesaurus.

Field Name	Database Multiplicity	Brief Record	Data Type	Source	Scope Notes
Key	0...1	Y	Key Descriptor	NG or ARN or BIB, key list or thesaurus	Specifies the key of the overall work. Syntax TBA. Cataloger picks appropriate key from list or thesaurus. The sources could be (in order of preference and/or availability): <ul style="list-style-type: none"> <i>The New Grove Dictionary of Music and Musicians</i> (supply the article name/URL) OCLC authority file (supply ARN number) OCLC BIB file (supply OCLC number)
Note(s)	0...Many		Note		Accommodates additional necessary information about the Contributor record.
Related resource(s)	0...Many		Resource	NG URL, other URL, and printed sources	Includes NG article title/URL or other URLs as well as printed sources and grows dynamically.
Work Structure	0...1		Structure Declaration		Specifies the structural elements of the work by supplying them with unique IDs, element labels to be used in navigating and displaying the internal structure of the work, uniform titles appropriate for internal work sections to be used in searching, and work type descriptors (e.g., movement, act, etc.)
ID	1		ID		Indicates unique identifier for the Work record, generated automatically.
Contribution(s)	0...Many		Contribution		Specifies the names of all contributors and their contribution types associated with the work. Links to the appropriate contributor records.
Related Work(s)	0...Many		Work Relation		Identifies IDs of related works and types of those relationships (e.g., arrangement of, etc.)
Copyright Declaration(s)	0...Many		Copyright Declaration		Specifies copyright date(s) and holder(s) associated with the work/instantiation/container. Also indicates the type or domain of the copyright declaration (e.g. Music, Text, Recording, etc.)
Performing Rights Society Work Number	0...1		Text		Identifies the performing rights society work number. Unique ID for a work in the corresponding performing rights society's database. Format: Society identifier (e.g. ASCAP, BMI, SESAC, etc.) plus work number. ASCAP, BMI, and SESAC all use numeric work numbers (with varying numbers of digits). Other non-US organizations may use other formats. Probably best to just use an alphanumeric field. References: http://repertoire.bmi.com , http://www.sesac.com/repertory/repertory1.html , http://www.ascap.com/ace/ace.html
Public Domain	1		Unknown, Known Public Domain, Known NOT Public Domain		Indicates whether this work is known to be in the public domain, known NOT to be in the public domain, or is unknown.
Record Creation	1		Access Info		Indicates the date on which the record was created and the ID of the cataloger who created the record, generated automatically.

Field Name	Database Multiplicity	Brief Record	Data Type	Source	Scope Notes
Last Record Update	1		Access Info		Indicates most recent update time and the ID of the cataloger who performed the update, generated automatically.
Record Status	1		Status Descriptor		Specifies the status of the record using record status descriptors (e.g., "available for public access," "not available for public access," etc.)

INSTANTIATION RECORD MODEL

Field Name	Database Multiplicity	Brief Record	Data Type	Source	Scope Notes
Title	1	Y	Text	Container	Identifies the actual instantiation title (as presented on the container).
Document Description	1	Y	Document Info	Container	<p>Because a container may have more than one document types/formats, it is important for the instantiation to have a field that indicates what particular type/format of document it represents. Therefore, each instantiation will be described in the following ways:</p> <ol style="list-style-type: none"> 1. Document Type: <ul style="list-style-type: none"> • Sound • Score • Video • Text 2. Document Format: <ul style="list-style-type: none"> • For Sound Type: LP, CD, Tape, MIDI • For Score Type: All Scores, Full Scores, Reduced Scores, Parts, Facsimiles • For Video Type: Videotape, Video Laser Disc, DVD • For Text Type: Libretto, Liner Notes
Subject Heading(s)	0...Many		Text	ARN or BIB Yes	Specifies the Library of Congress Subject Heading appropriate for the given instantiation. Follows the Library of Congress syntax. Subject headings for existing records will be transferred from OCLC records or otherwise constructed according to the cataloging rules and Library of Congress syntax. Will be transferred from OCLC.
Class Number	0...1		Text	ARN or BIB	Specifies the class number appropriate for the given instantiation. Follows the Library of Congress syntax. Class numbers for existing records will be transferred from OCLC records or otherwise constructed according to the cataloging rules and Library of Congress syntax. Will be transferred from OCLC.
Instrumentation	0...Many	Y	Instrument Info,	Container	<p>Specifies performance forces of the given instantiation, if different from the work. Syntax based on the controlled instrumentation list/thesaurus. Cataloger will be able to pick appropriate instruments from list or thesaurus. The sources could be (in order of preference and/or availability):</p> <ul style="list-style-type: none"> • <i>The New Grove Dictionary of Music and Musicians</i> (supply the article name/URL) • OCLC authority file (supply ARN number) • OCLC BIB file (supply OCLC number) <p>This field includes a numeric subfield, which accommodates the number of associated type of instruments (e.g., 3), while the text subfield identifies the type of instruments (e.g., clarinet)</p>
Genre, Form, and Style	0...Many		Genre, Form, and Style descriptor	Music Thesaurus	Specifies appropriate descriptors from the controlled list of descriptors identifying the instantiation's genre, form, and style attributes (Music Thesaurus), if different from the work. Cataloger picks appropriate genre/form/style descriptors from list or thesaurus.

Language(s)	0...Many		Text	Container translated to list or thesaurus of languages and types of application	Indicates the languages used in the instantiation and associated locations/contexts of those languages. Some "Language location/context" categories for the instantiation include: <ul style="list-style-type: none"> • Program notes • Performance
Notation	0...1		Notation Descriptor	Container	Identifies the notation in which the instantiation appears in the container, in the case of printed music (e.g., tabulature, modern staff notation, etc.).
Date(s) of Performance	0...Many		Date	Container	Identifies the complete or incomplete date of recording, if available. May have more than one date.
Place of Performance	0...1		Place	Container translated to list or thesaurus	Identifies the city and country of the performance, if available.
Extent	1		Number	Container	Identifies the extent (duration/length) of the instantiation.
Note(s)	0...Many		Note	Container	Accommodates additional necessary information about the Contributor record.
ID	1		ID		Indicates unique identifier for the Instantiation record, generated automatically.
Contribution(s)	0...Many		Contribution	Container, System records, ARN/BIB	Specifies the names of all contributors and their contribution types associated with the instantiation. Links to the appropriate contributor records.
Manifested Work	1		ID		Provides a link to the work record represented by the instantiation.
Completeness Indicator	1		Complete or Incomplete		Specifies whether the instantiation represents the work in its complete or incomplete form.
Parent Container	1		ID	Container	Identifies the title of the container to which the instantiation belongs. This field serves as an explicit link to the container.
Structural Binding	0...1		Structural Binding		Specifies mapping between the structure and particular offsets into relevant media objects.
Copyright Declaration(s)	0...Many		Copyright Declaration		Identifies the copyright date(s) and holder(s) associated with the work/instantiation/container. Also indicates the type or domain of the copyright declaration (e.g. Music, Text, Recording, etc.)
Public Domain	1		Unknown, Known Public Domain, Known NOT Public Domain		Indicates whether this work is known to be in the public domain, known NOT to be in the public domain, or is unknown.
Record Creation	1		Access Info		Indicates the date on which the record was created and the ID of the cataloger who created the record, generated automatically.

Last Record Update	1		Access Info		Indicates most recent update time and the ID of the cataloger who performed the update, generated automatically.
Record Status	1		Status Descriptor		Specifies the status of the record using record status descriptors (e.g., "available for public access," "not available for public access," etc.)

CONTAINER RECORD MODEL

Field Name	Database Multiplicity	Brief Record	Data Type	Source	Scope Notes
Title(s)	1...Many	Y	Text	Container	Identifies the actual title of the container that the cataloger chooses to enter as the main container title. Also identifies additional titles presented on the Container (e.g., different titles on the front and back of a CD etc.).
Uniform Series Title	0...1	Y	Text	ARN or BIB Yes	Identifies the uniform series title of the container.
Publisher	0...1	Y	Text	Container	Identifies the publisher name. This is the only type of contributor that does not require creating a Uniform Contributor record. The publisher information resides on the Container level only.
Edition	0...1	Y	Text	Container	Identifies the edition number of the container.
Publisher/Plate Numbers	0...Many	Y	Text	Container	Identifies publisher label and plate numbers as they appear on the container.
Document Description(s)	1...Many	Y	Document Info	Container translated to list or thesaurus	<p>Describes the physical properties of the container in the following three ways:</p> <ol style="list-style-type: none"> 1. Document Type: <ul style="list-style-type: none"> • Sound • Score • Video • Text 2. Document Format: <ul style="list-style-type: none"> • For Sound Type: LP, CD, Tape, MIDI • For Score Type: All Scores, Full Scores, Reduced Scores, Parts, Facsimiles • For Video Type: Videotape, Video Laser Disc, DVD • For Text Type: Libretto, Liner Notes 3. Document Description: <ul style="list-style-type: none"> • physical dimensions of the document, transferred from MARC records or constructed based on the cataloging rules, and the total duration/length of the document. <p>Note: The categories for the "Document Format" attribute have been chosen based on the commonly accepted musicians' vocabulary and not the vocabulary currently used in cataloging. This is to provide more intuitive categories easily understood by the system's users (as opposed to the categories like "close score" used in cataloging but not in common searches). In addition, some of the categories used in traditional cataloging might not be very relevant for the present system, such as "miniature" or "study size" score.</p>

Field Name	Database Multiplicity	Brief Record	Data Type	Source	Scope Notes
Language(s)	0...Many	Y	Text	Container translated to list or thesaurus of languages and types of application	Indicates the languages used in the container and associated locations/contexts of those languages. Some "Language location/context" categories for the container include: <ul style="list-style-type: none"> • Program notes for the entire container • Liner notes for the entire container
Date of Publication	0...1		Date	Container	Identifies the year of container publication.
Date of Copyright	0...1		Date		Identifies the copyright date of the container.
Place of Publication	0...1		Place	Container translated to list or thesaurus	Specifies the location of publication if available. Syntax is based on thesaurus (standard list of geographical locations). The source is the Container itself.
Note(s)	0...Many		Note		Accommodates additional necessary information about the Contributor record.
Container Structure	0...1		Structural Declaration		
ID	1		ID		Indicates unique identifier for the Container record, generated automatically.
Contribution(s)	0...Many		Contribution	Container converted to list or thesaurus or BIB	Specifies the names of all contributors and their contribution types associated with the container. Links to the appropriate contributor records.
Contained Collective Works	0...Many		ID		Specifies the IDs of the works included in the container.
Contained Media Objects	0...Many		ID		Specifies the IDs of the media objects included in the container.
Contained Instantiations	0...Many		ID		Specifies the IDs of the instantiations included in the container.
Structural Binding	0...1		Structural Binding		Specifies mapping between the structure and particular offsets into relevant media objects.
Physical Identification	1		Physical ID Info	Container	Location, call number, and copy information associated with the original physical item(s) represented by the Container.
Condition	0...1		Condition Descriptor	Container	Specifies the condition of the physical item that is being digitized at the moment of digitization.
Holding Status	0...1		Circulating, Non-circulating, Not Retained	Container	Specifies whether the container is circulating, non-circulating, or not retained.
ISBN	0...1		Text	Container	Identifies the International Standard Book Number in the case of printed sources.

Field Name	Database Multiplicity	Brief Record	Data Type	Source	Scope Notes
MRC/EAN/UPC	0...1		Number		Identifies the Media Catalog Number/European Article Numbering/Universal Product Code. The format is 13 numeric digits. Last digit is a check digit. Unique identifier for a commercially released recording. Defined in ISO 10957. Can either be transcribed from the barcode on the container, or in some cases, can be extracted directly from the data on the CD. If container has a 12-digit UPC (used in US) instead of 13-digit EAN code (used outside US), a leading '0' must be added. References: http://www.ean-int.org/ http://www.uc-council.org/
ISMN	0...1		Text	Container	Identifies the International Standard Music Number. The format is 10 characters, first of which is always 'M', remainder are numeric, e.g. M123456789. Last digit is a check digit. Used as unique identifier for published scores. Transcribed from score, if present. References: http://www.ismn.spk-berlin.de/
Copyright Declaration(s)	0...Many		Copyright Declaration	Container	Copyright date(s) and holder(s) associated with the work/instantiation/container. Also indicates the type or domain of the copyright declaration (e.g. Music, Text, Recording, etc.)
Public Domain	1		Unknown, Known Public Domain, Known NOT Public Domain		Indicates whether this work is known to be in the public domain, known NOT to be in the public domain, or is unknown.
Record Creation	1		Access Info		Indicates the date on which the record was created and the ID of the cataloger who created the record, generated automatically.
Last Record Update	1		Access Info		Indicates most recent update time and the ID of the cataloger who performed the update, generated automatically.
Record Status	1		Status Descriptor		Specifies the status of the record using record status descriptors (e.g., "available for public access," "not available for public access," etc.)