

Appendix D Extending the FRBR Model to Reflect the Data Content of the MARC Bibliographic and Holdings Formats

Purpose

This extended model is a structured representation of the information contained in the MARC bibliographic and holdings formats.

It is intended to serve as a means of clarifying the extent of the information contained in MARC records and the interrelationships between and among elements of that information.

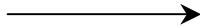
Scope

The model covers all the information contained in the record (including information pertaining to the record itself, and the fields and data elements contained in the record.) The model, however, reflects the content of the record at the entity, logical attribute and type of relationship level, not at the individual data element level.

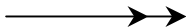
Diagramming Conventions



A rectangle represents an entity (i.e., an object, agent, activity, event, etc.) about which information is needed in order to support a process or user task.



A single-headed arrow on a line represents a relationship in which any given instance of the entity at the opposite end of the line may be associated with only one instance of the entity to which the arrow is pointing.



A double-headed arrow on a line represents a relationship in which any given instance of the entity at the opposite end of the line may be associated with one or more instances of the entity to which the arrow is pointing.



A dotted-line rectangle surrounding a group of two or more entities indicates that a relationship represented by an arrow contiguous with the dotted line may apply to any and/or all of the entities represented within the rectangle.

Structure of the Model

The model is presented in four segments:

1. FRBR Entities and Primary Relationships
2. Additional Entities Related to “Work”
3. Additional Entities Related to “Item”
4. “Metadata” Entities

Each segment contains an entity-relationship diagram, followed by a table containing definitions for each of the entities depicted in the diagram. Those tables are followed in turn by a set of tables containing definitions for the attributes and relationships associated with each of the entities in the diagram.

The entity definitions in Table 1 and the attribute definitions in Tables 1.1 through 1.10 are condensed forms of the definitions provided in FRBR.

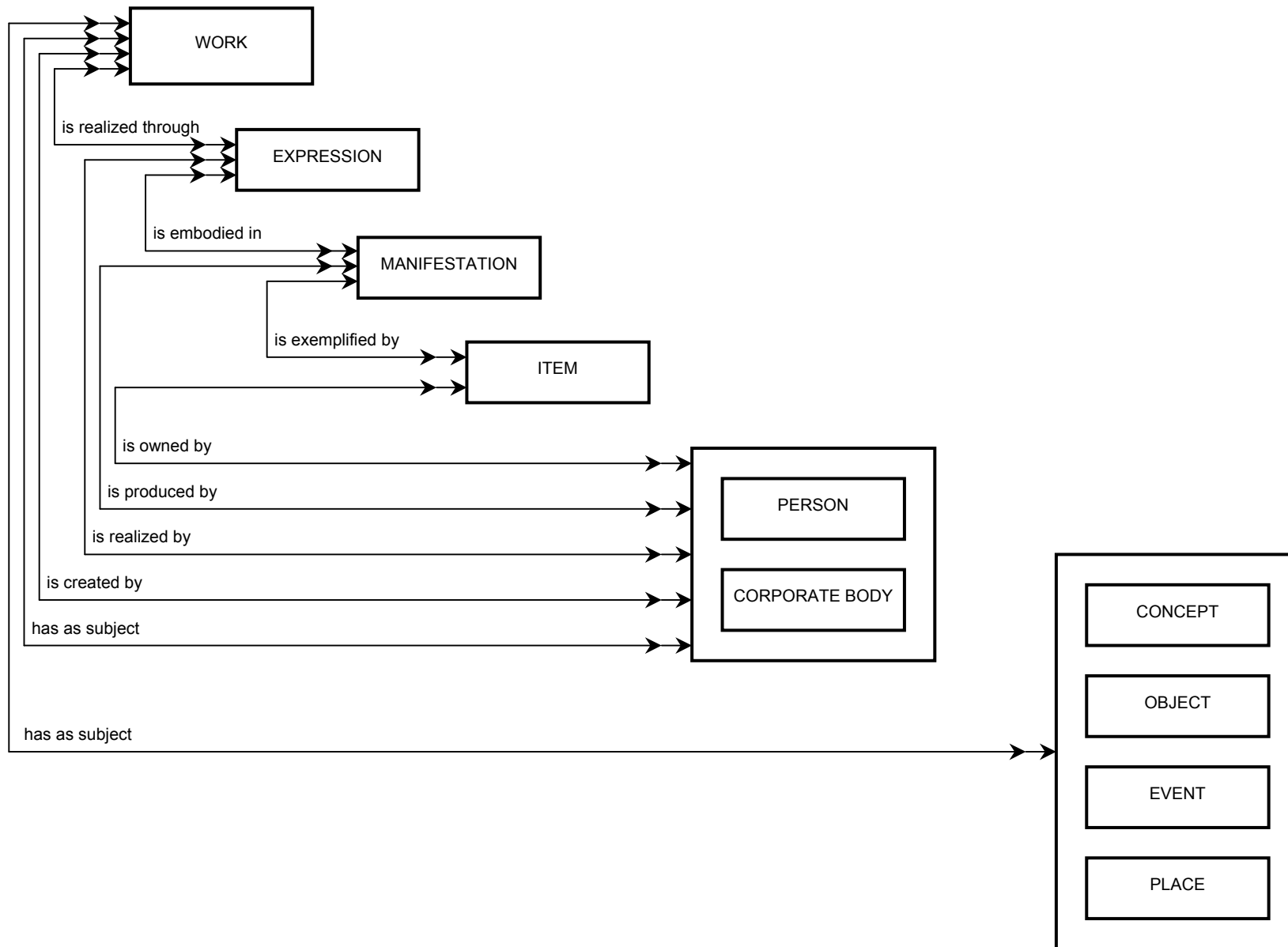


Figure 1: FRBR Entities and Primary Relationships

Table 1: FRBR Entities - Entity Definitions

Entity	Definition / Inclusions / Exclusions
Work	A distinct intellectual or artistic creation. FRBR includes variants—such as revisions, updates, abridgements; added parts, accompaniment, transcriptions and arrangements of music; dubbed or subtitled versions of films, and translations—as expressions of the same original work. Modifications involving a significant degree of independent intellectual or artistic effort—such as paraphrases, rewritings, parodies, musical variations on a theme, dramatizations, adaptations, abstracts, digests, and summaries—are viewed as new works.
Expression	The intellectual or artistic realization of a work in the form of alpha-numeric, musical, or choreographic notation, sound, image, object, movement, etc., or any combination of such forms. Expression encompasses the specific words, sentences, paragraphs, etc. resulting from the realization of a work in the form of a text. Expression excludes aspects of physical form—such as typeface and page layout—that are not integral to the intellectual or artistic realization of the work as such.
Manifestation	The physical embodiment of an expression of a work. Manifestation includes unique embodiments of a work (e.g., an author’s manuscript, an original painting), as well as embodiments produced in multiple copies, either for broad dissemination (e.g., a published book, a commercial sound recording) or for more limited purposes (e.g., a photocopy of an original typescript, a dubbing of a recording of an original piece of music). The set of copies produced in each case constitutes a manifestation.
Item	A single exemplar of a manifestation. The item may be a single physical object (e.g., a copy of a one-volume monograph, a single audio cassette), or it may comprise more than one physical object (e.g., a monograph issued in two separately bound volumes, a recording issued on three separate compact discs).
Person	An individual. Includes individuals that are deceased as well as those that are living.
Corporate Body	An organization or group of individuals and/or organizations acting as a unit. Includes organizations and groups of individuals that are identified by a particular name, including occasional groups and groups that are constituted as meetings, conferences, congresses, expeditions, exhibitions, fairs, festivals, etc. Includes organizations that act as territorial authorities exercising government functions over a certain territory, such as a federation, a state, a region, a local municipality, etc. Includes organizations that are defunct as well as those that continue to operate.

Concept	An abstract notion or idea. Includes fields of knowledge, disciplines, schools of thought (philosophies, religions, political ideologies, etc.), theories, processes, techniques, practices, etc. Includes broadly defined concepts as well as those that are narrowly defined and precise.
Object	A material thing. Includes animate and inanimate objects occurring in nature, fixed, movable, and moving objects that are the product of human creation. Includes objects that no longer exist.
Event	An action or occurrence. Includes historical events, epochs, periods of time, etc.
Place	A location. Includes terrestrial and extra-terrestrial locations, historical and contemporary locations, geographic features and geo-political jurisdictions.

Table 1.1: Work - Attributes and Relationships

Attribute	Definition / Examples
Title of work	A word, phrase, or group of characters naming the work.
Form of work	The class to which the work belongs (e.g., novel, play, poem, symphony, concerto, sonata, map, drawing, painting, photograph).
Date of work	The date (normally the year) the work was originally created.
Other distinguishing characteristic	Any characteristic that serves to differentiate the work from another work with the same title (e.g., place of origin).
Intended termination	An indication of whether the work has been conceived as having a finite end or is intended to continue indefinitely.
Nature of work*	The general character of a work (e.g., interim report, historical time chart).
Purpose of work*	The purpose for which the work was created (e.g., dissertation).
Source of work*	An indication of whether a work emanates from a government body or from a conference.
Intended audience	The class of user for which the work is intended, as defined by age group (e.g., children, young adults), educational level (e.g., primary, secondary), or other categorization.
Reading level*	An indication of the reading level of a work as assigned by a study program.
Point value*	An indication of the point value of a work as assigned by a study program.

Level of interest*	An indication of the expected level of interest in a work (e.g., local/national interest, international interest) or the interest level assigned to a work by a study program.
Context for work	The historical, social, intellectual, artistic, or other context within which the work was originally conceived (e.g., the Enlightenment, the Aesthetic Movement).
Medium of performance	The instrumental, vocal, and/or other medium of performance for which a musical work was originally intended (e.g., piano, orchestra, men's voices).
Numeric designation	A serial number, opus number, or thematic index number assigned to a musical work.
Key	The set of pitch relationships that establishes a single pitch class as a tonal centre for the work as originally composed (e.g., D major).
Coordinates	The degrees, minutes, and seconds of longitude and latitude, or the angles of declination and ascension that form the outer boundaries for the area represented in a cartographic image or object.
Equinox	The year that serves as the point of reference for a celestial chart or model.
<i>Relationship</i>	<i>Definition / Examples</i>
Realized through ⇒ expression	The relationship between the work and an expression that is a realization of the work.
Created by ⇒ person	The relationship between the work and a person responsible for the creation of the work.
Created by ⇒ corporate body	The relationship between the work and a corporate body responsible for the creation of the work.

Has as subject ⇒ person	The relationship between the work and a person that is the subject of the work.
Has as subject ⇒ corporate body	The relationship between the work and a corporate body that is the subject of the work.
Has as subject ⇒ concept	The relationship between the work and a concept that is the subject of the work.
Has as subject ⇒ object	The relationship between the work and an object that is the subject of the work.
Has as subject ⇒ event	The relationship between the work and an event that is the subject of the work.
Has as subject ⇒ place	The relationship between the work and a place that is the subject of the work.
Has as subject ⇒ work	The relationship between the work and another work that is the subject of the work.
Has as subject ⇒ expression	The relationship between the work and an expression that is the subject of the work.
Has as subject ⇒ manifestation	The relationship between the work and a manifestation that is the subject of the work.
Has as subject ⇒ item	The relationship between the work and an item that is the subject of the work.
Subject of ⇒ work	The relationship between the work and another work in which the work is a subject.
Successor ⇒ work	The relationship between the work and a succeeding work or between the work and a work that it succeeds.

Supplement ⇒ work	The relationship between the work and a supplementary work or between the work and a work that it supplements.
Complement ⇒ work	The relationship between the work and a complementary work or between the work and a work that it complements.
Summarization ⇒ work	The relationship between the work and a summarizing work or between the work and a work that it summarizes.
Adaptation ⇒ work	The relationship between the work and an adaptation or between the work and a work on which it is based.
Transformation ⇒ work	The relationship between the work and a transformation of the work or between the work and a work on which it is based.
Imitation ⇒ work	The relationship between the work and an imitation of the work or between the work and a work that it imitates.
Whole/part ⇒ work	The relationship between the work and a work that forms part of the work or between the work and a larger work of which it is a part.

Table 1.2: Expression - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Title of expression	A word, phrase, or group of characters naming the expression.
Form of expression	The means by which the work is realized (e.g., through alpha-numeric notation, musical notation, spoken word, musical sound, cartographic image, sculpture, dance)
Date of expression	The date the expression was created (e.g., the date the particular text was written or revised, the date a song was performed).
Language of expression	The language or languages in which the work is expressed.
Symbology*	The system of symbols, conventions, etc. used to convey meaning (e.g., Braille, moon type).
Other distinguishing characteristic	Any characteristic of the expression that serves to differentiate the expression from another expression of the same work (e.g., various versions of the English text of the Bible).
Extensibility of expression	The expectation that the expression will have additional intellectual or artistic content added to it.
Revisability of expression	The expectation that the intellectual or artistic content of the expression will be revised (e.g. a directory that is expected to be updated periodically).
Extent of expression	A quantification of the intellectual content of the expression (e.g., number of words in a text, statements in a computer program, images in a comic strip).
Summarization of content	An abstract, summary, synopsis, etc., or a list of chapter headings, songs, parts, etc. included in the expression.

Context for expression	The historical, social, intellectual, artistic, or other context within which the expression was realized (e.g., the Art Deco period).
Critical response to expression	The reception given to the expression by reviewers, critics, etc., as encapsulated in an annotation (e.g., "critically acclaimed for its use of ...").
Use restrictions on expression	Restrictions on access to and use of an expression (e.g., copyright restrictions, licence restrictions).
Sequencing pattern	The form anticipated to be used in designating volumes/issues, etc. and/or dates for the individual units in a serial (e.g., Volume ..., number ...).
Expected regularity of issue	The anticipated regularity of release of individual issues of a serial (e.g., regular, irregular).
Expected frequency of issue	The interval at which individual issues of a serial are anticipated to be released (e.g., weekly, monthly, quarterly).
Date of current expected frequency*	The date at which the current frequency of issue of a serial began.
Dates of former expected frequency*	The beginning and end dates of the former frequency of issue of serial.
Type of score	The format used to represent a musical composition (e.g., short score, full score).
Medium of performance	The instrumental and/or vocal medium of performance represented in the expression of a musical work (e.g., two pianos, soprano and alto).
Scale**	The ratio of distances in a cartographic or technical image or object to the actual distances they represent.

Projection	The method or system used to represent the surface of the Earth or of a celestial sphere on a plane (e.g., transverse Mercator, azimuthal equidistant).
Presentation technique	The method used to represent geographic or other features in a cartographic image (e.g., anaglyphic, diagrammatic, pictorial).
Representation of relief	The technique used to depict the elevations or the inequalities of a land surface or of the bed of a body of water in a cartographic image (e.g., contours, shading, hachures).
Geodetic, grid, and vertical measurement	Information on the spheroid used to construct a cartographic image, the grid or referencing systems used in the image, horizontal datum, vertical datum, mathematical data on contour intervals, bathymetric intervals, etc.
Recording technique	The technique used to capture an image through remote sensing (e.g., multispectral photography, infrared line scanning, SLAR).
Special characteristic	The altitude and attitude of the sensor, the position of the platform, the category and name of the satellite, the number of spectral bands involved, the quality of the image, the extent of cloud cover, or the mean value of the ground resolution in an image produced by aerial photography.
Entities and attributes*	The entity types, attributes, and attribute value domains in a cartographic or geo-spatial expression.
Quality of data set*	An indication of the accuracy, logical consistency, completeness, etc. of the data set constituting a cartographic or geo-spatial expression.
Case file characteristics*	Information pertaining to the number of cases or variables in a file, the names of the variables, the unit of analysis, the scope of data collection, the methodology used to collect the data, the filing scheme, etc.
Technique	The method used to create a graphic image (e.g., engraving), or to realize motion in a projected image (e.g., animation, live action, computer generation, 3D).

<i>Relationship</i>	<i>Definition / Examples</i>
Realization of ⇒ work	The relationship between the expression and the work realized through the expression.
Embodied in ⇒ manifestation	The relationship between the expression and a manifestation embodying the expression.
Subject of ⇒ work	The relationship between the expression and a work in which the expression is a subject.
Realized by ⇒ person	The relationship between the expression and a person responsible for its realization.
Realized by ⇒ corporate body	The relationship between the expression and a corporate body responsible for its realization.
Successor ⇒ work	The relationship between the expression and a succeeding work or between the expression and a work that it succeeds.
Supplement ⇒ work	The relationship between the expression and a supplementary work or between the expression and a work that it supplements.
Complement ⇒ work	The relationship between the expression and a complementary work or between the expression and a work that it complements.
Summarization ⇒ work	The relationship between the expression and a summarizing work or between the expression and a work that it summarizes.
Adaptation ⇒ work	The relationship between the expression and an adaptation or between the expression and a work on which it is based.

Transformation ⇒ work	The relationship between the expression and a transformation of the expression or between the expression and a work on which it is based.
Imitation ⇒ work	The relationship between the expression and an imitation of the expression or between the expression and a work that it imitates.
Abridgement ⇒ expression	The relationship between the expression and an abridgement or between the expression and an expression that it abridges.
Revision ⇒ expression	The relationship between the expression and a revision or between the expression and an expression that it revises.
Translation ⇒ expression	The relationship between the expression and a translation or between the expression and an expression that it translates.
Arrangement ⇒ expression	The relationship between the expression and an arrangement or between the expression and an expression that it arranges.
Supplement ⇒ expression	The relationship between the expression and a supplementary expression or between the expression and an expression that it supplements.
Complement ⇒ expression	The relationship between the expression and a complementary expression or between the expression and an expression that it complements.
Summarization ⇒ expression	The relationship between the expression and a summarizing expression or between the expression and an expression that it summarizes.
Adaptation ⇒ expression	The relationship between the expression and an adaptation or between the expression and an expression on which it is based.

Transformation ⇒ expression	The relationship between the expression and a transformation of the expression or between the expression and an expression on which it is based.
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Imitation ⇒ expression	The relationship between the expression and an imitation of the expression or between the expression and an expression that it imitates.
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Whole/part ⇒ expression	The relationship between the expression and an expression that forms part of the expression or between the expression and a larger expression of which it is a part.
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*Attributes and relationships marked with an asterisk represent additions to those identified in *Functional Requirements for Bibliographic Records*.

**Attributes and relationships marked with a double asterisk have been given a broader scope than the corresponding attribute or relationship defined in *Functional Requirements for Bibliographic Records*.

Table 1.3: Manifestation - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Title of manifestation	A word, phrase, or group of characters naming the manifestation.
Original alphabet of title*	The alphabet in which the title is represented in the manifestation.
Statement of responsibility	A statement appearing in the manifestation (normally in conjunction with the title) that names one or more individuals or groups responsible for the creation or realization of the intellectual or artistic content embodied in the manifestation.
Edition/issue designation	A word or phrase appearing in the manifestation that normally indicates a difference in either content or form between the manifestation and a related manifestation previously issued by the same publisher/distributor (e.g., second edition), or simultaneously issued by either the same publisher/distributor or another publisher/distributor (e.g., large print edition, British edition).
Place of publication/ distribution	The city, town, or other locality associated in the manifestation with the name of the publisher/distributor.
Publisher/distributor	The individual, group, or organization named in the manifestation as being responsible for the publication, distribution, issuing, or release of the manifestation.
Date of publication/distribution	The date (normally a year) of public release of the manifestation. In the absence of a date designated as the date of publication or release, a copyright date or a date of printing or manufacture may serve as a substitute.
Projected date of publication/distribution*	The date (normally a month and year) the manifestation is expected to be published.
Place of manufacture*	The city, town, or other locality associated in the manifestation with the name of the manufacturer.

Fabricator/manufacturer	The individual, group, or organization named in the manifestation as being responsible for the fabrication or manufacture of the manifestation.
Date of production*	The date (normally a year) of production or reproduction of a manifestation.
Place of production*	The city, town, or other locality associated with the principal offices of the producing entity of a film.
Series statement	A word, phrase, or group of characters appearing in the manifestation naming the series to which the manifestation belongs.
Form of carrier	The specific class of material to which the physical carrier of the manifestation belongs (e.g., sound cassette, videodisc, microfilm cartridge).
Type of component unit*	The type of container used to house the components of an aggregate manifestation (e.g., file folders, boxes).
Extent of carrier	A quantification of the number of physical units making up the carrier (e.g., number of sheets, discs, reels).
Physical medium	The type of material from which the carrier is produced (e.g., paper, wood, plastic, metal). The medium may include both a base material and any material that is applied to the base (e.g., oil paint applied to canvas).
Capture mode	The means used to record notation, sound, or images in the production of a manifestation (e.g., analogue, acoustic).
Dimensions of carrier	The measurements of the physical components and/or container of the manifestation. Includes measurements of height, and/or width, and/or depth, or diameter.
Dimensions of component unit*	The measurements of the containers used to house the components of an aggregate manifestation. Includes measurements of height, and/or width, and/or depth, or diameter.

Manifestation identifier	A number or code uniquely associated with the manifestation that serves to differentiate that manifestation from any other manifestation.
Source for acquisition/access authorization	The name of a publisher, distributor, etc. indicated in the manifestation as the source from which the manifestation may be acquired or through whom access may be authorized.
Contact information for source*	The address, telephone number, and other contact information for a publisher, distributor, etc. from which the manifestation may be acquired or through whom access may be authorized. Includes hours that the contact or telephone number is available.
Terms of availability	The terms indicated in the manifestation under which the supplier (i.e., the source for acquisition/access authorization) will normally make the manifestation available (e.g., free to member of a particular association), or the price for which the manifestation sells.
Access restrictions on manifestation	Restrictions on access to and use of a manifestation (e.g., copyright restrictions, licence restrictions).
Manifestation designation*	A term or phrase used to designate an individual component of a manifestation.
Typeface	The style of type used to print a book (e.g., Baskerville, Times New Roman).
Type size	The size of the characters in a printed book (e.g., 10 point).
Foliation	An indication of the number of folds made in a printed sheet to form a gathering of leaves (e.g., a sheet folded twice to form a quarto).
Collation	The sequence of gatherings in a book as indicated by signatures on each gathering (e.g., four gatherings bearing signatures A through D).

Publication status	The status of a serial with respect to its continuing publication (i.e., whether the serial is currently published or has ceased publication).
Numbering	The designation of volume/issue, etc. and/or date appearing in a serial.
Numbering continuity*	An indication as to whether the numbering is continuously incremental or whether it restarts at the completion of a unit.
Calendar change for numbering*	The quarter, month, and/or day on which an incremental change in numbering occurs.
Playing speed	The speed at which the carrier of a sound recording must be operated in order to produce the intended sound (e.g., 33 1/3 rpm, 19 cm/s).
Groove width	An indication of the number of grooves per inch cut on a disc or cylinder (e.g., microgroove—i.e., 200 grooves per inch).
Kind of cutting	The direction in which the grooves are cut on a disc or cylinder (e.g., lateral, vertical).
Tape configuration	The number of tracks on a sound tape (e.g., eight track, twelve track).
Kind of sound	An indication of the number of sound channels used to make the recording (e.g., monaural, stereophonic).
Kind of disc, cylinder or tape*	An indication of the type of disc, cylinder or tape (e.g., mass produced, test pressing, mother, stamper).
Special reproduction characteristics	The equalization system, noise reduction system, etc. used in making the recording (e.g., NAB, DBX, Dolby).

Colour	The colour(s), tone(s), etc. (including black and white) used in the production of an image.
Reduction ratio	The degree to which a text or image has been reduced in the process of microfilming (e.g., 42x, very high reduction—i.e., in the range of 61x to 90x).
Polarity	The relationship of the colours and tones in an image on film to the colours and tones of the object filmed (e.g., positive, negative).
Generation	An indication of the number of times an image on film has been transferred from one carrier to another (e.g., a first generation camera master, a second generation printing master).
Presentation format	The format used in the production of a projected image (e.g., wide screen, Beta, VHS).
Sound characteristic*	An indication of the presence or absence of sound or the technical nature of the sound component of a film, videorecording, or computer file.
System requirements**	Requirements related to hardware (e.g., machine make and model, RAM capacity), software (e.g., operating systems, programming language), and peripherals (e.g., monitor, mouse) required to access/operate an electronic resource or other type of manifestation requiring special equipment for playback, etc.
File characteristics**	Standards or schemes used to encode an electronic file (e.g., ASCII, SGML), physical characteristics of the file (e.g., recording density, parity), and other characteristics that have a bearing on how the file can be processed (including compression and decompression methods).
Organization and arrangement*	The system or method by which a collection of materials is organized or arranged (e.g., classification, filing arrangement).
Quality assurance targets*	An indication of the presence or absence of quality assurance targets in a digitized reproduction.
Reformatting quality*	An indication of the quality of a digitized reproduction (e.g., preservation quality, access quality).

Mode of access	The means of accessing a remote electronic resource (e.g., Internet, World Wide Web).
Access address	An alpha-numeric code (e.g., URL) used to facilitate remote access to an electronic resource.
Access instructions*	Details pertaining to commands, passwords, logon procedures, settings, terminal emulation, technical assistance, location of host, host operating system, transmission rate, etc.
Hours of availability*	The days and/or hours an electronic resource is accessible. Includes additional information on downtime, holidays, etc.
<i>Relationship</i>	<i>Definition / Examples</i>
Embodiment of ⇒ expression	The relationship between the manifestation and the expression embodied in the manifestation.
Exemplified in ⇒ item	The relationship between the manifestation and an item that is an exemplar of the manifestation.
Subject of ⇒ work	The relationship between the manifestation and a work in which the manifestation is a subject.
Produced by ⇒ person	The relationship between the manifestation and a person responsible for producing the manifestation.
Produced by ⇒ corporate body	The relationship between the manifestation and a corporate body responsible for producing the manifestation.
Reproduction ⇒ manifestation	The relationship between the manifestation and a manifestation that is a reproduction or between the manifestation and a manifestation that it reproduces.

Alternate ⇒ manifestation	The relationship between the manifestation and a manifestation that is an alternate or between the manifestation and a manifestation for which it is an alternate.
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Issued with ⇒ manifestation	The relationship between a component manifestation and another component manifestation that is issued with it.
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Whole/part ⇒ manifestation	The relationship between the manifestation and a manifestation that forms part of the manifestation or between the manifestation and a larger manifestation of which it is a part.
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Reproduction ⇒ item	The relationship between the manifestation and an item that it reproduces or between an item and a manifestation that is a reproduction.
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*Attributes and relationships marked with an asterisk represent additions to those identified in *Functional Requirements for Bibliographic Records*.

**Attributes and relationships marked with a double asterisk have been given a broader scope than the corresponding attribute or relationship defined in *Functional Requirements for Bibliographic Records*.

Table 1.4: Item - Attributes and Relationships

Attribute	Definition / Examples
Item identifier	A number or code that is uniquely associated with the item, and serves to differentiate that item from any other item in the same collection and/or institution (e.g., call number, accession number, bar code).
Provenance of item	A record of previous ownership or custodianship of the item.
Date of acquisition*	The date on which the item was acquired by or deposited with the owner/custodian.
Method of acquisition*	The means by which the item was acquired by the owner/custodian.
Acquisition price*	The cost of acquiring the item.
Marks/inscriptions	Signatures, numbering, annotations, etc. that have been applied uniquely to the item by the artist, fabricator, owner, etc.
Exhibition history	A record of public exhibitions of an item, including dates, venues, etc.
Location of item*	The collection and/or institution in which the item is held.
Extent of item*	A quantification of the number of physical units making up an aggregate item (e.g., number of boxes, file folders, etc.).
Rate of accumulation*	The rate at which an item accumulates (e.g., number of linear feet per year).
Condition of item	The physical condition of the item, particularly any variances between the physical makeup of the item and that of the manifestation it exemplifies (e.g., missing pages, plates), or other aspects of the physical condition of the item (e.g., brittleness, foxing, faded images).

Completeness of item*	An indication of what portion of an item is held relative to the manifestation as issued.
Access restrictions on item	Any limitation placed on physical access to the item (e.g., restricted to supervised on-site use).
Reproduction restrictions on item*	Any limitation placed on reproduction of the item (e.g., reproduction not permitted).
Frequency of use of item*	An indication of the frequency of use that is made of an item (e.g., frequent, occasional, minimal).
<i>Relationship</i>	<i>Definition / Examples</i>
Exemplifies ⇒ manifestation	The relationship between the item and the manifestation exemplified by the item.
Subject of ⇒ work	The relationship between the item and a work in which the item is a subject.
Owned by ⇒ person	The relationship between the item and a person who owns the item.
Owned by ⇒ corporate body	The relationship between the manifestation and a corporate body that owns the item.
In custody of ⇒ person*	The relationship between the item and a person who has custody of the item.
In custody of ⇒ corporate body*	The relationship between the item and a corporate body that has custody of the item.
Reconfiguration ⇒ item	The relationship between the item and an item with which it is reconfigured.

Reproduction ⇒ item

The relationship between the item and an item that it reproduces or between the item and an item that is a reproduction.

Whole/part ⇒ item

The relationship between the item and an item that forms part of the item or between the item and a larger item of which it is a part.

*Attributes and relationships marked with an asterisk represent additions to those identified in *Functional Requirements for Bibliographic Records*.

Table 1.5: Person - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Name of person	A word, character, or group of words and/or characters by which the person is known. Includes forenames (or given names), matronymics, patronymics, family names (or surnames), sobriquets, dynastic names, etc.
Dates of person	Dates associated with a person. Includes precise or approximate date of birth and/or death, dates indicating the period in which the person was known to be active in a given field of endeavour, etc.
Title of person	A word or phrase indicative of rank, office, nobility, honour, etc., or a term of address associated with the person.
Other designation associated with the person	A numeral, word, or abbreviation indicating succession within a family or dynasty, or an epithet or other word or phrase associated with the person (e.g., “the Brave,” “Professional Engineer”).
Biography/history*	Information pertaining to the life or history of the person.
<i>Relationship</i>	<i>Definition / Examples</i>
Creates ⇒ work	The relationship between the person and a work created by the person.
Subject of ⇒ work	The relationship between the person and a work in which the person is a subject.
Realizes ⇒ expression	The relationship between the person and an expression realized by the person.
Produces ⇒ manifestation	The relationship between the person and a manifestation produced by the person.
Owns ⇒ item	The relationship between the person and an item owned by the person.

Has custody of ⇒ item*

The relationship between the person and an item in the custody of the person.

**Affiliated with ⇒ corporate
body***

The relationship between the person and a corporate body with which the person is affiliated.

*Attributes and relationships marked with an asterisk represent additions to those identified in *Functional Requirements for Bibliographic Records*.

Table 1.6: Corporate Body - Attributes and Relationships

Attribute	Definition / Examples
Name of corporate body	A word, character, or group of words and/or characters by which the body is known.
Number associated with corporate body	A numerical designation sequencing a meeting, conference, exhibition, fair, etc. that constitutes one of a series of related meetings, conferences, exhibitions, fairs, etc., or any other numerical designation associated with the corporate body.
Place associated with corporate body	A city, town, or other designation of location in which a meeting, conference, exhibition, fair, etc., was held, or the location with which the corporate body is otherwise associated (e.g., the location of its headquarters). May include the name of the state, province, territory, and/or country as well as the local place name.
Date associated with corporate body	A date or range of dates on which a meeting, conference, exhibition, fair, etc. was held, or a date with which the corporate body is otherwise associated (e.g., the date of its incorporation).
Other designation associated with corporate body	A word, phrase, or abbreviation indicating incorporation or legal status of the body, or any term serving to differentiate the body from other corporate bodies, persons, etc. (e.g., “firm,” “musical group”).
Address*	The address of the corporate body. Includes postal address, electronic communications address, location code, etc.
Biography/history*	Information pertaining to the life or history of the corporate body.
Relationship	Definition / Examples
Creates ⇒ work	The relationship between the corporate body and a work created by the corporate body.

Subject of ⇒ work	The relationship between the corporate body and a work in which the corporate body is a subject.
Realizes ⇒ expression	The relationship between the corporate body and an expression realized by the corporate body.
Produces ⇒ manifestation	The relationship between the corporate body and a manifestation produced by the corporate body.
Owns ⇒ item	The relationship between the corporate body and an item owned by the corporate body.
Has custody of ⇒ item*	The relationship between the corporate body and an item in the custody of the corporate body.
Affiliated with ⇒ corporate body*	The relationship between the corporate body and another body with which the corporate body is affiliated.

*Attributes and relationships marked with an asterisk represent additions to those identified in *Functional Requirements for Bibliographic Records*.

Table 1.7: Concept - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Term for concept	A word, phrase, or group of characters used to name or designate the concept. Includes both controlled and uncontrolled index terms. Also includes classification numbers and subject category codes.
<i>Relationship</i>	<i>Definition / Examples</i>
Subject of ⇒ work	The relationship between the concept and a work in which the concept is a subject.

Table 1.8: Object - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Term for object	A word, phrase, or group of characters used to name or designate the object. Includes both controlled and uncontrolled index terms. Also includes classification numbers and subject category codes.
<i>Relationship</i>	<i>Definition / Examples</i>
Subject of ⇒ work	The relationship between the object and a work in which the object is a subject.

Table 1.9: Event - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Term for event	A word, phrase, or group of characters used to name or designate the event. Includes both controlled and uncontrolled index terms. Also includes classification numbers and subject category codes.
Type of event*	A categorization or generic descriptor for the event.
Time/date of event*	The date and/or time that the event occurred.
Location of event*	The place in which the event occurred.
<i>Relationship</i>	<i>Definition / Examples</i>
Subject of ⇒ work	The relationship between the event and a work in which the event is a subject.

Table 1.10: Place - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Term for place	A word, phrase, or group of characters used to name or designate the place. Includes both controlled and uncontrolled index terms. Also includes classification numbers and subject category codes.
<i>Relationship</i>	<i>Definition / Examples</i>
Subject of ⇒ work	The relationship between the place and a work in which the place is a subject.

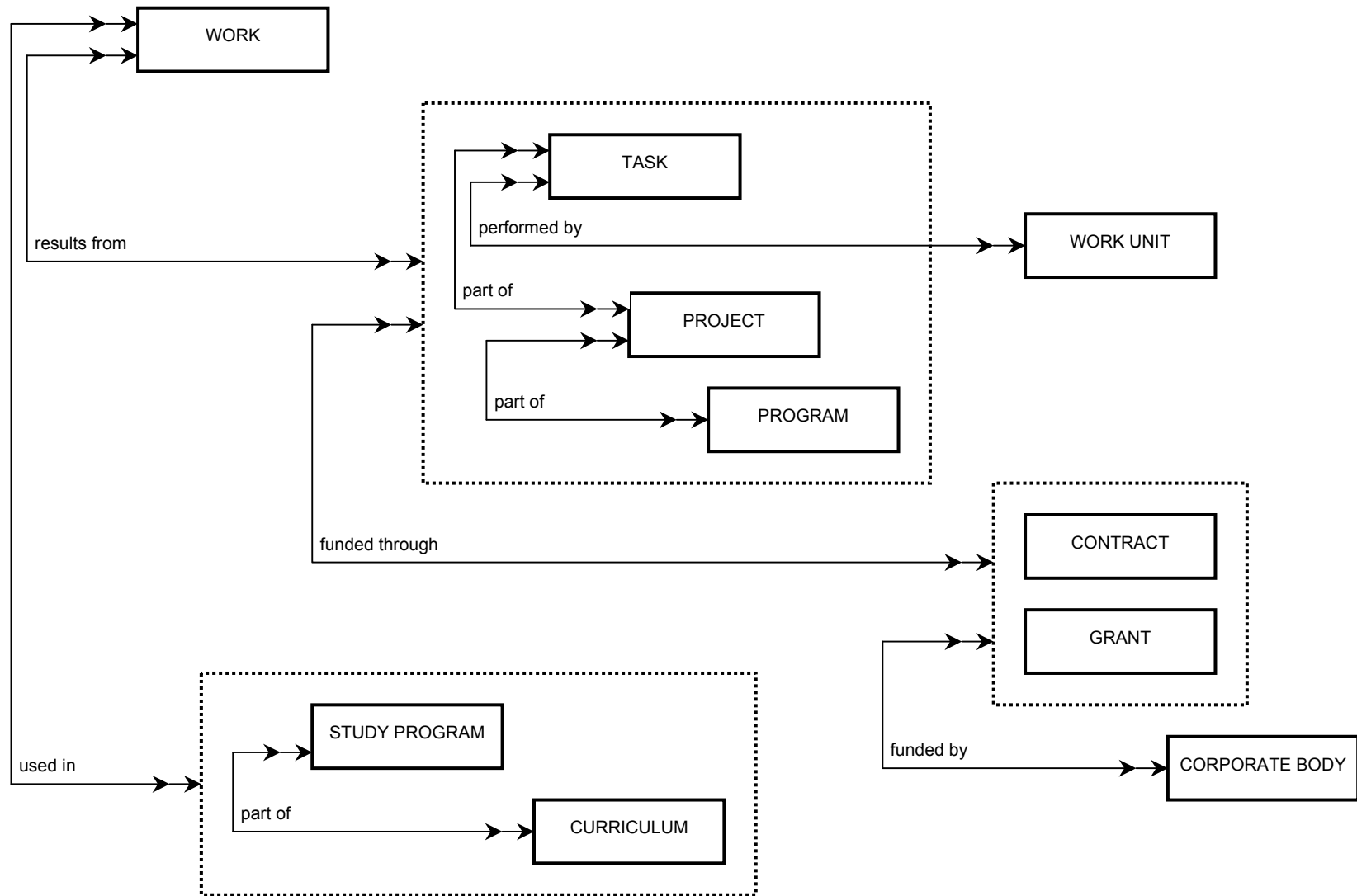


Figure 2: Additional Entities Related to “Work”

Table 2: Additional Entities Related to “Work” - Entity Definitions

Entity	Definition / Inclusions / Exclusions
Work	See definition in Table 1.
Task	A discrete activity or operation associated with a project.
Project	A plan or set of tasks associated with the achievement of a specific objective or initiative.
Program	A set of activities, functions, and/or projects associated with a broad organizational objective.
Work Unit	A component of an organization. Includes departments, directorates, divisions, sections, work units, project teams, etc. established as part of an overall organization.
Contract	An agreement with a vendor, dealer, or service provider covering the supply of products or services according to established terms and conditions.
Grant	An allocation of funds to an applicant for a specified purpose.
Corporate Body	See definition in Table 1.
Study Program	A course of study set by an educational institution.
Curriculum	A plan designed to further an educational goal.

Table 2.1: Task - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Task identifier	A number or code uniquely associated with a task that serves to differentiate that task from any other.
<hr/>	
<i>Relationship</i>	<i>Definition / Examples</i>
Produces ⇒ work	The relationship between the task and a work produced by the task.
Performed by ⇒ work unit	The relationship between the task and a work unit performing the task.
Part of ⇒ project	The relationship between the task and a project under which the task is performed.
Funded through ⇒ contract	The relationship between the task and a contract under which the task is funded.
Funded through ⇒ grant	The relationship between the task and a grant under which the task is funded.

Table 2.2: Project - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Project identifier	A number or code uniquely associated with a project that serves to differentiate that project from any other.
<hr/>	
<i>Relationship</i>	<i>Definition / Examples</i>
Produces ⇒ work	The relationship between the project and a work produced by the project.
Comprises ⇒ task	The relationship between the project and a task that is part of the project.
Part of ⇒ program	The relationship between the project and a program under which the project is performed.
Funded through ⇒ contract	The relationship between the project and a contract under which the project is funded.
Funded through ⇒ grant	The relationship between the project and a grant under which the project is funded.

Table 2.3: Program - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Program identifier	A number or code uniquely associated with a program that serves to differentiate that program from any other.
<hr/>	
<i>Relationship</i>	<i>Definition / Examples</i>
Produces ⇒ work	The relationship between the program and a work produced by the program.
Comprises ⇒ project	The relationship between the program and a project that is part of the program.
Funded through ⇒ contract	The relationship between the program and a contract under which the program is funded.
Funded through ⇒ grant	The relationship between the program and a grant under which the program is funded.

Table 2.4: Work Unit - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Work unit identifier	A number or code uniquely associated with a work unit that serves to differentiate that work unit from any other.
<i>Relationship</i>	<i>Definition / Examples</i>
Performs ⇒ task	The relationship between the work unit and a task performed by the work unit.

Table 2.5: Contract - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Contract identifier	A number or code uniquely associated with a contract that serves to differentiate that contract from any other.
<i>Relationship</i>	<i>Definition / Examples</i>
Funds ⇒ task	The relationship between the contract and a task funded through the contract.
Funds ⇒ project	The relationship between the contract and a project funded through the contract.
Funds ⇒ program	The relationship between the contract and a program funded through the contract.
Funded by ⇒ corporate body	The relationship between the contract and a corporate body funding the contract.

Table 2.6: Grant - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Grant identifier	A number or code uniquely associated with a grant that serves to differentiate that grant from any other.
<hr/>	
<i>Relationship</i>	<i>Definition / Examples</i>
Funds ⇒ task	The relationship between the grant and a task funded through the grant.
Funds ⇒ project	The relationship between the grant and a project funded through the grant.
Funds ⇒ program	The relationship between the grant and a program funded through the grant.
Funded by ⇒ corporate body	The relationship between the grant and a corporate body funding the grant.

Table 2.7: Study Program - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Study program identifier	A number or code uniquely associated with a study program that serves to differentiate that study program from any other.
Name of study program	A word, character, or group of words and/or characters by which the study program is known.
<i>Relationship</i>	<i>Definition / Examples</i>
Uses ⇒ work	The relationship between the study program and a work used in the study program.
Part of ⇒ curriculum	The relationship between the study program and a curriculum of which the study program is part.

Table 2.8: Curriculum - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Curriculum objective	An educational objective established as part of a curriculum.
<hr/>	
<i>Relationship</i>	<i>Definition / Examples</i>
Uses ⇒ work	The relationship between the study program and a work used in the study program.
Comprises ⇒ study program	The relationship between the curriculum and a study program that is part of the curriculum.

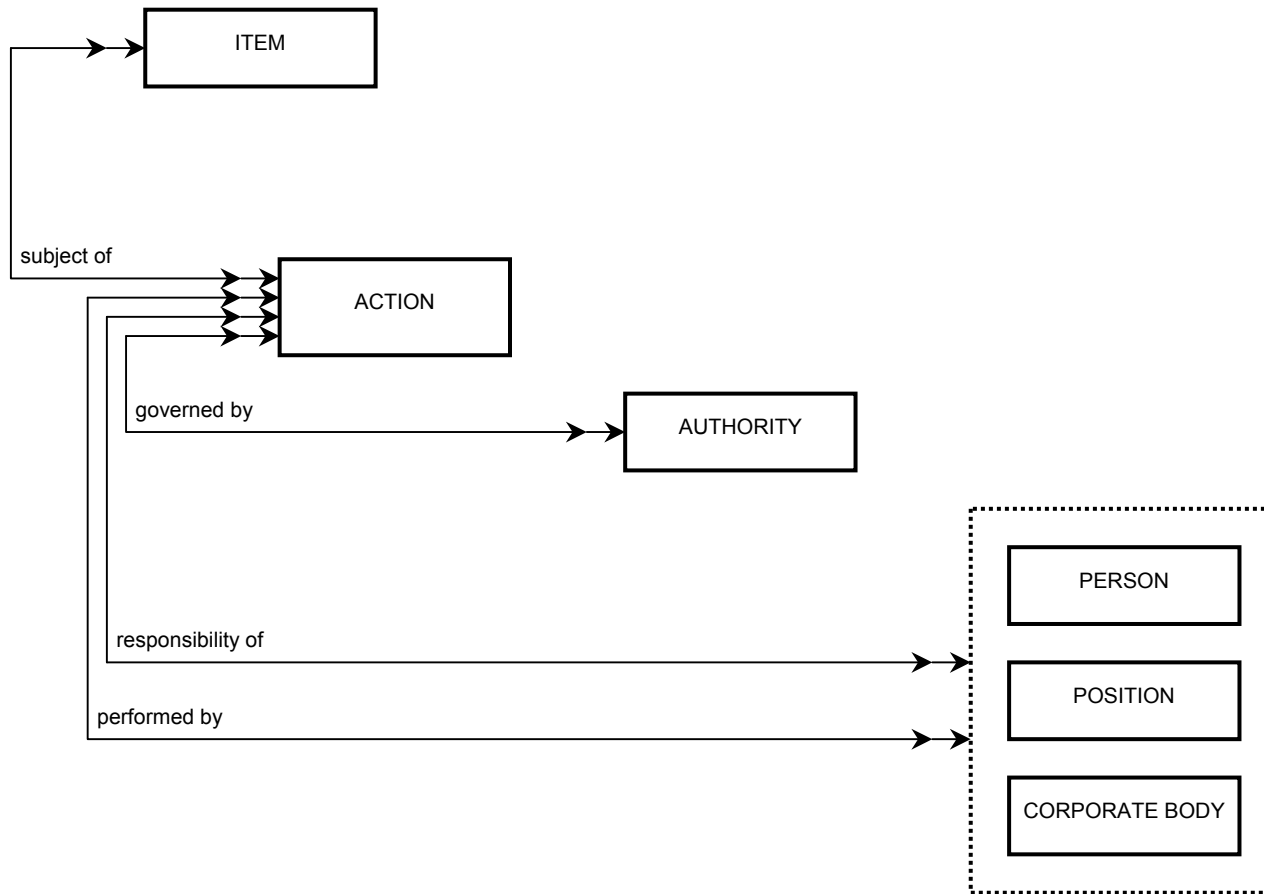


Figure 3: Additional Entities Related to “Item”

Table 3: Additional Entities Related to “Item” - Entity Definitions

<i>Entity</i>	<i>Definition / Inclusions / Exclusions</i>
Item	See definition in Table 1.
Action	A procedure, treatment, task, etc. performed on or in relation to an item.
Authority	A statute, order, policy, rule, etc. governing action.
Person	See definition in Table 1.
Position	An office, function, or set of duties and responsibilities assigned to an individual.
Corporate Body	See definition in Table 1.

Table 3.1: Action - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Action identifier	A number or code uniquely associated with an action that serves to differentiate that action from any other (e.g., an accession number, a service request number).
Name of action	A term used to refer to an action.
Action status	The status of an action (e.g., completed, deferred, active, cancelled).
Time/date of action	The date and/or time that an action is scheduled to be performed, or the date and/or time that an action is initiated, or completed.
Action interval	The time interval or period at which an action is scheduled to be performed (e.g. every six months, at end of academic term).
Contingency for action	An unpredictable event on which the scheduling or performance of an action is contingent.
Method of action	The means or technique by which an action is performed.
Site of action	The location in which an action is performed.
<i>Relationship</i>	<i>Definition / Examples</i>
Pertains to ⇒ item	The relationship between the action and an item that is the subject of the action.
Governed by ⇒ authority	The relationship between the action and an authority that governs the action.

Responsibility of ⇒ person The relationship between the action and a person responsible for the action.

Responsibility of ⇒ position The relationship between the action and a position responsible for the action.

Responsibility of ⇒ corporate body The relationship between the action and a corporate body responsible for the action.

Performed by ⇒ person The relationship between the action and a person performing the action.

Performed by ⇒ position The relationship between the action and a position performing the action.

Performed by ⇒ corporate body The relationship between the action and a corporate body performing the action.

Table 3.2: Authority - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Citation for authority	The name, title, number, date, etc. by which an authority is cited.
<i>Relationship</i>	<i>Definition / Examples</i>
Governs ⇒ action	The relationship between the authority and an action governed by the authority.

Table 3.3: Position – Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Title of position	The name used to refer to a position.
<hr/>	
<i>Relationship</i>	<i>Definition / Examples</i>
Responsible for ⇒ action	The relationship between the position and an action for which the incumbent of the position is responsible.
Performs ⇒ action	The relationship between the position and an action performed by the incumbent of the position.

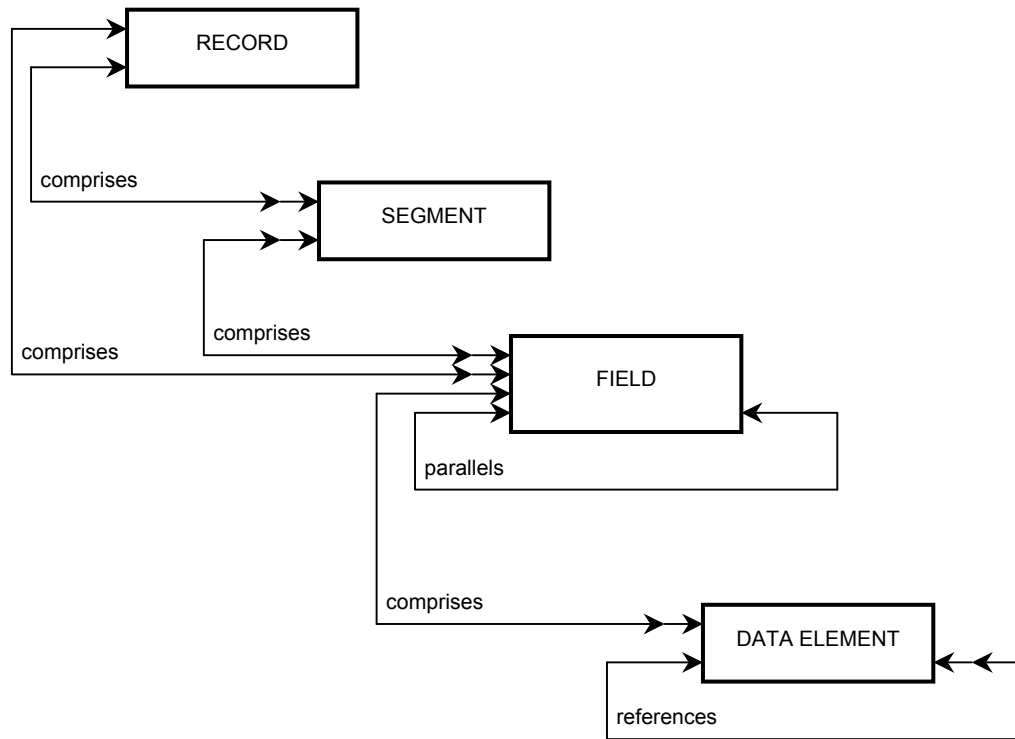


Figure 4: “Metadata” Entities

Table 4: “Metadata” Entities - Entity Definitions

<i>Entity</i>	<i>Definition / Inclusions / Exclusions</i>
Record	A logically discrete set of fields.
Segment	A logically discrete subset of fields within a record.
Field	A logically discrete set of data elements.
Data element	A logically discrete unit of data.

Table 4.1: Record - Attributes and Relationships

Attribute	Definition / Examples
Record identifier	A number or code uniquely associated with a record that serves to differentiate that record from any other (e.g., record control number).
Type of record	A categorization or generic descriptor for the record.
Ownership of record	An indication of the body that owns and/or licenses the record.
Record status	An indication of the relationship of the record to a file for maintenance purposes (e.g., new, corrected or revised, modified, deleted).
Date entered on file	The date (normally a year, month, and day) the record was originally input to a file.
Date/time of latest transaction	The date and time of the latest transaction performed on the record.
Bibliographic level	An indication of the bibliographic level of the material described in the record (e.g., monographic, serial, collection).
Language of cataloguing	The language in which the catalogue record was produced.
Character coding scheme	The character coding scheme used in the record. Includes primary as well as alternate coding sets.
Type of control	An indication of the type of bibliographic control reflected in the record (e.g., archival, library cataloguing).
Descriptive cataloguing form	The cataloguing standards or rules under which the record was created.

Type of entry	An indication of whether the record for a serial publication is a latest entry or successive entry record.
Encoding level	An indication of the fullness of bibliographic information and/or content designation in the record.
Linked record requirement	An indication of whether access to a related record is necessary to generate a fully intelligible display of information pertaining to related materials referenced in the record.
Data source	The original source of the bibliographic data contained in the record.
Transcribing agency	The agency responsible for transcribing the record into machine-readable form.
Modifying agency	An agency responsible for modifying the record.
Authentication source	The agency, program, etc. responsible for reviewing the record and verifying its content.
Length of record	The length of the record.
Base address of data	The first character position of the first variable control field in the record.
<i>Relationship</i>	<i>Definition / Examples</i>
Comprises ⇒ segment	The relationship between the record and a segment of the record.
Comprises ⇒ field	The relationship between the record and a field contained in the record.

Table 4.2: Segment - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Segment identifier	A number or code uniquely associated with a segment that serves to differentiate that record from any other segment within the record (e.g., field linking number).
Type of segment	A categorization or generic descriptor for the segment (e.g., constituent item segment).
<i>Relationship</i>	<i>Definition / Examples</i>
Part of ⇒ record	The relationship between the segment and the record containing the segment.
Comprises ⇒ field	The relationship between the segment and a field that is part of the segment.

Table 4.3: Field - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Type of field	A categorization or generic descriptor for the field.
Length of field	The length of the field.
Function of field	The function the field serves within the record (e.g., added entry, note).
Field display constant	The form of text generated to precede the data contained in the field.
Level of content designation	An indication of the level of content designation applied to the data in the field.
Form of field	The form in which the data in the field has been recorded (e.g., compressed, uncompressed).
Field encoding level	The level of specificity of data in the field (e.g., level of holdings reporting).
<i>Relationship</i>	<i>Definition / Examples</i>
Part of ⇒ record	The relationship between the field and the record in which it is contained.
Part of ⇒ segment	The relationship between the field and a segment to which the field belongs.
Comprises ⇒ data element	The relationship between the field and a data element contained in the field.

Parallels ⇒ field

The relationship between the field and another field containing the same date in another language and/or script.

Table 4.4: Data Element - Attributes and Relationships

<i>Attribute</i>	<i>Definition / Examples</i>
Type of data element	A categorization or generic descriptor for the data element.
Source of data element	The agency responsible for creating the data element and/or the source from which the data element is derived.
Filing of data element	An indication of how the data element is to be processed for purposes of filing or sorting.
Language of data element	The language in which the data element is recorded.
Format of data element	The format in which the data is recorded.
Compressibility of data element	An indication of whether the data can be compressed or expanded.
Applicability of data element	The parameters within which a data element is applicable (e.g., the date at which a specific publication frequency began and/or ended).
Evaluation of data element	An indication of whether the data has been verified.
<i>Relationship</i>	<i>Definition / Examples</i>
Part of ⇒ field	The relationship between the field and the record in which it is contained.
References ⇒ data element	The relationship between the data element and another data element that it references.