



International Federation of
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Transition Mappings

User Tasks, Entities, Attributes, and Relationships
in FRBR, FRAD, and FRSAD mapped to their
equivalents in the IFLA Library Reference Model

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Overview of differences between IFLA LRM and the FRBR-FRAD-FRSAD models

1. User Tasks

IFLA LRM is focused around five generic user tasks: *find, identify, select, obtain, explore*. As with FRBR and FRSAD, the IFLA LRM model is primarily concerned with the data and functionality required by end-users (and intermediaries working on behalf of end-users) to meet their information needs. The point-of-view of the FRAD model differed somewhat, as FRAD considered both end-user needs and library staff administrative uses in its definition of user tasks; this is reflected in the FRAD user tasks *contextualize* and *justify*.

The first four IFLA LRM tasks (*find, identify, select, obtain*) are defined as generalizations of the four FRBR tasks of the same names. The tasks *find* and *identify* are also generalized to cover the FRAD and FRSAD tasks of the same names; *select* is generalized so as to include the FRSAD *select* task as well. The *explore* task is drawn from FRSAD, but is defined in IFLA LRM so as to include aspects drawn from the FRAD task *contextualize*. The other aspects of the FRAD task *contextualize* are considered out of scope in IFLA LRM. The final task from FRAD (*justify*), as it is a task relating to the work of library staff, is out of scope in IFLA LRM.

2. Entities

IFLA LRM defines only 11 entities in total. Unlike the previous “flat” entity structures, in IFLA LRM entities are in a superclass/subclass structure which permits the transfer of attributes and relationships from the superclass to its subclasses. The FRSAD entity *thema* is generalized and renamed *res* (Latin for “thing”) to serve as the top entity in the hierarchy, the superclass of all other entities. Entities that are not declared in the superclass/subclass structure are all disjoint.

The FRBR group 1 entities (*work, expression, manifestation, item*) are retained, although the definitions are reworked to avoid using one entity in the definition of another, to avoid the term “alpha-numeric” in the definition of *expression* (viewed as not including ideographic writing systems), to clarify the nature of the *manifestation* as a set. A new superclass entity *agent* is defined to encompass the FRBR group 2 entities (*person, corporate body*) and the FRAD entity *family*. The entity *person* is retained using a rewording of the FRBR definition (not the FRAD definition). The new entity *collective agent* encompasses the *family* and *corporate body* entities from FRAD (and FRBR). These former entities are deprecated, but may be viewed as “types” or categories of *collective agent*. The FRBR group 3 entities (*concept, object, event, place*) are deprecated. The term *place* is reused for a new general *place* entity, and a new *time-span* entity is defined.

The FRAD entity *name* and the FRSAD entity *nomen* are merged into a single entity under the term *nomen* with a generalized definition. The distinction between a *res* and its *nomen* is implemented to its full potential. The FRAD entities *identifier* and *controlled access point* are deprecated, but may be viewed as “types” or categories of *nomen*.

The final two FRAD entities, *agency* and *rules*, served in the modelling of library-internal processes for the assignment of *controlled access points* and are deemed outside of the functional scope of the IFLA LRM model.

3. Attributes

IFLA LRM includes 37 attributes, relating to 10 entities (the entity *collective agent* has no attributes). Properties are declared as attributes only when the target of the property is not an instance of any of the entities in the model. Thus all attributes (generally named *place of* or *date of*) that could be recast as relationships involving the IFLA LRM entities *place* and *time-span* are replaced by the mechanism of creating refinements of the generic relationships (LRM-R33 and LRM-R35) to these entities. Similarly, the appellation relationship is preferred in all cases which involve linking a specific subclass of the entity *nomen* to any other entity. The result is that FRBR attributes such as *title of work*, *manifestation identifier*, *name of person*, *term for the concept*, and FRAD attributes such as *name of agency*, *agency identifier* are all modelled as instances of the appellation relationship (LRM-R13). IFLA LRM models the subject of *works* as a relationship (LRM-R12), replacing the FRAD *work* attribute *subject of the work* and the FRBR *work* attribute *coordinates (cartographic work)*. Additionally, the FRAD *affiliation of a person* attribute implies membership and so is modelled using the membership relationship (LRM-R30).

Two attributes are declared for the IFLA LRM entity *res*: *category* (LRM-E1-A1) and *note* (LRM-E1-A2) which generalize the FRSAD attributes *type of thema* and *scope note* defined for the entity *thema*. As *res* is a superclass of all other entities in IFLA LRM, most *type of* and note-like attributes for other entities are merged into these general attributes.

FRBR attributes for group 1 entities (*work*, *expression*, *manifestation*, *item*) are considerably reduced in IFLA LRM (to 18 attributes) through the application of the mechanism of preferring relationships, and through generalization to the attributes of the *res* entity. Additionally, only the most essential, commonly-found attributes are explicitly declared in IFLA LRM. A number of highly-specialized or class-of-material-specific attributes, particularly for *expression* and *manifestation*, are omitted; their definition is relegated to those implementations that find these attributes relevant. The attribute *category* (LRM-E2-A1), defined in IFLA LRM for the entity *work*, subsumes a number of FRBR *work* attributes whose essence is to provide sub-typing mechanisms for *works* (such as *form of work*, *intended termination*). Similarly, the *category* attribute is defined for the entity *expression* (LRM-E3-A1), subsuming such FRBR *expression* attributes as *form of expression*, *extensibility*, and *revisability*. The FRBR *expression* attribute *extent* is retained (LRM-E3-A2), as is *use restrictions* (renamed *use rights*, LRM-E3-A4).

IFLA LRM adopts a new mechanism involving the new *work* attribute *representative expression attribute* (LRM-E2-A2). Selected *expression* attributes (for example, *intended audience*, *cartographic scale*, *language*, *key*, *medium of performance*, LRM-E3-A3 and LRM-E3-A5 through LRM-E3-A8) may be deemed significant for the identification of *works*. Representative values of these attributes function as though they are imputed to the *work* itself. In FRBR these attributes were declared for either *works* or *expressions*, and in some cases for both of these entities.

The essence of a great many of the FRBR attributes for the *manifestation* entity is that they consist of statements transcribed from a representative exemplar of a self-describing *manifestation*. In IFLA LRM a single *manifestation statement* attribute (LRM-E4-A4) is declared which subsumes all these attributes, which would most likely be implemented as sub-types of this

attribute. Other attributes serve to categorize *manifestations* in different ways; in IFLA LRM the *category of carrier* attribute (LRM-E4-A1) incorporates FRBR *manifestation* attributes such as *form of carrier*, *physical medium*, and *capture mode*. The *extent* attribute (LRM-E4-A2) is retained and merged with *dimensions*. Several FRBR attributes are merged into the *access conditions* (LRM-E4-A5) attribute, while *access restrictions* is renamed *use rights* (LRM-E4-A6). *Intended audience*, defined only for *works* in FRBR, is also defined (LRM-E4-A3) for the entity *manifestation*.

The *item* attribute *location* (LRM-E5-A1) is retained, as is *access restrictions* which is renamed *use rights* (LRM-E5-A2). *Provenance* and *ownership* attributes are modelled through the ownership relationship to *agents* (LRM-R10). Certain FRBR and FRAD *item* attributes (*exhibition history*, *treatment history*, *scheduled treatment*) concern library administrative metadata and are deemed out of scope for IFLA LRM.

Due to the superclass/subclass structure of the entities in IFLA LRM, an attribute defined for a superclass entity (such as *agent*) can automatically be applied to the subclass entities (in this case *person*, *collective agent*) without requiring separate declaration in the model. This permits the merger of the FRAD attributes *contact information*, *language*, *field of activity* for *person*, *family*, and *corporate body* into attributes defined for the entity *agent* (LRM-E6-A1 through LRM-E6-A3). However, the attribute *profession / occupation* (LRM-E7-A1) remains defined for the entity *person* as it cannot logically apply to *collective agents*. The FRAD attribute *gender*, although correctly placed with the entity *person*, is not defined in IFLA LRM as it is not seen as an essential attribute for most implementations.

The FRSAD attributes for the entity *nomen* are merged, when possible, with the FRAD attributes for the entities *name*, *identifier*, and *controlled access point*, resulting in nine IFLA LRM attributes for the entity *nomen* (LRM-E9-A1 through LRM-E9-A9).

Finally, new attributes are defined for the IFLA LRM entities *place* (LRM-E10-A1 and LRM-E10-A2) and *time-span* (LRM-E11-A1 and LRM-E11-A2).

4. Relationships

IFLA LRM declares 36 relationships (which explicitly have both relationship names and inverse names, when relevant). Unlike the previous “flat” relationship structure, IFLA LRM defines a new “top” relationship, *res* is associated with *res* (LRM-R1); all other relationships are refinements of this relationship. Relationships are streamlined by declaring the domains and ranges at the highest superclass possible, rather than repeating the same relationships for multiple entities. This applies particularly to relationships involving the FRBR group 2 entities, which in IFLA LRM are subclasses of the new entity *agent*.

The basic FRBR relationship structure is retained, including the three group 1 primary relationships (LRM-R2 to LRM-R4), the group 2 *agent* relationships (LRM-R5 through LRM-R11), and the *work* has-subject relationship (LRM-R12). However, the subject relationship is declared by using the entity *res*, and the group 2 responsibility relationships are declared using the entity *agent*. IFLA LRM provides new relationships for responsibility for the creation (LRM-R7) and distribution (LRM-R9) of *manifestations*, and the modification (LRM-R11) of *items*, which

can be used to account for *item* reconfiguration as well as other modifications.

The FRAD and FRSAD appellation relationship is retained using entities *res* and *nomen* (LRM-R13), while the *nomen* assignment relationship (LRM-R14) generalizes several FRAD relationships concerning the creating or assignment of FRAD entities *controlled access point* and *identifier*. The FRAD is-basis-for relationships are merged into a general *nomen* derivation relationship (LRM-R17).

The FRBR additional WEMI relationships are retained, although in most cases renamed, merged or generalized (LRM-R18 through LRM-R29). In FRBR certain relationships are declared multiple times (those appearing in tables 5.1 (Work-to-Work), and 5.4 (Expression-to-Expression, different Works), and 5.6 (Expression-to-Work)); in IFLA LRM their equivalents are declared only once (between *works*), as the link to specific *expressions* can be made with a path that also uses LRM-R2 (*expression* realizes *work*), and an implementation can declare a shortcut if desired. The reproduction relationship is declared between *manifestations* (LRM-R27), or between an *item* and a *manifestation* (LRM-R28) when the link to a specific *item* used as the source of a reproduction is desired. However, in IFLA LRM no reproduction relationship is declared between *items* as it is considered that the process of reproduction always creates a new *manifestation*, even when that *manifestation* consists only of a single *item*.

The modelling of aggregates as *manifestations embodying multiple distinct expressions* makes use of the existing is-embodied-in relationship (LRM-R3) between the *expressions* and the aggregate *manifestation*. To provide an explicit link with the *expressions* chosen by the aggregating *expression* to produce the aggregate *manifestation*, IFLA LRM defines a new relationship, *expression* was aggregated by *expression* (LRM-R25).

FRAD relationships between *persons* were analyzed into those relating to the *nomens* of *persons* (all these are refinements of the appellation relationship, LRM-R13) and those between *persons* in the IFLA LRM definition. FRAD relationships between *names* and between *controlled access points* are all modelled as refinements of the *nomen* equivalence relationship (LRM-R15) retained from FRSAD. The *nomen* whole-part relationship (LRM-R16) is also retained from FRSAD.

IFLA LRM declares three relationships among the entities *agent* and its subclasses *person* and *collective agent*. The membership relationship (LRM-R30) links an *agent* to a *collective agent*, and includes the membership of a *person* in a family (a type of *collective agent*) or corporate body (another type of *collective agent*) as declared in FRAD. Whole-part (LRM-R31) and predecessor/successor (LRM-R32) relationships are declared between *collective agents*, covering the FRAD *corporate body* hierarchical and sequential relationships and the *family* genealogical relationships. FRAD additionally defined founding and ownership relationships specifically between the entities *family* and *corporate body*; neither of these are declared in IFLA LRM.

Finally, new relationships are declared involving the new entities *place* and *time-span*: whole-part relationships (LRM-R34 and LRM-R36), and the general association to *res* relationships (LRM-R33 and LRM-R35) which are designed to be refined for specific types of associations and subsume many former *date of* and *place of* attributes.

Key to Terms Describing Possible Results used in Transition Mappings

Term	Meaning
Deprecated	The entity, attribute or relationship is eliminated from LRM (i.e. it is unneeded, or reconceptualized)
Generalized	The core concept of an attribute or relationship from the previous models is a subset of the definition adopted in LRM. Usually, but not always, includes renaming the element
Merged	Two or more separate elements from the previous models, are considered a single, usually more general, element in LRM. The new element may retain one of the previous names, or have a new name
Modelled via/through	Used for relationships. Indicates that LRM uses a path instead of a single specifically defined relationship
New	The element did not exist in any form in the previous models
Not included	Indicates a validly defined relationship that is not sufficiently bibliographically significant to retain in LRM
Not included, class-of-material specific	Indicates an attribute too specific for LRM as a general model, but which could appropriately be defined in an extension for a specific class of resources
Out of scope	The entity, attribute or relationship is outside the functional scope of LRM, and so not included at all. It might be conceptually valid, but in a model with a broader scope
Redefined	The name of the element remains the same, but its definition or its role in the model is changed
Relocated	The attribute is reattached from one entity to another, without significant redefinition, and no merger is involved
Renamed	The definition of the element is the same (or essentially the same), but the name for the element has changed
Replaced by relationship	Indicates former attributes that in LRM are modelled as a relationship
Retained	The element is the same in LRM as in at least one of the previous models, i.e. the name is the same and the definition has the same meaning (although it might be slightly reworded)
Split	A single element in the previous models gives rise to two or more separate elements in LRM

A. User Tasks in FRBR, FRAD, FRSAD and their equivalent in IFLA LRM

FRBR	definition	FRAD	definition	FRSAD	definition	IFLA LRM	definition
Find	to find entities that correspond to the user's stated search criteria (i.e., to locate either a single entity or a set of entities in a file or database as the result of a search using an attribute or relationship of the entity)	Find	Find an entity or set of entities corresponding to stated criteria (i.e., to find either a single entity or a set of entities using an attribute or combination of attributes or a relationship of the entity as the search criteria); or to explore the universe of bibliographic entities using those attributes and relationships.	Find	one or more subjects and/or their appellations, that correspond(s) to the user's stated criteria, using attributes and relationships	Find	To bring together information about one or more resources of interest by searching on any relevant criteria
Identify	to identify an entity (i.e., to confirm that the entity described corresponds to the entity sought, or to distinguish between two or more entities with similar characteristics)	Identify	Identify an entity (i.e., to confirm that the entity represented corresponds to the entity sought, to distinguish between two or more entities with similar characteristics) or to validate the form of name to be used for a controlled access point.	Identify	a subject and/or its appellation based on their attributes or relationships (i.e., to distinguish between two or more subjects or appellations with similar characteristics and to confirm that the appropriate subject or appellation has been found)	Identify	To clearly understand the nature of the resources found and to distinguish between similar resources
Select	to select an entity that is appropriate to the user's needs (i.e., to choose an entity that meets the user's			Select	a subject and/or its appellation appropriate to the user's needs (i.e., to choose or reject	Select	To determine the suitability of the resources found, and to be enabled to either accept

FRBR	definition	FRAD	definition	FRSAD	definition	IFLA LRM	definition
	requirements with respect to content, physical format, etc., or to reject an entity as being inappropriate to the user's needs)				based on the user's requirements and needs)		or reject specific resources
Obtain	to acquire or obtain access to the entity described (i.e., to acquire an entity through purchase, loan, etc., or to access an entity electronically through an online connection to a remote computer)					Obtain	To access the content of the resource
		Contextualize	Place a person, corporate body, work, etc., in context; clarify the relationship between two or more persons, corporate bodies, works, etc.; or clarify the relationship between a person, corporate body, etc., and a name by which that person, corporate body, etc., is known (e.g., name used in religion versus secular name).	Explore	relationships between subjects and/or their appellations (e.g., to explore relationships in order to understand the structure of a subject domain and its terminology)	Explore	To discover resources using the relationships between them and thus place the resources in a context
		Justify	Document the authority data creator's reason for choosing the name or form of name on which a controlled access point is based.			Out of scope	The FRAD: <i>Justify</i> task is not an end-user task

B. Entities in FRBR, FRAD, FRSAD and their equivalent in IFLA LRM

- In the FRBR, FRAD, FRSAD columns, the IFLA Namespace ID follows the name of the entity
- Classes frad:C1010 (Bibliographic Entity) and frad:C1011 to frad:C1013 (Name of a Corporate Body, Person, Family, Work) defined in the FRAD namespace are not represented in this table as these are not officially entities in the FRAD model and are to be considered deprecated
- In the IFLA LRM column, the name of the entity is followed by its ID number within the model

B. Entities				
FRBR	FRAD	FRSAD	Result	IFLA LRM
<p>Work (frbrer:C1001)</p> <p>A distinct intellectual or artistic creation</p>	<p>Work</p> <p>A distinct intellectual or artistic creation (i.e., the intellectual or artistic content)</p>	<p>Work</p> <p>(as FRBR)</p>	Retained	<p>Work (LRM-E2)</p> <p>The intellectual or artistic content of a distinct creation</p>
<p>Expression (frbrer:C1002)</p> <p>The intellectual or artistic realization of a <i>work</i> in the form of alpha-numeric, musical, or choreographic notation, sound, image, object, movement, etc., or any combination of such forms</p>	<p>Expression</p> <p>(as FRBR)</p>	--	Retained	<p>Expression (LRM-E3)</p> <p>A distinct combination of signs conveying intellectual or artistic content</p>
<p>Manifestation (frbrer:C1003)</p> <p>The physical embodiment of an <i>expression</i> of a <i>work</i></p>	<p>Manifestation</p> <p>(as FRBR)</p>	--	Retained	<p>Manifestation (LRM-E4)</p> <p>A set of all carriers that are assumed to share the same characteristics as to intellectual or artistic content and aspects of physical form. That set is defined by</p>

B. Entities				
FRBR	FRAD	FRSAD	Result	IFLA LRM
				both the overall content and the production plan for its carrier or carriers
Item (frbrer:C1004) A single exemplar of a <i>manifestation</i>	Item (as FRBR)	--	Retained	Item (LRM-E5) An object or objects carrying signs intended to convey intellectual or artistic content
--	--	--	New	Agent (LRM-E6) An entity capable of deliberate actions, of being granted rights, and of being held accountable for its actions
Person (frbrer:C1005) An individual	Person An individual or a persona or identity established or adopted by an individual or group	--	Retained (as in FRBR)	Person (LRM-E7) An individual human being
--	--	--	New	Collective Agent (LRM-E8) A gathering or organization of <i>persons</i> bearing a particular name and capable of acting as a unit
--	Family (frad:C1002) Two or more persons related by birth, marriage, adoption, civil	--	Deprecated, may be used as a subclass of <i>collective agent</i>	--

B. Entities				
FRBR	FRAD	FRSAD	Result	IFLA LRM
	union, or similar legal status, or who otherwise present themselves as a family			
Corporate Body (frbrer:C1006) An organization or group of individuals and/or organizations acting as a unit	Corporate Body (frad:C1003) An organization or group of persons and/or organizations identified by a particular name acting as a unit	--	Deprecated, may be used as a subclass of <i>collective agent</i>	--
--	--	Thema (frsad:C1001) Any entity used as a subject of a <i>work</i>	Generalized	Res (LRM-E1) Any entity in the universe of discourse
Concept (frbrer:C1007) An abstract notion or idea	Concept (as FRBR)	--	Deprecated	--
Object (frbrer:C1008) A material thing	Object (as FRBR)	--	Deprecated	--
Event (frbrer:C1009) An action or occurrence	Event (as FRBR)	--	Deprecated	--
Place (frbrer:C1010)	Place (as FRBR)	--	Redefined (Deprecated, term)	Place (LRM-E10)

B. Entities				
FRBR	FRAD	FRSAD	Result	IFLA LRM
A location			repurposed)	A given extent of space
--	--	--	New	Time-span (LRM-E11) A temporal extent having a beginning, an end and a duration
--	Name (frad:C1006) A character, word, or group of words and/or characters by which an entity is known	Nomen (frsad:C1002) any sign or sequence of signs (alphanumeric characters, symbols, sound, etc.) that a <i>thema</i> is known by, referred to, or addressed as	Merged	Nomen (LRM-E9) An association between an entity and a designation that refers to it
--	Identifier (frad:C1009) A number, code, word, phrase, logo, device, etc., that is associated with an entity, and serves to differentiate that entity from other entities within the domain in which the <i>identifier</i> is assigned	--	Deprecated, may be used as a subclass of <i>nomen</i>	--
--	Controlled Access Point (frad:C1001)	--	Deprecated, may be used	--

B. Entities				
FRBR	FRAD	FRSAD	Result	IFLA LRM
	A name, term, code, etc., under which a bibliographic or authority record or reference will be found		as a subclass of <i>nomen</i>	
--	Rules (frad:C1007) A set of instructions relating to the formulation and/or recording of <i>controlled access points</i> (authorized forms, variant forms or references, etc.)	--	Out of scope	--
--	Agency (frad:C1008) An organization responsible for creating or modifying a <i>controlled access point</i>	--	Out of scope Any <i>agent</i> can fill this role for some <i>nomens</i>	--

C. Attributes in FRBR, FRAD, FRSAD and their equivalent in IFLA LRM

C.1. Attributes of Works, Expressions, Manifestations, and Items

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
WORK (4.2)	WORK (4.4)		WORK (LRM-E2)
Title of the work (4.2.1) (frbrer:P3001) The word, phrase, or group of characters naming the <i>work</i>	(not an attribute, appellation relationship)	Replaced by relationship	appellation relationship (LRM-R13)
Form of work (4.2.2) (frbrer:P3002) The class to which the <i>work</i> belongs	Form of work (=frbrer:P3002) A class to which the <i>work</i> belongs	Renamed	Category (LRM-E2-A1) A type to which the <i>work</i> belongs
Date of the work (4.2.3) (frbrer:P3003) The date (normally the year) the <i>work</i> was originally created	Date of the work (=frbrer:P3003) The first date (normally the year) associated with the <i>work</i>	Replaced by relationship	<i>time-span</i> associated-with relationship (LRM-R35) sub-typed for a specific event related to the <i>work</i> (such as work creation)
Other distinguishing characteristic (4.2.4) (frbrer:P3004) Any characteristic that serves to differentiate the <i>work</i> from another <i>work</i> with the same title	Other distinguishing characteristic (=frbrer:P3004) Any characteristic that serves to differentiate the <i>work</i> from another <i>work</i> with the same title	Deprecated (an aspect of certain <i>nomens</i> for the <i>work</i> , not an attribute)	--

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
Intended termination (4.2.5) (frbrer:P3005) A reflection of whether the <i>work</i> has been conceived as having a finite end or whether it is intended to continue indefinitely	--	Merged	See <i>category</i> (LRM-E2-A1) (Termination intention is one possible categorization of a <i>work</i>)
--	--	New	Representative expression attribute (LRM-E2-A2) An attribute which is deemed essential in characterizing the <i>work</i> and whose values are taken from a representative or canonical <i>expression</i> of the <i>work</i>
Intended audience (4.2.6) (frbrer:P3006) The class of users for which the <i>work</i> is intended	--	Relocated	See <i>intended audience</i> (LRM-E3-A3), under <i>expression</i>
Context for the work (4.2.7) (frbrer:P3007) The historical, social, intellectual, artistic, or other context within which the <i>work</i> was originally conceived	--	Replaced by relationships <i>OR</i> Category attribute <i>OR</i> Note attribute	<i>place</i> associated-with relationship (LRM-R33) <i>OR</i> <i>time-span</i> associated-with relationship (LRM-R35) <i>OR</i> Category (LRM-E2-A1), for an appropriate categorization <i>OR</i> Note (LRM-E1-A2)

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
Medium of performance (Musical work) (4.2.8) (frbrer:P3059) The instrumental, vocal, and/or other medium of performance for which a musical <i>work</i> was originally intended	Medium of performance (=frbrer:P3059) The instrumental, vocal, and/or other medium of performance for which a musical <i>work</i> was originally conceived	Relocated	See <i>medium of performance</i> (LRM-E3-A8), under <i>expression</i>
Numeric designation (Musical work) (4.2.9) (frbrer:P3060) A serial number, opus number, or thematic index number assigned to a musical <i>work</i> by the composer, publisher, or a musicologist	Numeric designation (frad:P3051) A number assigned to the <i>work</i>	Replaced by relationship	appellation relationship (LRM-R13) (<i>nomen</i> may be of subclass identifier)
Key (Musical work) (4.2.10) (frbrer:P3061) In tonal music, the set of pitch relationships that establishes a single pitch class as a tonal centre (e.g., D major). The key for a musical <i>work</i> is the key in which the <i>work</i> is originally composed	Key (=frbrer:P3061) The set of pitch relationships that establishes a single pitch class as a tonal centre for a musical <i>work</i>	Relocated	See <i>key</i> (LRM-E3-A7), under <i>expression</i>
Coordinates (Cartographic work) (4.2.11) (frbrer:P3062) 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 the cartographic image or object	--	Replaced by relationship	subject relationship (LRM-R12) The <i>place</i> that is the subject of the cartographic <i>work</i> has the attribute <i>location</i> (LRM-E10-A2)

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
Equinox (Cartographic work) (4.2.12) (frbrer:P3063) The year that serves as the point of reference for a celestial chart or model	--	Replaced by relationship	<i>time-span</i> associated-with relationship (LRM-R35)
(not an attribute, subject relationship)	Subject of the work (frad:P3050) The subject aspects of the <i>work</i> and its content	Replaced by relationship	subject relationship (LRM-R12)
--	Place of origin of the work (frad:P3045) The country or other territorial jurisdiction or cultural area from which the <i>work</i> originated	Replaced by relationship	<i>place</i> associated-with relationship (LRM-R33) sub-typed for a specific event related to the <i>work</i> (<i>place</i> of origin)
--	History (frad:P3046) Information pertaining to the history of the <i>work</i> . Including title changes for continuing resources	Replaced by relationships <i>OR</i> Note attribute	<i>place</i> associated-with relationship (LRM-R33) <i>OR</i> <i>time-span</i> associated-with relationship (LRM-R35) <i>OR</i> relationships between <i>works</i> (such as successor relationship (LRM-R19), accompanies/complements relationship (LRM-R20), inspiration relationship (LRM-R21), or transformation relationship (LRM-R22), the last

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
			includes serial <i>work</i> title changes) <i>OR</i> Note (LRM-E1-A2)
EXPRESSION (4.3)	EXPRESSION (4.5)		EXPRESSION (LRM-E3)
Title of the expression (4.3.1) (frbrer:P3008) A word, phrase, or group of characters naming the <i>expression</i>	(not an attribute, appellation relationship)	Replaced by relationship	appellation relationship (LRM-R13)
Form of expression (4.3.2) (frbrer:P3009) The means by which the <i>work</i> is realized	Form of expression (=frbrer:P3009) The means by which the <i>work</i> is realized	Generalized	Category (LRM-E3-A1) A type to which the <i>expression</i> belongs
Date of expression (4.3.3) (frbrer:P3010) The date the <i>expression</i> was created	Date of expression (=frbrer:P3010) The date the <i>expression</i> was created	Replaced by relationship	<i>time-span</i> associated-with relationship (LRM-R35) sub-typed for a specific event related to the <i>expression</i> (expression creation)
Language of expression (4.3.4) (frbrer:P3011) The language in which the <i>work</i> is expressed	Language of expression (=frbrer:P3011) A language in which the <i>work</i> is expressed	Retained	Language (LRM-E3-A6) A language used in the <i>expression</i>
Other distinguishing characteristic (4.3.5) (frbrer:P3012) Any characteristic of the <i>expression</i> that serves to differentiate the <i>expression</i> from another <i>expression</i> of the same <i>work</i>	Other distinguishing characteristic (=frbrer:P3012) Any characteristic of the <i>expression</i> that serves to differentiate the <i>expression</i> from another <i>expression</i> of the same <i>work</i>	Deprecated (an aspect of certain <i>nomens</i> for the <i>expression</i> ,	--

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
		not an attribute)	
Extensibility of expression (4.3.6) (frbrer:P3013) The expectation that the <i>expression</i> will have additional intellectual or artistic content added to it	--	Merged	See <i>category</i> (LRM-E3-A1) (Intended extensibility is one possible categorization of an <i>expression</i>)
Revisability of expression (4.3.7) (frbrer:P3014) The expectation that the intellectual or artistic content of the <i>expression</i> will be revised	--	Merged	See <i>category</i> (LRM-E3-A1) (Intended revisability is one possible categorization of an <i>expression</i>)
Extent of the expression (4.3.8) (frbrer:P3015) A quantification of the intellectual content of the <i>expression</i>	--	Retained	Extent (LRM-E3-A2) A quantification of the extent of the <i>expression</i>
--	--	Relocated from work	Intended audience (LRM-E3-A3) A class of users for which the <i>expression</i> is intended
Summarization of content (4.3.9) (frbrer:P3016)	--	Replaced by relationships <i>OR</i>	subject relationship (LRM-R12) <i>OR</i>

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
A summarization of the content of an <i>expression</i> is an abstract, summary, synopsis, etc., or a list of chapter headings, songs, parts, etc. included in the <i>expression</i>		Note attribute	expression-derivation relationship (LRM-R24) (sub-typed abridgement) <i>OR</i> Note (LRM-E1-A2)
Context for the expression (4.3.10) (frbrer:P3017) The historical, social, intellectual, artistic, or other context within which the <i>expression</i> was realized	--	Replaced by relationships <i>OR</i> Category attribute <i>OR</i> Note attribute	<i>place</i> associated-with relationship (LRM-R33) <i>OR</i> <i>time-span</i> associated-with relationship (LRM-R35) <i>OR</i> Category (LRM-E3-A1), for an appropriate categorization <i>OR</i> Note (LRM-E1-A2)
Critical response to the expression (4.3.11) (frbrer:P3018) The reception given to the <i>expression</i> by reviewers, critics, etc., as encapsulated in an annotation	--	Replaced by relationship <i>OR</i> Note attribute	subject relationship (LRM-R12) <i>OR</i> Note (LRM-E1-A2)
Use restrictions on the expression (4.3.12) (frbrer:P3019) Restrictions on access to and use of an <i>expression</i>	--	Renamed	Use rights (LRM-E3-A4) A class of use restrictions to which the <i>expression</i> is submitted
Sequencing pattern (serial) (4.3.13) (frbrer:P3064)	--	Not included, class-of-	Modelled in PRESSoo <i>All the serial attributes are related to</i>

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
The form anticipated to be used in designating volumes/issues, etc. and/or dates for the individual units of the serial		material specific	<i>the publication plan for the serial work and can change over time</i>
Expected regularity of issue (serial) (4.3.14) (frbrer:P3065) The anticipated regularity of release of individual issues	--	Not included, class-of-material specific	Modelled in PRESSoo <i>All the serial attributes are related to the publication plan for the serial work and can change over time</i>
Expected frequency of issue (serial) (4.3.15) (frbrer:P3066) The interval at which individual issues of the serial are anticipated to be released	--	Not included, class-of-material specific	Modelled in PRESSoo <i>All the serial attributes are related to the publication plan for the serial work and can change over time</i>
Type of score (musical notation) (4.3.16) (frbrer:P3067) The format used to represent a musical composition	--	Merged	See <i>category</i> (LRM-E3-A1) (Categorization of score presentation is one possible categorization of an <i>expression</i>)
--	--	Relocated from work	Key (LRM-E3-A7) A pitch structure (musical scale, ecclesiastic mode, raga, maqam, etc.), that characterizes the <i>expression</i>
Medium of performance (musical notation or recorded sound) (4.3.17) (frbrer:P3068)	Medium of performance of expression (=frbrer:P3068)	Retained, merged from	Medium of performance (LRM-E3-A8)

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
The instrumental and/or vocal medium of performance represented in the <i>expression</i> of a musical <i>work</i>	The instrumental, vocal and/or other medium of performance represented in the <i>expression</i> of a musical <i>work</i>	<i>work</i>	A combination of performing tools (voices, instruments, ensembles, etc.) stated, intended, or actually used in the <i>expression</i>
Scale (cartographic image / object) (4.3.18) (frbrer:P3097) The ratio of distances in a cartographic <i>expression</i> to the actual distances they represent	--	Renamed	Cartographic scale (LRM-E3-A5) A ratio of distances in a cartographic <i>expression</i> to the actual distances they represent
Projection (cartographic image / object) (4.3.19) (frbrer:P3098) The method or system used to represent the surface of the Earth or of a celestial sphere on a plane	--	Not included, class-of-material specific	(Too specialized for a general model, may be defined in specific applications)
Presentation technique (cartographic image / object) (4.3.20) (frbrer:P3099) The method used to represent geographic or other features in a cartographic image	--	Merged	See <i>category</i> (LRM-E3-A1) (Categorization by cartographic presentation technique is one possible categorization of an <i>expression</i>)
Representation of relief (cartographic image / object) (4.3.21) (frbrer:P3100) The technique used to depict the elevations or the inequalities of a land surface or of the	--	Merged	See <i>category</i> (LRM-E3-A1) (Categorization by technique for the representation of relief is one possible categorization of an <i>expression</i>)

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
bed of a body of water in a cartographic image			
Geodetic, grid, and vertical measurement (cartographic image / object) (4.3.22) (frbrer:P3101) Information on the spheroid used to construct the cartographic image, the grid or referencing systems used in the image, horizontal datum, vertical datum, mathematical data on contour intervals, bathymetric intervals, etc.	--	Not included, class-of-material specific	(Too specialized for a general model, may be defined in specific applications)
Recording technique (remote sensing image) (4.3.23) (frbrer:P3070) The technique used to capture an image through remote sensing	--	Not included, class-of-material specific	(Too specialized for a general model, may be defined in specific applications)
Special characteristic (remote sensing image) (4.3.24) (frbrer:P3071) 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	--	Not included, class-of-material specific	(Too specialized for a general model, may be defined in specific applications)

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
Technique (graphic or projected image) (4.3.25) (frbrer:P3072) The method used to create a graphic image (e.g., engraving, etc.) or to realize motion in a projected image	Technique The method used to visualize a graphic image (e.g., engraving) or to realize motion in a projected image	Merged	See <i>category</i> (LRM-E3-A1) (Categorization by technique is one possible categorization of an <i>expression</i>)
MANIFESTATION (4.4)	MANIFESTATION (4.6)		MANIFESTATION (LRM-E4)
--	--	New	Manifestation statement (LRM-E4-A4) A statement appearing in exemplars of the <i>manifestation</i> and deemed to be significant for users to understand how the resource represents itself
Title of the manifestation (4.4.1) (frbrer:P3020) The word, phrase, or group of characters naming the <i>manifestation</i>	(not an attribute, appellation relationship)	Merged <i>OR</i> Replaced by relationship	transcribed title statements are sub- types of <i>manifestation statement</i> (LRM- E4-A4) <i>OR</i> appellation relationship (LRM-R13)
Statement of responsibility (4.4.2) (frbrer:P3021) A statement appearing in the <i>manifestation</i> (normally in conjunction with the title) that names one or more individuals or groups responsible for the creation or realization of	--	Merged	sub-type of <i>manifestation statement</i> (LRM-E4-A4)

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
the intellectual or artistic content embodied in the <i>manifestation</i>			
Edition / issue designation (4.4.3) (frbrer:P3058) A word or phrase appearing in the <i>manifestation</i> that normally indicates a difference in either content or form between the <i>manifestation</i> and a related <i>manifestation</i>	Edition / issue designation (=frbrer:P3058) An information element appearing in the <i>manifestation</i> that normally indicates a difference either in content or in form between the <i>manifestation</i> and a related <i>manifestation</i>	Merged	sub-type of <i>manifestation statement</i> (LRM-E4-A4)
Place of publication / distribution (4.4.4) (frbrer:P3057) The city, town, or other locality associated in the <i>manifestation</i> with the name of the publisher/distributor	Place of publication / distribution (=frbrer:P3057) A city, town, or other locality associated in the <i>manifestation</i> with the name of the publisher/distributor	Merged OR Replaced by relationships	sub-types of <i>manifestation statement</i> (LRM-E4-A4) OR relationship paths: <i>manifestation</i> was created by <i>agent</i> (LRM-R7) <u>or</u> <i>manifestation</i> is distributed by <i>agent</i> (LRM-R9) + <i>place</i> associated-with relationship (LRM-R33) to the <i>agent</i>
Publisher / distributor (4.4.5) (frbrer:P3056) The individual, group, or organization named in the <i>manifestation</i> as being responsible for the publication, distribution, issuing, or release of the <i>manifestation</i>	Publisher / distributor (=frbrer:P3056) An individual, group, or organization named in the <i>manifestation</i> as being responsible for the publication, manufacturing, distribution, issuing, or release of the <i>manifestation</i>	Merged OR Replaced by relationships	sub-type of <i>manifestation statement</i> (LRM-E4-A4) OR <i>manifestation</i> was created by <i>agent</i> (LRM-R7) OR <i>manifestation</i> is distributed by <i>agent</i> (LRM-R9)

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
Date of publication / distribution (4.4.6) (frbrer:P3055) The date (normally a year) of public release of the <i>manifestation</i>	Date of publication / distribution (=frbrer:P3055) The date (normally a year) of public release of the <i>manifestation</i>	Merged <i>OR</i> Replaced by relationship	sub-type of <i>manifestation statement</i> (LRM-E4-A4) <i>OR</i> <i>time-span</i> associated-with relationship (LRM-R35)
Fabricator / Manufacturer (4.4.7) (frbrer:P3054) The individual, group, or organization named in the <i>manifestation</i> as being responsible for the fabrication or manufacture of the <i>manifestation</i>	--	Merged <i>OR</i> Replaced by relationship	sub-type of <i>manifestation statement</i> (LRM-E4-A4) <i>OR</i> <i>manifestation</i> was manufactured by <i>agent</i> (LRM-R8)
Series statement (4.4.8) (frbrer:P3022) The word, phrase, or group of characters appearing in the <i>manifestation</i> naming the series to which the <i>manifestation</i> belongs	--	Merged <i>OR</i> Replaced by relationships	sub-type of <i>manifestation statement</i> (LRM-E4-A4) <i>OR</i> <i>work</i> whole-part relationship (LRM-R18) to the larger <i>work</i> (when the series represents a multipart <i>work</i>) <i>OR</i> relationship path: <i>expression</i> was aggregated by relationship (LRM-R25) + <i>expression</i> embodied in <i>manifestation</i> (LRM-R3) (when the series is an aggregate <i>manifestation</i>)
Form of carrier (4.4.9) (frbrer:P3023)	Form of carrier (=frbrer:P3023)	Renamed	Category of carrier (LRM-E4-A1)

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
The specific class of material to which the physical carrier of the <i>manifestation</i> belongs	The specific class of material to which the physical carrier of the <i>manifestation</i> belongs		A type of material to which all physical carriers of the <i>manifestation</i> are assumed to belong
Extent of the carrier (4.4.10) (frbrer:P3024) A quantification of the number of physical units making up the carrier	--	Retained	Extent (LRM-E4-A2) A quantification of the extent observed on a physical carrier of the <i>manifestation</i> and assumed to be observable on all other physical carriers of the <i>manifestation</i> as well
Physical medium (4.4.11) (frbrer:P3025) The type of material from which the carrier is produced	--	Merged	See <i>category of carrier</i> (LRM-E4-A1)
Capture mode (4.4.12) (frbrer:P3026) The means used to record notation, sound, or images in the production of a <i>manifestation</i>	--	Merged	See <i>category of carrier</i> (LRM-E4-A1)
Dimensions of the carrier (4.4.13) (frbrer:P3027) The measurements of the physical components and/or the container of the <i>manifestation</i>	--	Merged	See <i>extent</i> (LRM-E4-A2)

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
<p>Manifestation identifier (4.4.14) (frbrer:P3028)</p> <p>A number or code uniquely associated with the <i>manifestation</i> that serves to differentiate that <i>manifestation</i> from any other <i>manifestation</i></p>	(not an attribute, appellation relationship to <i>identifier</i> entity)	Merged <i>OR</i> Replaced by relationship	sub-type of <i>manifestation statement</i> (LRM-E4-A4) <i>OR</i> appellation relationship (LRM-R13) <i>nomen</i> of subclass identifier
<p>Source for acquisition / access authorization (4.4.15) (frbrer:P3053)</p> <p>The name of a publisher, distributor, etc. indicated in the <i>manifestation</i> as the source from which the <i>manifestation</i> may be acquired or through whom access may be authorized</p>	--	Merged	See <i>access conditions</i> (LRM-E4-A5)
<p>Terms of availability (4.4.16) (frbrer:P3029)</p> <p>The terms indicated in the <i>manifestation</i> under which the supplier (i.e., the source for acquisition/access authorization) will normally make the <i>manifestation</i> available (e.g., free to members of a particular association), or the price for which the <i>manifestation</i> sells</p>	--	Generalized	Access conditions (LRM-E4-A5) Information as to how any of the carriers of the <i>manifestation</i> are likely to be obtained
<p>Access restrictions on the manifestation (4.4.17) (frbrer:P3030)</p>	--	Renamed	Use rights (LRM-E4-A6)

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
Restrictions on access to and use of a <i>manifestation</i>			A class of use and/or access restrictions to which all carriers of the <i>manifestation</i> are assumed to be submitted
--	--	New	Intended audience (LRM-E4-A3) A class of users for which the physical carriers of the <i>manifestation</i> are intended
Typeface (printed book) (4.4.18) (frbrer:P3074) The style of type used to print a book	--	Not included, class-of- material specific	(Too specialized for a general model, may be defined in specific applications)
Type size (printed book) (4.4.19) (frbrer:P3075) The size of the characters in a printed book	--	Merged	See <i>intended audience</i> (LRM-E4-A3) (Large print is recorded to indicate that the <i>manifestation</i> is appropriate for certain categories of users)
Foliation (hand-printed book) (4.4.20) (frbrer:P3076) The number of folds made in a printed sheet to form a gathering of leaves	--	Merged	See <i>category of carrier</i> (LRM-E4-A1) (Bibliographic format is one possible sub-type of categorization by type of carrier)
Collation (hand-printed book) (4.4.21) (frbrer:P3077)	--	Not included, class-of- material	(Too specialized for a general model, may be defined in specific applications)

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
The sequence of gatherings in a book as indicated by signatures on each gathering		specific	
Publication status (serial) (4.4.22) (frbrer:P3078) The status of the serial with respect to its continuing publication	--	Not included, class-of- material specific	Modelled in PRESSoo <i>All the serial attributes are related to the publication plan for the serial work and can change over time</i>
Numbering (serial) (4.4.23) (frbrer:P3079) The designation of volume/issue, etc. and/or date appearing in the <i>manifestation</i>	Numbering (=frbrer:P3079) The designation of volume/issue, etc. and/or date appearing in a serial	Merged	sub-type of <i>manifestation statement</i> (LRM-E4-A4)
Playing speed (sound recording) (4.4.24) (frbrer:P3080) The speed at which the carrier must be operated to produce the sound intended (e.g., 33 1/3 rpm, 19 cm/s, etc.)	--	Merged	See <i>category of carrier</i> (LRM-E4-A1) (Playing speed is one possible sub-type of categorization by type of carrier)
Groove width (sound recording) (4.4.25) (frbrer:P3081) The number of grooves per inch cut on a disc or cylinder (e.g., microgroove--i.e., 200 grooves per inch)	--	Merged	See <i>category of carrier</i> (LRM-E4-A1) (Groove width is one possible sub-type of categorization by type of carrier)
Kind of cutting (Sound recording) (4.4.26) (frbrer:P3082)	--	Merged	See <i>category of carrier</i> (LRM-E4-A1) (Direction of groove cutting is one

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
The direction in which the grooves are cut on a disc or cylinder (e.g., lateral, vertical, etc.)			possible sub-type of categorization by type of carrier)
Tape configuration (sound recording) (4.4.27) (frbrer:P3083) The number of tracks on a sound tape (e.g., eight track, twelve track)	--	Merged	See <i>category of carrier</i> (LRM-E4-A1) <i>OR</i> See <i>category</i> (LRM-E3-A1), under <i>expression</i>
Kind of sound (sound recording) (4.4.28) (frbrer:P3084) The number of sound channels used to make the recording (monaural, stereophonic, quadrasonic, etc.)	--	Merged	See <i>category</i> (LRM-E3-A1), under <i>expression</i>
Special reproduction characteristics (sound recording) (4.4.29) (frbrer:P3085) The equalization system, noise reduction system, etc. used in making the recording (e.g., NAB, DBX, Dolby, etc.)	--	Merged	See <i>category</i> (LRM-E3-A1), under <i>expression</i>
Colour (image) (4.4.30) (frbrer:P3086) The colour(s), tone(s), etc. (including black and white) used in the production of an image	--	Merged	See <i>category</i> (LRM-E3-A1), under <i>expression</i>

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
Reduction ratio (microform) (4.4.31) (frbrer:P3087) The degree to which a text or image has been reduced in the process of microfilming (e.g., 42x, etc.)	--	Merged	See <i>category of carrier</i> (LRM-E4-A1) (Reduction ratio is one possible sub- type of categorization by type of carrier)
Polarity (microform or visual projection) (4.4.32) (frbrer:P3088) The relationship of the colours and tones in an image on film to the colours and tones of the object filmed	--	Merged	See <i>category of carrier</i> (LRM-E4-A1) (Polarity is one possible sub-type of categorization by type of carrier)
Generation (microform or visual projection) (4.4.33) (frbrer:P3089) A reflection 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, a third generation service copy, etc.)	--	Not included, class-of- material specific	(Too specialized for a general model, may be defined in specific applications)
Presentation format (visual projection) (4.4.34) (frbrer:P3090) The format used in the production of a projected image (e.g., wide screen, Beta, VHS, etc.)	--	Merged	See <i>category of carrier</i> (LRM-E4-A1) (Format is one possible sub-type of categorization by type of carrier)

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
<p>System requirements (electronic resource) (4.4.35) (frbrer:P3093)</p> <p>The requirements related to hardware (e.g. machine make and model, RAM capacity, etc.), software (e.g., operating systems, programming language, supporting software, etc.), and peripherals (monitor, printer, mouse, etc.)</p>	--	Merged	See <i>access conditions</i> (LRM-E4-A5)
<p>File characteristics (electronic resource) (4.4.36) (frbrer:P3094)</p> <p>The standards or schemes used to encode the file (e.g., ASCII, SGML, etc.), physical characteristics of the file (e.g., recording density, parity, blocking, etc.), and other characteristics that have a bearing on how the file can be processed</p>	--	Not included, class-of-material specific	(Too specialized for a general model, may be defined in specific applications)
<p>Mode of access (remote-access electronic resource) (4.4.37) (frbrer:P3095)</p> <p>The means of accessing a remote electronic resource</p>	--	Merged	See <i>access conditions</i> (LRM-E4-A5)
<p>Access address (remote-access electronic resource) (4.4.38) (frbrer:P3096)</p> <p>An alpha-numeric code (e.g., universal resource locator - URL) used to facilitate</p>	--	Merged	See <i>access conditions</i> (LRM-E4-A5)

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
remote access to an electronic resource			
ITEM (4.5)	ITEM (4.7)		ITEM (LRM-E5)
Item identifier (4.5.1) (frbrer:P3031) A number or code that is uniquely associated with the <i>item</i> , and serves to differentiate that <i>item</i> from any other <i>item</i> in the same collection and/or institution	(not an attribute, appellation relationship to <i>identifier</i> entity)	Replaced by relationship	appellation relationship (LRM-R13) <i>nomen</i> of subclass identifier
Fingerprint (4.5.2) (frbrer:P3032) An identifier constructed by combining groups of characters transcribed from specified pages of a printed <i>item</i>	(not an attribute, appellation relationship to <i>identifier</i> entity)	Replaced by relationship	appellation relationship (LRM-R13) <i>nomen</i> of subclass identifier NB: fingerprint is an identifier for a state (a group of identical <i>items</i> within a <i>manifestation</i>), it only identifies a specific <i>item</i> if the state consists of a single <i>item</i>
Provenance of the item (4.5.3) (frbrer:P3033) A record of previous ownership or custodianship of the <i>item</i>	Custodial history of item (frad:P3048) The record of previous ownership of the <i>item</i>	Replaced by relationship <i>OR</i> Note attribute	ownership relationship (LRM-R10) <i>OR</i> Note (LRM-E1-A2)
Marks / inscriptions (4.5.4) (frbrer:P3052) Any signatures, numbering, annotations, etc.	--	Merged	See <i>note</i> (LRM-E1-A2), under <i>res</i>

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
that have been applied uniquely to the <i>item</i> by the artist, fabricator, owner, etc.			
Exhibition history (4.5.5) (frbrer:P3034) A record of public exhibitions of an <i>item</i> , including dates, venues, etc.	--	Out of scope, administrative metadata	--
Condition of the item (4.5.6) (frbrer:P3035) The physical condition of the <i>item</i> , particularly any variances between the physical makeup of the <i>item</i> and that of the <i>manifestation</i> it exemplifies	--	Merged	See <i>note</i> (LRM-E1-A2), under <i>res</i>
Treatment history (4.5.7) (frbrer:P3036) A record of the treatment the <i>item</i> has undergone	--	Out of scope, administrative metadata	--
Scheduled treatment (4.5.8) (frbrer:P3037) A plan for future treatment of the <i>item</i>	--	Out of scope, administrative metadata	--
Access restrictions on the item (4.5.9) (frbrer:P3038) Any limitations placed on physical access to	--	Renamed	Use rights (LRM-E5-A2) A class of use and/or access restrictions

C.1 Attributes of Works, Expressions, Manifestations, and Items			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
the <i>item</i>			to which the <i>item</i> is submitted
--	Location of item (frad:P3047) The collection and/or institution in which the <i>item</i> is held, stored, or made available for access	Retained	Location (LRM-E5-A1) The collection and/or institution in which the <i>item</i> is held, stored, or made available for access
--	Immediate source of acquisition of item (frad:P3049) The source from which an <i>item</i> was directly acquired and the circumstances under which it was acquired	Replaced by relationship <i>OR</i> Note attribute	ownership relationship (LRM-R10) <i>OR</i> Note (LRM-E1-A2)

C. Attributes in FRBR, FRAD and their equivalent in IFLA LRM

C.2. Attributes of Person, Family, Corporate Body, and Collective Agent and Agent

C.2 Attributes of Person, Family, Corporate Body, and Collective Agent and Agent			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
PERSON (4.6)	PERSON (4.1)		PERSON (LRM-E7)
Name of person (4.6.1) (frbrer:P3039) The word, character, or group of words and/or characters by which the <i>person</i> is known	(not an attribute, appellation relationship)	Replaced by relationship	appellation relationship (LRM-R13)
Dates of person (4.6.2) (frbrer:P3040) The dates associated with a <i>person</i> may include the precise or approximate date of the <i>person</i> 's birth and/or death, or dates indicating the period in which the <i>person</i> was known to be active in a given field of endeavour	Dates associated with the person (=frbrer:P3040) A date or dates associated with the <i>person</i>	Replaced by relationship	<i>time-span</i> associated-with relationship (LRM-R35) may be sub-typed for a specific event related to the <i>person</i> to the appropriate level of granularity: - birth - death - activity - etc.
Title of person (4.6.3) (frbrer:P3041) A word or phrase indicative of rank, office, nobility, honour, etc. (e.g., Major, Premier, Duke, etc.), or a term of address (Sir, Mrs., etc.) associated with	Title of person (=frbrer:P3041) Rank, office, nobility, honour, etc., associated with the <i>person</i>	Replaced by relationships	membership relationship (LRM-R30) <i>agent (person)</i> to <i>collective agent</i> (group of office holders, such as the Prime Ministers of a particular country) <i>OR</i> <i>nomen</i> whole-part relationship (LRM-

C.2 Attributes of Person, Family, Corporate Body, and Collective Agent and Agent			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
the <i>person</i>			R16) for a component of a <i>nomen</i> indicating a value of the <i>profession / occupation</i> (LRM-E7-A1) attribute
Other designation associated with the person (4.6.4) (frbrer:P3042) A numeral, word, or abbreviation indicating succession within a family or dynasty (e.g., III, Jr., etc.), or an epithet or other word or phrase associated with the <i>person</i> (e.g., the Brave, Professional Engineer, etc.)	Other information associated with the person (=frbrer:P3042) Information elements other than title by which a <i>person</i> is known or identified	Deprecated (an aspect or component of certain <i>nomens</i> for the <i>person</i> , not an attribute)	--
--	Gender (frad:P3029) A gender by which the <i>person</i> is identified	Deprecated (not an essential attribute)	--
--	Place of birth (frad:P3030) The town, city, province, state, and/or country in which the <i>person</i> was born	Replaced by relationship	<i>place</i> associated-with relationship (LRM-R33) sub-typed for a specific event related to the <i>person</i> (birth)
--	Place of death (frad:P3031) The town, city, province, state, and/or country in which the <i>person</i> died	Replaced by relationship	<i>place</i> associated-with relationship (LRM-R33) sub-typed for a specific event related to the <i>person</i> (death)

C.2 Attributes of Person, Family, Corporate Body, and Collective Agent and Agent			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
--	Country (frad:P3032) A country with which the <i>person</i> is identified	Replaced by relationship	<i>place</i> associated-with relationship (LRM-R33) sub-typed for an association of a specific type (associated country)
--	Place of residence (frad:P3033) A country, state/province, city, etc., in which the <i>person</i> resides or has resided	Replaced by relationship	<i>place</i> associated-with relationship (LRM-R33) sub-typed for a specific event related to the <i>person</i> (residence)
--	Affiliation (frad:P3034) A group with which the <i>person</i> is affiliated or has been affiliated through employment, membership, cultural identity, etc.	Replaced by relationship	membership relationship (LRM-R30) <i>agent (person) to collective agent</i> <i>OR</i> <i>res</i> associated-with (LRM-R1) for cultural identity
--	Address (frad:P3035) The current or former address of the <i>person's</i> place of residence, business, or employer	Merged	See <i>contact information</i> (LRM-E6- A1), under <i>agent</i>
--	Language of person (frad:P3036) A language the <i>person</i> uses when creating an expression for publication, broadcasting, etc.	Merged	See <i>language</i> (LRM-E6-A3), under <i>agent</i>
--	Field of activity (frad:P3037)	Merged	See <i>field of activity</i> (LRM-E6-A2), under <i>agent</i>

C.2 Attributes of Person, Family, Corporate Body, and Collective Agent and Agent			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
	A field of endeavour, area of expertise, etc., in which the <i>person</i> is engaged or was engaged		
--	Profession / occupation (frad:P3038) A profession or occupation in which the <i>person</i> works or worked	Retained	Profession / Occupation (LRM-E7-A1) A profession or occupation in which the <i>person</i> works or worked
--	Biography / history (frad:P3039) Information pertaining to the life or history of the <i>person</i>	Merged	See <i>note</i> (LRM-E1-A2), under <i>res</i>
--	FAMILY (4.2)		COLLECTIVE AGENT (LRM-E8)
--	Type of family (frad:P3001) A categorization or generic descriptor for the type of <i>family</i>	Merged	See <i>category</i> (LRM-E1-A1), under <i>res</i>
--	Dates of family (frad:P3002) Dates associated with the <i>family</i>	Replaced by relationship	<i>time-span</i> associated-with relationship (LRM-R35) may be sub-typed for a specific event related to the family
--	Places associated with family (frad:P3003) Information pertaining to places where the <i>family</i> resides or resided or had some connection	Replaced by relationship	<i>place</i> associated-with relationship (LRM-R33) may be sub-typed for a specific event related to the family (such as residence)

C.2 Attributes of Person, Family, Corporate Body, and Collective Agent and Agent			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
--	Language of family (frad:P3052) A language associated with the <i>family</i>	Merged	See <i>language</i> (LRM-E6-A3), under <i>agent</i>
--	Field of activity (frad:P3004) A field of endeavour, area of expertise, etc., in which the <i>family</i> is engaged or was engaged	Merged	See <i>field of activity</i> (LRM-E6-A2), under <i>agent</i>
--	History of family (frad:P3005) Information pertaining to the history of the <i>family</i>	Merged	See <i>note</i> (LRM-E1-A2), under <i>res</i>
CORPORATE BODY (4.7)	CORPORATE BODY (4.3)		COLLECTIVE AGENT (LRM-E8)
Name of the corporate body (4.7.1) (frbrer:P3043) The word, phrase, character, or group of words and/or characters by which the body is known	(not an attribute, appellation relationship)	Replaced by relationship	appellation relationship (LRM-R13)
Number associated with the corporate body (4.7.2) (frbrer:P3044) The numerical designation sequencing a meeting, conference, exhibition, fair, etc. that constitutes one of a series of	--	Deprecated (component of the <i>nomen</i> for certain subclasses of corporate body, not an	--

C.2 Attributes of Person, Family, Corporate Body, and Collective Agent and Agent			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
related meetings, conferences, exhibitions, fairs, etc., or any other numerical designation associated with a <i>corporate body</i>		attribute)	
Place associated with the corporate body (4.7.3) (frbrer:P3045) The city, town, or other designation of location in which a meeting, conference, exhibition, fair, etc. was held, or the location with which the <i>corporate body</i> is otherwise associated	Place associated with the corporate body (=frbrer:P3045) A geographic place at any level associated with the <i>corporate body</i>	Replaced by relationship	<i>place</i> associated-with relationship (LRM-R33) may be sub-typed for a specific type of relationship to the corporate body (such as <i>place</i> conference was held, <i>place</i> where headquarters are located)
Date associated with the corporate body (4.7.4) (frbrer:P3046) The date or range of dates on which a meeting, conference, exhibition, fair, etc. was held, or a date with which the <i>corporate body</i> is otherwise associated (e.g., the date of its incorporation)	Dates associated with the corporate body (=frbrer:P3046) A date or range of dates on which a meeting, conference, exhibition, fair, etc. is held, or a date with which the <i>corporate body</i> is otherwise associated	Replaced by relationship	<i>time-span</i> associated-with relationship (LRM-R35) may be sub-typed for a specific event related to the corporate body (such as activity, establishment, cessation, date conference was held)
Other designation associated with the corporate body (4.7.5) (frbrer:P3047) A word, phrase, or abbreviation indicating incorporation or legal status	Other information associated with the corporate body (=frbrer:P3047) Information as to incorporation or legal status of the body, or any term serving to differentiate the	Deprecated (an aspect of certain <i>nomens</i> for the corporate body, not an	--

C.2 Attributes of Person, Family, Corporate Body, and Collective Agent and Agent			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
of the body (e.g., Inc., Ltd., etc.), or any term serving to differentiate the body from other <i>corporate bodies, persons</i> , etc. (e.g., firm, musical group, etc.).	body from other <i>corporate bodies, persons</i> , etc.	attribute)	
--	Language of the corporate body (frad:P3040) A language that the <i>corporate body</i> uses in its communications	Merged	See <i>language</i> (LRM-E6-A3), under <i>agent</i>
--	Address (frad:P3041) The current or former address of the <i>corporate body's</i> office(s)	Merged	See <i>contact information</i> (LRM-E6-A1), under <i>agent</i>
--	Field of activity (frad:P3042) A field of business in which the <i>corporate body</i> is engaged, its area of competence, responsibility, jurisdiction, etc.	Merged	See <i>field of activity</i> (LRM-E6-A2), under <i>agent</i>
--	History (frad:P3043) Information pertaining to the history of the <i>corporate body</i>	Merged	See <i>note</i> (LRM-E1-A2), under <i>res</i>

C.2 Attributes of Person, Family, Corporate Body, and Collective Agent and Agent			
FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
AGENT	AGENT		AGENT (LRM-E6)
--	<p>Address (of Person) (frad:P3035)</p> <p>The current or former address of the <i>person's</i> place of residence, business, or employer</p> <hr/> <p>Address (of Corporate Body) (frad:P3041)</p> <p>The current or former address of the <i>corporate body's</i> office(s)</p>	Merged	<p>Contact information (LRM-E6-A1)</p> <p>Information useful for communicating with or getting in contact with the <i>agent</i></p>
--	<p>Field of activity (of Person) (frad:P3037)</p> <p>A field of endeavour, area of expertise, etc., in which the <i>person</i> is engaged or was engaged</p> <hr/> <p>Field of activity (of Family) (frad:P3004)</p> <p>A field of endeavour, area of expertise, etc., in which the <i>family</i> is engaged or was engaged</p> <hr/> <p>Field of activity (of Corporate Body)</p>	Merged	<p>Field of activity (LRM-E6-A2)</p> <p>A field of endeavour, area of expertise, etc., in which the <i>agent</i> is engaged or was engaged</p>

C.2 Attributes of Person, Family, Corporate Body, and Collective Agent and Agent

FRBR Attribute name (Section number) / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
	<p>(frad:P3042)</p> <p>A field of business in which the <i>corporate body</i> is engaged, its area of competence, responsibility, jurisdiction, etc.</p>		
<p>--</p>	<p>Language of person (frad:P3036)</p> <p>A language the <i>person</i> uses when creating an <i>expression</i> for publication, broadcasting, etc.</p> <hr/> <p>Language of family (frad:P3052)</p> <p>A language associated with the <i>family</i></p> <hr/> <p>Language of the corporate body (frad:P3040)</p> <p>A language that the <i>corporate body</i> uses in its communications</p>	<p>Merged</p>	<p>Language (LRM-E6-A3)</p> <p>A language used by the <i>agent</i> when creating an <i>expression</i></p>

C. Attributes in FRSAD and their equivalent in IFLA LRM

C.3. Attributes of Thema and Res

C.3 Attributes of Thema and Res					
FRSAD Namespace ID	FRSAD Attribute name (Section number)	FRSAD Definition	Result	IFLA LRM Attribute name / ID	IFLA LRM Definition
	THEMA			RES (LRM-E1)	
frsad:P3001	Type of thema (4.1.1)	The category to which a <i>thema</i> belongs in the context of a particular knowledge organization system	Generalized	Category (LRM-E1-A1)	A type to which the <i>res</i> belongs
frsad:P3002	Scope note (4.1.2)	A text describing and/or defining the <i>thema</i> or specifying its scope within the particular knowledge organization system	Generalized	Note (LRM-E1-A2)	Any kind of information about a <i>res</i> that is not recorded through the use of specific attributes and/or relationships

C. Attributes in FRAD, FRSAD and their equivalent in IFLA LRM

C.4. Attributes of Name, Identifier, Controlled Access Point, and Nomen

C.4 Attributes of Name, Identifier, Controlled Access Point, and Nomen					
FRAD Attribute name / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	FRSAD Attribute name (Section number) / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
NAME (4.12)	IDENTIFIER (4.13)	CONTROLLED ACCESS POINT (4.14)	NOMEN		NOMEN (LRM-E9)
Type of name (frad:P3022) The category of a <i>name</i>	--	Type of controlled access point (frad:P3006) A categorization or generic descriptor for the <i>controlled access point</i>	Type of nomen (4.2.1) (frsad:P3003) Category to which the <i>nomen</i> belongs	Renamed	Category (LRM-E9-A1) A type to which the <i>nomen</i> belongs
Name string (frad:P3023) A sequence of numeric and/or alphabetic characters or symbols that represents the <i>name</i> of an entity	--	--	--	Renamed	Nomen string (LRM-E9-A2) The combination of signs that forms an appellation associated with an entity through the <i>nomen</i>
--	Type of identifier (frad:P3021) A code or other designation	--	Scheme (4.2.2) (frsad:P3004) The scheme in which the <i>nomen</i> is	Merged	Scheme (LRM-E9-A3) The scheme in which the <i>nomen</i> is established

C.4 Attributes of Name, Identifier, Controlled Access Point, and Nomen					
FRAD Attribute name / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	FRSAD Attribute name (Section number) / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
NAME (4.12)	IDENTIFIER (4.13)	CONTROLLED ACCESS POINT (4.14)	NOMEN		NOMEN (LRM-E9)
	indicating the type of identifier (i.e., the domain in which the identifier is assigned)		established, including value encoding schemes (subject heading lists, thesauri, classification systems, name authority lists, etc.) and syntax encoding schemes (standards for encoding dates, etc.)		
--	--	Designated usage of controlled access point (frad:P3008) An indication of whether the rules under which the controlled access point was constructed designate it as an authorized (or preferred) form (i.e., authorized access point) or as a variant (or non-preferred) form (i.e., variant access points)	--	Merged	See <i>category</i> (LRM-E9-A1)
--	--	Undifferentiated access point (frad:P3009) An indication that the controlled access point for the authorized form of name (i.e., authorized access	--	Deprecated	-- (The situation where distinct <i>nomens</i> have the same value in their <i>nomen string</i> (LRM-E9-A2) attributes)

C.4 Attributes of Name, Identifier, Controlled Access Point, and Nomen					
FRAD Attribute name / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	FRSAD Attribute name (Section number) / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
NAME (4.12)	IDENTIFIER (4.13)	CONTROLLED ACCESS POINT (4.14)	NOMEN		NOMEN (LRM-E9)
		point) is insufficiently precise to differentiate between two or more entities identified by the same name			
Scope of usage (frad:P3024) The form of work associated with a particular name for a persona	--	--	--	Generalized	Context of use (LRM-E9-A5) Information as to the context(s) in which a <i>nomen</i> is used by the <i>agent</i> who is referred to through it
--	--	Source of controlled access point (frad:P3016) The publication or reference source used in establishing the form of name or title on which the controlled access point is based	Reference Source of nomen (4.2.3) (frsad:P3005) The source in which the <i>nomen</i> is found	Retained	Reference source (LRM-E9-A6) A source in which there is evidence for the use of the <i>nomen</i>
--	--	--	Representation of nomen (4.2.4) (frsad:P3006) The data type in which the <i>nomen</i> is expressed	Not included	-- (Specialized technical attribute, may be used if needed in a specific implementation)

C.4 Attributes of Name, Identifier, Controlled Access Point, and Nomen					
FRAD Attribute name / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	FRSAD Attribute name (Section number) / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
NAME (4.12)	IDENTIFIER (4.13)	CONTROLLED ACCESS POINT (4.14)	NOMEN		NOMEN (LRM-E9)
Language of name (frad:P3026) The language in which the <i>name</i> is expressed	--	Language of base access point (frad:P3010) The language in which the base access point is recorded <hr/> Language of cataloguing (frad:P3011) The language in which additions to the base access point are recorded	Language of nomen (4.2.5) (frsad:P3007) The language in which the <i>nomen</i> is expressed	Retained	Language (LRM-E9-A7) The language in which the <i>nomen</i> is attested
Script of name (frad:P3027) The script in which the <i>name</i> is rendered	--	Script of base access point (frad:P3012) The form of graphic characters in which the data in the base access point are recorded <hr/> Script of cataloguing (frad:P3013) The form of graphic characters in which any additions to the base	Script of nomen (4.2.6) (frsad:P3008) The script in which the <i>nomen</i> is expressed	Retained	Script (LRM-E9-A8) The script in which the <i>nomen</i> is notated

C.4 Attributes of Name, Identifier, Controlled Access Point, and Nomen					
FRAD Attribute name / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	FRSAD Attribute name (Section number) / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
NAME (4.12)	IDENTIFIER (4.13)	CONTROLLED ACCESS POINT (4.14)	NOMEN		NOMEN (LRM-E9)
		access point are recorded			
Transliteration scheme of name (frad:P3028) The scheme used to produce the transliterated form of the <i>name</i>	--	Transliteration scheme of base access point (frad:P3014) An indication of the scheme used in transliterating the base access point	Script conversion (4.2.7) (frsad:P3009) The rule, system, or standard used to render the <i>nomen</i> in a different representation	Retained	Script conversion (LRM-E9-A9) The rule, system, or standard that was used to create a <i>nomen</i> that is derived on the basis of another, distinct <i>nomen</i> notated in another, distinct script
--	--	Base access point (frad:P3017) All elements in a controlled access point that are integral to the name or identifier that forms the basis for the access point	--	Deprecated <i>OR</i> Replaced by relationship	If the base access point is itself a <i>nomen</i> : <i>nomen</i> whole-part relationship (LRM-R16) as a component of the complete <i>nomen</i> (of subclass controlled access point)
--	--	Addition (frad:P3018)	--	Deprecated <i>OR</i>	If the addition is itself a <i>nomen</i> :

C.4 Attributes of Name, Identifier, Controlled Access Point, and Nomen					
FRAD Attribute name / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	FRSAD Attribute name (Section number) / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
NAME (4.12)	IDENTIFIER (4.13)	CONTROLLED ACCESS POINT (4.14)	NOMEN		NOMEN (LRM-E9)
		A name, title, date, place, number, or other designation added to the base access point		Replaced by relationship	<i>nomen</i> whole-part relationship (LRM-R16) as a component of the complete <i>nomen</i> (of subclass controlled access point)
--	--	--	Form of nomen (4.2.8) (frsad:P3010) Any additional information that helps to interpret the <i>nomen</i>	Merged	See <i>category</i> (LRM-E9-A1)
Dates of usage (frad:P3025) Dates associated with the use of a particular name established by a person, corporate body, or family	--	--	Time of validity of nomen (4.2.9) (frsad:P3011) The time period, in which the <i>nomen</i> is/was used or is/was valid within a subject vocabulary system	Replaced by relationship	<i>time-span</i> associated-with relationship (LRM-R35)
--	--	--	Audience (4.2.10) (frsad:P3012)	Renamed	Intended audience (LRM-E9-A4)

C.4 Attributes of Name, Identifier, Controlled Access Point, and Nomen					
FRAD Attribute name / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	FRAD Attribute name / Namespace ID / Definition	FRSAD Attribute name (Section number) / Namespace ID / Definition	Result	IFLA LRM Attribute name / ID / Definition / or Other mapping
NAME (4.12)	IDENTIFIER (4.13)	CONTROLLED ACCESS POINT (4.14)	NOMEN		NOMEN (LRM-E9)
			The community or user group for which the <i>nomen</i> is the preferred form		A class of users for which the <i>nomen</i> is considered appropriate or preferred
--	--	Status of controlled access point (frad:P3007) An indication of the level of establishment of the authorized access point for the entity (e.g., provisional)	Status of nomen (4.2.11) (frsad:P3013) The status of the <i>nomen</i> in a subject authority system	Out of scope, administrative metadata	--

C. Attributes in FRAD and their equivalent in IFLA LRM

C.5. Attributes of Rules and Agency

C.5 Attributes of Rules and Agency				
FRAD Namespace ID	FRAD Attribute name for entity	FRAD Definition	Result	IFLA LRM Other mapping
	RULES (4.15)		(entity out of scope)	All rules are <i>works</i> (LRM-E2)
frad:P3019	Citation for rules	A citation for the cataloguing code, set of rules, instructions, etc.	Replaced by relationship	appellation relationship (LRM-R13) for the <i>work</i> (or <i>expression</i> of the <i>work</i>) that is the rules
frad:P3020	Rules identifier	An acronym or initials or alphanumeric code identifying the rules	Replaced by relationship	appellation relationship (LRM-R13) for the <i>work</i> (or <i>expression</i> of the <i>work</i>) that is the rules
	AGENCY (4.16)		(entity out of scope)	All agencies are <i>agents</i> (LRM-E6)
(not defined)	Name of agency	The name by which the agency is commonly known	Replaced by relationship	appellation relationship (LRM-R13)
(not defined)	Agency identifier	An alphanumeric code identifying the agency	Replaced by relationship	appellation relationship (LRM-R13) <i>nomen</i> of subclass identifier
(not defined)	Location of agency	The country, state / province, city, etc., in which the agency is located or headquartered, or the agency's address	Replaced by relationship <i>OR</i> Contact information attribute (of <i>agent</i>)	<i>place</i> associated-with <i>res</i> relationship (LRM-R33) associated with the <i>agent</i> that is the agency <i>OR</i> Contact information (LRM-E6-A1)

C. Attributes in FRBR and their equivalent in IFLA LRM

C.6. Attributes of Concept, Object, Event, Place and Time-span

C.6 Attributes of Concept, Object, Event, Place and Time-span					
FRBR Namespace ID	FRBR Attribute name for entity	FRBR Definition	Result	IFLA LRM Attribute name / ID / or Other mapping	IFLA LRM Definition
	CONCEPT (4.8)		(entity deprecated)	RES (LRM-E1)	
frbrer:P3048	Term for the concept	The word, phrase, or group of characters used to name or designate the <i>concept</i>	Replaced by relationship	appellation relationship (LRM-R13)	
	OBJECT (4.9)		(entity deprecated)	RES (LRM-E1)	
frbrer:P3049	Term for the object	The word, phrase, or group of characters used to name or designate the <i>object</i>	Replaced by relationship	appellation relationship (LRM-R13)	
	EVENT (4.10)		(entity deprecated)	RES (LRM-E1)	
frbrer:P3050	Term for the event	The word, phrase, or group of characters used to name or designate the <i>event</i>	Replaced by relationship	appellation relationship (LRM-R13)	
	PLACE (4.11)		(entity redefined)	PLACE (LRM-E10)	
frbrer:P3051	Term for the place	The word, phrase, or group of characters used to name or designate the <i>place</i>	Replaced by relationship	appellation relationship (LRM-R13)	
	--	--	New	Category (LRM-E10-A1)	A type to which the <i>place</i> belongs

C.6 Attributes of Concept, Object, Event, Place and Time-span					
FRBR Namespace ID	FRBR Attribute name for entity	FRBR Definition	Result	IFLA LRM Attribute name / ID / or Other mapping	IFLA LRM Definition
	--	--	New	Location (LRM-E10-A2)	A delimitation of the physical territory of the <i>place</i>
	TIME-SPAN		(new entity)	TIME-SPAN (LRM-E11)	
	--	--	New	Beginning (LRM-E11-A1)	A value for the time at which the <i>time-span</i> started, expressed in a precise way in an authoritative external system to allow temporal positioning of events
	--	--	New	Ending (LRM-E11-A2)	A value for the time at which the <i>time-span</i> ended, expressed in a precise way in an authoritative external system to allow temporal positioning of events

D. Relationships in FRBR, FRAD, FRSAD and their equivalent in IFLA LRM

D.1. Basic or Primary Relationships

- Inverse names for FRBR relationships (given in bold) are taken from the OMR, not given in FRBR
- Relationships from FRAD with domain or range *family* are listed with like relationships from FRBR in the sub-sections marked with an asterisk (*)
- In FRAD the phrase “Bibliographic entities” is a short-hand for the 10 FRBR entities plus *family*; although not officially an entity or superclass in the FRAD model, it is defined in the OMR as the domain/range of two relationships, those relationships are not expanded in this table

D.1 Basic or Primary Relationships						
FR Namespace ID	Domain	Relationship Name	Inverse Name	Range	Result	IFLA LRM
FRBR Fig. 3.1						Core WEMI relationships
frbrer:P2001 / frbrer:P2002	WORK	is realized through	is realization of	EXPRESSION	Retained, inverse name assigned	WORK is realized through / realizes EXPRESSION (LRM-R2)
frbrer:P2003 / frbrer:P2004	EXPRESSION	is embodied in	is embodiment of	MANIFESTATION	Retained, inverse name assigned	EXPRESSION is embodied in / embodies MANIFESTATION (LRM-R3)
frbrer:P2005 / frbrer:P2006	MANIFESTATION	is exemplified by	is exemplar of	ITEM	Retained, inverse name assigned	MANIFESTATION is exemplified by / exemplifies ITEM (LRM-R4)
* FRBR Fig. 3.2						WEMI-AGENT relationships
frbrer:P2009 / frbrer:P2010	WORK	is created by	is creator of	PERSON	Retained, merged into range AGENT, modified name to past tense (to model outcome of the creation process), inverse name assigned	WORK was created by / created AGENT (LRM-R5)
frad:P2020 / frad:P2021	WORK	is created by	is creator of	FAMILY	Retained, merged into range AGENT, modified name to past tense (to model outcome of the creation process), inverse name assigned	WORK was created by / created AGENT (LRM-R5)
frbrer:P2007 / frbrer:P2008	WORK	is created by	is creator of	CORPORATE BODY	Retained, merged into range AGENT, modified name to past tense (to model	WORK was created by / created AGENT (LRM-R5)

D.1 Basic or Primary Relationships						
FR Namespace ID	Domain	Relationship Name	Inverse Name	Range	Result	IFLA LRM
					outcome of the creation process), inverse name assigned	
frbrer:P2013 / frbrer:P2014	EXPRESSION	is realized by	is realizer of	PERSON	Renamed, merged into range AGENT	EXPRESSION was created by / created AGENT (LRM-R6)
frad:P2026 / frad:P2027	EXPRESSION	is realized by	is realizer of	FAMILY	Renamed, merged into range AGENT	EXPRESSION was created by / created AGENT (LRM-R6)
frbrer:P2011 / frbrer:P2012	EXPRESSION	is realized by	is realizer of	CORPORATE BODY	Renamed, merged into range AGENT	EXPRESSION was created by / created AGENT (LRM-R6)
frbrer:P2017 / frbrer:P2018	MANIFESTATION	is produced by	is producer of	PERSON	Renamed and split, merged into range AGENT	MANIFESTATION was manufactured by / manufactured AGENT (LRM-R8)
frad:P2024 / frad:P2025	MANIFESTATION	is produced by	is producer of	FAMILY	Renamed and split, merged into range AGENT	MANIFESTATION was manufactured by / manufactured AGENT (LRM-R8)
frbrer:P2015 / frbrer:P2016	MANIFESTATION	is produced by	is producer of	CORPORATE BODY	Renamed and split, merged into range AGENT	MANIFESTATION was manufactured by / manufactured AGENT (LRM-R8)
New	MANIFESTATION	was created by	created	AGENT	New, split from manifestation-production	Manifestation-creation (LRM-R7), distinct from physical manufacture
New	MANIFESTATION	is distributed by	distributes	AGENT	New, split from manifestation-production	Distribution of a <i>manifestation</i> (LRM-R9) is distinct from its creation or manufacture
frbrer:P2021 / frbrer:P2022	ITEM	is owned by	is owner of	PERSON	Retained, merged into range AGENT, inverse name assigned	ITEM is owned by / owns AGENT (LRM-R10)
frad:P2022 / frad:P2023	ITEM	is owned by	is owner of	FAMILY	Retained, merged into range AGENT, inverse name assigned	ITEM is owned by / owns AGENT (LRM-R10)
frbrer:P2019 /	ITEM	is owned by	is owner of	CORPORATE BODY	Retained, merged into range AGENT,	ITEM is owned by / owns AGENT

D.1 Basic or Primary Relationships

FR Namespace ID	Domain	Relationship Name	Inverse Name	Range	Result	IFLA LRM
frbrer:P2020					inverse name assigned	(LRM-R10)
New	ITEM	was modified by	modified	AGENT	New	Modification of a specific <i>item</i> (LRM-R11) without creation of a new <i>manifestation</i>
* FRBR Fig. 3.3 / FRSAD 3.4						Subject relationship
frbrer:P2023 / frbrer:P2024	WORK	has as subject	is subject of	CONCEPT	Retained, merged into range RES, inverse name from FRSAD	WORK has as subject / is subject of RES (LRM-R12)
frbrer:P2025 / frbrer:P2026	WORK	has as subject	is subject of	OBJECT	Retained, merged into range RES, inverse name from FRSAD	WORK has as subject / is subject of RES (LRM-R12)
frbrer:P2027 / frbrer:P2028	WORK	has as subject	is subject of	EVENT	Retained, merged into range RES, inverse name from FRSAD	WORK has as subject / is subject of RES (LRM-R12)
frbrer:P2029 / frbrer:P2030	WORK	has as subject	is subject of	PLACE	Retained, merged into range RES, inverse name from FRSAD	WORK has as subject / is subject of RES (LRM-R12)
frbrer:P2033 / frbrer:P2034	WORK	has as subject	is subject of	PERSON	Retained, merged into range RES, inverse name from FRSAD	WORK has as subject / is subject of RES (LRM-R12)
frad:P4046 (not in FRAD)	WORK	has as subject	is subject of	FAMILY	Retained, merged into range RES, inverse name from FRSAD	WORK has as subject / is subject of RES (LRM-R12)
frbrer:P2031 / frbrer:P2032	WORK	has as subject	is subject of	CORPORATE BODY	Retained, merged into range RES, inverse name from FRSAD	WORK has as subject / is subject of RES (LRM-R12)
frbrer:P2035 / frbrer:P2036	WORK	has as subject	is subject of	WORK	Retained, merged into range RES, inverse name from FRSAD	WORK has as subject / is subject of RES (LRM-R12)
frbrer:P2037 / frbrer:P2038	WORK	has as subject	is subject of	EXPRESSION	Retained, merged into range RES, inverse name from FRSAD	WORK has as subject / is subject of RES (LRM-R12)
frbrer:P2039 / frbrer:P2040	WORK	has as subject	is subject of	MANIFESTATION	Retained, merged into range RES, inverse name from FRSAD	WORK has as subject / is subject of RES (LRM-R12)

D.1 Basic or Primary Relationships						
FR Namespace ID	Domain	Relationship Name	Inverse Name	Range	Result	IFLA LRM
frbrer:P2041 / frbrer:P2042	WORK	has as subject	is subject of	ITEM	Retained, merged into range RES, inverse name from FRSAD	WORK has as subject / is subject of RES (LRM-R12)
frsad:P2001 / frsad:P2002	WORK	has as subject	is subject of	THEMA	Retained, merged into range RES	WORK has as subject / is subject of RES (LRM-R12)
FRSAD 3.5 / FRAD Fig. 2						Core NOMEN relationships
frsad:P2003 / frsad:P2004	THEMA	has appellation	is appellation of	NOMEN	Retained, merged into domain RES	RES has appellation / is appellation of NOMEN (LRM-R13)
frad:P2013 / frad:P2014	Bibliographic entities	has appellation	is appellation of	NAME	Retained, merged into domain RES, range NOMEN	RES has appellation / is appellation of NOMEN (LRM-R13)
frad:P2015 / frad:P2016	Bibliographic entities	is assigned	is assigned to	IDENTIFIER	Merged with appellation relationship	RES has appellation / is appellation of NOMEN (LRM-R13)
frad:P2009 / frad:P2010	NAME	is basis for	is based on	CONTROLLED ACCESS POINT	Merged with general nomen-derivation relationship	NOMEN is derivation of / has derivation NOMEN (LRM-R17)
frad:P2011 / frad:P2012	IDENTIFIER	is basis for	is based on	CONTROLLED ACCESS POINT	Merged with general nomen-derivation relationship	NOMEN is derivation of / has derivation NOMEN (LRM-R17)
frad:P2005 / frad:P2006	CONTROLLED ACCESS POINT	is created by	creates	AGENCY	Generalized, merged with assignment relationship	AGENT assigned / was assigned by NOMEN (LRM-R14)
frad:P2007 / frad:P2008	CONTROLLED ACCESS POINT	is modified by	modifies	AGENCY	Merged with assignment relationship, as the modified CONTROLLED ACCESS POINT is a new <i>nomen</i>	AGENT assigned / was assigned by NOMEN (LRM-R14)
frad:P2003 / frad:P2004	CONTROLLED ACCESS POINT	is governed by	govern	RULES	Out of scope	--
frad:P2001 / frad:P2002	RULES	are applied by	applies	AGENCY	Out of scope	--

D. Relationships in FRBR, FRAD and their equivalent in IFLA LRM

D.2. WEMI Additional Relationships

- Relationship names and inverse names for FRAD relationships (given in bold) are taken from the OMR, only the relationship term is given in FRAD
- Definitions for FRBR relationships follow the wording used in the OMR description for the relationship name, sometimes abridged
- FRBR relationships from tables 5.1 (Work-to-Work), 5.4 (Expression-to-Expression, different Works), 5.6 (Expression-to-Work) are listed only once (as Work-to-Work), but all three pairs of FR namespace IDs are given

D.2 WEMI Additional Relationships								
FR Namespace ID	FRBR Table or FRAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
frad:P2029	FRAD 5.3.7	WORK	sequential relationship	has sequential relationship (reciprocal)	WORK	The relationship between one work and another of different content that is a successor or a predecessor of that work	Renamed, merged with FRBR successor	WORK precedes / succeeds WORK (LRM-R19)
frbrer:P2043 / frbrer:P2044 frbrer:P2067 / frbrer:P2068 frbrer:P2095 / frbrer:P2096	5.1 5.4 5.6	WORK	successor	has a successor / is a successor to	WORK	Relates a prior work to another work, the content of which represents a linear progression from that of the prior work	Renamed	WORK precedes / succeeds WORK (LRM-R19)
frad:P2030	FRAD 5.3.7	WORK	accompanying relationship (part-to-part)	has accompanying relationship (reciprocal)	WORK	The relationship between one work and another that is a supplement to that work or intended to complement or be a companion to another work	Merged with FRBR supplement and complement	WORK accompanies/complements / is accompanied/complemented by WORK (LRM-R20)
frbrer:P2045 / frbrer:P2046 frbrer:P2109 /	5.1 5.4	WORK	supplement	has a supplement / supplements	WORK	Relates a prior work to another work that is intended to be used in conjunction with the prior work	Merged with complement relationship	WORK accompanies/complements / is

D.2 WEMI Additional Relationships								
FR Namespace ID	FRBR Table or FRAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
frbrer:P2110 frbrer:P2097 / frbrer:P2098	5.6							accompanied/complemented by WORK (LRM-R20) (no consistent distinction found in the meanings of accompanying, complementary, or supplementary)
frbrer:P2047 / frbrer:P2048 frbrer:P2069 / frbrer:P2070 frbrer:P2099 / frbrer:P2100	5.1 5.4 5.6	WORK	complement	has a complement / complements	WORK	Relates a prior work to another work that is intended to be combined with or inserted into the prior work, but was not part of the original conception of the prior work	Merged with supplement relationship	WORK accompanies/complements / is accompanied/complemented by WORK (LRM-R20) (no consistent distinction found in the meanings of accompanying, complementary, or supplementary)
frad:P2035 / frad:P2036	FRAD 5.3.7	WORK	descriptive relationship	has descriptive work / is descriptive work of	WORK	The relationship between a target work or expression or manifestation or item and a new work that refers to that target as its subject (e.g., criticism, commentary, review, casebook, etc., and the object of that analysis)	Merged with subject relationship	WORK has as subject / is subject of RES (LRM-R12)
frbrer:P2049 / frbrer:P2050	5.1	WORK	summarization	has a summary / is a summary	WORK	Relates a prior work to another work that represents a brief	Merged with subject	WORK has as subject / is subject of RES (LRM-R12)

D.2 WEMI Additional Relationships								
FR Namespace ID	FRBR Table or FRAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
frbrer:P2071 / frbrer:P2072 frbrer:P2101 / frbrer:P2102	5.4 5.6			of		recapitulation of the content of the prior work. The modification of the content of the prior work must be sufficient in degree to warrant the summary work being considered as a new work autonomous with respect to the prior work	relationship	
frad:P2017 / frad:P2018	FRAD 5.3.7	WORK	derivative relationship	has derivative / is derivative of	WORK	The relationship comprises two types. It includes relationships between an original work and a broad range of modifications from the original, including variations or versions of that work, such as editions, revisions, translations, summaries, abstracts, and digests. It also includes new works that are adaptations or modifications that become new works but are based on an earlier work (improvisations, etc.); new works that are changes of genre (transformations, dramatizations, novelizations, etc.); and, new works based on the style or thematic content of other works (free translations, paraphrases, imitations, parodies, etc.).	Merged with transformation AND source for expression-derivation relationship	WORK is a transformation of / was transformed into WORK (LRM-R22) <i>OR</i> EXPRESSION is derivation of / has derivation EXPRESSION (LRM-R24) (While FRAD table 1, section 5.3.7, lists the relationship as entirely WORK-WORK, the description includes a sub-type of derivations that operate between <i>expressions</i> of the same <i>work</i>)
frbrer:P2051 / frbrer:P2052	5.1	WORK	adaptation	has an adaptation / is a	WORK	Relates a prior work to another work that represents a modification	Merged with transformation	WORK is a transformation of / was transformed into

D.2 WEMI Additional Relationships								
FR Namespace ID	FRBR Table or FRAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
frbrer:P2073 / frbrer:P2074 frbrer:P2103 / frbrer:P2104	5.4 5.6			adaptation of		of the content of the prior work for a purpose, use, or medium other than that for which it was originally intended. The modification of the content of the prior work must be sufficient in degree to warrant the adaptation work being considered as a new work autonomous with respect to the prior work	relationship	WORK (LRM-R22)
frbrer:P2053 / frbrer:P2054 frbrer:P2075 / frbrer:P2076 frbrer:P2105 / frbrer:P2106	5.1 5.4 5.6	WORK	transformation	has a transformation / is a transformation of	WORK	Relates a prior work to another work that represents a transformation of the content of the prior work in a different genre	Retained, modified inverse name to past tense	WORK is a transformation of / was transformed into WORK (LRM-R22)
frbrer:P2055 / frbrer:P2056 frbrer:P2077 / frbrer:P2078 frbrer:P2107 / frbrer:P2108	5.1 5.4 5.6	WORK	imitation	has a imitation / is an imitation of	WORK	Relates a prior work to another work that that copies the style of the content of the prior work	Merged with transformation relationship	WORK is a transformation of / was transformed into WORK (LRM-R22)
	New	WORK	inspiration	is inspiration for / is inspired by	WORK	This is the relationship between two <i>works</i> where the content of the first served as the source of ideas for the second	New (LRM-R21)	Distinct from transformation as the new <i>work</i> may not use any actual part of the original <i>work</i>
	New	EXPRESSION	derivation	is derivation of / has derivation	EXPRESSION	This relationship indicates that of two <i>expressions</i> of the same <i>work</i> , the second was used as the source	New (LRM-R24) Generalization	Can be sub-typed for significant specific modes of derivation among

D.2 WEMI Additional Relationships								
FR Namespace ID	FRBR Table or FRAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
						for the other	of several relationships, from FRAD derivative relationship	<i>expressions</i> of the same <i>work</i> (such as, abridgement, revision, translation, arrangement)
frbrer:P2059 / frbrer:P2060	5.3	EXPRESSION	abridgement	has an abridgement / is an abridgement of	EXPRESSION	Relates an expression to another expression of the same work that represents an abridgement, in which some content of the prior expression is removed, but the result does not alter the content to the extent that it becomes a new work	Merged into general expression derivation relationship	EXPRESSION is derivation of / has derivation EXPRESSION (LRM-R24) (sub-typed abridgement)
frbrer:P2061 / frbrer:P2062	5.3	EXPRESSION	revision	has a revision / is a revision of	EXPRESSION	Relates an expression to another expression of the same work that represents a revision, in which the intent is to alter or update the content of the prior expression, but without changing the content so much that it becomes a new work	Merged into general expression derivation relationship	EXPRESSION is derivation of / has derivation EXPRESSION (LRM-R24) (sub-typed revision)
frbrer:P2063 / frbrer:P2064	5.3	EXPRESSION	translation	has a translation / is a translation of	EXPRESSION	Relates an expression to another expression of the same work that represents a literal translation, in which the intent is to render the intellectual content of the previous expression as accurately as possible	Merged into general expression derivation relationship	EXPRESSION is derivation of / has derivation EXPRESSION (LRM-R24) (sub-typed translation)
frbrer:P2065 / frbrer:P2066	5.3	EXPRESSION	arrangement (music)	has an arrangement /	EXPRESSION	Relates an expression to another expression that represents an	Merged into general	EXPRESSION is derivation of / has derivation

D.2 WEMI Additional Relationships								
FR Namespace ID	FRBR Table or FRAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
				is an arrangement of		arrangement of the same musical composition work	expression derivation relationship	EXPRESSION (LRM-R24) (sub-typed musical arrangement)
	New	EXPRESSION	aggregation	was aggregated by / aggregated	EXPRESSION	This relationship indicates that a specific <i>expression</i> of a <i>work</i> was chosen as part of the plan of an aggregating <i>expression</i>	New (LRM-R25)	
frad:P2019	FRAD 5.3.7	MANIFESTATION	equivalence relationship	has equivalence relationship (reciprocal)	MANIFESTATION	Relationship between one manifestation and another that embodies the same intellectual or artistic content (work or work / expression), but are packaged or presented in different ways	Modelled via relationships to common <i>expression</i> , not directly	EXPRESSION is embodied in / embodies MANIFESTATION (LRM-R3) (While FRAD table 1, section 5.3.7, lists the relationship as WORK-WORK, definition is for <i>manifestation</i> or <i>item</i> equivalence)
frbrer:P2081 / frbrer:P2082	5.7	MANIFESTATION	reproduction	has a reproduction / is a reproduction of	MANIFESTATION	Relates a manifestation to another manifestation, usually of the same expression, that represents the same intellectual or artistic content as the prior manifestation. The reproduction manifestation may or may not replicate the look and feel or other physical characteristics of the prior manifestation	Retained	MANIFESTATION has reproduction / is reproduction of MANIFESTATION (LRM-R27)
frbrer:P2083 (reciprocal)	5.7	MANIFESTATION	alternate	has an alternate / is an alternate	MANIFESTATION	Relates a manifestation to another manifestation, usually of the same	Retained, made reciprocal	MANIFESTATION has alternate MANIFESTATION

D.2 WEMI Additional Relationships								
FR Namespace ID	FRBR Table or FRAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
				of		expression, that effectively serves as an alternate manifestation		(reciprocal) (LRM-R29)
frbrer:P2093 / frbrer:P2094	5.9	ITEM	reproduction	has a reproduction / is a reproduction of	MANIFESTATION	Relates an item to a manifestation that has been derived in some way from the prior item. There can be varying levels of fidelity of the reproduction manifestation to the prior item	Retained	ITEM has reproduction / is reproduction of MANIFESTATION (LRM-R28)
frad:P2037	FRAD 5.3.7	ITEM	equivalence relationship	has equivalence relationship (reciprocal)	ITEM	Relationship between one item and another that embodies the same intellectual or artistic content (work or work/expression), but are packaged or presented in different ways	Modelled via relationships to common <i>manifestation</i> , or common <i>expression</i> , not directly	MANIFESTATION is exemplified by / exemplifies ITEM (LRM-R4) (While FRAD table 1, section 5.3.7, lists the relationship as WORK-WORK, definition is for <i>manifestation</i> or <i>item</i> equivalence)
frbrer:P2089 / frbrer:P2090	5.10	ITEM	reproduction	has a reproduction / is a reproduction of	ITEM	Relates an item to another item that has been derived in some way from the prior item. There can be varying levels of fidelity of the reproduction item to the prior item. The reproduction item must replicate the type of carrier and other physical characteristics of the prior item	Deprecated, reproduction always creates a new <i>manifestation</i> , even when that consists of a single <i>item</i>	--
frbrer:P2087 / frbrer:P2088	5.10	ITEM	reconfiguration	has reconfiguration	ITEM	Relates an item to another item that is the result of a change to the prior	Modelled through the	ITEM was modified by / modified AGENT (LRM-

D.2 WEMI Additional Relationships								
FR Namespace ID	FRBR Table or FRAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
				/ is a reconfiguration of		item. The reconfiguration item may be the result of changes to more than one prior item	<i>agent</i> whose action changes the <i>item(s)</i>	R11) (A single <i>item</i> exists with before and after states)
(not declared)	FRAD 5.3.7	WORK	whole/part relationship	has part / is part of	WORK	The relationship between a work and one or more works that form part of that larger work	Retained, merged with FRBR	WORK has part / is part of WORK (LRM-R18)
frbrer:P2057 / frbrer:P2058	5.2	WORK	whole/part	has part / is part of	WORK	Relates a work to another work that is a component of the work	Retained, merged with FRAD	WORK has part / is part of WORK (LRM-R18)
frbrer:P2079 / frbrer:P2080	5.5	EXPRESSION	whole/part	has part / is part of	EXPRESSION	Relates an expression to another expression that is a component of the expression	Retained	EXPRESSION has part / is part of EXPRESSION (LRM-R23)
frbrer:P2085 / frbrer:P2086	5.8	MANIFESTATION	whole/part	has part / is part of	MANIFESTATION	Relates a manifestation to another manifestation that is a component of the manifestation	Retained	MANIFESTATION has part / is part of MANIFESTATION (LRM-R26)
frbrer:P2091 / frbrer:P2092	5.11	ITEM	whole/part	has part / is part of	ITEM	Relates an item to another item that is a component of the item	Deprecated, generally <i>items</i> do not have parts that are themselves <i>items</i>	For <i>items</i> of <i>manifestations</i> with parts, prefer longer path through <i>manifestation</i> whole/part (LRM-R26)
frad:P2031	FRAD 5.3.7	WORK	shared characteristic relationship	has shared characteristic (reciprocal)	WORK	The relationship between two works that have some characteristic in common, apart from any of the other relationships	Deprecated, not modelled directly	The direct (short-cut) relationship is not needed, collocation is modelled by common values for any

D.2 WEMI Additional Relationships								
FR Namespace ID	FRBR Table or FRAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
								attribute, else any relationship involving the same instance of an entity
frad:P2032	FRAD 5.3.7	EXPRESSION	shared characteristic relationship	has shared characteristic (reciprocal)	EXPRESSION	The relationship between two expressions that have some characteristic in common, apart from any of the other relationships	Deprecated, not modelled directly	The direct (short-cut) relationship is not needed, collocation is modelled by common values for any attribute, else any relationship involving the same instance of an entity
frad:P2033	FRAD 5.3.7	MANIFESTATION	shared characteristic relationship	has shared characteristic (reciprocal)	MANIFESTATION	The relationship between two manifestations that have some characteristic in common, apart from any of the other relationships	Deprecated, not modelled directly	The direct (short-cut) relationship is not needed, collocation is modelled by common values for any attribute, else any relationship involving the same instance of an entity
frad:P2034	FRAD 5.3.7	ITEM	shared characteristic relationship	has shared characteristic (reciprocal)	ITEM	The relationship between two items that have some characteristic in common, apart from any of the other relationships	Deprecated, not modelled directly	The direct (short-cut) relationship is not needed, collocation is modelled by common values for any attribute, else any relationship involving the same instance of an entity

D. Relationships in FRAD, FRSAD and their equivalent in IFLA LRM

D.3. Additional Relationships

- Relationship names and inverse names for FRAD relationships (given in bold) are taken from the OMR, only the relationship term is given in FRAD
- FRSAD additional relationships are not declared in the OMR, relationship names and inverse names are not official

D.3 FRAD and FRSAD Additional Relationships								
FR Namespace ID	FRAD or FRSAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
	FRAD 5.3 (Table 1)							
frad:P4035 / frad:P4036	5.3.1	PERSON	pseudonymous	has pseudonymous persona / is pseudonymous persona of	PERSON	The relationship between a “real” person (i.e., an individual) and a persona(ae) or identity adopted by that individual through the use of one or more pseudonyms.	Given the LRM definition of <i>person</i> , between a <i>person</i> and <i>nomen(s)</i>	RES has appellation / is appellation of NOMEN (LRM-R13) (several <i>nomens</i> for same <i>person</i>), with distinct values for the <i>context of use</i> attribute of the <i>nomen</i>
frad:P4037 / frad:P4038	5.3.1	PERSON	secular	has secular identity / is secular identity of	PERSON	The relationship between a person and an identity that person assumes in a secular capacity.	Given the LRM definition of <i>person</i> , between a <i>person</i> and <i>nomen(s)</i>	RES has appellation / is appellation of NOMEN (LRM-R13) (several <i>nomens</i> for same <i>person</i>), with distinct values for the <i>context of use</i> attribute of the <i>nomen</i>
frad:P4039 / frad:P4040	5.3.1	PERSON	religious	has religious identity / is religious identity of	PERSON	The relationship between a person and an identity that person assumes in a religious capacity.	Given the LRM definition of <i>person</i> , between a <i>person</i> and <i>nomen(s)</i>	RES has appellation / is appellation of NOMEN (LRM-R13) (several <i>nomens</i> for same <i>person</i>), with distinct values for the <i>context of use</i> attribute of

D.3 FRAD and FRSAD Additional Relationships								
FR Namespace ID	FRAD or FRSAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
								the <i>nomen</i>
frad:P4041 / frad:P4042	5.3.1	PERSON	official	has official identity / is official identity of	PERSON	The relationship between a person and an identity that person assumes in an official capacity.	membership relationship OR appellation relationship	membership relationship (LRM-R30) between <i>person</i> and a <i>collective agent</i> consisting of office holders of the specific official role OR RES has appellation / is appellation of NOMEN (LRM-R13) (when the role results in a distinct name), with distinct values for the <i>context of use</i> attribute of the <i>nomen</i>
frad:P4043 / frad:P4044	5.3.1	PERSON	attributive	has works attributed to / has attributed works from	PERSON	The relationship between one person and another person (either a “real” individual or a persona) or identity to whom one or more works by the former have been attributed, either erroneously or falsely.	Modelled via creation relationship to a <i>work</i> , not directly as a person-person relationship	two <i>created by</i> relationships between <i>persons</i> and a given <i>work</i> , one which is with an actual creator and the other which is an error (or the best information available at one time). No actual relationship holds between the <i>persons</i> or the <i>nomens</i>
frad:P4045	5.3.1	PERSON	collaborative	has collaborative relationship (reciprocal)	PERSON	The relationship between two or more persons (i.e., one or more individuals)	Modelled via creation relationship to a	The direct (short-cut) relationship between the <i>persons</i> is not needed,

D.3 FRAD and FRSAD Additional Relationships								
FR Namespace ID	FRAD or FRSAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
						who collaborate in intellectual or artistic endeavours.	<i>work</i> , not directly as a person-person relationship	collocation of the <i>persons</i> is modelled by relating each of them to the co-created <i>work</i> . NB: The special case of a joint pseudonym is modelled using the appellation relationship (LRM-R13), 2+ <i>persons</i> acting as one <i>collective agent</i> known through a single <i>nomen</i> , each <i>person</i> is a member (LRM-R30) of this <i>collective agent</i>
frad:P4050	5.3.1	PERSON	sibling	has sibling (reciprocal)	PERSON	The relationship between two persons who have the same “parent(s)” (in an actual family or within a group).	Deprecated, direct (short-cut) relationship between the <i>persons</i> is not needed. Modelled via agent-membership relationship	AGENT (<i>person</i>) is member of / has member COLLECTIVE AGENT (of subclass family) (LRM-R30) (if bibliographically relevant, sub-type membership by type of relationship)
frad:P4051 / frad:P4049	5.3.1	PERSON	parent / child	has parent / has child	PERSON	The relationship between two persons, one of whom is a “parent” or “child” of the other.	Deprecated, direct (short-cut) relationship between the <i>persons</i> is not needed. Modelled via agent-	AGENT (<i>person</i>) is member of / has member COLLECTIVE AGENT (of subclass family) (LRM-R30) (if bibliographically relevant, sub-type

D.3 FRAD and FRSAD Additional Relationships								
FR Namespace ID	FRAD or FRSAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
							membership relationship	membership by type of relationship)
frad:P4005 / frad:P4004	5.3.2	PERSON	membership	is member of / has member	FAMILY	The relationship between a person and a family of which the person is a member.	Retained, merged into domain AGENT, range COLLECTIVE AGENT	AGENT (<i>person</i>) is member of / has member COLLECTIVE AGENT of subclass family) (LRM-R30)
frad:P4007 / frad:P4006	5.3.3	PERSON	membership	is member of / has member	CORPORATE BODY	The relationship between a person and a corporate body in which the person is a member or with which the person is affiliated.	Retained, merged into domain AGENT, range COLLECTIVE AGENT	AGENT (<i>person</i>) is member of / has member COLLECTIVE AGENT (of subclass corporate body) (LRM-R30)
frad:P4008 / frad:P4009	5.3.4	FAMILY	genealogical	has (descendent) genealogical relationship / has (predecessor) genealogical relationship	FAMILY	The relationship between one family and another that descended from the first or is the predecessor to the other.	Merged with sequential relationship for entity <i>collective agent</i>	COLLECTIVE AGENT precedes / succeeds COLLECTIVE AGENT (LRM-R32)
frad:P4010 / frad:P4011	5.3.5	FAMILY	founding	is founder of / has founder	CORPORATE BODY	The relationship between a family and a corporate body which the family created.	Not included	An application can declare a general <i>agent</i> is founder of <i>collective agent</i> relationship, if deemed significant
frad:P4012 / frad:P4013	5.3.5	FAMILY	ownership	is owner of / has owner	CORPORATE BODY	The relationship between a family and a corporate body which the family owns.	Not included	An application can declare a general <i>agent</i> is owner of <i>collective agent</i> (of subclass corporate body) relationship, if deemed

D.3 FRAD and FRSAD Additional Relationships								
FR Namespace ID	FRAD or FRSAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
								significant
frad:P4014 / frad:P4015	5.3.6	CORPORATE BODY	hierarchical	has subordinate / is subordinate of	CORPORATE BODY	The relationship between two corporate bodies, one of which is subordinate to the other (within a corporate hierarchy, etc.)	Generalized to whole-part, domain and range COLLECTIVE AGENT	COLLECTIVE AGENT has part / is part of COLLECTIVE AGENT (LRM-R31)
frad:P4016 / frad:P4017	5.3.6	CORPORATE BODY	sequential	is predecessor of / is predecessor of	CORPORATE BODY	The relationship between two or more corporate bodies that follow the first in order or time (e.g., predecessor / successor, splits, mergers, subsequent meetings / conferences, etc.).	Generalized to domain and range COLLECTIVE AGENT	COLLECTIVE AGENT precedes / succeeds COLLECTIVE AGENT (LRM-R32)
	FRAD 5.4 (Table 2)							
frad:P4021	5.4.1	NAME (of person)	earlier name	has earlier name	NAME (of person)	The relationship between a name of a person and a name that person used at an earlier stage in life.	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) (each <i>nomen</i> related to a different <i>time-span</i>)
frad:P4022	5.4.1	NAME (of person)	later name	has later name	NAME (of person)	The relationship between a name of a person and a name that person used at a later stage in life.	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) (each <i>nomen</i> related to a different <i>time-span</i>)
frad:P4034	5.4.1	NAME (of person)	alternative linguistic form	has alternative linguistic form (reciprocal)	NAME (of person)	The relationship between a name of a person and an alternative linguistic form of name by which that	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) may be sub-typed for specific kinds of

D.3 FRAD and FRSAD Additional Relationships								
FR Namespace ID	FRAD or FRSAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
						person is known. This includes translations of a name into other languages.		equivalence (different language)
frad:P4031	5.4.1	NAME (of person)	other variant name	has other variant name (reciprocal)	NAME (of person)	The relationship between a name of a person and several other variations on a name, such as orthographic relationships, word order relationships (inversions, permutations), alternative name / synonym relationships (bynames, nicknames, courtesy names).	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) no specific sub-type
frad:P4024	5.4.2	NAME (of family)	alternative linguistic form	has alternative linguistic form (reciprocal)	NAME (of family)	The relationship between a name of a family and an alternative linguistic form of name by which that family is known.	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) may be sub-typed for specific kinds of equivalence (different language)
frad:P4026	5.4.3	NAME (of corporate body)	expanded name	has expanded name	NAME (of corporate body)	The relationship between a name of a corporate body and the expanded form of name by which that body is known.	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) may be sub-typed for specific kinds of equivalence (expanded form)
frad:P4027	5.4.3	NAME (of corporate body)	acronym / initials / abbreviations	has acronym or initials or abbreviation	NAME (of corporate body)	The relationship between a name of a corporate body and an acronym or initials	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) may be sub-typed for

D.3 FRAD and FRSAD Additional Relationships								
FR Namespace ID	FRAD or FRSAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
						or an abbreviation by which that body is known.		specific kinds of equivalence (reduced form)
frad:P4025	5.4.3	NAME (of corporate body)	alternative linguistic form	has alternative linguistic form (reciprocal)	NAME (of corporate body)	The relationship between a name of a corporate body and an alternative linguistic form of name by which that body is known. This includes translations of the name for the corporate body.	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) may be sub-typed for specific kinds of equivalence (different language)
frad:P4032	5.4.3	NAME (of corporate body)	other variant name	has other variant name (reciprocal)	NAME (of corporate body)	The relationship between a name of a corporate body and a name by which that body is known, such as orthographic relationships, word order relationships (inversions, permutations).	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) no specific sub-type
frad:P4028	5.4.4	NAME (of work)	alternative linguistic form	has alternative linguistic form (reciprocal)	NAME (of work)	The relationship between a name of a work and an alternative linguistic form of name by which that work is known.	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) may be sub-typed for specific kinds of equivalence (different language)
frad:P4029 / frad:P4030	5.4.4	NAME (of work)	conventional name	has conventional name / is conventional name of	NAME (of work)	The relationship between a name of a work and a conventional name by which that work is known.	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) may be sub-typed for specific kinds of equivalence (conventional name)

D.3 FRAD and FRSAD Additional Relationships								
FR Namespace ID	FRAD or FRSAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
frad:P4033	5.4.4	NAME (of work)	other variant name	has other variant name (reciprocal)	NAME (of work)	The relationship between a name of a work and a name by which that work is known, such as orthographic relationships, word order relationships (inversions, permutations), variant title relationships.	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) no specific sub-type
	FRAD 5.5 (Table 3)							
frad:P4001	5.5	CONTROLLED ACCESS POINT	parallel language	has parallel language form (reciprocal)	CONTROLLED ACCESS POINT	The relationship between two or more controlled access points that are established as parallel language forms of access point for the authorized forms of name for the same entity.	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) may be sub-typed for specific kinds of equivalence (different language)
frad:P4002	5.5	CONTROLLED ACCESS POINT	alternate script	has alternate script form (reciprocal)	CONTROLLED ACCESS POINT	The relationship between two or more controlled access points that are established as alternate script forms of the access point for the authorized forms of name for the same entity.	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) may be sub-typed for specific kinds of equivalence (alternate script)
frad:P4003	5.5	CONTROLLED ACCESS POINT	different rules	has different rules form (reciprocal)	CONTROLLED ACCESS POINT	The relationship between two or more controlled access points for the	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) may be sub-typed for

D.3 FRAD and FRSAD Additional Relationships								
FR Namespace ID	FRAD or FRSAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
						authorized forms of name for the same entity that have been established according to different sets of rules.		specific kinds of equivalence (different rules)
frad:P4018	5.5	CONTROLLED ACCESS POINT	controlled access point / corresponding subject term or classification number	has corresponding subject term or classification number (no inverse defined)	CONTROLLED ACCESS POINT	The relationship between the controlled access point for the name of an entity and a subject term in a controlled vocabulary, and/or a classification number for that entity. Here the subject term and the classification number may also be viewed as parallel names / identifiers for the name of the same entity.	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) may be sub-typed for specific kinds of equivalence (different rules / <i>scheme</i>)
frad:P4019	5.5	CONTROLLED ACCESS POINT	controlled access point / identifier	has related identifier (no inverse defined)	CONTROLLED ACCESS POINT (NB: should be IDENTIFIER)	The relationship between the controlled access point for an entity expressed as an access point based on the authorized or variant form of name of the entity as related to an identifier for the entity.	Merged with nomen-equivalence relationship	NOMEN is equivalent to NOMEN (LRM-R15) may be sub-typed for specific kinds of equivalence
	FRSAD							
	5.3.1	THEMA	hierarchical		THEMA	Hierarchical relationships reveal degrees or levels of	Deprecated, not an explicitly declared	In FRSAD, generic, whole-part, instance are specific

D.3 FRAD and FRSAD Additional Relationships								
FR Namespace ID	FRAD or FRSAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
						superordination and subordination, where the superordinate term represents a class or a whole, and subordinate terms refer to its members or parts.	relationship in FRSAD	sub-types of hierarchical. “Other hierarchical” (5.3.1.5) indicates that these three are not an exhaustive sub-typing of hierarchical relationships
	5.3.1.1	THEMA	generic		THEMA	The generic relationship is the logical relationship of inclusion. The primary function of the hierarchical relationship is to convey the same concept, but at different levels of specificity	Deprecated, not an explicitly declared relationship in FRSAD	--
	5.3.1.2	THEMA	whole-part		THEMA	The whole-part relationship covers situations where one concept is inherently included in another, regardless of context, so that concepts can be organized into hierarchies (with the “whole” treated as a broader term).	Deprecated, not an explicitly declared relationship in FRSAD	--
	5.3.1.3	THEMA	instance		THEMA	The instance relationship identifies the link between a general class of things or	Deprecated, not an explicitly declared relationship in	--

D.3 FRAD and FRSAD Additional Relationships								
FR Namespace ID	FRAD or FRSAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
						events, expressed by a common noun, and an individual instance of that category, expressed by a proper noun.	FRSAD	
	5.3.2	THEMA	associative	is associated with (reciprocal)	THEMA	Associative relationships cover affiliations between pairs of themas that are not related hierarchically yet are semantically or conceptually connected and co-occurring.	Retained and generalized to domain and range RES	RES is associated with RES (LRM-R1)
	New	RES	associative	is associated with (reciprocal)	RES	This relationship links two <i>res</i> that have an association of any kind	New (LRM-R1)	High-level relationship between <i>res</i> , would be typed according to the needs of the specific implementation
	New	RES	associative	has association with / is associated with	PLACE	This relationship links any entity with a given extent of space	New (LRM-33)	Sub-relationship of RES-RES associative, which should in turn be refined with sub-types
	New	RES	associative	has association with / is associated with	TIME-SPAN	This relationship links any entity with a temporal extent	New (LRM-35)	Sub-relationship of RES-RES associative, which should in turn be refined with sub-types
	New	PLACE	whole-part	has part / is part of	PLACE	This is a relationship between two <i>places</i> where one is a component of the	New (LRM-34)	

D.3 FRAD and FRSAD Additional Relationships								
FR Namespace ID	FRAD or FRSAD Section	Domain	Relationship Term	Name / Inverse Name	Range	Definition	Result	IFLA LRM
						other		
	New	TIME-SPAN	whole-part	has part / is part of	TIME-SPAN	This is a relationship between two <i>time-spans</i> where one is a component of the other	New (LRM-36)	
	5.4.1	NOMEN	equivalence	is equivalent to (reciprocal)	NOMEN	Two nomens are equivalent if they are appellations of the same thema.	Retained, relationship and inverse names assigned	NOMEN is equivalent to NOMEN (LRM-R15) (a short-cut for two appellation relationships for a single <i>res</i> , may be sub-typed for specific reasons for equivalence)
	5.4.2	NOMEN	whole-part	is part of / has part	NOMEN	A nomen may have components (parts). The composition of such a nomen may be governed by rules, for example, the citation order in a faceted classification scheme or the order of subdivisions in a subject heading system. The components may be nomens on their own. In such cases this is a whole-part relationship between nomens.	Retained, relationship and inverse names assigned	NOMEN has part / is part of NOMEN (LRM-R16) (Applies when a <i>nomen</i> is constructed using a component or components that are themselves <i>nomens</i>)

