bibliotek-o Relations Pattern

NOTE: the following represents the direction taken by the LD4L Labs and LD4P Ontology Group in the development of bibliotek-o and may not be fully formed. This pattern document was used internally to define a direction and is shared with the intention of contextualizing a pattern found within the ontology; terms specified below may not fully align to the ontology as published. Further, discussion of BIBFRAME 2.0 may be out-of-date.

2016 December

This paper examines the properties that describe content relationships between work and/or instance entities in BIBFRAME, including derivative, equivalent, and referential relationships. Several of these properties have direct counterparts in RDA. In the case of derivative and equivalence relationships this paper recommends the use of the unconstrained RDA properties, where RDA provides for a set of more granular subproperties. However, we recommend bf:references/bf:referencedBy over rdau:P60848 ("has referential relationship with"). The latter property is symmetric, and we see clear use cases (such as tracing a path of intellectual influence) where symmetry is not desirable.

We will use BF 2.0 properties except for relationships that we can express with rdau:P60250 ("is derivative") and rdau:P60191 ("has equivalent") (and their subproperties) and proposed properties for relating events and works.

Accompanying, sequential, and whole/part relationships will be addressed in other discussion papers and/or future work.
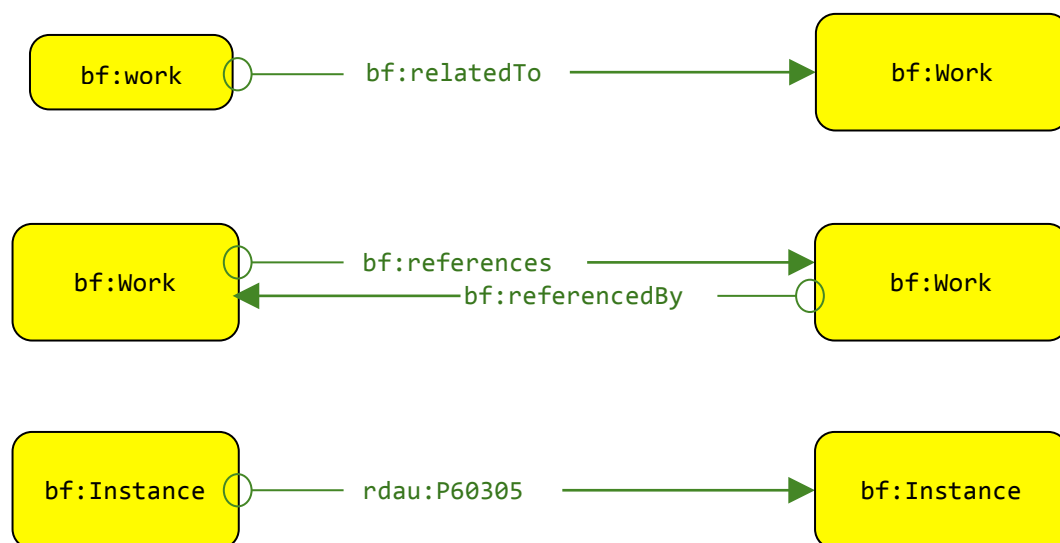
Overview

- Use bf:relatedTo subproperties bf:dataSource, bf:expressionOf, bf:hasExpression, bf:otherEdition, bf:referencedBy, and bf:references.
  - See [Serials and Other Multi-Part Works](#) paper for separate discussion of bf:relatedTo subproperties bf:hasPart, bf:partOf, bf:precededBy,bf:succeededBy, and their subproperties.
- Use [rdau:P60191](#) ("has equivalent") in lieu of bf:hasEquivalent.
- However, use bf:references/bf:referencedBy rather than rdau:P60848 ("has referential resource relationship with").
- Describe other relationships with rdau properties ([rdau:P60250](#) ("is derivative"), its inverse, and their subproperties) and recommend reuse to LC.
  - Use these in lieu of bf:relatedTo subproperties bf:hasDerivative, bf:derivativeOf, bf:hasReproduction, bf:originalVersion, bf:originalVersionOf, bf:otherPhysicalFormat, bf:reproductionOf, bf:translation, bf:translationOf.
  - Recommend to RDA governance body that the label for rdau:P60250 be changed from "is derivative" to "has derivative".

Considerations for future work

- Reuse of dcterms:relation in lieu of bf:relatedTo.
- Possible alignment to RDA relationship properties for bf:referencedBy and bf:references.
- Discussion of work-to-event relationships, including bf:relatedTo subproperties bf:eventContentOf and bf:eventContent.
- Discussion of bf:relatedTo subproperties bf:hasInstance, bf:instanceOf, bf:hasItem, and bf:itemOf.
- Discussion of bf:relatedTo subproperties bf:accompaniedBy and bf:accompanies (and their respective subproperties).

Approach for Moving Forward

Involved Properties

bf:dataSource

Label: Data source
URI: http://id.loc.gov/ontologies/bibframe/dataSource
Definition: Resource that is a data source to which the described resource is related. It may contain information about other files, printed sources, or collection procedures.
SubProperty Of: http://id.loc.gov/ontologies/bibframe/relatedTo
Used with:

- http://id.loc.gov/ontologies/bibframe/Work
- http://id.loc.gov/ontologies/bibframe/Instance

bf:expressionOf

Label: Expression of

URI: http://id.loc.gov/ontologies/bibframe/expressionOf
Definition: Work that the described Work is an expression of. For use to connect Works under FRBR/RDA rules.
SubProperty Of: http://id.loc.gov/ontologies/bibframe/relatedTo
Used with: http://id.loc.gov/ontologies/bibframe/Work

bf:otherEdition

Label: Other edition
URI: http://id.loc.gov/ontologies/bibframe/otherEdition
Definition: Resource has other available editions, for example simultaneously published language editions or reprints.
SubClass Of: http://id.loc.gov/ontologies/bibframe/derivativeOf
Used with:
- http://id.loc.gov/ontologies/bibframe/Work
- http://id.loc.gov/ontologies/bibframe/Instance

bf:referencedBy

Label: Referenced by
URI: http://id.loc.gov/ontologies/bibframe/referencedBy
Definition: Resource that references the described resource
SubProperty Of: http://id.loc.gov/ontologies/bibframe/relatedTo
Used with:
- http://id.loc.gov/ontologies/bibframe/Work
- http://id.loc.gov/ontologies/bibframe/Instance
- http://id.loc.gov/ontologies/bibframe/Item

bf:references

Label: References
URI: http://id.loc.gov/ontologies/bibframe/references
Definition: Resource that is referenced by the described resource.
SubProperty Of: http://id.loc.gov/ontologies/bibframe/relatedTo
Used with:
- http://id.loc.gov/ontologies/bibframe/Work
- http://id.loc.gov/ontologies/bibframe/Instance
- http://id.loc.gov/ontologies/bibframe/Item

rdau:P60191

Label: has equivalent
URI: http://rdaregistry.info/Elements/u/P60191
Definition: Relates a resource to a resource that carries the same content as the resource.
Subproperties:
- rdau:P60195 "is also issued as"

- rdau:P60197 "is mirror site"
- rdau:P60272 "is reproduced as"
- rdau:P60297 "is reproduction of"
- rdau:P40031 "is equivalent (item)"
- rdau:P30024 "has equivalent (manifestation)"

rdau:P60250

Label: is derivative
URI: http://rdaregistry.info/Elements/u/P60250
Definition: Relates a resource to a resource that is a modification of a source resource.
Subproperties:
- rdau:P60115 "is modified by variation as"
- rdau:P60120 "is remade as"
- rdau:P60121 "is set to music as"
- rdau:P60177 "is abstracted in"
- rdau:P60178 "is indexed in"
- rdau:P60180 "is adapted as choreography"
- rdau:P60189 "is freely translated as"
- rdau:P60203 "is abstracted as"
- rdau:P60205 "is summarized as"
- rdau:P60210 "is adapted as libretto"
- rdau:P60214 "is imitated as"
- rdau:P60216 "is expanded as"
- rdau:P60245 "is revised as"
- rdau:P60260 "is adapted as"
- rdau:P60273 "is paraphrased as"
- rdau:P60274 "is arranged as"
- rdau:P60275 "is abridged as"
- rdau:P60279 "is digested as"
- rdau:P60280 "is translated as"
- rdae:P20203 "is derivative (expression)"
- rdau:P60831 "is adapted as oratorio"
- rdau:P60833 "is inspiration for"

rdau:P60305

Label: is based on
URI: http://rdaregistry.info/Elements/u/P60305
Definition: Relates a resource to a resource used as the source for a derivative resource.
Subproperties:
- rdau:P60114 "is variations based on"
- rdau:P60223 "is abridgement of"
- rdau:P60224 "is abstract of"
- rdau:P60238 "is digest of"
- rdau:P60241 "is adaptation of"

- rdau:P60242 "is arrangement of"
- rdau:P60243 "is free translation of"
- rdau:P60244 "is translation of"
- rdau:P60266 "is musical setting of"
- rdau:P60289 "is summary of"
- rdau:P60293 "is choreographic adaptation of"
- rdau:P60294 "is expanded version of"
- rdau:P60295 "is remake of"
- rdau:P60296 "is paraphrase of"
- rdau:P60303 "is revision of"
- rdau:P60304 "is libretto based on"
- rdau:P60308 "is abstracts for"
- rdau:P60309 "is indexing for"
- rdau:P60311 "is imitation of"
- rdae:P20204 "is based on (expression)"
- rdau:P60830 "is oratorio adaptation of"
- rdau:P60832 "is inspired by"

Side by Side Examples of Pattern

```
# BIBFRAME2
_:work2 a bf:Work ;
  bf:derivativeOf _:work1 ;
  bf:hasInstance _:inst1 .

_:inst1 a bf:Instance ;
  bf:otherEdition :inst2 .

_:work1 a bf:Work ;
  bf:eventContent _:event1 .
```
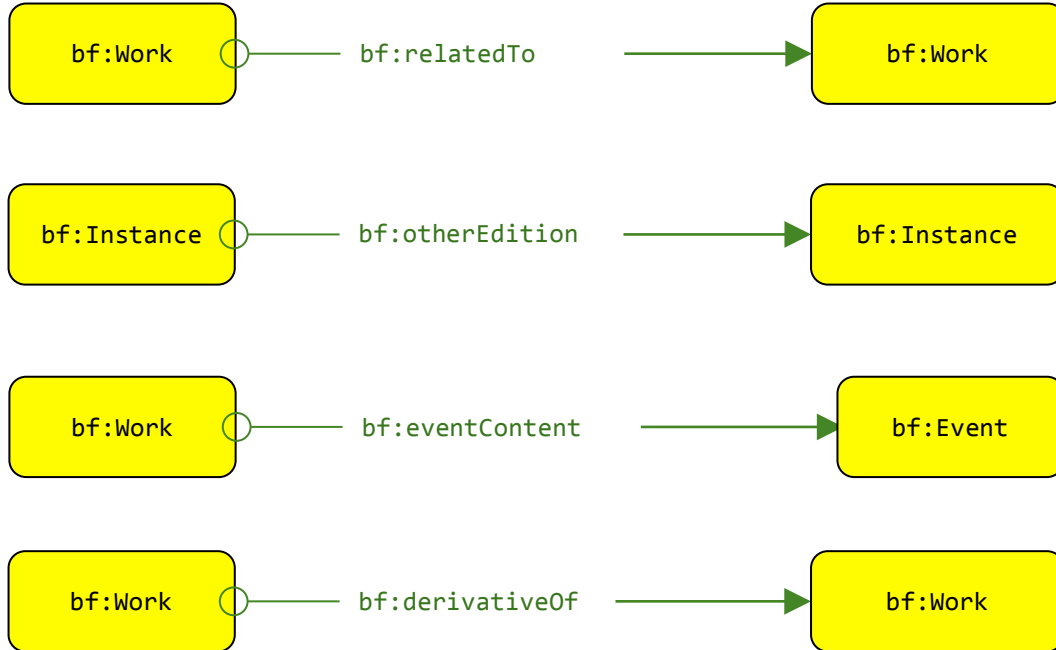
```
# bibliotek-o
_:work2 a bf:Work ;
  rdau:P60305 _:work1 ;
  bf:hasInstance _:inst1 .

_:inst1 a bf:Instance ;
  bf:otherEdition :inst2 .

_:work1 a bf:Work ;
  bib:recordingOf _:event1 .
```

BF2 Approach to Relations

bf:Work	— bf:relatedTo →	bf:Work

bf:Instance	— bf:otherEdition →	bf:Instance

bf:Work	— bf:eventContent →	bf:Event

bf:Work	— bf:derivativeOf →	bf:Work

Involved Properties

dataSource

Label: Data source
URI: http://id.loc.gov/ontologies/bibframe/dataSource
Definition: Resource that is a data source to which the described resource is related. It may contain information about other files, printed sources, or collection procedures.
SubProperty Of: http://id.loc.gov/ontologies/bibframe/relatedTo
Used with:
- http://id.loc.gov/ontologies/bibframe/Work
- http://id.loc.gov/ontologies/bibframe/Instance

derivativeOf

Label: Is derivative of
URI: http://id.loc.gov/ontologies/bibframe/derivativeOf
Definition: Source work from which the described resource is derived.
SubProperty Of: http://id.loc.gov/ontologies/bibframe/relatedTo
Used with:
- http://id.loc.gov/ontologies/bibframe/Work
- http://id.loc.gov/ontologies/bibframe/Instance

SubProperties:
- http://id.loc.gov/ontologies/bibframe/translation
- http://id.loc.gov/ontologies/bibframe/originalVersion
- http://id.loc.gov/ontologies/bibframe/otherEdition

eventContent

Label: Event content
URI: http://id.loc.gov/ontologies/bibframe/eventContent
Definition: Work whose content is the described event.
SubProperty Of: http://id.loc.gov/ontologies/bibframe/relatedTo
Used with: http://id.loc.gov/ontologies/bibframe/Event

eventContentOf

Label: Has event content
URI: http://id.loc.gov/ontologies/bibframe/eventContent
Definition: Event that is the content of the described work.
SubProperty Of: http://id.loc.gov/ontologies/bibframe/relatedTo
Used with: http://id.loc.gov/ontologies/bibframe/Work

expressionOf

Label: Expression of
URI: http://id.loc.gov/ontologies/bibframe/expressionOf
Definition: Work that the described Work is an expression of. For use to connect Works under FRBR/RDA rules.
SubProperty Of: http://id.loc.gov/ontologies/bibframe/relatedTo
Used with: http://id.loc.gov/ontologies/bibframe/Work

hasDerivative

Label: Has derivative
URI: http://id.loc.gov/ontologies/bibframe/hasDerivative
Definition: Resource that is a modification of the described work.
SubProperty Of: http://id.loc.gov/ontologies/bibframe/relatedTo
Used with:
- http://id.loc.gov/ontologies/bibframe/Work
- http://id.loc.gov/ontologies/bibframe/Instance

SubProperties:
- http://id.loc.gov/ontologies/bibframe/translationOf
- http://id.loc.gov/ontologies/bibframe/originalVersionOf
- http://id.loc.gov/ontologies/bibframe/otherEditionOf

hasEquivalent

Label: Equivalence
URI: http://id.loc.gov/ontologies/bibframe/hasEquivalent
Definition: Resource embodies the same content as the described resource.
SubProperty Of: http://id.loc.gov/ontologies/bibframe/relatedTo
Used with:
- http://id.loc.gov/ontologies/bibframe/Work
- http://id.loc.gov/ontologies/bibframe/Instance

- http://id.loc.gov/ontologies/bibframe/Item

SubProperties:

- http://id.loc.gov/ontologies/bibframe/otherPhysicalFormat
- http://id.loc.gov/ontologies/bibframe/hasReproduction
- http://id.loc.gov/ontologies/bibframe/reproductionOf

hasReproduction

Label: Reproduced as
URI: http://id.loc.gov/ontologies/bibframe/hasReproduction
Definition: Resource that reproduces another Resource.
SubProperty Of: http://id.loc.gov/ontologies/bibframe/relatedTo
Used with:

- http://id.loc.gov/ontologies/bibframe/Instance

otherEdition

Label: Other edition
URI: http://id.loc.gov/ontologies/bibframe/otherEdition
Definition: Resource has other available editions, for example simultaneously published language editions or reprints.
SubClass Of: http://id.loc.gov/ontologies/bibframe/derivativeOf
Used with:

- http://id.loc.gov/ontologies/bibframe/Work
- http://id.loc.gov/ontologies/bibframe/Instance

referencedBy

Label: Referenced by
URI: http://id.loc.gov/ontologies/bibframe/referencedBy
Definition: Resource that references the described resource
SubProperty Of: http://id.loc.gov/ontologies/bibframe/relatedTo
Used with:

- http://id.loc.gov/ontologies/bibframe/Work
- http://id.loc.gov/ontologies/bibframe/Instance
- http://id.loc.gov/ontologies/bibframe/Item

references

Label: References
URI: http://id.loc.gov/ontologies/bibframe/references
Definition: Resource that is referenced by the described resource.
SubProperty Of: http://id.loc.gov/ontologies/bibframe/relatedTo
Used with:

- http://id.loc.gov/ontologies/bibframe/Work
- http://id.loc.gov/ontologies/bibframe/Instance
- http://id.loc.gov/ontologies/bibframe/Item

Label: Related resource
URI: http://id.loc.gov/ontologies/bibframe/relatedTo
Definition: Any relationship between Work, Instance, and Item resources.
Used with:

- rdfs:Resource

SubProperties:

- http://id.loc.gov/ontologies/bibframe/accompaniedBy
- http://id.loc.gov/ontologies/bibframe/accompanies
- http://id.loc.gov/ontologies/bibframe/dataSource
- http://id.loc.gov/ontologies/bibframe/derivativeOf
- http://id.loc.gov/ontologies/bibframe/eventContent
- http://id.loc.gov/ontologies/bibframe/eventContent
- http://id.loc.gov/ontologies/bibframe/expressionOf
- http://id.loc.gov/ontologies/bibframe/hasDerivative
- http://id.loc.gov/ontologies/bibframe/hasEquivalent
- http://id.loc.gov/ontologies/bibframe/hasReproduction
- http://id.loc.gov/ontologies/bibframe/otherEdition
- http://id.loc.gov/ontologies/bibframe/referencedBy
- http://id.loc.gov/ontologies/bibframe/references