

Basics of Attributes and Relationships

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Terminology

(definitions based on RSC Chair's papers and comments and Registry information)

- **Domain:** entity that the element belongs to
- **Range:** entity that a relationship element points to
- **Properties:** RDA elements including relationship designators; term used in RDA Registry
- **Class:** an RDA entity; term used in RDA Registry
- **High-level relationship:** a relationship between two entities with no refinement of the nature of the relationship (e.g., related agent of work)

Beta Glossary Definitions

- **Element**: a word, character, or group of words or characters representing a distinct unit of bibliographic information
- **Attribute element**: an element that is expected to be recorded as an unstructured description
- **Relationship element**: an element that relates two entities

Two of these definitions may need rethinking. We'll see why later....

Original vs. Beta Organization

Original:

- Attributes are usually in one or two chapters
 - Work attributes are in ch 6-7
- Relationships are scattered
 - Work relationships are in ch 17, 19, 23, and 25
- Relationship designators in Appendixes
- Link to RDA Registry from Resources Tab

Beta:

- Attributes and relationships are together!
 - All listed in the elements section for the entity
- Relationship designators have become elements
- Registry labels and domain and range in Element Reference

Relationship Designators

Become



Relationship Elements

From Designator to Element: Genesis

- Relationship designators live in a no man's land in original Toolkit
 - They are not attributes
 - They are not properly relationship elements because they are not contained in chapters 19, 20, etc.
 - They are Appendixes I-M, after instructions on recording B.C. and A.D. dates
- And yet, relationships are a principle that governs RDA and one of the two kinds of elements

From Designator to Element: Exodus


- Creator is a relationship element
- Composer is a type of creator
- Therefore, composer is a relationship element

CURIE	Label	Definition	SubpropertyOf
 rdaw:P10053	"has composer"	"Relates a work to an agent responsible for creating a musical work." 	rdaw:P10065 "has creator"
Lexical Alias:	http://rdaregistry.info/Elements/w/composer.en		
Domain:	rdac:C10001 "work"		

From *cadenza (work)* to *cadenza work*

- From original Toolkit:
 - *cadenza (work)*: A musical work consisting of an ornamental passage for a soloist, added to a musical work such as a concerto, either by the same or a different composer.
- From beta Toolkit:
 - *cadenza work*: A musical work that is an ornamental passage for a soloist added to a musical work, such as a concerto, by the same or a different composer.

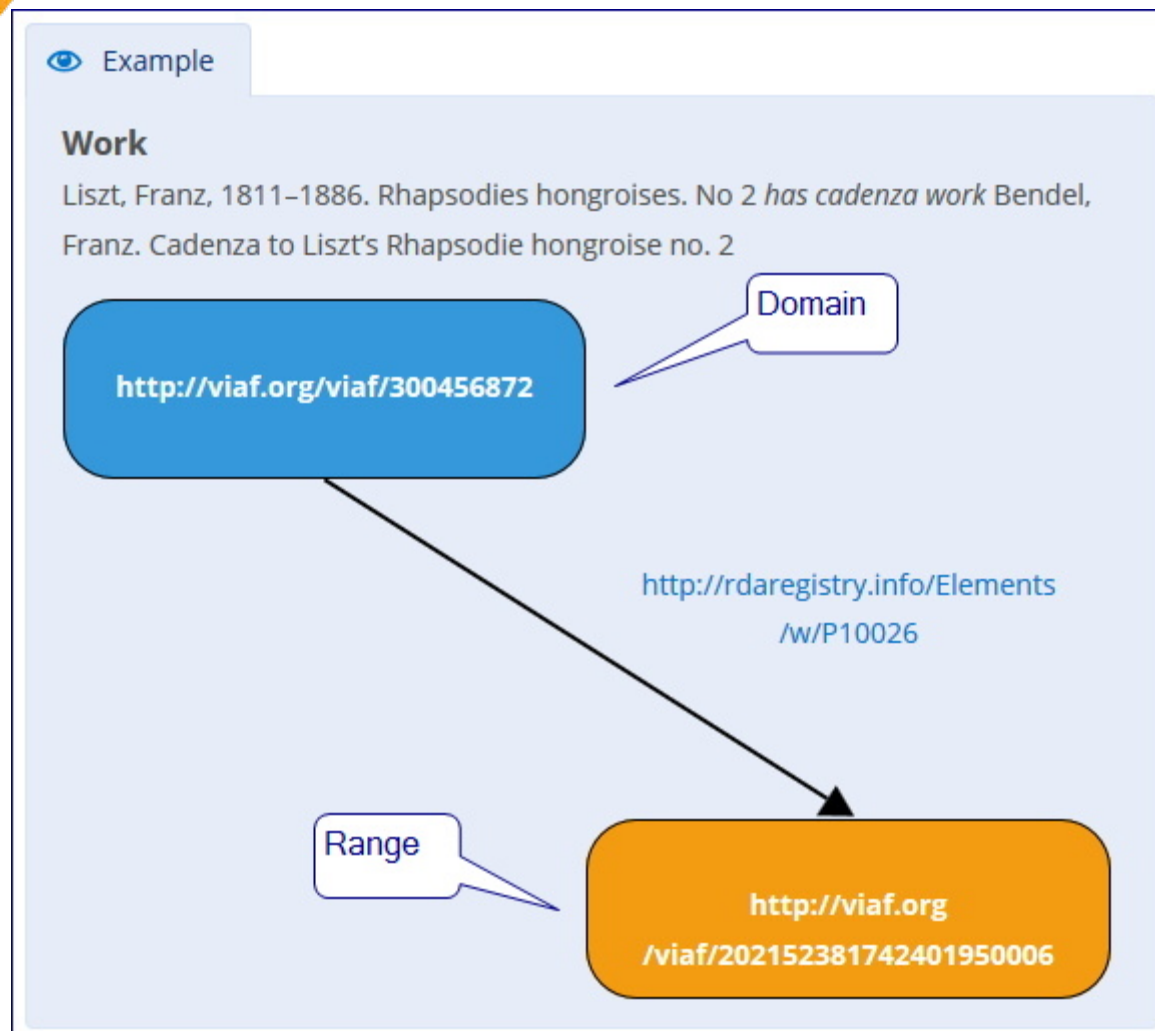
current Registry label

CURIE	Label	Definition
 rdaw:P10026	"is cadenza (work)"	"Relates a work to a musical work consisting of an ornamental passage for a soloist, added to a musical work such as a concerto, either by the same or a different composer."
Lexical Alias:	http://rdaregistry.info/Elements/w/cadenzaWork.en	
Domain:	rdac:C10001 "work"	
Range:	<div style="border: 1px solid orange; padding: 2px; display: inline-block;">Note: range is only provided in the object properties</div>	
inverseOf:		
SubProperties:	rdaw/object:P10026 "is cadenza (work)"	
Scope Notes:		
URL:	http://metadataregistry.org/schemaprop/show/id/15329.html	
Status:	http://metadataregistry.org/uri/RegStatus/1001 "Published"	

- Elements in the Registry have a domain and may have a range
- Exception is meta-elements that are being deprecated
- The range does not appear here because this screenshot is from the Work properties Index
- For this element, the range is “work”
- Entity in domain + range = relationship element

• Element Reference:

- **Domain:** Work
- **Range:** Work
- **Alternate label:** has cadenza work



- Values for domain and range work entities are given in human-readable and URI forms
- The labels for the class and element are imported via URIs given in the example's XML
- If the labels change in the OMR, the example will change

Relationships

Become

Relationship Elements


From Relationship to Relationship Element

- Relationships are elements in the original Toolkit so this is just a wording change
- In the original Toolkit, relationships are refined by designators
 - Owner is refined by *former owner*
- Reminder—a **relationship element** relates two entities, e.g., **related item of manifestation, creator of work, etc.**

From *creator* to *creator of work*

- From original Toolkit:
 - creator: A person, family, or corporate body responsible for the creation of a work.
- From beta Toolkit:
 - creator of work: An agent who is responsible for a work.

current Registry label

CURIE	Label
 rdaw/object:P10065	"has creator"
Lexical Alias:	http://rdaregistry.info/Elements/w/object/creator.en
Domain:	rdac:C10001 "work"
Range:	rdac:C10002 "agent"
inverseOf:	rdaa/object:P50204 "is creator of"
SubProperties:	

- Range is given as “agent” rather than 3 ranges of “person,” “family,” and “corporate body”
- Range appears here because this is from the object properties
- Entity in domain + range = relationship element

- Element Reference:
 - **Domain:** Work
 - **Range:** Agent
 - **Alternate labels:** has creator of work
 - **Recording methods:** identifier, IRI, structured description, unstructured description
- Differences from original Toolkit:
 - can record using unstructured description
 - domain added to label to make it unique from a new element
 - can use it like a relationship designator if more specificity is not wanted

Attributes Become Attribute Elements or Relationship Elements

From Attribute to Attribute Element

- “Attribute” was never defined in original Toolkit, but we know
 - it is an element
 - it is not a relationship (which is also an element)
- Attribute element
 - defined in beta TK glossary “as an element that is expected to be recorded as an unstructured description”
- Several elements listed as “Attributes” can be recorded using all 4 methods, e.g., language of person
- Better definitions?
 - an element with no range
 - an element that does not connect two entities

From *profession or occupation* to *profession or occupation*

- From original Toolkit:
 - profession or occupation: A person's vocation or avocation.
- From beta Toolkit:
 - profession or occupation: A vocation or avocation.

Example

Economist

Recording method: structured description

VES source: ISCO

Name of agent: Ragnar Frisch

VETERINARIAN (medical ser.)

Recording method: structured description

VES source: Dictionary of occupational titles

Name of agent: Marjorie Orr

Author

Anthropologist

Folklorist

Recording method: unstructured description

Name of agent: Zora Neale Hurston

- Element Reference:
 - Domain: Person
 - no Range for this element
 - Alternate labels: has profession or occupation
 - Recording methods: structured description, unstructured description
 - should include identifier and IRI
- Attribute element or Relationship element?
 - Multiple recording methods
 - does not fit attribute element definition
 - Does not relate two entities
 - does not fit relationship element definition

From Attribute to Relationship Element

- New entities Nomen and Timespan have turned several attributes into relationship elements
 - name of corporate body
 - title of work
 - date of birth
- Further development of Place entity has also turned some attributes into relationship elements
 - location of conference, etc.
 - place of death
- Many elements renamed to include both entities
 - date associated with person = related timespan of person
 - place associated with corporate body = related place of corporate body

From *variant title for work* to *variant title of work*

- **From original Toolkit:**
 - variant title for work: A title or form of title by which a work is known that differs from a title or form of title chosen as a preferred title for the work.
- **From beta Toolkit:**
 - variant title of work: A title of work that is not selected for preference in a specific application or context.

Example	
Work	
<i>has authorized access point for work</i>	Iphigenia (Motion picture)
<i>has variant access point for work</i>	Ἰφιγένεια (Motion picture)
<i>has variant access point for work</i>	Ifigeneia (Motion picture)
<i>has preferred title of work</i>	Iphigenia
<i>has variant title of work</i>	Ἰφιγένεια
<i>has variant title of work</i>	Ifigeneia

- Element Reference:
 - **Domain:** Work
 - **Range:** Nomen
 - **Alternate labels:** has variant title of work
 - **Recording methods:** unstructured description
- Attribute element or Relationship element?
 - Record using unstructured description only
 - Attribute element definition
 - Relates two entities
 - Relationship element definition

From *place associated with corporate body* to

related place of corporate body

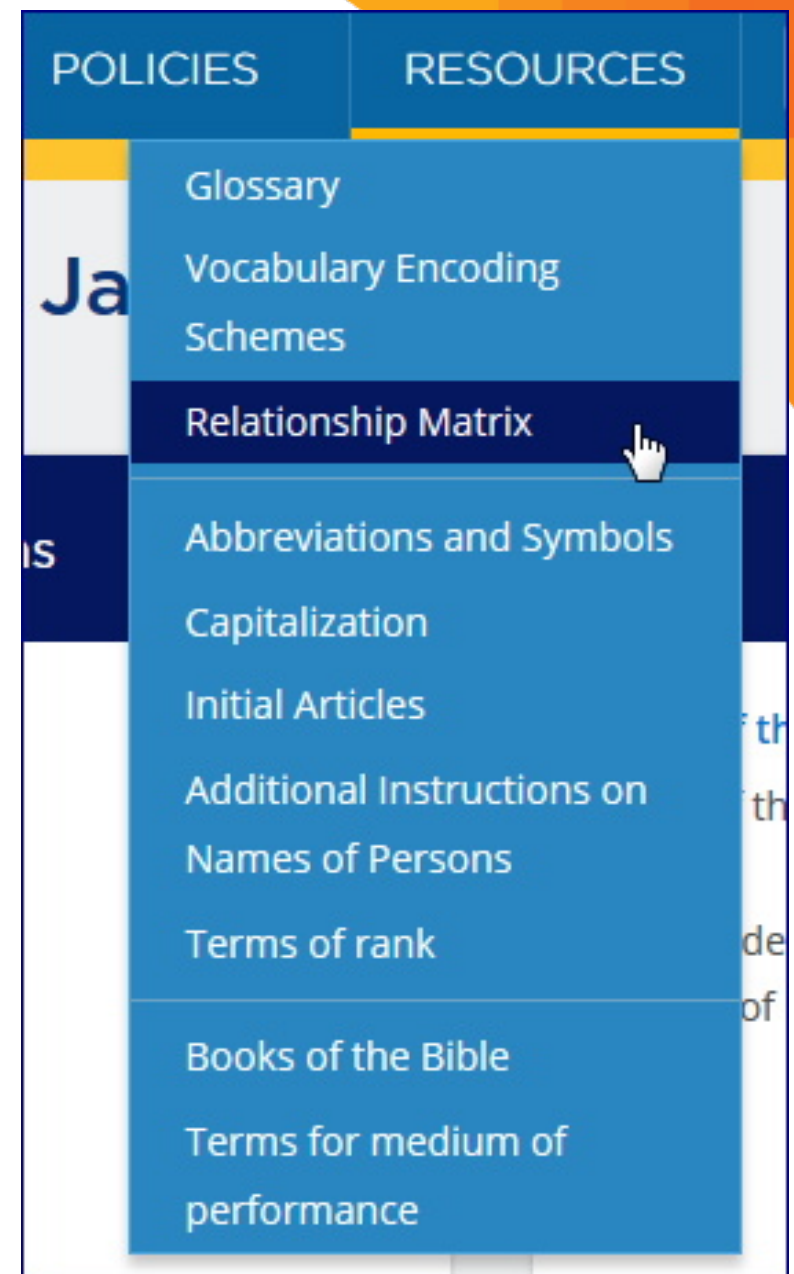
- From current Toolkit:
 - place associated with corporate body: A significant location associated with a corporate body.
- From beta Toolkit:
 - related place of corporate body: A place that is associated with a corporate body.

Peru (nation)
Recording method: structured description
VES source: Getty TGN
Name of agent: Sociedad Nacional de Agricultura
British Columbia
Recording method: unstructured description
Name of agent: Provincial Intermediate Teacher's Association
n 82077292
Recording method: identifier
VES source: Library of Congress
Name of agent: East Baton Rouge Parish Library

- Element Reference:
 - Domain: Corporate Body
 - Range: Place
 - Alternate labels: has related place of corporate body, place associated with corporate body, other place associated with corporate body
 - Recording methods: all
- Attribute element or Relationship element?
 - Multiple recording methods
 - does not fit attribute element definition
 - Relates two entities
 - relationship element definition

Using the Relationship Matrix

- The Relationship Matrix is a look-up tool for relationship elements
- It replaces Appendixes I-M
- The Matrix is located in the RESOURCES picklist
- You won't find The Oracle there



Relationship Matrix Lists

Entities are listed in alphabetical order a list of high-level relationship elements. There is no hierarchy in the entity listings (e.g., Person and Agent are at the same level).

Agent

Entities related to an agent

To record an association between this entity and a related entity, use a relationship element that is sufficiently specific to meet the needs of the agency creating the data.

Select an appropriate relationship element from the list for the related entity:

- Agent to Agent
- Agent to Collective Agent
- Agent to Corporate Body
- Agent to Expression
- Agent to Family
- Agent to Item
- Agent to Manifestation
- Agent to Nomen
- Agent to Person
- Agent to Place
- Agent to RDA Entity
- Agent to Timespan
- Agent to Work

Person

Entities related to a person

To record an association between this entity and a related entity, use a relationship element that is sufficiently specific to meet the needs of the agency creating the data.

Select an appropriate relationship element from the list for the related entity:

- Person to Agent
- Person to Collective Agent
- Person to Corporate Body
- Person to Expression
- Person to Family
- Person to Item
- Person to Manifestation
- Person to Nomen
- Person to Person
- Person to Place
- Person to RDA Entity
- Person to Timespan
- Person to Work

Relationship Matrix in Action

- Situation: relating the person *Anne Rice* to the work *Interview with the Vampire*
- Relationship: “author of” from the current Toolkit

I'll use the Relationship Matrix to get from the relationship designator I know to the element

First Attempt

Person to Work

academic supervisor of: A work that involves a responsibility as an advisor or supervisor of thesis or dissertation research, overseeing either an academic degree or thesis.



appellant person of: A legal work of a higher court that records a decision of a lower court that is appealed by a person. *Inverse: appellant person*.

appellee person of: A legal work of a higher court that records a decision of a lower court that appeals against a person. *Inverse: appellee person*.

civil defendant person of: A work that involves a responsibility for being sued as a person in a civil proceeding. *Inverse: civil defendant person*.

- Since Anne Rice is a person, I picked **Person to Work**
- Why isn't "author of listed" here?
 - Because person is not the domain of "author of"

Second Attempt

author of : A work that involves a responsibility for creating a work that is primarily textual in content, regardless of media type or genre. *Inverse:* **author** .

- librettist of 
- lyricist of 
- rapporteur of 
- screenwriter of 

- Since a person is an agent, I picked Agent to Work
- Now I see “author of” because any type of agent can be an author
 - The Matrix just taught me the domain of “author of”

Using the Entity List of Elements

- All the entities have a list of their elements
- The search box is predictive so I don't have to type in the entire element to find it.
- The technique has two of the same weaknesses the Matrix does:
 - I need the domain
 - I need the beginning of the element name

The screenshot shows a search interface with the following sections:

- Elements**: A search box containing the text "auth".
- Attributes**: A section header.
- Detailed relationships**: A section containing the text "Agent: author of" with a small icon of a document and an arrow pointing to the right. The text "author of" is circled in orange.
- Parent relationships**: A section containing the text "Agent: authorized access point for agent" with a small icon of a document and an arrow pointing to the right.
- High-level relationships**: A section header.

Using the Search Filters: Keyword

- If I select “Elements” and search “author”, I will get elements with that word
- Although I have multiple elements to pick from, I don’t need to know the domain

The screenshot shows a search results page for the keyword "author". The page is titled "Search Results" with a filter tag "author x". On the left, there is a "Filter Results" section with a "Refine Search" input field and a "Relevance" dropdown menu. Below this, there are two expandable sections: "RDA Documents" and "Policies". Under "RDA Documents", there is a "Sections" list with checkboxes for "All", "Entities", "Elements" (which is checked), "Glossary", "Guidance", and "Resources". The main content area on the right displays "RDA Documents (10 of 30)" and lists several elements related to the keyword "author". Each element includes a label (e.g., "author of expression", "author of expression of", "author of", "author", "creator of work", "lyricist of"), a description, and a date: "Element : Last Updated - 06/18/2018". The word "author" is highlighted in yellow in several of the descriptions.

Using the Search Filters: Former Element Name

- If the former element name is an alternate label, it will show up in the elements search
- I don't need to know the domain or the range
- This depends on having the former element as an alternate label

Search Results "type of jurisdiction" x

Filter Results

Refine Search

Relevance v

RDA Documents ^

Sections

All

Entities

Elements

RDA Documents (3 of 3)

preferred name of place
Element : Last Updated - 06/21/2018

type of government
...Alternate labels has type of government **type of jurisdiction** Recording methods identifier IRI structured description ...
Element : Last Updated - 06/21/2018

access point for place
...place . Omit a term indicating a **type of jurisdiction** if it is the first part ...
Element : Last Updated - 06/21/2018

Definitions Revisited

- **Element**: a word, character, or group of words or characters representing a distinct unit of bibliographic information

Have we gone beyond words and characters?

- **Attribute element**: an element that is expected to be recorded as an unstructured description

Should this definition be changed, or...

- **Relationship element**: an element that relates two entities

Does it still matter what kind of element it is?