

# RDA and linked data applications: Registries, namespaces, maps, and profiles

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Main, Germany

# RDA and linked data

- ❖ May 2007: “London” meeting at British Library
  - ❖ RDA and Semantic Web communities
- ❖ Aug 2011: First RDA value vocabularies published
- ❖ Apr 2012: “Five years on” seminar at BL
- ❖ Jan 2014: Full RDA element set published in new RDA Registry
  - ❖ Layered on top of Open Metadata Registry

## RDA Registry

- [RDA Registry](#) (Home)
- [Elements](#) (RDA element sets)
  - [Classes](#)
  - [Work properties](#)
  - [Expression properties](#)
  - [Manifestation properties](#)
  - [Item properties](#)
  - [Agent properties](#)
  - [Unconstrained properties](#)
- [Values](#) (RDA value vocabularies)
- [Data](#) (Linked data using RDA vocabularies)
  - [Examples](#) (Single resource)
  - [Datasets](#) (Multiple resources)
- [Tools](#)
  - [Maps](#) (RDF maps between RDA vocabularies and other namespaces)
  - [Alignments](#) (Alignment tables for RDA vocabularies and other namespaces)
  - [Profiles](#) (Application profiles using RDA vocabularies)
- [About](#) (More about the RDA vocabularies)
  - [Versions](#) (Version control)
  - [Deprecation](#) (Removal of vocabulary entries)
- [FAQ](#) (Answers to frequently asked questions)
- [Guide](#) (Guide to RDA vocabularies for technical communities)

## Welcome to the RDA Registry!

The RDA Registry contains linked data and Semantic Web representations of the elements and relationship designators approved by the [Joint Steering Committee on Development of RDA \(JSC\)](#).

The RDA Registry is based on the [Open Metadata Registry](#). It is maintained by the JSC and [Metadata Management Associates](#) in association with [ALA Digital Reference](#).

Please use the contacts below for more information. Remember that questions or comments about individual RDA elements or concepts can be easily made by using the OMR feedback button on the far right center of the page describing the individual property (it is orange, with white lettering).

Contacts:

- [JSC: Gordon Dunsire](#)
- [MMA: Diane Hillmann](#)
- [OMR technical issues: Jon Phipps](#)
- [ALA Digital Reference: James Hennelly](#)

If you discover a problem with the representations of the RDA vocabularies, or have a question, or even wish to engage in a

### RDA element sets

- [Classes](#)
- [Work properties](#)
- [Expression properties](#)
- [Manifestation properties](#)
- [Item properties](#)
- [Agent properties](#)
- [Unconstrained properties](#)
- [Download ZIP File](#)
- [Download TAR Ball](#)

### Downloads

- [HTML \(Open Metadata Registry\)](#)
- [Turtle \(text/turtle\)](#)
- [Notation 3 \(text/rdf+n3\)](#)
- [N-Triples \(text/rdf+nt\)](#)
- [RDF/XML \(application/rdf+xml\)](#)
- [RDFa](#)
- [Microdata \(text/microdata+html\)](#)
- [JSON-LD \(application/json | application/json+ld\)](#)
- [RDF/JSON \(application/rdf+json\)](#)

Multiple linked data formats

## Manifestation properties

The Manifestation properties element set consists of properties representing the attributes and relationships of the RDA Manifestation entity. Each property in the element set has a domain of the class representing this entity.

Number of elements:	213
Namespace:	<a href="http://rdaregistry.info/Elements/m/">http://rdaregistry.info/Elements/m/</a>
Suggested prefix:	rdam
Example curie (canonical)*:	<a href="#">rdam:P30001</a>
Example curie (lexical)*:	<a href="#">rdam:carrierType</a>
Changelog feed:	<a href="#">Atom</a>   <a href="#">RDF</a>

\*All RDA URIs have both an immutable canonical form and a 'readable', lexical form, which is subject to change (changes will be redirected).

## Properties Index

Show 25 entries

Search: video

#	Curies	Label/Definition	SubpropertyOf	Unconstrained
#	"has video format" rdam:videoFormat.en rdam:P30104	has video format Relates a manifestation to a standard, etc., used to encode the analog video content of a resource.	"has video characteristic" rdam:videoCharacteristic.en rdam:P30126	"has video format" rdau:videoFormat.en rdau:P60326
#	"has video characteristic" rdam:videoCharacteristic.en rdam:P30126	has video characteristic Relates a manifestation to a technical specification relating to the encoding of video images in a resource.	undefined	"has video characteristic" rdau:videoCharacteristic.en rdau:P60352

- Research Libraries UK Linked Open Data
- Sudoc bibliographic data

## Examples using the RDA vocabularies

Audio recording book from Examples of full RDA records (JSC) – bibliographic records

```

@prefix ex: <http://example.com/> .
@prefix rdaa: <http://rdaregistry.info/10000/rdaa/> .
@prefix rdac: <http://rdaregistry.info/10000/rdac/> .
@prefix rdaco: <http://rdvocab.info/terminology1/rdaco/> .
@prefix rdact: <http://rdvocab.info/terminology1/rdact/> .
@prefix rdae: <http://rdaregistry.info/10000/rdae/> .
@prefix rdaef: <http://rdvocab.info/terminology1/rdaef/> .
@prefix rdaft: <http://rdvocab.info/terminology1/rdaft/> .
@prefix rdam: <http://rdaregistry.info/10000/rdam/> .
@prefix rdami: <http://rdvocab.info/terminology1/rdami/> .
@prefix rdamt: <http://rdvocab.info/terminology1/rdamt/> .
@prefix rdarm: <http://rdvocab.info/terminology1/rdarm/> .
@prefix rdatr: <http://rdvocab.info/terminology1/rdatr/> .
@prefix rdau: <http://rdaregistry.info/10000/rdau/> .
@prefix rdaw: <http://rdaregistry.info/10000/rdaw/> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
@prefix skos: <http://www.w3.org/2004/02/skos/core#> .
#
# Example: Audio recording - book from
#
ex:M1 rdam:P30001 rdact:1004 .
ex:M1 rdam:P30001 rdact:1013 .
ex:M1 rdam:P30002 rdamt:1001 .
ex:M1 rdam:P30002 rdamt:1003 .
ex:M1 rdam:P30003 rdami:1002 .
ex:M1 rdam:P30004 "ISBD 0-86492-398-8" .
ex:M1 rdam:P30007 "@ 2005" .
ex:M1 rdam:P30011 "date of publication not identified" .
ex:M1 rdam:P30018 rdaft:1001 .
ex:M1 rdam:P30064 "Originally broadcast on CBC Radio 1981" .
ex:M1 rdam:P30088 "Fredericton, NB, Canada" .
ex:M1 rdam:P30096 rdaef:1007 .
ex:M1 rdam:P30105 "Alice Munro" .
ex:M1 rdam:P30121 "by Ruth Fraser" .
ex:M1 rdam:P30133 "Abridged" .
ex:M1 rdam:P30135 ex:W1 .
ex:M1 rdam:P30139 ex:E1 .
ex:M1 rdam:P30141 "http://www.gooselane.com" .
ex:M1 rdam:P30156 "Lives of girls and women" .

```

## Downloads

- Turtle (text/turtle)

## RDA Registry

### RDA maps

- [Deprecated RDA vocabularies](#)
- [Lexical URIs in English](#)
- [MARC Relator Codes](#)
- [Unconstrained properties](#)

Development  
Namespace  
[rdvocab.info](#)

Operational  
Namespace  
[rdaregistry.info](#)

### Deprecated RDA vocabularies

- Map from [deprecated](#) to [published](#) RDA classes
- Map from [deprecated](#) to [published](#) RDA properties

### MARC Relator Codes

- Map from RDA properties to [MARC Code List for Relators](#)
- Map from [MARC Code List for Relators](#) to RDA properties

[id.loc.gov](#)



## Map from RDA properties to MARC Code List for Relators

```

@prefix mrc: <http://id.loc.gov/vocabulary/relators/>.
@prefix rdau: <http://rdaregistry.info/Elements/u/>.
@prefix skos: <http://www.w3.org/2004/02/skos/core#>.
#
# This is a map from RDA relationship designators to MARC relator codes.
# 1 June 2014
#
rdau:P60045 skos:closeMatch mrc:rsp .
rdau:P60060 skos:closeMatch mrc:dgg .
rdau:P60061 skos:closeMatch mrc:his .
rdau:P60062 skos:closeMatch mrc:prn .
rdau:P60065 skos:closeMatch mrc:cou .
rdau:P60066 skos:closeMatch mrc:col .
rdau:P60067 skos:closeMatch mrc:cor .
rdau:P60068 skos:closeMatch mrc:dpt .
rdau:P60084 skos:closeMatch mrc:fmd .
rdau:P60085 skos:closeMatch mrc:rdd .
rdau:P60086 skos:closeMatch mrc:tld .
rdau:P60091 skos:closeMatch mrc:dnr .
rdau:P60092 skos:closeMatch mrc:sll .
rdau:P60096 skos:closeMatch mrc:enj .
rdau:P60449 skos:closeMatch mrc:drt .
rdau:P60450 skos:closeMatch mrc:rsr .
rdau:P60451 skos:closeMatch mrc:spn .
rdau:P60452 skos:narrowMatch mrc:cng .
rdau:P60452 skos:narrowMatch mrc:vdg .
rdau:P60455 skos:closeMatch mrc:dte .
rdau:P60456 skos:closeMatch mrc:rcp .
rdau:P60457 skos:closeMatch mrc:apl .

```

<http://www.rdaregistry.info>

↻ 43 commits
 🌿 5 branches
📦 8 releases
👤 2 contributors

🔗 branch: master ▾
**RDA-Vocabularies** / +
☰

version 2.1 update

🔔 15 Open ✓ 19 Closed		Author ▾	Labels ▾	Milestones ▾	Assignee ▾	Sort ▾
🔔	<b>slash vs hash namespace</b>					3
	#32 opened on 24 Mar by VladimirAlexiev					
🔔	<b>use rdfs:subClassOf instead of/in addition to reg:hasSubClass</b>					7
	#31 opened on 24 Mar by VladimirAlexiev					
🔔	<b>use equivalentClass instead of sameAs for classes</b>					0
	#30 opened on 24 Mar by VladimirAlexiev					
🔔	<b>Labels for ISSN properties</b>					1
	#29 opened on 15 Mar by jaideraf					
🔔	<b>Bug: Github and OMR elements are not in sync</b>					0
	#28 opened on 12 Mar by tmqrchard					

<> Code
 

- 🔔 Issues 15
- 🔗 Pull Requests 0
- 📖 Wiki

http://www.rdaregistry.info

43 commits 5 branches **8 releases** 2 contributors

branch: master

**Latest release**

version 2.1 update

jonhipps authored on 24 Jun

- Docs add some doc ar
- alias add alias map
- csv renamed align file
- jsonld rename json-ld to
- linked-csv Make new folders
- microdata version 2.1 upda
- n3 version 2.1 upda

## Version 2.0

jonhipps released this on 29 Apr · 18 commits to master since this release

Change Log soon...

Source code (zip)

Source code (tar.gz)

## v1.0.5

jonhipps released this on 26 Feb · 19 commits to master since this release

Added turtle. Fixed a number of typos in all element sets except Classes.

Source code (zip)

Source code (tar.gz)

Old versions available

# Language-free URIs

- ❖ “Opaque” URIs

- ❖ E.g. <http://rdaregistry.info/Elements/m/P30001>

- ❖ **Not** [- ❖ \*\*Or\*\* .../Elements/m/typeDeSupportMateriel](http://rdaregistry.info/Elements/m/<u>carrierType</u></a></li></ul></li></ul></li></ul></div><div data-bbox=)

- ❖ Readable by machines, not humans

- ❖ But “difficult to remember” (cf. 338##\$a !)

- ❖ RDA Registry provides “lexical” URIs

- ❖ Based on language-dependent element labels

## Properties Index

Show 25 entries

# Curies

# "has carrier type"  
rdam:carrierType.en  
rdam:P30001

English lexical URI  
(label-dependent)

Canonical URI  
(immutable)

Map between  
Canonical and  
Lexical URIs

```
@prefix owl: <http://www.w3.org/2002/07/owl#> .  
@prefix rdam: <http://rdaregistry.info/Elements/m/> .  
#  
# Map from RDA canonical to lexical URIs in the Manifestation  
# 7 May 2014  
#  
rdam:P30001 owl:sameAs rdam:carrierType .  
rdam:P30002 owl:sameAs rdam:mediaType .  
rdam:P30003 owl:sameAs rdam:modeOfIssuance .
```

# RDA Registry and translations

- ❖ Data from RDA translations will be added to the RDA Registry
  - ❖ Element and value labels, definitions, scope notes
  - ❖ Registry accommodates Unicode scripts
  - ❖ First testing later in 2014 with German
    - ❖ First partners in RDA development namespace ★
- ❖ Some RDA translations limited to “Registry” text
- ❖ Registry accommodates lexical URIs in any language

# RDA and non-FRBR linked data

- ❖ RDA elements are tied to RDA entities
  - ❖ Machine assignment of what type of thing (entity) is described or related in data triples
- ❖ Registry has “unconstrained” versions of elements
  - ❖ Used for interoperability with non-FRBR elements
    - ❖ E.g. ISBD (draft linked data map for approval in Lyon)
- ❖ Bridge between FRBR/RDA and other (hybrid) data

# RDA and linked data

RDA Entity	Relationships	To link	To text
Work	235	200	35
Expression	235	190	45
Manifestation	210	50	160
Item	50	40	10
Agent	225	175	50

\*Totals are approximate

A set of linkable entities rich enough to represent the complexity of and support access to global cultural heritage content.

A set of textual relationships rich enough to describe all types of content and carrier.



# Thank you!

❖ [rdaregistry.info](http://rdaregistry.info)