



Data Model for the Swiss Performing Arts Platform

Beat Estermann
Bern University of Applied Sciences

Christian Schneeberger
Swiss Archive of the Performing Arts

Draft Version 0.51

Please send your feedback to:
Birk Weiberg, Swiss Archive of the Performing Arts, birk.weiberg@theatersammlung.ch

Unless otherwise noted, the content of this document is made available under the
Creative Commons BY-SA 4.0 License.
Logos may be subject to trademark protection.



Picture on the title page:
Edgar Degas, Arlequin danse (around 1890),
Museo Nacional de Bellas Artes, Buenos Aires,
Public Domain, Wikimedia Commons.

Table of Contents

| | | |
|----------|---|-----------|
| 1 | Introduction | 5 |
| 1.1 | Purpose of this Document | 5 |
| 1.2 | Target Audiences | 5 |
| 1.3 | Challenges When It Comes to Modelling the Performing Arts Domain | 5 |
| 1.4 | Methodological Approach | 6 |
| 1.5 | Acknowledgements | 6 |
| 1.6 | Structure of the Document | 7 |
| 2 | Existing Standards the Model Draws Upon | 8 |
| 2.1 | Core Standards from the Heritage Sector | 8 |
| 2.2 | Further Ontologies and Vocabularies | 9 |
| 3 | Terminology Used / Presentation Conventions | 11 |
| 3.1 | Definition of Key Terms | 11 |
| 3.2 | Naming Conventions | 13 |
| 3.3 | References to Existing Data Models and Ontologies | 13 |
| 3.4 | Modelling Principles | 14 |
| 4 | Classes | 16 |
| 4.1 | Overview | 16 |
| 4.2 | Group 1 Classes | 16 |
| 4.3 | Group 2 Classes | 27 |
| 4.4 | Group 3 Classes | 30 |
| 4.5 | Classes for the Description of Agents' Roles in Social Settings | 35 |
| 4.6 | Aggregation of Artefacts Pertaining to the Same Item | 38 |
| 4.7 | Further Classes | 40 |
| 5 | Attributes | 43 |
| 5.1 | Attributes that May Be Used with any Entity | 43 |
| 5.2 | Attributes of SPA-E1 Endeavour | 47 |
| 5.3 | Attributes of SPA-E4 Manifestation or SPA-E5 Item | 50 |
| 5.4 | Attributes of SPA-E9 Performing Arts Production | 62 |
| 5.5 | Attributes of SPA-E10 Performance | 63 |
| 5.6 | Attributes of SPA-E11 Series of Performances | 63 |
| 5.7 | Attributes of SPA-E12 Collection | 64 |
| 5.8 | Attributes of SPA-E14 Agent | 71 |
| 5.9 | Attributes of SPA-E15 Person | 73 |
| 5.10 | Attributes of SPA-E17 Corporate Body | 75 |
| 5.11 | Attributes of SPA-E19 Place | 76 |
| 5.12 | Attributes of SPA-E28 Activity | 77 |
| 5.13 | Attributes of SPA-E34 Cultural Heritage Object, SPA-E35 Analog Copy, and SPA-E36 Digital Resource | 78 |
| 5.14 | Attributes of SPA-E37 Date | 93 |
| 5.15 | Attributes of SPA-E39 Nomen | 94 |
| 5.16 | Attributes of SPA-E43 Contact Point | 94 |
| 5.17 | Attributes of SPA-E44 Postal Address | 96 |
| 6 | Relations | 98 |
| 6.1 | Relations of SPA-E1 Endeavour | 98 |
| 6.2 | Relations of SPA-E2 Work | 99 |
| 6.3 | Relations of SPA-E3 Expression | 100 |

| | |
|---|------------|
| 6.4 Relations of SPA-E4 Manifestation | 102 |
| 6.5 Relations of SPA-E5 Item | 103 |
| 6.6 Relations of the subclasses of SPA-E6 Endeavour of the Performing Arts | 105 |
| 6.7 Relations of SPA-E12 Collection (and its subclass SPA-E13 Record Set) | 107 |
| 6.8 Relations of SPA-E14 Agent | 109 |
| 6.9 Relations of SPA-E15 Person | 115 |
| 6.10 Relations of SPA-E16 Family | 116 |
| 6.11 Relations of SPA-E17 Corporate Body | 116 |
| 6.12 Relations of SPA-E18 Subject | 117 |
| 6.13 Relations of SPA-E19 Place, SPA-E21 Country, and SPA-E22 Venue | 117 |
| 6.14 Relations of SPA-E23 Object and SPA-E24 Building | 118 |
| 6.15 Relations of SPA-E25 Concept | 118 |
| 6.16 Relations of SPA-E27 Event | 118 |
| 6.17 Relations of SPA-E28 Activity | 119 |
| 6.18 Relations of SPA-E30 Occupation, SPA-E31 Position, and SPA-E32 Function | 119 |
| 6.19 Relations of SPA-E33 Performance Role | 119 |
| 6.20 Relations of SPA-E34 Cultural Heritage Object, SPA-E35 Analog Copy, and SPA-E36 Digital Resource | 119 |
| 6.21 Relations of SPA-E37 Date | 120 |
| 6.22 Relations of SPA-E39 Nomen | 120 |
| 6.23 Relations of SPA-E40 Documentary Form | 121 |
| 7 Qualifiers | 122 |
| 7.1 Qualifiers of any Attribute or Relation | 122 |
| 7.2 Qualifiers of any Attribute | 123 |
| 7.3 Qualifiers of Specific Attributes | 123 |
| 7.4 Qualifiers of any Relation | 126 |
| 7.5 Qualifiers of Specific Relations | 127 |
| 8 Modelling Examples | 128 |
| 9 Open Issues | 138 |
| 10 Bibliography | 139 |
| 11 Version Control | 140 |

1 Introduction

1.1 Purpose of this Document

The present document contains the data model for the future Swiss Performing Arts Platform (SPA Data Model). The data model's primary function is to serve as the data transfer and integration standard in view of the migration of the data held by the Swiss Theatre Collection and the Swiss Dance Collection into one common data platform. For this purpose, an RDF-based representation of the SPA Data Model has been created in form of the "Swiss Performing Arts" Ontology (SPA Ontology).

In addition to this primary purpose, the data model is intended as a data exchange standard in view of the ingestion of data from various sources into the Swiss Performing Arts Platform, and from there into various international data platforms, such as Europeana, Archives Portal Europe (APE), the European Collected Library of Artistic Performance (ECLAP), Wikimedia Commons, or Wikidata. And last, but not least, it is to facilitate the linking of data and content residing on the "Swiss Performing Arts" Platform with data held at other sites, such as the Dictionary of Swiss Theatre, VIAF, Wikipedia or the aforementioned international data platforms.

In order not to over-stretch its scope, the main focus of this first draft version of the data model is on representing the data structures found at the Swiss Theatre Collection and the Swiss Dance Collection. Given the fact that data integration at an international level is one of the stated goals of the Swiss Performing Arts Platform project, interoperability with existing and emerging standards at the international level has been main guiding principle when developing the model. In this vein, we hope that the model will help spurring further initiatives and are looking forward to enlarging the model's scope in view of the establishment of an International Performing Arts Data Model and Ontology in the future.

1.2 Target Audiences

The SPA Data Model's primary target audiences comprise people within the archival, museum, and library communities specializing in the performing arts as well as technical staff tasked with the implementation of data infrastructures related to the performing arts.

Given its ambition to bridge existing sectoral data models of the archival, museum, and library domain, the SPA Data Model may also be of interest to the experts involved in the development of these sectoral data models or people facing the challenge of developing integrated data models that equally take into account the perspectives of archives, museums and libraries.

1.3 Challenges When It Comes to Modelling the Performing Arts Domain

Developing a data model for the performing arts is a complex undertaking for at least two reasons:

First, among the heritage institutions covering the performing arts domain there is no unified tradition with regard to information management, as the performing arts are covered by different types of institutions. In fact, as Doerr et al. (2008) note, depending on the country, national performing arts collections are to be found in national theatre *museums* (Portugal, Austria, Slovenia, Greece, etc.), in national theatre *libraries* (Italy), in *documentation centres* (Andalusia), or in *theatre institutes* (The Netherlands, Barcelona). In addition, many important collections are held by *archives*. As a consequence, instead of standardizing their practice among each other at an international level, the institutions concerned have largely followed the information management approaches of their respective sector.

This positioning of the performing arts at the intersection of different sectors within the heritage domain can also be found in Switzerland, where two institutions representing two different information management traditions are being merged in the course of 2017: Whereas the Swiss Theatre Collection has mainly been focusing on systematically inventorying and collecting information about all performing arts productions in Switzerland, the focus of the Swiss Dance Collection has mainly been on building up a *fonds*-based archival collection, complemented by a video archive covering dance in Switzerland. While there are many thematic overlaps, there are also fundamental differences with regard to the structure of the core databases of the two institutions, with one relying on a relational database

with a flat data structure and the other on a hierarchically structured, provenance-oriented database as is typical for the archival domain.

The second challenge lies in the double structure of literary works and performance works that needs to be taken into account when modelling the performing arts domain. While the literary work which a performing arts production may be based on can easily be described using the data models of the library sector, the performance work needs to be modelled as a work apart that manifests itself in a theatre or dance production. While a literary work materializes in form of a printed book, a performance work takes the form of an ephemeral event, the theatre or dance performance¹.

1.4 Methodological Approach

In order to develop the model presented in this document, the following approach was pursued:

1. Analysis of the existing data structures at the Swiss Theatre Collection and the Swiss Dance Collection, leading to the description of a status quo data model for each of the institutions.
2. Review of existing standards in the archive, library, and museum sectors as well as scholarly publications specifically focusing on data models for the performing arts domain, leading to a draft data model.
3. Mapping of existing data structures to existing standards and complementing the model where necessary, leading to a complete version of the data model.
4. Further complementation of the data model by adding references to RDF-based ontologies that are the most widely used on the Internet, such as schema.org, foaf, or Dublin Core.
5. Expression of the data model in form of an RDF-based ontology.
6. Test publication of the data from the Swiss Theatre Collection and the Swiss Dance Collection in form of linked open data on the LINDAS triple store of the Swiss Confederation, from where it can be queried through a SPARQL endpoint.

The last step provided a first occasion to validate the SPA Data Model and Ontology. Based on the current version of the model feedback is solicited from various stakeholders throughout the world in view of the development of an international version of the data model. Furthermore, the cleansing of the data held by the Swiss Theatre Collection and the Swiss Dance Collection will be further pursued in order to make it all available as linked open data. In addition, in order to further validate the SPA Data Model and Ontology, performing arts related data from other Swiss heritage institutions may be ingested into the same triple store, and data from institutions from other countries may be examined in order to assess the possibility of transforming them into linked data by using the SPA Data Model.

1.5 Acknowledgements

This first draft model has benefitted from the contributions and guidance by Adrian Gschwend (Zazuko GmbH, Switzerland), Julia Beck (Specialised Information Service for the Performing Arts, University Library Frankfurt am Main), Urs Kaiser and Birk Weiberg (Swiss Theatre Collection), Katrin Oettli and Emilie Magnin (Swiss Dance Collection) as well as several members of the research team at the E-Government Institute of the Bern University of Applied Sciences, especially Katinka Weissenfeld, Andreas Spichiger, Daniel Burda, and Dominic Hurni. Analyses of the status quo data structures and initial mapping suggestions were provided by students of the Bern University of Applied Sciences (Eugene Khoroshutin, Mihrab Gizem Atilgan, René Vielgut, and Timm Stern).

¹ The same applies to music performances that heavily rely on improvisation or involve the playing of non-notated music, i.e. to the kinds of music that are not recorded or transmitted via music notation and printed scores as is typical for the traditional canon of Western art music (see Doty 2013 and Allison-Cassin 2016).

1.6 Structure of the Document

The remainder of the document is structured as follows:

- **Chapter 2** contains an overview of existing standards that have been drawn upon in view of the development of the model.
- **Chapter 3** sets out the presentation conventions and the terminology used throughout the document.
- **Chapter 4** contains a description of all the classes of the model and the way they relate to each other.
- **Chapters 5 to 7** contain inventories of the attributes, relations, and qualifiers included in the model.
- **Chapter 8** provides several modeling examples based on real cases from the Swiss Dance Collection and the Swiss Theatre Collection.
- **Chapter 9** contains a list of open issues that should be addressed in a future version of the data model.

2 Existing Standards the Model Draws Upon

The present section contains an overview of the standards the SPA Data Model draws upon and the existing vocabularies which it refers to. As a rule, the SPA Data Model defines its own classes and properties. To the extent possible, existing standards from the heritage sector are referenced. In order to increase the interoperability of the data with other data sources, existing vocabularies that are widely used within the linked data community are systematically referenced.

2.1 Core Standards from the Heritage Sector

Among the core standards the SPA Data Model mainly draws upon are RiC (Records in Context), FRBR (Functional Requirements for Bibliographic Records), and FRBRoo, an object-oriented version of FRBR which bridges the gap between FRBR and CIDOC CRM. The SPA Data Model is therefore well integrated with the data models widely used within the archival and library communities and interoperable with a reference model widely used within the museum community.

When developing the model, earlier endeavors to bridge the gap between the various heritage sectors, as exemplified by EDM and FRBRoo, have been drawn upon (Riva et al. 2008, Doerr et al. 2008, Doerr et al. 2010), while ECLAP, a specialized vocabulary for the performing arts, is referred to in order to cover some of the aspects that are not covered by the other ontologies (Bellini & Nesi 2015).

Table 1 contains an overview of the standards that are at the core of the SPA Data Model.

| Standard | Description |
|---|--|
| Records in Context (RiC) | <p>RiC is a conceptual model for archival description that is supposed to replace the existing ICA standards in the future, namely ISAD(G), ISAAR(CPF), ISDF, and ISDIAH. In contrast to its predecessor standards, RiC explicitly takes into account electronic records and is better suited for a digitized and increasingly inter-connected world, as it also supports graph-based data structures and facilitates the interlinking of data from the archival domain with data from other heritage domains.</p> <p>Publisher: International Council on Archives (ICA) Version: Draft v0.1 (September 2016)</p> |
| Functional Requirements for Bibliographic Records (FRBR) | <p>FRBR is not an actual standard, but a study report regarding the functional requirements for bibliographic records. These requirements are generally used as a basis for the development of library cataloguing standards. The FRBR study report comes along with a data model for bibliographic metadata.</p> <p>Publisher: International Federation of Library Associations and Institutions (IFLA) Version: Final Report (amended as of 2009)</p> |
| FRBR – object-oriented (FRBRoo) | <p>Providing an object-oriented definition and mapping from FRBR, FRAD and FRSAD, FRBRoo complements FRBR by defining additional classes, including classes that are highly relevant in the context of the performing arts, such as <i>F20 Performance Work</i>, <i>F25 Performance Plan</i>, or <i>F31 Performance</i>. Unlike FRBR it thus allows to model the double work structure typical for the performing arts domain (cf. Doerr et al. 2008).</p> <p>Publisher: International Working Group on FRBR and CIDOC CRM Harmonisation Version: Version 2.2 (March 2015)</p> |
| Europeana Data Model (EDM) | <p>The EDM contains the formal specification of the classes and properties that can be used in the context of Europeana. EDM takes a cross-sectoral view by</p> |

taking into account the data structures typically present in the archival, the library, and the museum sectors. EDM heavily draws on already existing data models, such as Dublin Core.

Publisher: Europeana
Version: Version 5.2.7 (25 April 2016)

European Collected Library of Artistic Performance, Performing Arts Vocabulary (ECLAP) The ECLAP vocabulary has been created in connection with the platform of the same name that is used as a content aggregator for Europeana covering the performing arts domain. It defines classes and properties used for the description of multimedia content, with a main focus on describing media objects, on the modelling of the users of the platform and its content, as well as on the annotation of media objects.

Publisher: DISIT Lab, University of Florence, Italy
Version: Version 1.0

Table 1: Standards from the heritage sector the SPA Data Model mainly draws upon

2.2 Further Ontologies and Vocabularies

As noted above, in order to increase the interoperability of the data with other data sources, existing vocabularies that are widely used are systematically referenced by the SPA Data Model and its corresponding RDF ontology. This will allow semantic reasoners to automatically map the data described by means of the SPA Data Model to a maximum of existing data sources making use of various data models. Table 2 contains an overview of all the data models, ontologies, and vocabularies referenced by the SPA Data Model and the SPA Ontology.

| Prefix | Name | URL |
|-----------|--|---|
| cc | Creative Commons Rights Expression Language | https://creativecommons.org/ns# |
| CIDOC-CRM | Definition of the CIDOC Conceptual Reference Model, Version 6.2.1 | http://www.cidoc-crm.org/sites/default/files/cidoc_crm_version_6.2.1.pdf |
| dc | Dublin Core Metadata Initiative, Metadata Terms, Elements 1.1 Namespace | http://purl.org/dc/elements/1.1 |
| dcterms | Dublin Core Metadata Initiative, Metadata Terms, Terms Namespace | http://purl.org/dc/terms/ |
| ebucore | EBU Core Ontology | https://www.ebu.ch/metadata/ontologies/ebucore/ |
| eclap | ECLAP, Performing Arts Vocabulary | http://www.eclap.eu/schema/eclap/ |
| edm | Europeana Data Model | http://www.europeana.eu/schemas/edm/ |
| fabio | FaBiO, the FRBR-aligned Bibliographic Ontology | http://purl.org/spar/fabio/ |
| foaf | FOAF Vocabulary Specification 0.99 | http://xmlns.com/foaf/spec/ |
| frbr | Expression of Core FRBR Concepts in RDF | http://purl.org/vocab/frbr/core# |
| FRBROO | FRBROO Model | http://iflastandards.info/ns/fr/frbr/frbroo/ |
| geo | WGS84 Geo Positioning: an RDF vocabulary | http://www.w3.org/2003/01/geo/wgs84_pos# |
| ISAD(G) | General International Standard Archival Description, ISAD(G), Second Edition | http://www.icacds.org.uk/eng/ISAD%28G%29.pdf |
| mediaont | Ontology for Media Resources 1.0 | https://dev.w3.org/2008/video/mediaann/mediaont-1.0/mediaont-1.0.htm |
| oa | Web Annotation Ontology | https://www.w3.org/ns/oa# |
| ore | Open Archives Initiative, Object Exchange and Reuse | http://www.openarchives.org/ore/terms/ |
| owl | Web Ontology Language | http://www.w3.org/2002/07/owl# |
| premis | Preservation Metadata: Implementation Strate- | http://id.loc.gov/ontologies/premis.html |

| | | |
|--------|--|--|
| | gies (PREMIS) Ontology | |
| pq | Wikidata Qualifier | http://www.wikidata.org/prop/qualifier/ |
| rdf | Resource Description Framework | http://www.w3.org/1999/02/22-rdf-syntax-ns# |
| rdfs | Resource Description Framework Schema | http://www.w3.org/2000/01/rdf-schema# |
| RiC | Records in Context, A Conceptual Model for Archival Description, Consultation Draft v0.1 | Records in Context, A Conceptual Model for Archival Description, Consultation Draft v0.1 |
| rdaa | Resource Description and Access (RDA), Agent Properties | http://www.rdaregistry.info/Elements/a/ |
| rdac | RDA, Classes | http://www.rdaregistry.info/Elements/c/ |
| rdae | RDA, Expression Properties | http://www.rdaregistry.info/Elements/e/ |
| rdai | RDA, Item Properties | http://www.rdaregistry.info/Elements/i/ |
| rdam | RDA, Manifestation Properties | http://www.rdaregistry.info/Elements/m/ |
| rdan | RDA, Nomen Properties | http://www.rdaregistry.info/Elements/n/ |
| rdap | RDA, Place Properties | http://www.rdaregistry.info/Elements/p/ |
| rdat | RDA, Time-span Properties | http://www.rdaregistry.info/Elements/t/ |
| rdau | RDA, Unconstrained Properties | http://www.rdaregistry.info/Elements/u/ |
| rdaw | RDA, Work Properties | http://www.rdaregistry.info/Elements/w/ |
| rdax | RDA, Entity Properties | http://www.rdaregistry.info/Elements/x/ |
| schema | Schema.org | http://schema.org/ |
| skos | Simple Knowledge Organization System, SKOS | http://www.w3.org/2004/02/skos/core# |
| wd | Wikidata Entity | http://www.wikidata.org/entity/ |
| wdt | Wikidata Property | http://www.wikidata.org/prop/direct/ |

Table 2: Overview of the data models, ontologies, and vocabularies referenced by the SPA Data Model

3 Terminology Used / Presentation Conventions

3.1 Definition of Key Terms

The following definitions of key terminology used in this document are provided both as an aid to readers unfamiliar with modelling terminology, and to specify for the purpose of this document the precise usage of terms that are sometimes applied inconsistently across data model specifications. We thereby largely follow the definitions used in the context of CIDOC CRM (2015), using where applicable terminology that is compatible with that of the Resource Description Framework (RDF), a recommendation of the World Wide Web Consortium.

One notable difference with regard to the CIDOC CRM is the more nuanced definition of property, as the SPA Data Model does not follow a strictly object-oriented modelling approach. The SPA Data Model differentiates between attributes, relations, and qualifiers. By designating properties of properties as qualifiers it follows the naming conventions used within Wikidata.

| | |
|-------------------|--|
| <i>class</i> | „A class is a category of items that share one or more common traits serving as criteria to identify the items belonging to the class. These properties need not be explicitly formulated in logical terms, but may be described in a text (here called a scope note) that refers to a common conceptualization of domain experts. The sum of these traits is called the intension of the class. A class may be the domain or range of none, one or more properties formally defined in a model. The formally defined properties need not be part of the intension of their domains or ranges: such properties are optional. An item that belongs to a class is called an instance of this class. A class is associated with an open set of real life instances, known as the extension of the class. Here “open” is used in the sense that it is generally beyond our capabilities to know all instances of a class in the world and indeed that the future may bring new instances about at any time (Open World). Therefore a class cannot be defined by enumerating its instances. A class plays a role analogous to a grammatical noun, and can be completely defined without reference to any other construct” (CIDOC CRM 2015, pp. vii-viii). |
| <i>subclass</i> | “A subclass is a class that is a specialization of another class (its superclass). Specialization or the IsA relationship means that: <ul style="list-style-type: none">• all instances of the subclass are also instances of its superclass,• the intension of the subclass extends the intension of its superclass, i.e. its traits are more restrictive than that of its superclass and• the subclass inherits the definition of all of the properties declared for its superclass without exceptions (strict inheritance), in addition to having none, one or more properties of its own. A subclass can have more than one immediate superclass and consequently inherits the properties of all of its superclasses (multiple inheritance). The [...] specialization between two or more classes gives rise to a structure known as a class hierarchy. The IsA relationship is transitive and may not be cyclic” (CIDOC CRM 2015, pp. viii). |
| <i>superclass</i> | “A superclass is a class that is a generalization of one or more other classes (its subclasses), which means that it subsumes all instances of its subclasses, and that it can also have additional instances that do not belong to any of its subclasses. The intension of the superclass is less restrictive than any of its subclasses. This subsumption relationship or generalization is the inverse of the IsA relationship or specialization” (CIDOC CRM 2015, p. viii). |
| <i>intension</i> | “The intension of a class or property is its intended meaning. It consists of one or more common traits shared by all instances of the class or property. These traits need not be explicitly formulated in logical terms, but may just be de- |

| | |
|-------------------------|--|
| | scribed in a text (here called a scope note) that refers to a conceptualisation common to domain experts” (CIDOC CRM 2015, p. viii). |
| <i>extension</i> | “The extension of a class is the set of all real life instances belonging to the class that fulfil the criteria of its intension . This set is “open” in the sense that it is generally beyond our capabilities to know all instances of a class in the world and indeed that the future may bring new instances about at any time (Open World)” (CIDOC CRM 2015, pp. viii-ix). |
| <i>scope note</i> | “A scope note is a textual description of the intension of a class or property . Scope notes [...] refer to a conceptualisation common to domain experts and disambiguate between different possible interpretations. Illustrative example instances of classes and properties are also regularly provided in the scope notes for explanatory purposes” (CIDOC CRM 2015, p. ix). |
| <i>instance</i> | “An instance of a class is a real world item that fulfils the criteria of the intension of the class” (CIDOC CRM 2015, p. ix). |
| <i>property</i> | A property serves to provide further information about an item (taking the form of an attribute), to express the relationship between two items (taking the form of a relation), or to provide further information about a property of the type attribute or relation (taking the form of a qualifier). Similar to a class , a property is characterized by an intension , which is conveyed by a scope note . Properties can also be specialized in the same manner as classes, resulting in IsA relationships between subproperties and their superproperties . |
| <i>attribute</i> | An attribute is a type of property that serves to provide further information about an item. An attribute plays a role analogous to a grammatical attribute, typically expressing an IsA or HasA statement. An attribute may be applied to the instances of a large number of classes or its use may be restricted to only one or a small number of classes. |
| <i>relation</i> | <p>A relation is a type of property that serves to define a relationship of a specific kind between the instances of two classes. A relation plays a role analogous to a grammatical verb, in that it must be defined with reference to both its domain and range, which are analogous to the subject and object in grammar. It is arbitrary, which class is selected as the domain, just as the choice between active and passive voice in grammar is arbitrary. In other words, a relation can be interpreted in both directions, with two distinct, but related interpretations. In some cases, further information is provided concerning a given relation in form of a qualifier that plays a role analogous to a grammatical adverb.</p> <p>Relation names in the SPA Data Model are designed to be semantically meaningful and grammatically correct when read from domain to range. In addition the inverse relation name, sometimes given in parentheses, is also designed to be semantically meaningful and grammatically correct when read from range to domain.</p> |
| <i>qualifier</i> | A qualifier is a type of property that serves to provide further information about an attribute or a relation . A qualifier plays a role analogous to a grammatical adverb. A qualifier may be applied to the instances of a large number of attributes and/or relations or its use may be restricted to only one or a small number of them. |
| <i>inverse relation</i> | The inverse relation is the reinterpretation of a relation from range to domain without more general or more specific meaning, similar to the choice between active and passive voice in some languages. |
| <i>subproperty</i> | <p>“A subproperty is a property that is a specialization of another property (its superproperty). Specialization or IsA relationship means that:</p> <ul style="list-style-type: none"> • all instances of the subproperty are also instances of its superproperty, • the intension of the subproperty extends the intension of the superproperty, i.e. its traits are more restrictive than that of its superproperty, • the domain of the subproperty is the same as the domain of its super- |

property or a **subclass** of that domain,

- the **range** [if applicable] of the subproperty is the same as the range of its superproperty or a subclass of that range,
- the subproperty inherits the definition of all of the properties declared for its superproperty without exceptions (strict inheritance), in addition to having none, one or more properties of its own.

A subproperty can have more than one immediate superproperty and consequently inherits the properties of all of its superproperties (multiple inheritance). The IsA relationship or specialization between two or more properties gives rise to the structure we call a property hierarchy. The IsA relationship is transitive and may not be cyclic” (CIDOC CRM 2015, pp. ix-x).

| | |
|----------------------------|--|
| <i>superproperty</i> | “A superproperty is a property that is a generalization of one or more other properties (its subproperties), which means that it subsumes all instances of its subproperties, and that it can also have additional instances that do not belong to any of its subproperties. The intension of the superproperty is less restrictive than any of its subproperties. The subsumption relationship or generalization is the inverse of the IsA relationship or specialization” (CIDOC CRM 2015, p. x). |
| <i>domain</i> | The domain comprises the class(es) for which a property is formally defined. This means that instances of the property are applicable to instances of its domain class(es). The domain class is analogous to the grammatical subject of the phrase for which the property is analogous to the verb. |
| <i>range</i> | “The range is the class that comprises all potential values of a [relation]. That means that instances of the [relation] can link only to instances of its range class. [...] The range class is analogous to the grammatical object of a phrase for which the property is analogous to the verb. It is arbitrary, which class is selected as domain and which as range, just as the choice between active and passive voice in grammar is arbitrary” (CIDOC CRM 2015, p. x). |
| <i>equivalent class</i> | An equivalent class is a class defined as part of another ontology that can be considered as equivalent to a given class defined as part of the SPA Data Model. |
| <i>equivalent property</i> | An equivalent property is a property defined as part of another ontology that can be considered as equivalent to a given property defined as part of the SPA Data Model. |

3.2 Naming Conventions

The following naming conventions have been applied throughout the SPA Data Model:

- All elements of the SPA Data Model are preceded by the letters “SPA-“ (in analogy to RiC 2016).
- Classes are identified by numbers preceded by the letter “E” (for “Entity”, in analogy to CIDOC CRM 2015 and RiC 2016) and are named using noun phrases (nominal groups) using title case (initial capitals).
- Properties of the type attribute are identified by the letter “P” (for “Property”).
- Properties of the type relation are identified by the letter “R” (for “Relation”).
- Properties of the type qualifier are identified by the letter “Q” (for “Qualifier”).
- Relation names in graphics should be read in their non-parenthical form for the domain-to-range direction, and in parenthical form for the range-to-domain direction. Reading a relation in range-to-domain direction is equivalent to the inverse of that relation.
- Properties that have identical domain and range are either symmetric or transitive.

3.3 References to Existing Data Models and Ontologies

The core classes and properties of the SPA Data Model are self-contained in that the model fully describes these classes and properties. The SPA Data Model however draws extensively on the work accomplished by existing standardization bodies in two ways:

- In providing class and property definitions, examples, etc. the SPA Data Model uses as much as possible direct quotations from existing standardization documents. Direct quotations from other standardization documents are provided in quotation marks. As names of classes of the SPA Data Model are rendered using title case (initial capitals), quotations from other standardization documents have been redacted to comply with this convention without specifically indicating these adaptations in the quoted text. In order to avoid confusion, explicit references to existing standardization documents have only been included when no substantial changes to the content have been made. Yet, even in cases with substantial changes to some of the content, many of the formulations have been inspired by or have been directly copied from existing standardization documents without indicating the provenance for every detail. This should allow the quick reader to rapidly spot the similarities and the differences with regard to other data models, while sticking as much as possible to the terminology and formulations used in similar standardization documents in order to facilitate the use of the SPA Data Model.
- Providing a standalone data model and RDF ontology allows us to express a maximum of equivalent classes and properties for the elements defined by the SPA Data Model. The SPA Data Model thus contains the mapping information needed to map its core classes and properties to the classes and properties specified in other data models used in the heritage domain (such as FRBR 2009, CIDOC CRM 2015, FRBRoo 2015, ECLAP 2015, EDM 2016, and RiC 2016) or in ontologies that are otherwise widely used within the linked data community (such as Dublin Core, RDA, schema.org, foaf, etc.). To refer to other standardization documents, the prefixes listed in table 2 are used, when applicable in combination with the identifier of the given element in the source document.

3.4 Modelling Principles

3.4.1 Monotonicity

As the SPA Data Model's role is the meaningful integration of information in an Open World, it aims to be monotonic in the sense that existing model constructs and the deductions made from them must always remain valid and well-formed, even as new constructs are added by extensions to the model.

Properties, such as having a part, an owner or a location, may change many times for a single item during its existence. Stating instances of such properties for an item in terms of the SPA Data Model only means that these properties existed during some particular time-span. Therefore, one item may have multiple instances of the same property reflecting an aggregation of these instances over the time-span of its existence. If details regarding the temporal validity or other precisions are required, the SPA Data Model foresees the use of qualifiers. By virtue of this principle, the data model achieves monotonicity with respect to an increase of knowledge about the states of an item at different times, regardless of their temporal order (cf. CIDOC CRM 2015, p. xv).

3.4.2 Minimality

Although the scope of the SPA Data Model is rather broad, the model itself is constructed as economically as possible.

Thus, a class is not declared unless it is required because the domain or range of a property is not appropriate to its superclass, or unless it is a key concept within the performing arts and/or heritage domain.

Subclasses and superclasses are only referred to if they are defined within the context of the SPA Data Model itself or if they are of particular relevance. Extensive reference is however made to equivalent classes in other data models from which further subclasses or superclasses may be inferred; thus classes from the FRBRoo data model typically link to relevant superclasses of the CIDOC CRM and to various subclasses within the FRBRoo data model itself.

3.4.3 Extensions via Type Attributes

Since the intended scope of the SPA Data Model is a subset of the “real” world and is therefore potentially infinite, the model has been designed to be extensible through the linkage of compatible type hierarchies. Such type hierarchies, that can be referred to through “type” attributes of various classes, may be defined as controlled vocabularies within a given institution or as shared vocabularies within a given community, i.e. they do not necessarily need to reflect a shared consensus among all the users of the SPA Data Model.

3.4.4 Coverage

Of necessity, some concepts covered by the SPA Data Model are less thoroughly elaborated than others. This is a natural consequence of staying within the data model’s stated practical scope in an intrinsically unlimited domain of discourse. If the need arises, the SPA Data Model may be extended in future versions.

The SPA Data Model provides several mechanisms to ensure that coverage of the intended scope is complete (cf. CIDOC CRM 2015, p. xviii):

1. Existing high level classes can be extended, either structurally as subclasses or dynamically using type hierarchies (controlled vocabularies).
2. Existing high level properties can be extended, either structurally as subproperties, or in some cases, dynamically, using qualifiers (properties of properties).
3. Additional information that falls outside the semantics formally defined by the SPA Data Model can be recorded as unstructured data using the *SPA-P general note* attribute or may be described thanks to the generic attribute *SPA-P local attribute* or the generic relation SPA-R is associated with, using qualifiers to further specify the given property.

In mechanisms 1 and 2, the SPA Data Model’s concepts subsume and thereby cover the extensions. In mechanism 3, the information is accessible at the appropriate point in the respective knowledge base. The approach using the *SPA-P general note* attribute is preferable when detailed, targeted queries are not expected; in general, only the concepts used for formal querying need to be explicitly modelled.

4 Classes

4.1 Overview

The organization of most classes of the SPA Data Model is inspired by the categorization of the FRBR Data Model, thus:

- **Group 1 Classes** comprise the “products of intellectual or artistic endeavor that are named or described in bibliographic records” (FRBR 2009, p. 13) as well as their equivalents in the domain of performance works. In addition, they comprise the core structural elements of museal collections and archives, namely collection items and collections, as well as records and groupings of records.
- **Group 2 Classes** comprise “those entities responsible for the intellectual or artistic content, the physical production and dissemination, or the custodianship” (FRBR 2009, p. 13) of entities belonging to the first group.
- **Group 3 Classes** in turn comprise “an additional set of entities that serve as the subjects of intellectual or artistic endeavor” (FRBR 2009, p. 13).
- **Classes for the Description of Agents’ Roles in Social Settings:** These classes serve the description of occupations, positions, functions, and performance roles Agents may take on. Regarding the description of the classes Occupation, Position, and Function, the SPA Data Model follows the RiC Data Model (RiC 2016), whereas the class Performance Role has an equivalent in the schema vocabulary (schema:Performance Role).
- **Components of Items:** At the level of individual items (or records) the SPA Data Model follows the Europeana Data Model in that it models an individual item as a “set of related resources, grouped together such that the set can be treated as a single resource” (EDM 2016). In the context of the SPA Data Model, this allows for the grouping of all digital and analogue resources pertaining to the same original item.
- **Further Classes:** And finally, a few further classes are defined, such as Date (for non-standard indications of dates), Nomen (for designations referring to entities), Documentary Form (to describe different types of artefacts documenting facts or events, as they can typically be found in archives), Reference Database (for the description of online databases), Thesaurus (for the description of thesauri), and Contact Point (for the description of agents’ contact points).

4.2 Group 1 Classes

Group 1 Classes comprise the “products of intellectual or artistic endeavor that are named or described in bibliographic records” (FRBR 2009, p. 13) as well as their equivalents in the domain of performance works. In addition, they comprise the core structural elements of archives, namely records and groupings of records. At the core of the SPA Data Model is the Item element, which represents an individual heritage object, i.e. a copy of a literary text, a theatrical text, music scores, an archival record, or some other item documenting the conception, the realization, or the reception of a performing arts production.

The group 1 classes integrate the three main perspectives relevant to heritage institutions specializing in the performing arts domain and that are at the centre of the SPA Data Model:

- the **perspective of the literary, musical, or choreographic work** having its physical manifestation in a physical artefact and which may serve as a basis for a performing arts production;

- the **perspective of the performance work** having its physical manifestation in an ephemeral performing arts production;
- the **archival or documentation perspective**, documenting performing arts productions and the people involved in their creation by collecting various kinds of physical artefacts related to the conception, realization, and the reception of a performing arts production.

Depending on the perspective that is dominant, an Item may primarily be described from the perspective of a Work, relating the Item to the Expression and Manifestation of a given Work or from the perspective of a record, belonging to a Record Set. Furthermore, performing arts productions may be described from the perspective of a Performance Work, relating a given Performance to a Performance Plan and a specific Performing Arts Production.

Two further perspectives could be added:

- the **perspective of the detailed description of museum objects**, pertaining to various types of physical artefacts related to performing arts productions or the people involved in their creation;
- the **perspective of the recording work** (FRBRoo-F21 Recording Work), which applies to audiovisual works that are meant as standalone works, such as the Hamlet movie by Kenneth Branagh (1996).

As both perspectives play a minor role for the Swiss Theatre Collection and the Swiss Dance Collection, the two institutions that served as a reference for the development of the SPA Data Model, these perspectives are not specifically taken into account by the data model; it should however be possible to extend the data model accordingly if such a need arises.

Within the framework of the SPA Data Model, documentary audio-visual recordings of theatre plays or dance performances are modelled from an archival or documentation perspective, and not from the perspective of a standalone work, while motion pictures are modelled in the same way as a literary or musical work.

A sixth perspective, the **preservation perspective**, pertaining to the preservation of physical or digital artefacts, is addressed at the sub-item level (see section 4.6).

Figure 1 gives an overview of all the group 1 classes included in the SPA Data Model: While the classes Work, Expression, Manifestation, and Item correspond to the same classes of the FRBR model, the classes Performance Work, Performance Plan, Performing Arts Production, and Performance build an analogous strand for works of the performing arts. They are mainly inspired by the FRBRoo data model. Note however that at the difference to the FRBRoo model, the SPA Data Model distinguishes between the classes Performing Arts Production and Performance. While the former describes a set of similar (theoretically identical) performances, the latter describes an individual performance. In order to facilitate the description of series of similar Performances as part of a given Performing Arts Production, a class Series of Performances has been defined. And finally, the data model comprises the classes Collection and Record Set which may contain any number of elements of the class Item, which from a museum perspective correspond to a collection item and from an archival perspective to a record. The SPA Data Model follows the approach taken by RiC in that the different classes used according to ISAD(G) to represent the hierarchical structure of an archive, are reduced to the number of two, Record Set and Item (record), while ensuring compatibility with ISAD(G) by rendering the different classes, such as ISAD(G):Fonds, ISAD(G):Series, ISAD(G):File, and all the in-between-classes, such as sub-series, etc. in form of a *SPA-P type* attribute of Record Set.

The figure also shows the main relationships between the group 1 classes. Here, the SPA Data Model mainly follows the logic of the FRBR, FRBRoo, and the RiC data models, complementing them where necessary.

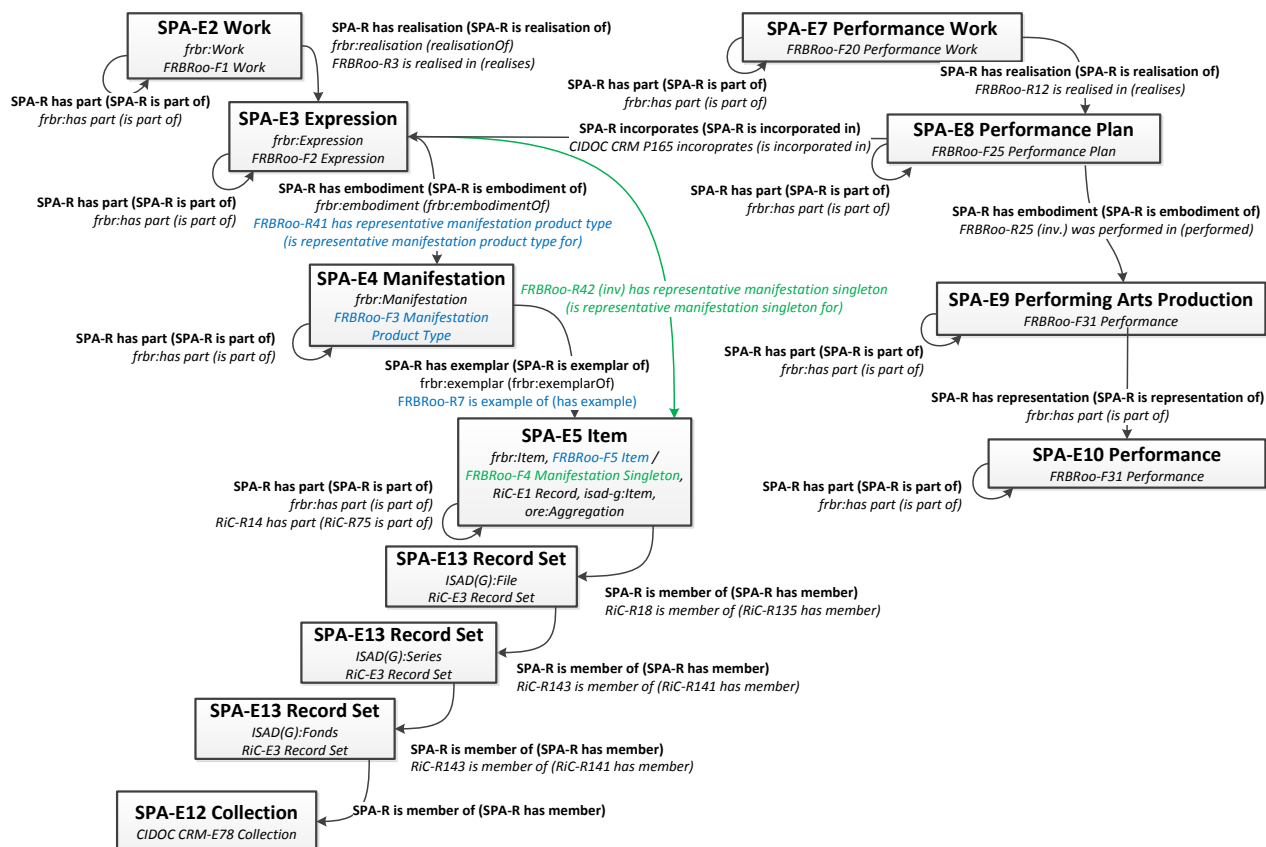


Figure 1: Group 1 classes and the main relationships between them

| # | Name | Definition |
|--------|---------------------------|---|
| SPA-E1 | Endeavour | any of the FRBR group 1 entities |
| | Subclass of | SPA-E25 Concept |
| | Superclass of | SPA-E2 Work SPA-E3 Expression SPA-E4 Manifestation SPA-E5 Item SPA-E6 Endeavour of the Performing Arts |
| | Equivalent Class | frbr:Endeavour |
| | Scope Note | This class represents any one of the FRBR group one entities (Work, Expression, Manifestation, Item) or a combination thereof. |
| | Example | |
| | Comment | - |
| # | Name | Definition |
| SPA-E2 | Work | distinct intellectual or artistic creation |
| | Subclass of | SPA-E25 Concept |
| | Superclass of | SPA-E7 Performance Work |
| | Equivalent Classes | frbr:Work FRBRoo-F1 Work rdac:C10001 "work" |
| | Scope Note | "A Work is an abstract entity; there is no single material object one can point to as the Work. We recognize the Work through individual realizations or Expressions of the Work, but the Work itself exists only in the commonality of content between and among the various Expressions of the Work. When we speak of Homer's <i>Iliad</i> as a Work, our point of reference is not a particular recitation or text of the Work, but the intellectual creation that lies behind all the various |

| | | |
|----------|---------------------------|--|
| | | <p>Expressions of the Work” (FRBR 2009, p. 17).</p> <p>“This class comprises distinct concepts or combinations of concepts identified in artistic and intellectual expressions, such as poems, stories or musical compositions. Such concepts may appear in the course of the coherent evolution of an original idea into one or more expressions that are dominated by the original idea. A Work may be elaborated by one or more [Agents] simultaneously or over time. The substance of Work is ideas. A Work may have members that are works in their own right” (FRBRoo 2015, p. 44).</p> <p>In the context of the SPA Data Model, various types of works (e.g. literary works, musical works, motion pictures) are assigned to this class; no sub-classes are used for works whose physical manifestation can typically be thought of as physical artefacts. In the case of performance works, in contrast, the subclass Performance Work is used; here the principal physical manifestation of the work lies in the ephemeral performing arts production.</p> |
| | Examples | <p>William Shakespeare’s <i>Romeo and Juliet</i></p> <p>Franco Zeffirelli’s motion picture <i>Romeo and Juliet</i></p> <p>Baz Luhrmann’s and Craig Pearce’s motion picture <i>William Shakespeare’s Romeo and Juliet</i></p> |
| | Comment | <p>“Because the notion of a Work is abstract, it is difficult to define precise boundaries for the entity. The concept of what constitutes a Work and where the line of demarcation lies between one Work and another may in fact be viewed differently from one culture to another. Consequently the bibliographic conventions established by various cultures or national groups may differ in terms of the criteria they use for determining the boundaries between one Work and another” (FRBR 2009, p. 17).</p> |
| # | Name | Definition |
| SPA-E3 | Expression | intellectual or artistic realization of a Work in the form of alpha-numeric, musical, or choreographic notation, sound, image, object, movement, etc., or any combination of such forms |
| | Subclass of | SPA-E25 Concept |
| | Superclass of | SPA-E8 Performance Plan |
| | Equivalent Classes | <p>frbr:Expression</p> <p>FRBRoo-F2 Expression</p> <p>rdac:C10006 “expression”</p> |
| | Scope Note | <p>“An Expression is the specific intellectual or artistic form that a Work takes each time it is “realized.” Expression encompasses, for example, the specific words, sentences, paragraphs, etc. that result from the realization of a Work in the form of a text, or the particular sounds, phrasing, etc. resulting from the realization of a musical work. The boundaries of the entity Expression are defined, however, so as to exclude aspects of physical form, such as typeface and page layout, that are not integral to the intellectual or artistic realization of the Work as such. When an Expression is accompanied by augmentations, such as illustrations, notes, glosses, etc. that are not integral to the intellectual or artistic realization of the work, such augmentations are considered to be separate Expressions of their own separate Work(s). Such augmentations may, or may not, be considered significant enough to warrant distinct bibliographic identification” (FRBR 2009, p. 19-20).</p> <p>“This class comprises the intellectual or artistic realisations of Works in the form of identifiable immaterial objects, such as texts, poems, jokes, musical or choreographic notations, movement pattern, sound pattern, images, multimedia objects, or any combination of such forms that have objectively recognisable</p> |

| | | |
|----------|---------------------------|---|
| | | <p>structures. The substance of Expression is signs" (FRBRoo 2015, p. 45).</p> <p>"Expressions cannot exist without a physical carrier, but do not depend on a specific physical carrier and can exist on one or more carriers simultaneously. Carriers may include human memory" (FRBRoo 2015, p. 45).</p> <p>"Inasmuch as the form of Expression is an inherent characteristic of the Expression, any change in form (e.g., from alpha-numeric notation to spoken word) results in a new Expression. Similarly, changes in the intellectual conventions or instruments that are employed to express a Work (e.g., translation from one language to another) result in the production of a new Expression. If a text is revised or modified, the resulting Expression is considered to be a new Expression. Minor changes, such as corrections of spelling and punctuation, etc., may be considered as variations within the same Expression" (FRBR 2009, p. 20). "On a practical level, the degree to which distinctions are made between variant expressions of a work will depend to some extent on the nature of the F1 Work itself, and on the anticipated needs of users" (FRBRoo 2015, p. 45).</p> <p>"The genre of the Work may provide an indication of which features are essential to the Expression. In some cases, aspects of physical form, such as typeface and page layout, are not integral to the intellectual or artistic realisation of the Work as such, and therefore are not distinctive criteria for the respective expressions. For another work, features such as layout may be essential. For instance, the author or a graphic designer may wrap a poem around an image" (FRBRoo 2015, p. 45).</p> <p>"An Expression of a Work may include Expressions of other Works within it. For instance, an anthology of poems is regarded as a Work in its own right that makes use of Expressions of the individual poems that have been selected and ordered as part of an intellectual process. This does not make the contents of the aggregated Expressions part of this Work, but only parts of the resulting Expression" (FRBRoo 2015, p. 45).</p> |
| | Examples | <p>The Italian text of Dante's 'Inferno' as found in the authoritative critical edition <i>La Commedia secondo l'antica vulgata a cura di Giorgio Petrocchi</i>, Milano: Mondadori, 1966-67 (= <i>Le Opere di Dante Alighieri, Edizione Nazionale a cura della Società Dantesca Italiana</i>, VII, 1-4)</p> <p>The musical notation of Franz Schubert's lied known as 'Ave Maria'</p> <p>The musical notation of Franz Schubert's lieder cycle entitled 'Seven Songs after Walter Scott's The Lady of the Lake', of which 'Ave Maria' is a distinct part</p> <p>The musical notation of Franz Liszt's piano transcription of Franz Schubert's lied known as 'Ave Maria'</p> |
| | Comment | - |
| # | Name | Definition |
| | SPA-E4 Manifestation | physical embodiment of an Expression of a Work |
| | Subclass of | SPA-E25 Concept |
| | Superclass of | SPA-E9 Performing Arts Production |
| | Equivalent Classes | frbr:Manifestation FRBRoo-F3 Manifestation Product Type rdac:C10007 "manifestation" |
| | Scope Note | "The entity defined as Manifestation encompasses a wide range of materials, including manuscripts, books, periodicals, maps, posters, sound recordings, films, video recordings, CD-ROMs, multimedia kits, etc. As an entity, Manifestation represents all the physical objects that bear the same characteristics, in respect to both intellectual content and physical form" (FRBR 2009, p. 21) |

| | | |
|-------------|-----------------|--|
| | | <p>“When a Work is realized, the resulting Expression of the Work may be physically embodied on or in a medium such as paper, audio tape, video tape, canvas, plaster, etc. That physical embodiment constitutes a Manifestation of the work. In some cases there may be only a single physical exemplar produced of that Manifestation of the Work (e.g., an author’s manuscript, a tape recorded for an oral history archive, an original oil painting, etc.). In other cases there are multiple copies produced in order to facilitate public dissemination or distribution. In those cases there is normally a more formal production process involved, and a publisher, producer, or distributor takes responsibility for the process. In other cases there may be only a limited number of copies made of an original exemplar for purposes such as private study (e.g., a dubbing of an original recording of a piece of music), or preservation (e.g., a photocopy produced on permanent paper of an author’s original typescript). Whether the scope of production is broad (e.g., in the case of publication, etc.) or limited (e.g., in the case of copies made for private study, etc.), the set of copies produced in each case constitutes a Manifestation. All copies produced that form part of the same set are considered to be copies of the same Manifestation” (FRBR 2009, pp. 21-22).</p> <p>“The boundaries between one Manifestation and another are drawn on the basis of both intellectual content and physical form. When the production process involves changes in physical form the resulting product is considered a new Manifestation. Changes in physical form include changes affecting display characteristics (e.g., a change in typeface, size of font, page layout, etc.), changes in physical medium (e.g., a change from paper to microfilm as the medium of conveyance), and changes in the container (e.g., a change from cassette to cartridge as the container for a tape). Where the production process involves a publisher, producer, distributor, etc., and there are changes signaled in the product that are related to publication, marketing, etc. (e.g., a change in publisher, repackaging, etc.), the resulting product may be considered a new Manifestation. Whenever the production process involves modifications, additions, deletions, etc. that affect the intellectual or artistic content, the result is a new Manifestation embodying a new Expression of the Work” (FRBR 2009, p. 22).</p> |
| | Examples | <p>The publication product containing the text entitled ‘Harmonie universelle’ (authored by the person named ‘Marin Mersenne’), issued in 1636 in Paris by the publisher named ‘Sébastien Cramoisy’</p> <p>The publication product containing a modern reprint of Marin Mersenne’s ‘Harmonie universelle’, issued in 1986 in Paris by the publisher named ‘Les éditions du CNRS’, and identified by ISBN ‘2-222-00835-2’</p> <p>The publication product containing the third edition of the combination of texts and graphics titled ‘Codex Manesse: die Miniaturen der großen Heidelberger Liederhandschrift, herausgegeben und erläutert von Ingo F. Walther unter Mitarbeit von Gisela Siebert’, issued by the publisher named ‘Insel-Verlag’ in 1988</p> |
| | Comment | <p>“Changes that occur deliberately or even inadvertently in the production process that affect the copies result, strictly speaking, in a new Manifestation. A Manifestation resulting from such a change may be identified as a particular “state” or “issue” of the publication” (FRBR 2009, p. 23).</p> <p>“Changes that occur to an individual copy after the production process is complete (e.g., the loss of a page, rebinding, etc.) are not considered to result in a new Manifestation. That copy is simply considered to be an exemplar (or item) of the Manifestation that deviates from the copy as produced” (FRBR 2009, p. 23).</p> |
| # | Name | Definition |
| SPA-E5 Item | | physical embodiment of any linguistic, symbolic, or graphic information by any method; single exemplar of a Manifestation |

| | |
|---------------------------|---|
| Subclass of | SPA-E23 Object ore:Aggregation dcterms:BibliographicResource |
| Superclass of | - |
| Equivalent Classes | frbr:Item FRBRoo-F4 Manifestation Singleton * FRBRoo-F5 Item * RiC-E1 Record rdac:C10003 "item" |
| Scope Note | <p>"The entity defined as Item is a concrete entity. It is in many instances a single physical object (e.g., a copy of a one-volume monograph, a single audio cassette, etc.). There are instances, however, where the entity defined as Item comprises more than one physical object (e.g., a monograph issued as two separately bound volumes, a recording issued on three separate compact discs, etc.)" (FRBR 2009, p. 24).</p> <p>"In terms of intellectual content and physical form, an Item exemplifying a Manifestation is normally the same as the Manifestation itself. However, variations may occur from one Item to another, even when the Items exemplify the same Manifestation, where those variations are the result of actions external to the intent of the producer of the Manifestation (e.g., damage occurring after the Item was produced, binding performed by a library, etc.)" (FRBR 2009, p. 24).</p> <p>In the context of an archive, an Item is the equivalent of a record, i.e. the "linguistic, symbolic, or graphic information represented in any persistent form, on any durable carrier, by any method, by an Agent in the course of life or work events and activities" (RiC 2016, p.13).</p> <p>Both from a Work perspective and from an archival perspective, Items may be created by incorporating other pre-existing items. Thus, Items may contain other Items. From an archival point of view, such 'compound records' should not be confused with a Record Set, as they are evidence of a single transaction by an Agent rather than a grouping of distinct records as part of their management and use (cf. RiC 2016, p. 13).</p> <p>Note that within the SPA Data Model, Items are modelled as aggregations comprising the set of analog objects and digital resources related to a single cultural heritage object that collectively represent that object in the context of one or several heritage collections (see figure 5). Such a set consists of the original cultural heritage object (Cultural Heritage Object) as well as all available descriptions, analog copies (Analog Copy), and digital representations (Digital Resource) of the object.</p> |
| Examples | <p>The video recording of "Le coq est mort", part of the series "Le coq est mort (Suanne Linke) within the fonds "Sammlung: Brunner Wolfgang" in the section "Sammlung" of the Swiss Dance Collection.</p> <p>Model of the theatre in the «Hôtel de Musique» in Bern by Niklaus Sprüngli, held by the Swiss Theatre Collection.</p> |
| Comment | <p>* The FRBRoo data model distinguishes between FRBRoo-F4 Manifestation Singleton and FRBRoo-F5 Item; while both are sub-classes of CIDOC CRM-E24 Physical Man Made Thing, the latter is in addition modeled as a sub-class of FRBRoo-F54 Utilized Information Carrier. Inasmuch as this distinction is not relevant in a given context, they can both be treated as equivalent classes of SPA-E4 Item.</p> <p>In an archival context, the description level "item" is to be modelled as Item.</p> |

| # | Name | Definition |
|--------|----------------------------------|--|
| SPA-E6 | Endeavour of the Performing Arts | any of the FRBR group 1 entities applied to a performance work |
| | Subclass of | SPA-E1 Endeavour |
| | Superclass of | SPA-E7 Performance Work SPA-E8 Performance Plan SPA-E9 Performing Arts Production SPA-E10 Performance |
| | Equivalent Class | - |
| | Scope Note | This class represents any one of the FRBR group one entities related to the creation, realization, and the production of a performance work (Performance Work, Performance Plan, Performing Arts Production, Performance) or a combination thereof. |
| | Example | |
| | Comment | - |
| # | Name | Definition |
| SPA-E7 | Performance Work | distinct performing arts creation at a conceptual level |
| | Subclass of | SPA-E2 Work SPA-E6 Endeavour of the Performing Arts |
| | Superclass of | - |
| | Equivalent Class | FRBRoo-F20 Performance Work |
| | Scope Note | "This class comprises the sets of concepts for rendering a particular or a series of like performances" (FRBRoo 2015, p. 54). |
| | Examples | The conceptual content of Sergei Radlov's mise-en-scène of a Yiddish translation of the textual work entitled 'King Lear' in Moscow in 1935. The conceptual content of Pina Bausch's choreography of the ballet entitled 'Rite of spring' in Wuppertal in 1975. The conceptual content of Bruno Walter's performance of Gustav Mahler's 9th symphony in 1961. The conceptual content of the "performance handbook" for Luigi Nono's musical work entitled 'À Pierre'. "Die Grönholm-Methode", a performance work based on the theatre play "El mètode Grönholm" by Jordi Galceran produced by "Theater Matte" in Bern and directed by Oliver Stein during the theatre season 2016/2017. |
| | Comment | Within FRBRoo, Performance Work is declared as a subclass of Container Work. This implies that the incorporated expressions (such as the text of the staged play, the text of the argument for the ballet, the recorded music to be used for the ballet, or the content of the musical score to be used for a concert, etc.) are not by themselves a part of the expression of the Performance Work. Rather, the corresponding expression (Performance Plan) consisting of the instructions for the stage production, choreography, or musical performance incorporates (SPA-R incorporates) that textual or musical content. "In other words, the text of 'Hamlet' is not a component of the concepts that underlie a given mise-en-scène of 'Hamlet', but any staging directions (Performance Plan) that convey a given director's vision of 'Hamlet' must necessarily incorporate the text of 'Hamlet'" (FRBRoo 2015, p. 54). |
| # | Name | Definition |
| SPA-E8 | Performance Plan | artistic realization of a Performance Work expressed in a set of directions to which individual performances of theatrical, choreographic, or musical works and their combinations should conform |

| | | |
|----------|-----------------------------------|---|
| | Subclass of | SPA-E3 Expression SPA-E6 Endeavour of the Performing Arts |
| | Superclass of | - |
| | Equivalent Class | FRBRoo-F25 Performance Plan |
| | Scope Note | <p>“This class comprises sets of directions to which individual performances of theatrical, choreographic, or musical works and their combinations should conform.</p> <p>In the case of theatrical performances, such directions incorporate, but are not limited nor reducible to, the text of a given version of the play performed (e.g., a translated text, some passages of which are deliberately omitted, with some rephrased lines, etc.).</p> <p>In the case of choreographic performances, such directions may incorporate, but are neither limited nor reducible to, the notation of choreographic movements in systems such as labanotation.</p> <p>In the case of musical performances, such directions may incorporate, but are neither limited nor reducible to, the musical score. In case of electronic music, they may incorporate software instructions.</p> <p>These directions may or may not completely determine the form of the intended performance. Depending on the nature of the directions, the form of the intended performance, such as the sets of movements or the sound characteristics, may or may not be predictable from the directions” (FRBRoo 2015, p. 57-58).</p> |
| | Examples | <p>The set of instructions for the production of a Yiddish translation of the textual work entitled ‘King Lear’, as directed by Sergei Radlov in Moscow in 1935.</p> <p>The set of instructions for the production of the ballet entitled ‘Rite of spring’, as choreographed by Pina Bausch in Wuppertal in 1975.</p> <p>The set of instructions by Bruno Walter for performing Gustav Mahler’s 9th symphony, delivered by him to the Columbia Symphony Orchestra during rehearsals in Hollywood in 1961 (as partially documented in the CD entitled ‘Bruno Walter conducts and talks about Mahler symphony No. 9: rehearsal & performance’).</p> <p>The set of instructions contained in the “performance handbook” for Luigi Nono’s musical work entitled ‘À Pierre’.</p> <p>The artistic realization of the performance work "Die Grönholm-Methode" by Jordi Galceran, based on a Swiss-German adaptation of the play.</p> |
| | Comment | “Note that a performance plan may be more or less elaborate, and may even foresee just improvisation” (FRBRoo 2015, p. 58). |
| # | Name | Definition |
| | SPA-E9 Performing Arts Production | physical embodiment of a Performance Plan of a Performance Work in form of one or several supposedly identical Performances; a complete run of contiguous Performances |
| | Subclass of | SPA-E4 Manifestation SPA-E28 Activity SPA-E6 Endeavour of the Performing Arts |
| | Superclass of | schema:TheaterEvent * (see also SPA-E9 Performance) schema:DanceEvent * (see also SPA-E9 Performance) |
| | Equivalent Class | FRBRoo-F31 Performance * (see also SPA-E9 Performance) |
| | Scope Note | This class comprises a set of one or several Performances that follow the direc- |

| | | |
|----------|-------------------------|---|
| | | <p>tions of the same Performance Plan, such as a theatrical play, an expression of a choreographic work or a musical work.</p> <p>“A complete run of Performances may comprise an original run plus any of its extensions and tours” (FRBRoo 2015, p. 60).</p> |
| | Examples | <p>Performing of the operatic work entitled ‘Dido and Aeneas’, as directed by Edward Gordon Craig and conducted by Martin Shaw, in London, Hampstead Conservatoire, on May 17, 18, and 19, 1900 (run of performances).</p> <p>Performing of the theatre play "Die Grönholm-Methode" by Jordi Galceran, staged at "Theater Matte" in Bern under the direction of Oliver Stein between 5 April and 7 May 2017.</p> |
| | Comment | <p>* Note that FRBRoo (2015) does not distinguish between Performing Arts Productions and single Performances. Rather, several instances of FRBRoo-F31 Performance may be grouped together as parts of an overarching instance of FRBRoo-F31 representing a complete run of performances. The same applies to schema.org with regard to Theatre Event and Dance Event.</p> <p>“Note that a performance plan may be more or less elaborate, and may even foresee just improvisation. (FRBRoo 2015, p. 61)”</p> |
| # | Name | Definition |
| SPA-E10 | Performance | individual representation of a Performance Work according to a Performance Plan in the context of a Performing Arts Production |
| | Subclass of | SPA-E28 Activity SPA-E6 Endeavour of the Performing Arts |
| | Superclass of | schema:TheaterEvent * (see also SPA-E8 Performing Arts Production) schema:DanceEvent * (see also SPA-E8 Performing Arts Production) |
| | Equivalent Class | FRBRoo-F31 Performance * (see also SPA-E8 Performing Arts Production) |
| | Scope Note | <p>This class comprises activities that follow the directions of a Performance Plan, such as a theatrical play, an expression of a choreographic work or a musical work; i.e., they are intended to communicate directly or indirectly to an audience.</p> <p>Any individual performance (with or without intermissions) is an instance of Performance (cf. FRBRoo 2015, p. 61).</p> <p>Taken together, all Performances following the same Performance Plan, and thus forming a complete run of Performances, constitute a Performing Arts Production.</p> |
| | Examples | <p>First performance of a Yiddish translation of the textual work entitled ‘King Lear’, as directed by Sergei Radlov, in Moscow, at the Moscow State Jewish Theatre, on February 10, 1935 (individual performance).</p> <p>Individual performance of the ballet entitled ‘Rite of spring’, as choreographed by Pina Bausch, in Avignon, at the Popes’ Palace, on July 7.</p> <p>The guest performance of Liberté provisoire by Michel Duran at Stadttheater Bern on 18 March 1935, produced by the touring theatre company "Les Galas Karsenty" based on an original production by the "Théâtre Saint-Georges" in Paris and directed by Jacques Baumer.</p> |
| | Comment | <p>* Note that FRBRoo (2015) does not distinguish between Performing Arts Productions and single Performances. Rather, several instances of FRBRoo-F31 Performance may be grouped together as parts of an overarching instance of FRBRoo-F31 representing a complete run of performances. The same applies to schema.org with regard to Theatre Event and Dance Event.</p> |

| # | Name | Definition |
|---------|-------------------------|---|
| SPA-E11 | Series of Performances | several individual representations of a Performance Work according to a Performance Plan in the context of a Performing Arts Production |
| | Subclass of | SPA-E28 Activity SPA-E6 Endeavour of the Performing Arts |
| | Superclass of | schema:TheaterEvent* (<i>see also SPA-E8 Performing Arts Production</i>) schema:DanceEvent* (<i>see also SPA-E8 Performing Arts Production</i>) |
| | Equivalent Class | FRBRoo-F31 Performance* (<i>see also SPA-E8 Performing Arts Production</i>) |
| | Scope Note | This class comprises a subset of individual Performances in the context of the same Performing Arts Production. It is used to describe sets of performances that have something in common, e.g. all the performances of a touring production taking place in the same venue. This class is also to be used if it is unknown if there was just one or several Performances of the same kind. Thus, the series may contain just one Performance. |
| | Examples | The six representations of the guest performance at the Théâtre de Carouge (Carouge, Switzerland) of "Le Roi Lear" ("King Lear") by William Shakespeare, produced by the Théâtre Populaire Romand (La Chaux-de-Fonds, Switzerland) and directed by Charles Joris during the theatre season 1976/1977 (starting on 1 March 1977). |
| | Comment | * Note that FRBRoo (2015) does not distinguish between Performing Arts Productions and single Performances. Rather, several instances of FRBRoo-F31 Performance may be grouped together as parts of an overarching instance of FRBRoo-F31 representing a complete run of performances. The same applies to schema.org with regard to Theatre Event and Dance Event. |
| # | Name | Definition |
| SPA-E12 | Collection | aggregation of Objects that are assembled and maintained (curated and preserved) by one or more Agents over time for a specific purpose and audience, and according to a particular collection development plan |
| | Subclass of | SPA-E23 Object |
| | Superclass of | SPA-E13 Record Set |
| | Equivalent Class | CIDOC CRM-E78 Collection |
| | Scope Note | "Items may be added or removed from a Collection in pursuit of this plan. This class should not be confused with the [Agent] maintaining the Collection often referred to with the name of the Collection (e.g. 'The Wallace Collection decided...')" (CIDOC CRM 2015, p. 36). "Collective objects in the general sense, like a tomb full of gifts, a folder with stamps or a set of chessmen, should be documented as instances of [Object], and not as instances of Collection. This is because they form wholes either because they are physically bound together or because they are kept together for their functionality" (CIDOC CRM 2015, p. 36). |
| | Examples | the John Clayton Herbarium the Wallace Collection Mikael Heggelund Foslie's coralline red algae Herbarium at Museum of Natural History and Archaeology, Trondheim, Norway the section "Sammlung" of the Swiss Dance Collection |
| | Comment | In an archival context, the archival units (sections) above the "fonds" level according to ISAD(G) are to be modelled as Collection, while the description levels from the "fonds" level downwards ("fonds" / "series" / "file") are to be modelled as Record Set. |

| # | Name | Definition |
|---------|-------------------------|--|
| SPA-E13 | Record Set | one or more records (Items) that are intellectually brought together at some point by an Agent, wherever the records (Items) may reside and whatever the shared properties or relations among them may be |
| | Subclass of | SPA-E12 Collection |
| | Superclass of | - |
| | Equivalent Class | RiC-E3 Record Set |
| | Scope Note | <p>“In a particular context, an Agent (e.g. administrator, records manager, archivist, end-user, etc.) selects the member records [Items] of a Record Set based on a shared property or properties, or a shared relation or relations. The grouping of the records [Items] serves a purpose or purposes specific to the context of the Agent. By exception, some records are brought together based on their not belonging in the context of selection to other designated groups: a ‘Miscellaneous’ series for example” (RiC 2016, p. 13).</p> <p>“The selection and grouping, for example, may represent the act of classifying the records in accordance with a formal classification scheme that may be based on function, subject, organizational structure, or other criteria; an act of archival arrangement (e.g. based on common provenance); or some other selection and grouping that fulfils a particular purpose or purposes (e.g. a classification that reflects or supports the purposes of a researcher). The Record Set created by an Agent in the course of life or work events and Activities should be kept in a manner that preserves context and evidential value” (RiC 2016, pp. 13-14).</p> <p>“Records Sets may also contain other Records Sets. Both a Record Set and a record [Item] may simultaneously be a member of more than one Record Set, and over the course of its existence, a Record Set or record [Item] may be a member of an indeterminate number of Record Sets in an indeterminate number of contexts” (RiC 2016, p. 14).</p> <p>“One or more records [Items] in one context may be subsumed or incorporated into a record [Item] in another context to form a new record [Item]. Such a ‘compound record’ should not be confused with a Record Set” (RiC 2016, p. 14).</p> |
| | Examples | <p>Fonds "Sammlung: Brunner, Wolfgang" in the section "Sammlung" of the Swiss Dance Collection;</p> <p>Series "Le coq est mort (by Susanne Linke)" as part of the fonds "Sammlung: Brunner, Wolfgang" in the section "Sammlung" of the Swiss Dance Collection.</p> |
| | Comment | In an archival context, the archival units (sections) above the “fonds” level according to ISAD(G) are to be modelled as Collection, while the description levels from the “fonds” level downwards (“fonds” / “series” / “file”) are to be modelled as Record Set. |

4.3 Group 2 Classes

Group 2 classes pertain to agents, i.e. “those entities responsible for the intellectual or artistic content, the physical production and dissemination, or the custodianship” (FRBR 2009, p. 13) of the entities belonging to the first group. Like RiC, FRAD, and ISAAR(CPF), the SPA Data Model distinguishes between three sub-classes of Agent, namely Person, Family, and Corporate Body. Note that other data models, such as CIDOC CRM, only distinguish between Person and Group, while FRBR only distinguishes between Person and Corporate Body. Figure 2 gives an overview of all the group 2 classes and their ontological relationships.

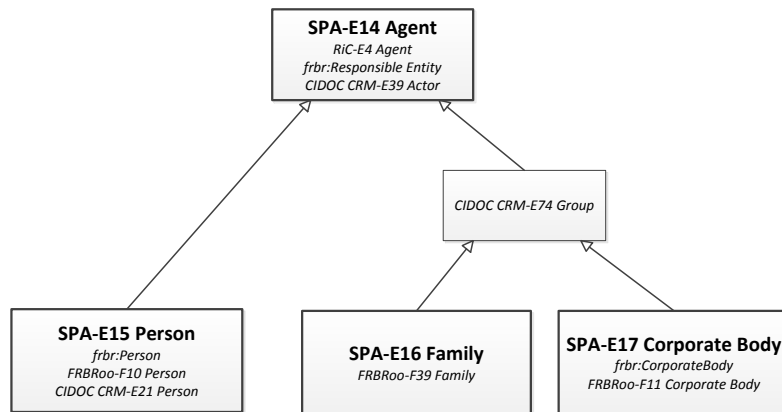


Figure 2: Overview of group 2 classes

| # | Name | Definition |
|---------|-------------------------|---|
| SPA-E14 | Agent | a person or group, or an entity created by a person or group, that is responsible for actions taken and their effects |
| | Subclass of | - |
| | Superclass of | SPA-E15 Person SPA-E16 Family SPA-E17 Corporate Body |
| | Equivalent Class | RiC-E4 Agent frbr:ResponsibleEntity CIDOC CRM-E39 Actor dcterms:Agent edm:Agent foaf:Agent premis:Agent rdac:C10002 "agent" |
| | Scope Note | <p>"An Agent is known by one or more identities; an identity is a constellation of properties or relations that together "identify" the Agent. Persons or groups commonly have one identity, though they also may have one or more assumed or fictitious identities. Such assumed identities may be shared by more than one person or group. Assumed identities include but are not limited to pseudonyms, heteronyms, DBA (Doing Business As), and trade identities" (RiC 2016, p. 14).</p> <p>"An assumed identity should not be confused with Positions in corporate bodies, for example, presidents, prime ministers, governors, popes, royalty, or bishops. Nor should an assumed identity be confused with a variant of the same identity. Agent also includes entities created by a person or group that act on behalf of the creating Agent in an autonomous or semi-autonomous manner. Examples of such delegate-agents are software agents, robots, and space and underwater probes that generate data (records) in fulfilment of the function assigned to and the instructions given to them by the creating person or group" (RiC 2016, p. 14).</p> |
| | Example | <i>See examples for the subclasses.</i> |
| | Comment | "Typically archivists will want to attribute responsibility for acting to the person or persons, or group or groups 'behind' the assumed identity, but documentation of assumed identities and relating them to the persons or groups whom they represent is important for several reasons: an assumed identity may be the only one known by a user, and thus documentation of an assumed identity and |

| | | relating it to the person or group identity represented by it facilitates access; an assumed identity may be a significant component of the history of the person or group it represents; an assumed identity may be the subject of records; and, an assumed identity may elide the given identity of the person or group it represents, thus effectively eclipsing or replacing the given identity” (RiC 2016, pp. 14-15). When modelling data, more specific sub-classes (Person, Family, Corporate Body) should be used to the extent possible. |
|---------|-------------------------|---|
| # | Name | Definition |
| SPA-E15 | Person | an individual |
| | Subclass of | SPA-E14 Agent |
| | Superclass of | - |
| | Equivalent Class | frbr:Person FRBRoo-F10 Person CIDOC CRM-E21 Person foaf:Person rdac:C10004 “person” schema:Person |
| | Scope Note | This class comprises real persons who live or are assumed to have lived. It does not include bibliographic identities or personae assumed by an individual or a group (cf. FRBRoo 2015, p. 49). |
| | Example | Maurice Béjart Igor Stravinsky William Shakespeare |
| | Comment | - |
| # | Name | Definition |
| SPA-E16 | Family | group of two or more persons presented as a family or family members |
| | Subclass of | SPA-E14 Agent |
| | Superclass of | - |
| | Equivalent Class | FRBRoo-F39 Family rdac:C10008 “family” |
| | Scope Note | “This class comprises groups of two or more persons presented as a family justified by relationships of birth, marriage, adoption, civil union, or similar social or legal status and an assumed common tradition, including examples such as royal families, dynasties, houses of nobility, etc.” (FRBRoo 2015, p. 64). |
| | Examples | House of Tudor The Grimm brothers The Knie dynasty |
| | Comment | - |
| # | Name | Definition |
| SPA-E17 | Corporate Body | an organization or group of individuals and/or organizations acting as a unit |
| | Subclass of | SPA-E14 Agent |
| | Superclass of | foaf:Organization schema:Organization foaf:Group |

| | |
|-------------------------|---|
| | schema:PerformingGroup |
| Equivalent Class | frbr:CorporateBody FRBRoo-F10 Corporate Body rdac:C10005 “corporate body” |
| Scope Note | <p>“This class comprises organisations and groups of two or more people and/or organisations acting as a unit” (FRBRoo 2015, p. 50).</p> <p>“The [class] also encompasses organizations that act as territorial authorities, exercising or claiming to exercise government functions over a certain territory, such as a federation, a state, a region, a local municipality, etc.” (FRBR 2009, p. 25).</p> <p>“To be considered a Corporate Body a gathering of people needs to bear a name and exhibit organisational characteristics sufficient to allow the body as a whole to participate in the creation, modification or production of information objects. Groups such as conferences, congresses, expeditions, exhibitions, festivals, fairs, etc. are modelled as Corporate Bodies when they are named and can take collective action, such as approving a report or publishing their proceedings” (FRBRoo 2015, p. 50).</p> <p>“The [class] encompasses organizations and groups that are defunct as well as those that continue to operate” (FRBR 2009, p. 26).</p> |
| Examples | <p>Swiss Theatre Collection</p> <p>Swiss Dance Collection</p> <p>Municipal Archive of the City of Zurich</p> |
| Comment | - |

4.4 Group 3 Classes

Group 3 classes represent an additional set of entities that may serve as the subjects of works or records, or have any relevance with regard to their conception, creation, performance, reception, curation or management. The group includes SPA-E14 Place (a location), SPA-E15 Object (a material thing), SPA-E16 Concept (an abstract notion or idea), and SPA-E17 Event (an action or occurrence) (cf. FRBR 2009, p. 17).

Note that both group 1 and group 2 classes may also be the subjects of works or records. Figure 3 gives an overview of group 1 and group 3 classes and their ontological relationships; group 2 classes are not represented in the figure.

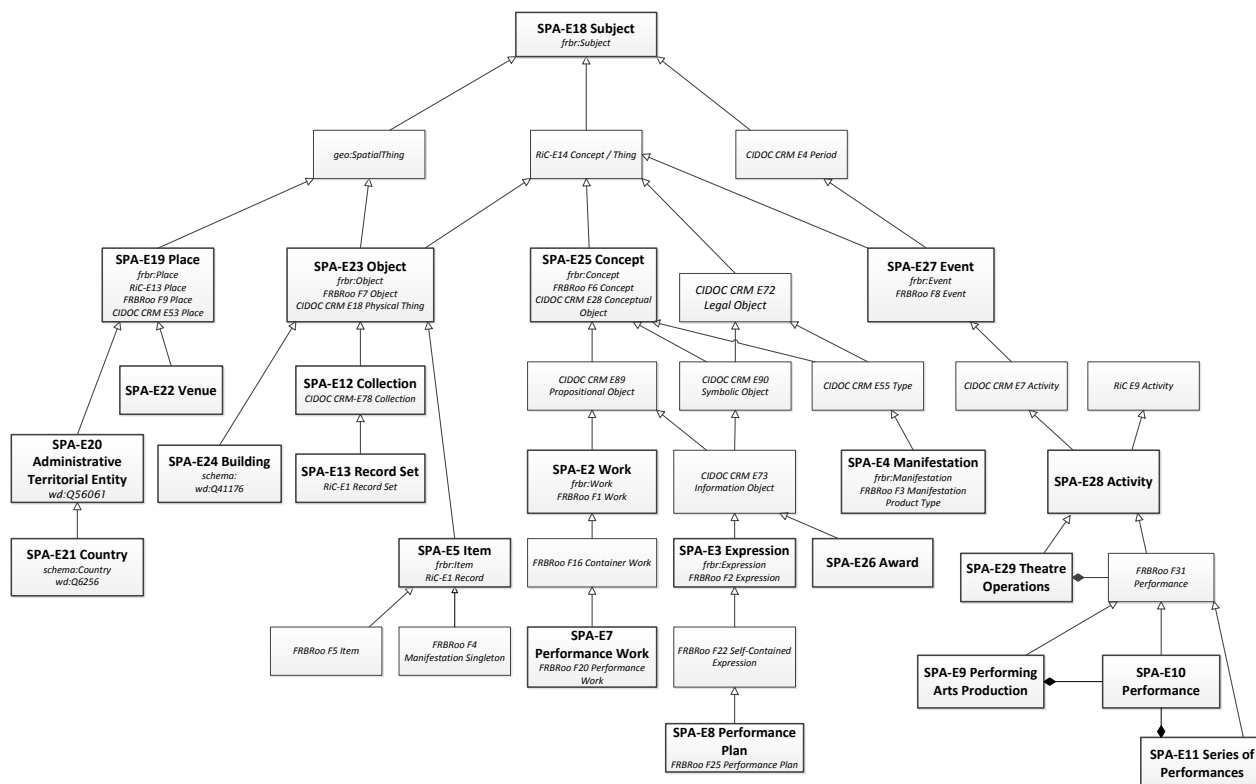


Figure 3: Overview of group 1 and group 3 classes and their ontological relationships

The various existing ontologies model some of the entities in a slightly different manner. In most of the cases, this is of no relevance in the context of the SPA Data Model, as the various entities can be mapped onto each other without any major contradictions. In the case of “Activity”, however, RiC (2016) and CIDOC CRM (2015) approach the concept from slightly different angles. The SPA Data Model therefore defines its own class SPA-E18 Activity (“a set of coordinated actions or transactions performed by an Agent”) that can be modelled as a subclass of the two above-mentioned classes. In addition, the SPA Data Model defines a specific sub-class of SPA-E18 Activity comprising the activities related to the exploitation of one or several theatre venues (SPA-E19 Theatre Operations).

| # | Name | Definition |
|---------|-------------------------|---|
| SPA-E18 | Subject | any of the FRBR group three entities (Place, Object, Concept, Event) |
| | Subclass of | - |
| | Superclass of | SPA-E19 Place SPA-E23 Object SPA-E25 Concept SPA-E27 Event |
| | Equivalent Class | frbr:Subject |
| | Scope Note | This class represents any of the FRBR group three entities. No member of this class can also be a member of Agent or Endeavour. |
| | Example | - |
| | Comment | - |
| # | Name | Definition |
| SPA-E19 | Place | a location, jurisdiction or any geographic or administrative point or area |
| | Subclass of | SPA-E18 Subject |
| | Superclass of | SPA-E22 Venue |

| | | |
|----------|---|---|
| | Equivalent Class | frbr:Place RiC-E13 Place FRBRoo-F9 Place CIDOC CRM-E53 Place dcterms:Location edm:Place rdac:C10009 "place" schema:Place |
| | Scope Note | The class Place encompasses a comprehensive range of locations: terrestrial and extra-terrestrial; historical and contemporary; geographic features and geopolitical jurisdictions (cf. FRBR 2009, p. 28). |
| | Example | London, England Auerbach's Cellar |
| | Comment | - |
| # | Name | Definition |
| | SPA-E20 Administrative Territorial Entity | territorial entity for administration purposes, with or without its own local government |
| | Subclass of | SPA-E19 Place |
| | Superclass of | SPA-E21 Country |
| | Equivalent Class | wd:Q56061 |
| | Scope Note | |
| | Example | |
| | Comment | - |
| # | Name | Definition |
| | SPA-E21 Country | a country |
| | Subclass of | SPA-E20 Administrative Territorial Entity |
| | Superclass of | - |
| | Equivalent Class | schema:Country wd:Q6256 |
| | Scope Note | |
| | Example | |
| | Comment | - |
| # | Name | Definition |
| | SPA-E22 Venue | a place where an organized event takes place |
| | Subclass of | SPA-E19 Place |
| | Superclass of | schema:EventVenue schema:PerformingArtsTheater |
| | Equivalent Class | |
| | Scope Note | The class Venue encompasses any type of location where an event, such as a concert, conference, or sports competition, takes place. This includes permanent or temporary structures as well as outdoor sites. A Venue may (but does not have to) correspond to or form a part of a building. A building may contain one or several venues (e.g. several theatre stages). |
| | Example | Seebühne Thun (a temporary stage erected on Lake Thun for the purpose of the annual summer open-air musical production "Thunerseespiele") |

| | | |
|----------|-------------------------|--|
| | | Opéra Bastille, Paris Main Auditorium of Opéra Bastille, Paris Amphitheatre of Opéra Bastille, Paris Studio Theatre of Opéra Bastille, Paris |
| | Comment | A venue may itself contain one or several venues. |
| # | Name | Definition |
| SPA-E23 | Object | a material thing |
| | Subclass of | SPA-E18 Subject |
| | Superclass of | SPA-E5 Item SPA-E12 Collection SPA-E24 Building SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Equivalent Class | frbr:Object FRBRoo-F7 Object CIDOC CRM-E18 Physical Thing |
| | Scope Note | The class Object encompasses a comprehensive range of material things that may be the subject of a Work, a record (Item) or a Record Set: animate and inanimate objects occurring in nature; fixed, movable, and moving objects that are the product of human creation; objects that no longer exist (cf. FRBR 2009, p. 27). |
| | Example | Buckingham Palace The Eiffel Tower The Mona Lisa (the painting) |
| | Comment | - |
| # | Name | Definition |
| SPA-E24 | Building | a structure with a roof and walls standing more or less permanently in one place |
| | Subclass of | SPA-E23 Object |
| | Superclass of | - |
| | Equivalent Class | wd:Q41176 |
| | Scope Note | The class Building encompasses any structure with a roof and walls standing more or less permanently in one place. |
| | Example | Buckingham Palace The Eiffel Tower Bernern Stadttheater (theatre building in Bern) |
| | Comment | - |
| # | Name | Definition |
| SPA-E25 | Concept | an abstract notion or idea |
| | Subclass of | SPA-E18 Subject |
| | Superclass of | SPA-E2 Work SPA-E3 Expression SPA-E4 Manifestation |

| | | |
|----------|-------------------------|---|
| | | SPA-E26 Award |
| | Equivalent Class | frbr:Concept FRBRoo-F6 Concept CIDOC CRM-E28 Conceptual Object skos:Concept |
| | Scope Note | The class Concept encompasses a comprehensive range of abstractions that may be the subject of a Work, a record (Item) or a Record Set: fields of knowledge, disciplines, schools of thought (philosophies, religions, political ideologies, etc.), theories, processes, techniques, practices, etc. A concept may be broad in nature or narrowly defined and precise (cf. FRBR 2009, p. 26). |
| | Example | Economics Romanticism Beethoven's "Ode an die Freude" (Ode to Joy) the definition of "ontology" in the Oxford English Dictionary the knowledge about the victory at Marathon carried by the famous runner |
| | Comment | - |
| # | Name | Definition |
| SPA-E26 | Award | a prize or other mark of recognition given in honor of an achievement. |
| | Subclass of | SPA-E25 Concept |
| | Superclass of | - |
| | Equivalent Class | - |
| | Scope Note | The class Award encompasses all types of prizes or other marks of recognition given in honor of an achievement, be it as part of a competition or not. |
| | Example | Evening Standard Theatre Award for the best play Evening Standard Theatre Award for the best actor Charles Wintour Award for Most Promising Playwright Prix de Lausanne |
| | Comment | - |
| # | Name | Definition |
| SPA-E27 | Event | an action or occurrence |
| | Subclass of | SPA-E18 Subject |
| | Superclass of | SPA-E28 Activity |
| | Equivalent Class | frbr:Event FRBRoo-F8 Event schema:Event |
| | Scope Note | The class Event encompasses a comprehensive range of actions and occurrences that may be the subject of a Work, a record (Item) or a Record Set: historical events, epochs, periods of time, etc. (cf. FRBR 2009, p. 28) |
| | Example | The death of Johann Wolfgang von Goethe on 22 March 1832 in Weimar The writing of "Faust" by Goethe The staging of Charles Gounod's opera "Faust" by Konzert Theater Bern during the theatre season 2016-2017 |
| | Comment | - |

| # | Name | Definition |
|---------|-------------------------|--|
| SPA-E28 | Activity | a set of coordinated actions or transactions performed by an Agent |
| | Subclass of | SPA-E27 Event |
| | Superclass of | SPA-E9 Performing Arts Production SPA-E10 Performance SPA-E29 Theatre Operations |
| | Equivalent Class | - |
| | Scope Note | The class Activity encompasses any set of coordinated actions or transactions performed by an Agent. Agents typically perform their activities in the fulfilment of a Function, or in the pursuit of an Occupation. |
| | Examples | The writing of "Faust" by Goethe The staging of Charles Gounod's opera "Faust" by Konzert Theater Bern during the theatre season 2016-2017 |
| | Comment | RiC (2016) and CIDOC CRM (2015) approach the concept of Activity from two different angles: The definition for RiC-E9 Activity is quite specific (<i>"A set of coordinated actions or transactions performed by an Agent in fulfilment of a Function, or in the pursuit of an Occupation"</i> , RiC 2016, p. 16), whereas CIDOC CRM defines E7 Activity in much broader terms and without reference to a function or an occupation (<i>"This class comprises actions intentionally carried out by instances of E39 Actor that result in changes of state in the cultural, social, or physical systems documented. This notion includes complex, composite and long-lasting actions such as the building of a settlement or a war, as well as simple, short-lived actions such as the opening of a door"</i> , CIDOC CRM 2015, p. 6). |
| # | Name | Definition |
| SPA-E29 | Theatre Operations | the activities related to the exploitation of one or several theatre venues |
| | Subclass of | SPA-E28 Activity |
| | Superclass of | - |
| | Equivalent Class | - |
| | Scope Note | The class Theatre Operations encompasses all the activities related to the exploitation of one or several theatre venues. Most notably, it includes the establishment of a program for a given theatre season and negotiations with production companies. Agents responsible for Theatre Operations may or may not be responsible for the production of individual theatre events themselves. |
| | Examples | The programming, organization, and hosting by Konzert Theater Bern of some 30 theatre productions, some 20 large concert events, and various smaller events, totaling in more than 400 performance events during the season 2012-2013, taking place at its three venues "Stadttheater Bern", "Kulturcasino Bern", and "Vidmarhallen Köniz". |
| | Comment | - |

4.5 Classes for the Description of Agents' Roles in Social Settings

A further set of classes is used to describe the role of agents in social settings (see figure 4). Thus, an Agent may pursue a profession, trade, or craft (Occupation), define or occupy a role within a corporate body (Position), or fulfil an enduring goal, purpose, or objective (Function). While these entities have been directly derived from RiC (2016), the SPA Data Model defines an additional class Perfor-

mance Role, used to describe which roles are foreseen by a given Work or Expression and are played by an Agent in the course of a Performing Arts Production or of a single Performance.

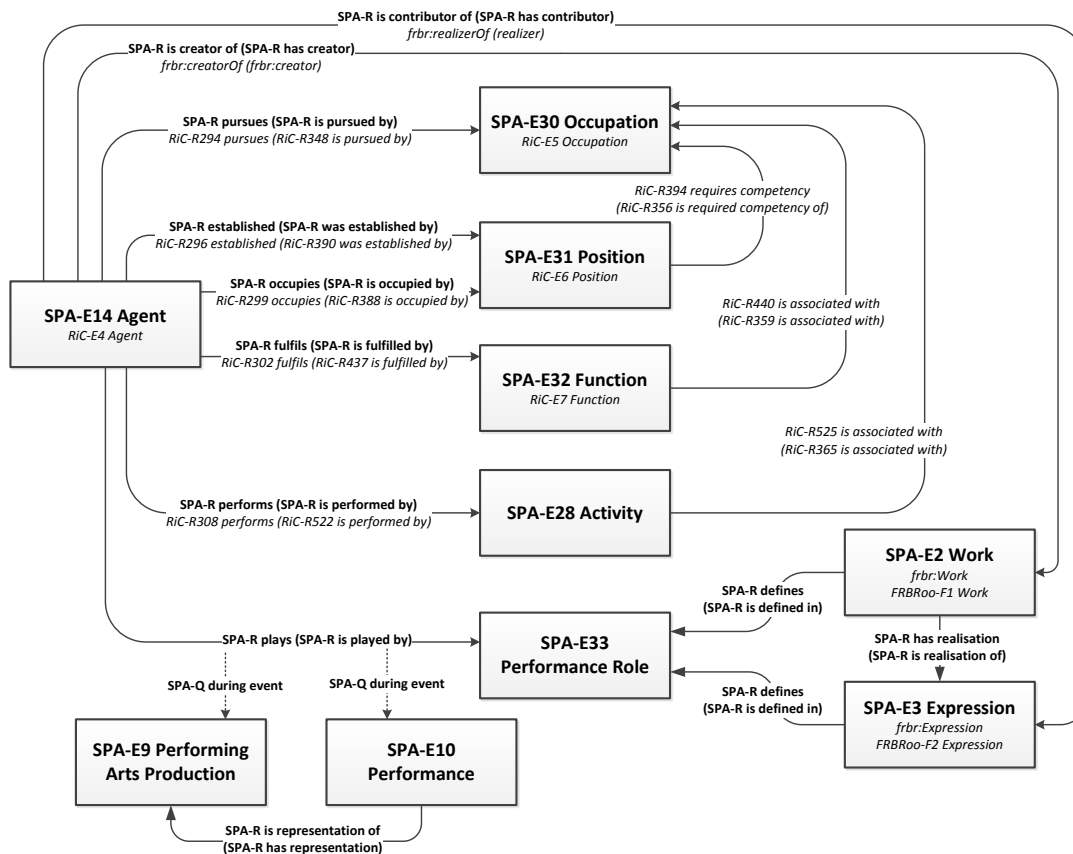


Figure 4: Overview of classes for the description of agents' roles in social settings

As that Performance Role describes a triangular relationship between a Person, a Work, and a Performing Arts Production, qualifiers are used to further specify the various relations. Figure 4 shows how to describe which Performance Roles have been played by a given Agent. By means of a qualifier, the property *SPA-R plays* can be linked to a specific Performing Arts Production or Performance. Similarly, the triangular relationship can be described from the point of view of a given Production. See the modelling example in figure 6 for an alternative representation of Performance Roles and their relationship to a Work/Expression, Agents and a given Performing Arts Production.

| # | Name | Definition |
|---------|------------------|--|
| SPA-E30 | Occupation | a profession, trade, or craft pursued by a person in fulfilment of a Function |
| | Subclass of | SPA-E25 Concept |
| | Superclass of | - |
| | Equivalent Class | RiC-E5 Occupation |
| | Scope Note | "The pursuit of an Occupation involves the performance of an Activity in fulfilment of a Function. Successful performance of the Activity is based on the ability to perform successfully (a competency). This competency may be acquired through education or experience, or a combination of both. The authority of the person to pursue the Occupation may be derived tacitly or explicitly from an |

| | | |
|----------|-------------------------|--|
| | | <p>external Agent, based on a demonstrated mastery of the competency” (RiC 2016, p.15).</p> <p>“Occupation should not be confused with Position, for example, a lawyer that holds the Position of legal counsel in an agency” (RiC 2016, p.15).</p> <p>“Though Occupation is related to a domain or field of Activity, it should not be confused with this domain, for example, an archivist works in the domain of archival science” (RiC 2016, p.15).</p> <p>“An Occupation may be pursued independently by a person, or pursued within a group, contributing to the fulfillment of the Function of the group” (RiC 2016, p.15).</p> |
| | Examples | archivist; actor; choreographer; doctor; lawyer; records manager; teacher |
| | Comment | - |
| # | Name | Definition |
| SPA-E31 | Position | a role that may be assigned to a person (or to several persons simultaneously) within a corporate body, and that exists independently of the person(s) who may hold it |
| | Subclass of | SPA-E25 Concept |
| | Superclass of | - |
| | Equivalent Class | RiC-E6 Position |
| | Scope Note | <p>“A Position is often given a title/name” (RiC 2016, p. 15).</p> <p>“A Position may be tied to a project or to a set of tasks and thus have a defined duration” (RiC 2016, p. 15).</p> <p>“A Position may change over time, as the corporate body that establishes it changes over time. Position is not to be confused with Occupation, which is a profession, trade, or craft pursued by a person in fulfillment of a Function; nor with Function, which is the Agent’s goal; nor with Activity, which is the sets of actions performed by an Agent” (RiC 2016, p. 15).</p> <p>“Within the records created by a Corporate Body, the Position entity may be used to identify the Record Sets resulting from Activities performed by persons who hold a Position over time, without necessarily identifying or describing those persons, or identifying which Records were created by each of them” (RiC 2016, p. 15).</p> |
| | Examples | head, president or director of a corporate body or unit of a corporate body executive manager technical advisor |
| | Comment | - |
| # | Name | Definition |
| SPA-E32 | Function | an enduring goal, purpose, or objective of an Agent |
| | Subclass of | SPA-E25 Concept |
| | Superclass of | - |
| | Equivalent Class | RiC-E7 Function |
| | Scope Note | <p>“A Function exists in a specific social and cultural context, and within that context is subject to change over time. It should not be confused with an abstract function that is independent of a particular context” (RiC 2016, p. 16).</p> <p>“A Function may be composed of other Functions” (RiC 2016, p. 16).</p> |

| | | |
|----------|-------------------------|---|
| | | <p>“A Function may be related to more than one Agent simultaneously or over time” (RiC 2016, p. 16).</p> <p>“The fulfilment of a Function requires the performance of one or more Activities. Both the Function and performance of the Activities are governed by one or more explicit or implicit Mandates” (RiC 2016, p. 16).</p> |
| | Example | <p>teaching, University of Glasgow</p> <p>marketing, Army & Navy Stores Ltd.</p> |
| | Comment | - |
| # | Name | Definition |
| SPA-E33 | Performance Role | a role that may be assigned to a person (or to several persons simultaneously) in the context of a Performing Arts Production |
| | Subclass of | SPA-E25 Concept |
| | Superclass of | - |
| | Equivalent Class | - |
| | Scope Note | A Performance Role is a role that may be assigned to a person (or to several persons simultaneously) in the context of a Performing Arts Production which is defined by a theatrical or choreographic Work and exists independently of the person(s) who may impersonate it. |
| | Example | Faust in Gounod’s opera Faust, played by Uwe Stickert in the production by Konzert Theater Bern during the theatre season 2016-2017. |
| | Comment | - |

4.6 Aggregation of Artefacts Pertaining to the Same Item

Within the SPA Data Model, Items (and records) are modelled as aggregations comprising the set of analog objects and digital resources related to a single cultural heritage object that collectively represent that object in the context of one or several heritage collections (see figure 5). Such a set consists of the original Cultural Heritage Object as well as all available descriptions, analog copies, and digital representations of the object (possibly from different content providers), including thumbnails and other forms of abstractions.

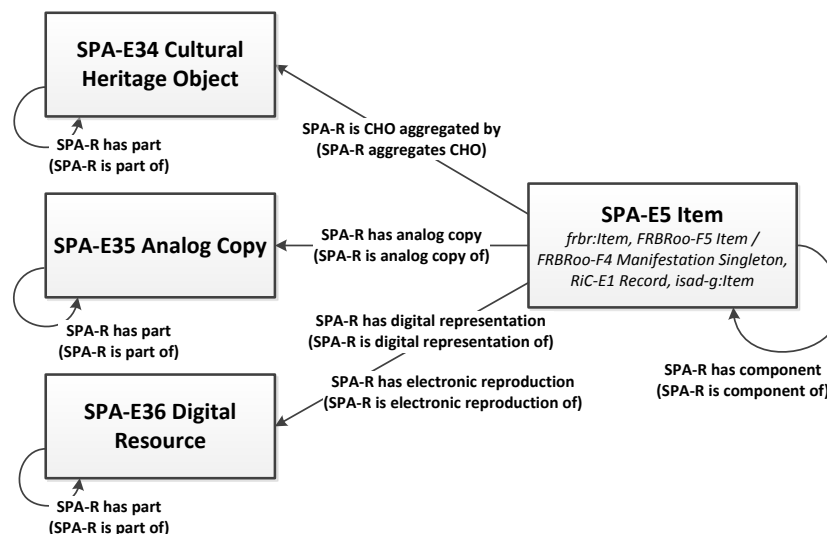


Figure 5: Overview of classes describing the aggregation of artefacts pertaining to the same Item

At the difference to RiC, the SPA Data Model does not comprise a separate class for record components. Components of records or items are instead represented by nesting two (or more) items using the property *SPA-R has component (SPA-R is component of)*.

| # | Name | Definition |
|---------|--------------------------|---|
| SPA-E34 | Cultural Heritage Object | physical or born-digital object belonging to a heritage collection |
| | Subclass of | SPA-E23 Object ore:AggregatedResource |
| | Superclass of | - |
| | Equivalent Class | edm:ProvidedCHO |
| | Scope Note | The class Cultural Heritage Object encompasses any original object that belongs to a heritage collection and is preserved for posteriority by an Agent (typically a heritage institution). The Cultural Heritage Object is the object that is considered as the original object (analog or digital born). For every original object one or several analog copies (Analog Copy) and/or digital copies or representations (Digital Resource) may exist. |
| | Examples | original video recording (on an analog carrier) of the dance performance "Le coq est mort" by "Company JANT BI" |
| | Comment | In some cases, the Cultural Heritage Object may have been destroyed, while an Analog Copy or a Digital Resource of the object is preserved. In this case, the Cultural Heritage Object is missing from the aggregation of entities pertaining to a given Item. |
| # | Name | Definition |
| SPA-E35 | Analog Copy | analog copy of a Cultural Heritage Object |
| | Subclass of | SPA-E23 Object ore:AggregatedResource |
| | Superclass of | - |
| | Equivalent Class | - |
| | Scope Note | The class Analog Copy encompasses any analog copy or representation of a Cultural Heritage Object. This comprises representations that do not render the original Cultural Heritage Object in all its complexity (e.g. a two-dimensional image of a three-dimensional object). |
| | Examples | analog copy of the video recording of the dance performance "Le coq est mort" by "Company JANT BI" |
| | Comment | |
| # | Name | Definition |
| SPA-E36 | Digital Resource | digital copy or representation of a Cultural Heritage Object |
| | Subclass of | SPA-E23 Object ore:AggregatedResource |
| | Superclass of | - |
| | Equivalent Class | edm:WebResource schema:MediaObject |
| | Scope Note | The class Digital Resource encompasses any digital copy or representation of a Cultural Heritage Object. This comprises representations that do not render the |

| | | |
|--|-----------------|---|
| | | original Cultural Heritage Object in all its complexity (e.g. a two-dimensional image of a three-dimensional object). |
| | Examples | digitized version of the video recording of the dance performance "Le coq est mort" by "Company JANT BI" |
| | Comment | - |

4.7 Further Classes

The SPA Data Model comprises two further classes that are useful to describe performing arts related events and holdings:

First, the class Date is used to describe non-standard date indications (e.g. approximate dates or dates covering a time span). In the context of performing arts productions, this allows for example to model theatre seasons and to link both Performing Arts Productions and Agents' activities to a particular theatre season.

Second, the class Documentary Form allows to link specific records to particular types of artefacts documenting the conception, the realization, or the reception of a performing arts production. The various documentary forms and the terms used to refer to them are to be managed in form of a (multilingual) thesaurus.

| # | Name | Definition |
|---------|-------------------------|--|
| SPA-E37 | Date | chronological information associated with an entity that contributes to its identification and contextualization |
| | Subclass of | - |
| | Superclass of | SPA-E38 Time Span |
| | Equivalent Class | RiC-E12 Date |
| | Scope Note | The class Date comprises date indications that are not very precise or cover a time span. |
| | Example | 1860s |
| | Comment | - |
| # | Name | Definition |
| SPA-E38 | Time Span | a temporal extent having a beginning, an end and a duration |
| | Subclass of | SPA-E37 Date |
| | Superclass of | schema:CreativeWorkSeason |
| | Equivalent Class | dcterms:PeriodOfTime edm:TimeSpan rdac:C10010 "time span" |
| | Scope Note | The class Time Span comprises intervals of time that are named or defined by their start and end dates. |
| | Example | Theatre season 2016-2017 20 th Century |
| | Comment | - |
| # | Name | Definition |
| SPA-E39 | Nomen | a designation that refers to an entity |
| | Subclass of | - |
| | Superclass of | - |
| | Equivalent Class | rdac:C10012 "nomen" |
| | Scope Note | The class Nomen comprises names and designations that are used to refer to |

| | | |
|----------|----------------------------|--|
| | | entities of various classes. |
| | Example | |
| | Comment | This class may be used to represent the designations of agents, works, places, etc. appearing on performing arts programs, in databases, etc. that have not been matched with an actual entity of the respective class yet. |
| # | Name | Definition |
| | SPA-E40 Documentary Form | the rules used in the creation of a record that prescribes the particular physical or intellectual elements that must be present |
| | Subclass of | - |
| | Superclass of | - |
| | Equivalent Class | RiC-E11 Documentary Form |
| | Scope Note | <p>“The Documentary Form plays an important role in determining the type of information a Record may comprise, its status of perfection, and its authenticity and reliability” (RiC 2016, p. 18).</p> <p>“Documentary forms exist in a specific social and cultural context, and within that context are subject to change over time” (RiC 2016, p. 18).</p> |
| | Examples | <p>stage set design</p> <p>stage model</p> <p>costume design</p> <p>press clipping</p> |
| | Comment | - |
| # | Name | Definition |
| | SPA-E41 Reference Database | online database employing unique and resolvable identifiers |
| | Subclass of | - |
| | Superclass of | - |
| | Equivalent Class | - |
| | Scope Note | The class Reference Database comprises name authority files and other online databases employing unique and resolvable identifiers, such as MusicBrainz, Wikidata, or DBpedia. |
| | Examples | <p>VIAF</p> <p>GND</p> <p>MusicBrainz</p> <p>Wikidata</p> <p>DBpedia</p> |
| | Comment | - |
| # | Name | Definition |
| | SPA-E42 Thesaurus | thesaurus providing a controlled vocabulary |
| | Subclass of | - |
| | Superclass of | - |
| | Equivalent Class | - |
| | Scope Note | The class Thesaurus comprises any thesauri used for the description of the data. |
| | Examples | |

| | | |
|----------|-------------------------|--|
| | Comment | - |
| # | Name | Definition |
| SPA-E43 | Contact Point | a contact point of an Agent |
| | Subclass of | - |
| | Superclass of | SPA-E44 Postal Address |
| | Equivalent Class | schema:ContactPoint |
| | Scope Note | The class Contact Point comprises contact points of Agents, such as an Information Desk or a Customer Complaints Department. |
| | Examples | - |
| | Comment | - |
| # | Name | Definition |
| SPA-E44 | Postal Address | the mailing address of an Agent |
| | Subclass of | SPA-E43 Contact Point |
| | Superclass of | - |
| | Equivalent Class | schema:PostalAddress |
| | Scope Note | |
| | Examples | |
| | Comment | - |

5 Attributes

This section contains the inventory of the attributes defined within the SPA Data Model. Note that attributes that are defined for a given class may also be applied to its subclasses.

| 5.1 Attributes that May Be Used with any Entity | | |
|---|------------------------------------|--|
| # | Name | Definition |
| | SPA-P instance of | assigns the entity to a class |
| | Domain | owl:Thing |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | rdf:type |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P global persistent identifier | globally unique and persistently resolvable identifier for the entity |
| | Domain | owl:Thing |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | RiC-P1 Global Persistent Identifier |
| | Scope Note | To be used in connection with reference database, authority files, Wikidata, etc. which fulfill the requirement of employing globally unique and resolvable identifiers in a persistent manner. |
| | Data Type | URI |
| | Example | 262144782960170357611 (VIAF identifier for "Theater Stok" in Zürich) |
| | Comment | |
| # | Name | Definition |
| | SPA-P global identifier | global identifier assigned to the entity |
| | Domain | owl:Thing |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | |
| | Scope Note | To be used in connection with reference database, authority files, Wikidata, etc. which fulfill the requirement of employing globally unique and resolvable identifiers, but for which the identifiers are not necessarily persistent. |
| | Data Type | String |
| | Example | Q15850586 (Wikidata identifier for "Theater Stok" in Zürich) |

| | | |
|----------|----------------------------|--|
| | Comment | Use SPA-P global identifier in connection with a qualifier [create a respective class? Or use agent?] to make it resolvable. |
| # | Name | Definition |
| | SPA-P local identifier | local identifier assigned to the entity |
| | Domain | owl:Thing |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | RiC-P2 Local Identifier |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | Use SPA-P local identifier in connection with a qualifier to make it globally unique. |
| # | Name | Definition |
| | SPA-P label | the title or term generally used to designate the entity |
| | Domain | owl:Thing |
| | Subproperty of | - |
| | Superproperty of | title |
| | Equivalent Property | RiC-P3 Name skos:prefLabel rdfs:label |
| | Scope Note | Name generally used to refer to the entity. |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P alternative label | an alternative title or term designating the entity |
| | Domain | owl:Thing |
| | Subproperty of | - |
| | Superproperty of | SPA-P variant title |
| | Equivalent Property | skos:altLabel |
| | Scope Note | Alternative name used to refer to the entity, including abbreviations. |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P description | description of the entity |
| | Domain | owl:Thing |
| | Subproperty of | - |

| | | |
|----------|----------------------------|--|
| | Superproperty of | - |
| | Equivalent Property | |
| | Scope Note | The description should be as concise as possible, but at the same time provide the necessary details about an entity that make it possible to distinguish it from other (potential) entities with the same or a similar label. |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P wikidata identifier | wikidata identifier (Q number) of the entity |
| | Domain | owl:Thing |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P type | categorization of an entity |
| | Domain | owl:Thing |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | Used to refer to an appropriate categorization system |
| | Data Type | Controlled Term |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P general note | additional information about the entity that is not otherwise addressed |
| | Domain | owl:Thing |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | RiC-P4 General Note |
| | Scope Note | rdfs:comment |
| | Data Type | The general note attribute can be used to provide additional information about an entity that is not otherwise covered by the data model or not supported by a given data management tool. |
| | Example | String |

| | Comment | |
|-------------------------|----------------------------|---|
| # | Name | Definition |
| SPA-P internal note | | internal note of the holding institution |
| | Domain | owl:Thing |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | - |
| | Scope Note | To be used for internal notes of the holding institution |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P generic attribute | | generic attribute |
| | Domain | owl:Thing |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | - |
| | Scope Note | To be used for any attribute from an existing ontology that has not been defined within the SPA Data Model. It is to be further qualified by a label or by a reference to an equivalent property within an existing ontology. |
| | Data Type | String |
| | Example | |
| | Comment | The generic attribute can be used in the context of a progressive data cleansing and modelling process to render attributes that have not yet been defined within the SPA Data Model. |
| # | Name | Definition |
| SPA-P local attribute | | local attribute |
| | Domain | owl:Thing |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | - |
| | Scope Note | To be used for any attribute that has not been defined within the SPA Data Model or within another existing ontology. It can be further qualified by a label or by a reference to an equivalent property within an existing ontology. |
| | Data Type | String |
| | Example | |
| | Comment | The generic attribute can be used in the context of a progressive data cleansing and modelling process to render attributes that have not yet been defined within the SPA Data Model. |

| 5.2 Attributes of SPA-E1 Endeavour | | |
|------------------------------------|----------------------|--|
| # | Name | Definition |
| | SPA-P title | title of the resource |
| | Domain | SPA-E1 Endeavour |
| | Subproperty of | SPA-P label |
| | Superproperty of | |
| | Equivalent Property | rdau:has title |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P subtitle | subtitle of the resource |
| | Domain | SPA-E1 Endeavour |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | schema:alternativeHeadline |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P variant title | title by which a work is known that differs from a title or form of title chosen as a preferred title for the work |
| | Domain | SPA-E1 Endeavour |
| | Subproperty of | SPA-P alternative label |
| | Superproperty of | |
| | Equivalent Property | rdau:has variant title |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P abridged title | a shorter version of the title |
| | Domain | SPA-E1 Endeavour |
| | Subproperty of | SPA-P variant title |
| | Superproperty of | |
| | Equivalent Property | |

| | | |
|----------|----------------------------|--|
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P resource identifier | a character string associated with a resource that serves to differentiate a resource from other resources |
| | Domain | SPA-E1 Endeavour |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdau:has identifier for resource |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P genre | genre of the resource |
| | Domain | SPA-E1 Endeavour |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | schema:genre eclap:genre |
| | Scope Note | “The nature or genre of the resource.” “Indicates the genre of the creative work.” |
| | Data Type | Controlled Term |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P number of acts | number of acts of a play |
| | Domain | SPA-E1 Endeavour |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Integer |
| | Example | “3” |
| | Comment | |
| # | Name | Definition |
| | SPA-P number of scenes | number of scenes of a play |

| | | |
|----------|-----------------------------------|---|
| | Domain | SPA-E1 Endeavour |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Integer |
| | Example | "5" |
| | Comment | |
| # | Name | Definition |
| | SPA-P copyright holder | holder of the copyright of a resource |
| | Domain | SPA-E1 Endeavour |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | schema:copyrightHolder |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P statement of responsibility | statement relating to the identification or function of agents responsible for the creation of, or contributing to the realization of, the intellectual or artistic content of a resource |
| | Domain | SPA-E1 Endeavour |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdau:has statement of responsibility |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P content | description of the content of a resource |
| | Domain | SPA-E1 Endeavour |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | |

| | Comment | |
|--|---------------------|---|
| # | Name | Definition |
| SPA-P depicted scene | | description of the scene (e.g. of a theatre play) that is depicted by a resource |
| | Domain | SPA-E1 Endeavour |
| | Subproperty of | content |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P language of content | | language of the Endeavour |
| | Domain | SPA-E1 Endeavour |
| | Subproperty of | content |
| | Superproperty of | |
| | Equivalent Property | rdau:has language of content |
| | Scope Note | |
| | Data Type | Controlled Code (ISO 639 Codes for the representation of names of languages; ISO 15924 Codes for the representation of names and scripts) |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P language of subtitles | | language of the subtitles (or supertitles) of the Endeavour |
| | Domain | SPA-E1 Endeavour |
| | Subproperty of | language of content |
| | Superproperty of | |
| | Equivalent Property | schema:subtitleLanguage |
| | Scope Note | |
| | Data Type | Controlled Code (ISO 639 Codes for the representation of names of languages; ISO 15924 Codes for the representation of names and scripts) |
| | Example | |
| | Comment | |
| 5.3 Attributes of SPA-E4 Manifestation or SPA-E5 Item | | |
| # | Name | Definition |
| SPA-P name of publisher | | name of the publisher of the resource |
| | Domain | SPA-E4 Manifestation |
| | Subproperty of | |

| | | |
|----------|-------------------------------|---|
| | Superproperty of | |
| | Equivalent Property | rdau:has publisher's name |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P place of publication | place of publication of the resource |
| | Domain | SPA-E4 Manifestation |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdau:has place of publication |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P title of series | name of a series appearing on a resource that is part of a series |
| | Domain | SPA-E4 Manifestation |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdau:has title proper of series |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P numbering within series | designation of the sequencing of a part or parts within a series |
| | Domain | SPA-E4 Manifestation |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdam:has numbering within series |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P designation of edition | designation of the edition to which the resource belongs |

| | | |
|----------|-----------------------------------|---|
| | Domain | SPA-E4 Manifestation |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdau:has designation of edition |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P note on manifestation | a note providing additional information about the attributes of a manifestation |
| | Domain | SPA-E4 Manifestation |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdau:has note on manifestation |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P identifier of manifestation | character string associated with a manifestation that serves to differentiate a manifestation from other manifestations |
| | Domain | SPA-E4 Manifestation |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdam:has identifier of manifestation |
| | Scope Note | E.g. ISBN / ISSN / EAN |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P has ISSN of series | identifier assigned by an ISSN registration agency to a series of which the resource is part |
| | Domain | SPA-E4 Manifestation |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdam:has ISSN of series schema:issn |
| | Scope Note | |
| | Data Type | String |

| | | |
|----------|----------------------------|---|
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P has ISBN | ISBN assigned to the resource |
| | Domain | SPA-E4 Manifestation |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | schema:isbn |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P format | the file format, physical medium, or dimension of the resource |
| | Domain | SPA-E4 Manifestation SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | FaBiO:hasformat |
| | Scope Note | |
| | Data Type | String |
| | Example | "23 cm x 34 cm x 20 cm" "A4" |
| | Comment | Examples of dimensions include size and duration. Recommended best practice is to use a controlled vocabulary such as the list of Internet Media Types. |
| # | Name | Definition |
| | SPA-P base material | underlying physical material of a resource |
| | Domain | SPA-E4 Manifestation SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdam:has base material |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P date of publication | the date of publication of the resource |

| | | |
|----------|----------------------------|--|
| | Domain | SPA-E4 Manifestation SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdam:has date of publication fabio:haspublicationdate schema:datePublished |
| | Scope Note | |
| | Data Type | Date |
| | Example | |
| | Comment | The date on which a document or entity is published. |
| # | Name | Definition |
| | SPA-P number of pages | number of pages of a resource |
| | Domain | SPA-E4 Manifestation SPA-E5 Item |
| | Subproperty of | content extent |
| | Superproperty of | |
| | Equivalent Property | schema:numberOfpages |
| | Scope Note | |
| | Data Type | Integer |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P duration | playing time, running time, etc., of a content of a resource |
| | Domain | SPA-E4 Manifestation SPA-E5 Item |
| | Subproperty of | content extent |
| | Superproperty of | |
| | Equivalent Property | rdau:has duration |
| | Scope Note | |
| | Data Type | Integer (seconds) |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P license | a license document that applies to the content of the resource, typically indicated by URL |
| | Domain | SPA-E4 Manifestation SPA-E5 Item |
| | Subproperty of | |

| | | |
|----------|--------------------------------|--|
| | Superproperty of | |
| | Equivalent Property | schema:license |
| | Scope Note | |
| | Data Type | URL |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P number | a literal (for example a number or a letter) that identifies the sequence position of a work within a particular context, for example a book in a book series, a chapter in a document, a volume in a journal. |
| | Domain | SPA-E4 Manifestation SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | FaBiO:hasnumber |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | A literal (for example a number or a letter) that identifies the sequence position of a work within a particular context, for example a book in a book series, a chapter in a document, a volume in a journal. |
| # | Name | Definition |
| | SPA-P physical characteristics | description of the physical characteristics of the resource |
| | Domain | SPA-E4 Manifestation SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | dimensions; material used |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P dimensions | indicates the measurement of a carrier or a container of a resource |
| | Domain | SPA-E4 Manifestation SPA-E5 Item |
| | Subproperty of | physical characteristics |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |

| | | |
|----------------------|----------------------------|--|
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P scale | | indicates the scale of a model compared to the real size of the depicted object |
| | Domain | SPA-E4 Manifestation SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P content extent | | countable characteristics of the content of a resource, expressed as a quantity |
| | Domain | SPA-E4 Manifestation SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | number of pages; duration |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P material used | | indication of the material used for the production or the modification of the resource |
| | Domain | SPA-E4 Manifestation SPA-E5 Item |
| | Subproperty of | physical characteristics |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String (Controlled Term) |
| | Example | |
| | Comment | |
| # | Name | Definition |

| | | |
|----------------------------|----------------------------|---|
| SPA-P production technique | | indication of the technique used for the production or the modification of the resource |
| | Domain | SPA-E4 Manifestation SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String (Controlled Term) |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P colour content | | indication whether a photograph or a movie is in colour or in black and white |
| | Domain | SPA-E4 Manifestation SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdau:colour content |
| | Scope Note | |
| | Data Type | Controlled Term |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P accession number | | accession number of an Item (or record) |
| | Domain | SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P archive plan number | | archive plan number of an Item (or record) |
| | Domain | SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |

| | | |
|----------|----------------------------|--|
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P date of publication | date of publication the Item |
| | Domain | SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdau:has date of publication |
| | Scope Note | |
| | Data Type | Date |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P number of components | number of components of the Item |
| | Domain | SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P type of components | type of components of the Item |
| | Domain | SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P note on item | note providing information on attributes of the Item |
| | Domain | SPA-E5 Item |
| | Subproperty of | |

| | | |
|----------|----------------------------|---|
| | Superproperty of | |
| | Equivalent Property | rdai:has note on item |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P value | value of the item |
| | Domain | SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | SPA-P estimated value SPA-P price of acquisition |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P estimated value | estimated value of the Item |
| | Domain | SPA-E5 Item |
| | Subproperty of | value |
| | Superproperty of | insurance value |
| | Equivalent Property | - |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P insurance value | insurance value of the Item |
| | Domain | SPA-E5 Item |
| | Subproperty of | estimated value |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |

| | | |
|---------------------------------------|----------------------------|---|
| SPA-P price of acquisition | | price of acquisition of the Item |
| | Domain | SPA-E5 Item |
| | Subproperty of | value |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P date indicated on postmark | | date indicated on the postmark applied to the Item |
| | Domain | SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P custodial history of item | | record of previous ownership or custodianship of the Item |
| | Domain | SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdai:has custodial history of item |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P immediate source of acquisition | | the source from which an Item was directly acquired and the circumstances under which it was received |
| | Domain | SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |

| | | |
|----------|----------------------------|---|
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P copyright agreement | indicates whether or not a copyright agreement has been concluded with regard to the Item |
| | Domain | SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Boolean |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P permission | tbd (see comment) |
| | Domain | SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Controlled Term |
| | Example | |
| | Comment | permission [to be clarified with STA what the exact meaning of "permission" is] |
| # | Name | Definition |
| | SPA-P access category | categorization regarding the availability of an artefact for consultation or inspection |
| | Domain | SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Controlled Term |
| | Example | "public"; "staff only" |
| | Comment | |
| # | Name | Definition |
| | SPA-P conditions of access | conditions affecting the accessibility of an artefact for consultation or inspection |
| | Domain | SPA-E5 Item |
| | Subproperty of | |

| | | |
|--|------------------------------|--|
| | Superproperty of | |
| | Equivalent Property | RiC-P18 |
| | Scope Note | |
| | Data Type | Controlled Term |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P conditions of use | conditions affecting the availability of the artefact for use after access has been provided |
| | Domain | SPA-E5 Item |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Includes conditions governing reproduction of the artefact under applicable copyright (intellectual property) or property legislation. |
| | Example | Controlled Term |
| | Comment | |
| 5.4 Attributes of SPA-E9 Performing Arts Production | | |
| # | Name | Definition |
| | SPA-P first performance date | date of the first representation of the Performing Arts Production |
| | Domain | SPA-E9 Performing Arts Production |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | <i>in analogy to eclap:first performance date</i> |
| | Scope Note | |
| | Data Type | Date |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P premiere type | indication regarding the premiere type of the first representation of the Performing Arts Production |
| | Domain | SPA-E9 Performing Arts Production |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | - |
| | Scope Note | Indicates whether the first representation of the Performing Arts Production is a world premiere, a premiere in a given language or in a given country, etc. |
| | Data Type | String (Controlled Term) |

| | | |
|---|----------------------------|---|
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P | number of representations | number of representations of a Performing Arts Production |
| | Domain | SPA-E9 Performing Arts Production |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | - |
| | Scope Note | Indicates the number of representations of a performing arts production. |
| | Data Type | Integer |
| | Example | The performing arts production "Die Grönholm-Methode", staged at "Theater Matte" in Bern between 5 April and 7 May 2017 had 21 representations. |
| | Comment | - |
| 5.5 Attributes of SPA-E10 Performance | | |
| # | Name | Definition |
| SPA-P | premiere type | indication regarding the premiere type of the Performance |
| | Domain | SPA-E10 Performance |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | - |
| | Scope Note | Indicates whether the Performance is a world premiere, a premiere in a given language or in a given country, etc. |
| | Data Type | String (Controlled Term) |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P | performance date | date of the representation |
| | Domain | SPA-E10 Performance |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Date |
| | Example | |
| | Comment | |
| 5.6 Attributes of SPA-E11 Series of Performances | | |
| # | Name | Definition |
| SPA-P | first performance date | date of the first performance of the Series of Performances |

| | | |
|---|---------------------------------|--|
| | Domain | SPA-E11 Series of Performances |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | <i>in analogy to eclap:first performance date</i> |
| | Scope Note | |
| | Data Type | Date |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P number of representations | number of representations included in a Series of Performances |
| | Domain | SPA-E11 Series of Performances |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| 5.7 Attributes of SPA-E12 Collection | | |
| # | Name | Definition |
| | SPA-P accession number | accession number of a Collection or Record Set |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P archive plan number | archive plan number of a Collection or Record Set |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |

| | | |
|----------|----------------------------------|---|
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P authenticity and integrity | description of features of the Collection or Record Set attesting to how it is genuine |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | RIC-P22 Authenticity and Integrity |
| | Scope Note | - |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P accrual status | indicates whether or not the Collection or Record Set is open for additional accessions of Collections, Record Sets, or Items (records) |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | RIC-P25 Accrual Status |
| | Scope Note | Closed indicates that no additional Records or Record Sets will (or are anticipated to) be added to the Collection or Record Set. Open indicates that additional Items or Records Sets will (or are expected to) be added to the Collection or Record Set. (cf. |
| | Data Type | Controlled Term |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P classification | information on the criterion or criteria used in selecting the members of the Collection or Record Set |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | RIC-P27 Classification |
| | Scope Note | <p>"This information may be in the form of text, or a term or code maintained in a classification scheme. </p> <p>The criterion or criteria may be represented in a RIC property or relation that is shared by the members in the Record Set. </p> <p>This shared property of</p> |
| | Data Type | Text or Controlled Term or Term |

| | | |
|----------|----------------------------|---|
| | Example | BUD-01-F002 [example of a classification number from a corporate file plan]; human resource management; student registration; financial affairs; digitization |
| | Comment | |
| # | Name | Definition |
| | SPA-P historical context | An account of the historical context of the Collection or Record Set. |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | - |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | For an indication of the history of the Collecton or Record Set itself, use SPA-P history. |
| # | Name | Definition |
| | SPA-P history | An account of the history of the Collection or Record Set. To the extent known, this may cover the entire history of the Collection or Record Set from its inception to the date of the description. |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | RiC-P28 History |
| | Scope Note | To the extent known, the history may cover the entire history of the Record Set from its inception to the date of the description. Significant Events include but are not limited to creation or formation of the Record Set, transfers of custody or owner. |
| | Data Type | String |
| | Example | The manuscripts are part of the collections of Robert Harley (d 1724) and Edward Harley (d 1741), 1st and 2nd Earls of Oxford, that were brought by Parliament and transferred to the British Museum min 1753. Those materials were then separated info this col |
| | Comment | For a broader indication of the historical context of a Collecton or Record Set, use SPA-P historical context. |
| # | Name | Definition |
| | SPA-P reference URL | reference URL of the Collection or the Record Set |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | - |
| | Scope Note | Provides an URL of a webpage with a further description of the Collection or the Record Set or of its main subject. |

| | | |
|----------|----------------------------|--|
| | Data Type | URL |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P scope and content | summary of the scope (such as, time periods, geography) and content (such as subject matter, administrative processes) of the member Collections, Record Sets, or Items. |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | RiC-P31 Scope and Content |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P language information | a spoken or written human language represented in the Items or records |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | RiC-11 Language Information |
| | Scope Note | |
| | Data Type | Controlled Code (ISO 639 Codes for the representation of names of languages; ISO 15924 Codes for the representation of names and scripts) |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P coverage start date | indicates the beginning of the time period covered by a collection or a record set |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Date |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P coverage active date | indicates a date during the time period covered by a collection or a record set |
| | Domain | SPA-E12 Collection |

| | | |
|----------|---------------------------------------|--|
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Date |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P coverage end date | indicates the end of the time period covered by a collection or a record set |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Date |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P bibliographical notes | bibliographical notes |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | „- Pellaton, Ursula: Brunner, Wolfgang. In: Theaterlexikon der Schweiz, Bd. 1, Zürich, 2005, S. 283.“ |
| | Comment | |
| # | Name | Definition |
| | SPA-P immediate source of acquisition | the source from which a Collection or Record Set was directly acquired and the circumstances under which it was received |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdau:immediate source of acquisition |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |

| # | Name | Definition |
|---|--------------------------------------|---|
| | SPA-P evaluation or elimination note | note regarding the evaluation of the Collection or Record Set or the elimination of parts thereof |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P physical characteristics | description of the physical characteristics of the Collection or the Record Set |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P content extent | countable characteristics of the content of the Collection or Record Set, expressed as a quantity |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | RiC-P29 Content Extent |
| | Scope Note | Content extent information is independent of carrier extent information; the number, size or duration of the content unit(s) would remain the same even if the number or size of the carriers it was contained on differed (RiC, S. 28) |
| | Data Type | String |
| | Example | 6 photographs; 2 films, 6 maps |
| | Comment | |
| # | Name | Definition |
| | SPA-P physical or logical extent | number of physical units and/or physical dimensions of a Collection or Record Set carriers or, in the case of digital media carriers, the size of storage space occupied |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |

| | | |
|----------|----------------------------|---|
| | Superproperty of | |
| | Equivalent Property | RiC Physical or Logical Extent |
| | Scope Note | -- |
| | Data Type | String |
| | Example | 40 pages; 5 folios; 25 m2; 1 USB stick; 35GB |
| | Comment | |
| # | Name | Definition |
| | SPA-P quantity | tbd (see comment) |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | Experimental. Check with the SDC what the units are (Anzahl at the level of the Collection/Record Set). |
| # | Name | Definition |
| | SPA-P running meter | size of the Collection or Record Set in terms of running meter |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Number |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P permission | tbd (see comment) |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Controlled Term |
| | Example | |
| | Comment | Experimental. Clarify with the SDC what the exact meaning of "permission" is. |
| # | Name | Definition |

| | | |
|--|----------------------------|--|
| SPA-P access category | | categorization regarding the accessibility of an Collection or Record set for consultation or inspection |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Controlled Term |
| | Example | "public"; "staff only" |
| | Comment | |
| # | Name | Definition |
| SPA-P conditions of access | | conditions affecting the accessibility of a Collection or Record Set for consultation or inspection |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Controlled Term |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P conditions of use | | conditions affecting the availability of a Collection or Record Set for use after access has been provided |
| | Domain | SPA-E12 Collection |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Controlled Term |
| | Example | |
| | Comment | |
| 5.8 Attributes of SPA-E14 Agent | | |
| # | Name | Definition |
| SPA-P identity type | | the specific kind of identity of an Agent |
| | Domain | SPA-E14 Agent |
| | Subproperty of | |
| | Superproperty of | |

| | | |
|----------|----------------------------|--|
| | Equivalent Property | SPA-P33 Identity Type |
| | Scope Note | A given identity is the identity that is commonly considered the identity of the 'real' Agent. An assumed identity is an identity invented by one or more 'real' Agents, with the 'real' Agent or Agents acting under the guise of the assumed identity (RiC 2016, S. 30). |
| | Data Type | Controlled Term |
| | Example | given; individual assumed; joint assumed; unknown |
| | Comment | |
| # | Name | Definition |
| | SPA-P language | language an agent uses in its communications |
| | Domain | SPA-E14 Agent |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdau:has language of agent |
| | Scope Note | |
| | Data Type | ISO Controlled Term (ISO 639-1, ISO 639-2) |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P agent history | biographical or historical information about an Agent |
| | Domain | SPA-E14 Agent |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdau:has agent history |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P official website | an Agent's homepage or official website |
| | Domain | SPA-E14 Agent |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | foaf:homepage |
| | Scope Note | |
| | Data Type | URI |
| | Example | |
| | Comment | |

5.9 Attributes of SPA-E15 Person

| # | Name | Definition |
|---|----------------------------|--|
| | SPA-P gender | The gender with which a person identifies. |
| | Domain | SPA-E15 Person |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | RiC-P36 Gender |
| | Scope Note | - |
| | Data Type | Controlled Term |
| | Example | male; female; unkown |
| | Comment | |
| # | Name | Definition |
| | SPA-P given name | the given name of the person |
| | Domain | SPA-E15 Person |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | foaf:firstName foaf:givenName schema:givenName |
| | Scope Note | A number of naming constructs are under development to provide naming substructure; draft properties include firstName, givenName, and surname. These are not currently stable or consistent; see the issue tracker for design discussions, status and ongoing |
| | Data Type | String |
| | Example | "Emily" |
| | Comment | |
| # | Name | Definition |
| | SPA-P family name | The family name of the person. |
| | Domain | SPA-E15 Person |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | foaf:familyName foaf:lastName schema:familyName |
| | Scope Note | |
| | Data Type | String |
| | Example | "Smith" |
| | Comment | |
| # | Name | Definition |

| | | |
|-----------------------|----------------------------|--|
| SPA-P additional name | | an additional name for a Person; can be used for a middle name |
| | Domain | SPA-E15 Person |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | schema:additionalName |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P patronymic | | the patronymic of a Person |
| | Domain | SPA-E15 Person |
| | Subproperty of | SPA-P additional name |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | This property is used to indicate the patronymic (a middle name derived from the father's name) of a person. |
| | Data Type | String |
| | Example | "Fyodorovich" (Igor Fyodorovich Stravinsky) |
| | Comment | - |
| # | Name | Definition |
| SPA-P marital status | | 0 |
| | Domain | SPA-E15 Person |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Controlled Term |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P date of birth | | indicates the date of birth of a Person |
| | Domain | SPA-E15 Person |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Date |

| | | |
|--|----------------------------|--|
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P | date of death | indicates the date of death of a Person |
| | Domain | SPA-E15 Person |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Date |
| | Example | |
| | Comment | |
| 5.10 Attributes of SPA-E17 Corporate Body | | |
| # | Name | Definition |
| SPA-P | official name | indicates the official name of a Corporate Body |
| | Domain | SPA-E17 Corporate Body |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P | date of establishment | date on which a Corporate Body was established or founded |
| | Domain | SPA-E17 Corporate Body |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdaa:has date of establishment |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P | date of termination | date on which a Corporate Body was terminated or dissolved |
| | Domain | SPA-E17 Corporate Body |
| | Subproperty of | |
| | Superproperty of | |

| | | |
|---|----------------------------|--|
| | Equivalent Property | rdaa:has date of termination |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P active date | | date on which a Corporate Body was known to be active |
| | Domain | SPA-E17 Corporate Body |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| 5.11 Attributes of SPA-E19 Place | | |
| # | Name | Definition |
| SPA-P geographic coordinates | | longitudinal and latitudinal information of the Place. |
| | Domain | SPA-E19 Place |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | - |
| | Data Type | Controlled Code or Term (ISO 6709 Standard representation of geographic point location by coordinates) |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P postal code | | the postal code of the Place |
| | Domain | SPA-E19 Place |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | 3000 |
| | Comment | |

| # | Name | Definition |
|--|---------------------|--|
| SPA-P street | | the physical street and street number of the Place |
| | Domain | SPA-E19 Place |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | Brückenstrasse 72 |
| | Comment | |
| 5.12 Attributes of SPA-E28 Activity | | |
| # | Name | Definition |
| SPA-P end date | | the date of termination of the Activity |
| | Domain | SPA-E28 Activity |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P start date | | the date of the beginning of the Activity |
| | Domain | SPA-E28 Activity |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P active date | | a date at which the Activity was known to be ongoing |
| | Domain | SPA-E28 Activity |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |

| | | |
|---|----------------------------|---|
| | Data Type | |
| | Example | |
| | Comment | |
| 5.13 Attributes of SPA-E34 Cultural Heritage Object, SPA-E35 Analog Copy, and SPA-E36 Digital Resource | | |
| # | Name | Definition |
| | SPA-P accession number | accession number of an artefact |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P archive plan number | archive plan number of an artefact |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P content URL | reference to the actual bytes of the media object, for example the image file or the video file |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | schema:contentUrl |

| | | |
|----------|----------------------------|--|
| | Scope Note | |
| | Data Type | URI |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P encoding format | information about the logical form of digitally represented content |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | RiC-P10 Encoding Format schema:fileFormat |
| | Scope Note | |
| | Data Type | Controlled Term (Mime types: https://www.iana.org/assignments/media-types/media-types.xhtml) |
| | Example | text/csv; image/tiff; audio/mp4; application/pdf |
| | Comment | |
| # | Name | Definition |
| | SPA-P media type | The general type of intermediation device required to render the content of an artefact |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | RiC-P12 Media Type |
| | Scope Note | |
| | Data Type | Controlled Term |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P medium | physical material in or on which information is represented |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | RiC-P14 Medium |

| | | |
|----------|-----------------------------|---|
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P date of creation | date of creation of the artefact |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Date |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P brand of data carrier | brand of the data carrier on which the artefact is stored |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Date |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P file name | name of the file containing the artefact |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |

| | | |
|----------|----------------------------------|---|
| | Example | "96-1-DIGG.pdf" |
| | Comment | |
| # | Name | Definition |
| | SPA-P internal file location | path of the directory in which the file is stored |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String (path) |
| | Example | "Z:\TANZARCHIV-DATEN\Ablieferungen\Ablieferungen 2009\20_2009 Annas Kollektiv\Technische Daten" |
| | Comment | |
| # | Name | Definition |
| | SPA-P locator | a URI from where the resource can be accessed |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | ebucore:locator |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | URI |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P physical or logical extent | Number of physical units and/or physical dimensions of Record carriers or, in the case of digital media carriers, the size of storage space occupied. |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | RiC-P15 Physical or Logical Extent |
| | Scope Note | |
| | Data Type | String |
| | Example | |

| | Comment | |
|--------------------|---------------------|---|
| # | Name | Definition |
| SPA-P file size | | size of the file in gigabyte |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Number |
| | Example | "82.5899963378906" |
| | Comment | |
| # | Name | Definition |
| SPA-P scale | | indicates the scale of a model compared to the real size of the depicted object |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P aspect ratio | | ratio of the frame of video artefacts |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdau:has aspect ratio ebucore:aspectRatio |
| | Scope Note | |
| | Data Type | String ("numerator : denominator, whereby numerator and denominator are Integers) |
| | Example | "4:3" |
| | Comment | |

| # | Name | Definition |
|---|----------------------------|---|
| | SPA-P frame size | size of the frame of video artefacts |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | ebucore:frameSize |
| | Scope Note | |
| | Data Type | String ("width x height" in pixels, whereby width and height are Integers) |
| | Example | "720 x 576" |
| | Comment | |
| # | Name | Definition |
| | SPA-P resolution | indication of the clarity or fineness of detail in a digital image, expressed by the measurement of the image in pixels, etc. |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdau:has resolution |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P broadcast standard | indicates the system used to format a video resource for television broadcast |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | rdau:has broadcast standard ebucore:technicalAttributeString/type label ="Standard" |
| | Scope Note | |
| | Data Type | String |
| | Example | "PAL" |
| | Comment | |

| # | Name | Definition |
|---|-----------------------------|---|
| | SPA-P video codec | indicates the video codec of a video resource |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | ebucore:codec |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | "V_MS/VFW/FOURCC / FFV1" |
| | Comment | |
| # | Name | Definition |
| | SPA-P audio codec | indicates the audio codec of an audio resource |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | ebucore:codec |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | "A_PCM/INT/LIT" |
| | Comment | |
| # | Name | Definition |
| | SPA-P video scanning format | indicates the video scanning format of a video resource |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | ebucore:scanningFormat |
| | Scope Note | |
| | Data Type | String |
| | Example | "interlaced" |
| | Comment | |

| # | Name | Definition |
|---|----------------------------|---|
| | SPA-P video scanning order | indicates the scanning order of a video resource |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | ebucore:scanningOrder |
| | Scope Note | |
| | Data Type | String |
| | Example | "top" |
| | Comment | |
| # | Name | Definition |
| | SPA-P color space | indicates the color space of a video resource or an image |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | ebucore:technicalAttributeString/type label ="ColorSpace" |
| | Scope Note | |
| | Data Type | String |
| | Example | "YUV" |
| | Comment | |
| # | Name | Definition |
| | SPA-P chroma subsampling | indicates the chroma subsampling of a video resource or an image |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | ebucore:technicalAttributeString/type label ="ChromaSubsampling" |
| | Scope Note | |
| | Data Type | String |
| | Example | "4:2:2" |
| | Comment | |

| # | Name | Definition |
|---|----------------------------|---|
| | SPA-P bit depth | indicates the bit depth of a video resource or an image |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | ebucore:technicalAttributeInteger/type label ="BitDepth" |
| | Scope Note | |
| | Data Type | Integer |
| | Example | 10 |
| | Comment | |
| # | Name | Definition |
| | SPA-P audio sampling rate | indicates the sampling rate of an audio resource |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | ebucore:samplingRate |
| | Scope Note | |
| | Data Type | Ingeger |
| | Example | 48000 |
| | Comment | |
| # | Name | Definition |
| | SPA-P audio sample size | indicates the sample size of an audio resource |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | ebucore:sampleSize |
| | Scope Note | |
| | Data Type | Integer |
| | Example | 24 |
| | Comment | |

| # | Name | Definition |
|---|----------------------------|---|
| | SPA-P audio bit rate mode | indicates the bit rate mode of an audio resource |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | ebucore:bitRateMode |
| | Scope Note | |
| | Data Type | String |
| | Example | "constant" |
| | Comment | |
| # | Name | Definition |
| | SPA-P audio channels | indicates the number of audio channels of an audio resource |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | ebucore:channels |
| | Scope Note | |
| | Data Type | Integer |
| | Example | 2 |
| | Comment | |
| # | Name | Definition |
| | SPA-P container format | indicates the container format of an audio or video resource |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | ebucore:containerFormat |
| | Scope Note | |
| | Data Type | String |
| | Example | "Matroska" |
| | Comment | |

| # | Name | Definition |
|---|--------------------------------|---|
| | SPA-P writing application | indicates the writing application used to encode an audio or video resource |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | ebucore:technicalAttributeString/type label ="WritingApplication" |
| | Scope Note | |
| | Data Type | String |
| | Example | "Lavf57.56.100" |
| | Comment | |
| # | Name | Definition |
| | SPA-P physical characteristics | description of the physical characteristics of the artefact |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | dimensions |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P dimensions | indicates the measurement of a carrier or a container of a resource |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | physical characteristics |
| | Superproperty of | |
| | Equivalent Property | rdau:has dimensions |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |

| # | Name | Definition |
|---|----------------------------|---|
| | SPA-P content extent | countable characteristics of the content of an artefact, expressed as a quantity |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | duration |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P duration | playing time, running time, etc., of a content of an artefact |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | content extent |
| | Superproperty of | |
| | Equivalent Property | rdau:has duration |
| | Scope Note | |
| | Data Type | String / Integer (seconds/hh:mm:ss) |
| | Example | |
| | Comment | Experimental. A uniform data type should be agreed upon. |
| # | Name | Definition |
| | SPA-P start position | start position of an artefact's content on a carrier |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String / Integer (seconds/hh:mm:ss) |
| | Example | |
| | Comment | Experimental. A uniform data type should be agreed upon. |

| # | Name | Definition |
|---|----------------------------|--|
| | SPA-P end position | end position of an artefact's content on a carrier |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String / Integer (seconds/hh:mm:ss) |
| | Example | |
| | Comment | Experimental. A uniform data type should be agreed upon. |
| # | Name | Definition |
| | SPA-P content | description of the content of an artefact |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | Use this attribute to describe what part of the resource is represented in the artefact (e.g. recto, verso, part visible, etc.). The content of the resource itself should be described at the level of the Endeavour. |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P permission | tbd (see comment) |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Controlled Term |
| | Example | |
| | Comment | Experimental. Clarify with the SDC what the exact meaning of "permission" is. |

| # | Name | Definition |
|---|----------------------------|--|
| | SPA-P access category | categorization regarding the accessibility of an artefact for consultation or inspection |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Controlled Term |
| | Example | "public"; "staff only" |
| | Comment | |
| # | Name | Definition |
| | SPA-P conditions of access | conditions affecting the accessibility of an artefact for consultation or inspection |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | RIC-P18 |
| | Scope Note | |
| | Data Type | Controlled Term |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P conditions of use | conditions affecting the availability of the artefact for use after access has |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | been provided |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Includes conditions governing reproduction of the artefact under applicable copyright (intellectual property) or property legislation. |
| | Example | Controlled Term |
| | Comment | |

| # | Name | Definition |
|---|------------------------------|--|
| | SPA-P reproduction note | information regarding the reproduction process from which the artefact resulted |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | “Digitalisiert ab Sony BVW-70P, über Black Magic Composite in Finalcut Pro. Aufnahmeeinstellung 10 bit uncompressed, digitalisiert durch Katrin Oettli.” |
| | Comment | |
| # | Name | Definition |
| | SPA-P conservation note | information regarding the conservation state of the artefact as well as conservation measures taken |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P description of damages | information regarding damages observed in the artefact |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |

| # | Name | Definition |
|--|------------------------------------|--|
| | SPA-P content checksum | content checksum for data integrity check |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | Use the "method" qualifier to indicate the type of checksum used. |
| # | Name | Definition |
| | SPA-P date of last integrity check | date of the last integrity check of electronic information |
| | Domain | SPA-E34 Cultural Heritage Object SPA-E35 Analog Copy SPA-E36 Digital Resource |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Date |
| | Example | |
| | Comment | |
| 5.14 Attributes of SPA-E37 Date | | |
| # | Name | Definition |
| | SPA-P calendar | calendar with which the literal expression of the Date (Date as expressed and understood by human Agents) is expressed |
| | Domain | SPA-E37 Date |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |

| # | Name | Definition |
|---|---------------------|--|
| | SPA-P start date | the start date of a time range |
| | Domain | SPA-E37 Date (of type "range") |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P end date | the end date of a time range |
| | Domain | SPA-E37 Date (of type "range") |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| 5.15 Attributes of SPA-E39 Nomen | | |
| # | Name | Definition |
| | SPA-P class | the class of the entity referred to by the Nomen |
| | Domain | SPA-E39 Nomen |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | Controlled Term (Entity defined by the SPA Data Model) |
| | Example | |
| | Comment | |
| 5.16 Attributes of SPA-E43 Contact Point | | |
| # | Name | Definition |
| | SPA-P contact type | the type of contact point |
| | Domain | SPA-E43 Contact Point |
| | Subproperty of | |
| | Superproperty of | |

| | | |
|----------|----------------------------|---|
| | Equivalent Property | |
| | Scope Note | A person or organization can have different contact points, for different purposes. For example, a sales contact point, a PR contact point and so on. This property is used to specify the kind of contact point. |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P available language | a language someone may use when interacting with a Contact Point |
| | Domain | SPA-E43 Contact Point |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | schema:availableLanguage |
| | Scope Note | |
| | Data Type | Controlled Term (ISO 639) |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P email | the email address associated with the Contact Point |
| | Domain | SPA-E43 Contact Point |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | schema:email |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P telephone | the telephone number associated with the Contact Point |
| | Domain | SPA-E43 Contact Point |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | schema:telephone |
| | Scope Note | |
| | Data Type | Telephone Number |
| | Example | |
| | Comment | |

| # | Name | Definition |
|--|----------------------------|--|
| | SPA-P fax number | the fax number associated with the Contact Point |
| | Domain | SPA-E43 Contact Point |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | schema:faxNumber |
| | Scope Note | |
| | Data Type | Telephone Number |
| | Example | |
| | Comment | |
| 5.17 Attributes of SPA-E44 Postal Address | | |
| # | Name | Definition |
| | SPA-P street address | the street address |
| | Domain | SPA-E44 Postal Address |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | schema:streetAddress |
| | Scope Note | |
| | Data Type | String |
| | Example | 16 Amphitheatre Pkwy |
| | Comment | Brückenstrasse 73 |
| # | Name | Definition |
| | SPA-P postal code | the postal code |
| | Domain | SPA-E44 Postal Address |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | schema:postalCode |
| | Scope Note | |
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-P address locality | the locality |
| | Domain | SPA-E44 Postal Address |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | schema:addressLocality |
| | Scope Note | |

| | | |
|------------------------------|----------------------------|---|
| | Data Type | String |
| | Example | |
| | Comment | |
| # | Name | Definition |
| SPA-P address region | | the region |
| | Domain | SPA-E44 Postal Address |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | schema:addressRegion |
| | Scope Note | |
| | Data Type | String |
| | Example | CA |
| | Comment | |
| # | Name | Definition |
| SPA-P address country | | the country |
| | Domain | SPA-E44 Postal Address |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | schema:addressRegion |
| | Scope Note | |
| | Data Type | String |
| | Example | Controlled Term (ISO 3166-1 alpha-2 country code) |
| | Comment | |
| # | Name | Definition |
| SPA-P post office box number | | the post office box number |
| | Domain | SPA-E44 Postal Address |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | schema:postOfficeBoxNumber |
| | Scope Note | |
| | Data Type | String |
| | Example | Postfach 351 |
| | Comment | |

6 Relations

This section contains the inventory of the relations defined within the SPA Data Model. Note that the relations that are defined for a given class (indicated in the fields “Relation Domain” or “Relation Range”) also apply to its subclasses.

In cases where several possible domains or ranges are indicated, the asterisk (*) marks the preferred one, which is to be used by default, while the others may be used in exceptional cases where further differentiation is needed.

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|--|--------------------|---|-----------------------|--|
| 6.1 Relations of SPA-E1 Endeavour | | | | |
| SPA-E1 Endeavour | has subject | SPA-E1 Endeavour | is subject of | in analogy to RiC R51 has subject Subproperty of: is associated with |
| SPA-E1 Endeavour | is associated with | SPA-E1 Endeavour | is associated with | in analogy to RiC-R5 is associated with |
| SPA-E1 Endeavour | is basis of | SPA-E6 Endeavour of the Performing Arts | is based on | in analogy to Wikidata P144 experimental (is it really needed?) |
| SPA-E1 Endeavour | is associated with | SPA-E12 Collection | is associated with | in analogy to RiC-R136 is associated with |
| SPA-E1 Endeavour | has rights held by | SPA-E14 Agent | is rights holder of | in analogy to RiC-R22 has rights held by Subproperty of: is associated with |
| SPA-E1 Endeavour | is associated with | SPA-E14 Agent | is associated with | in analogy to RiC-R5 is associated with |
| SPA-E1 Endeavour | has contributor | SPA-E14 Agent | is contributor of | rdau:has contributor Subproperty of: is associated with |
| SPA-E1 Endeavour | has subject | SPA-E14 Agent | is subject of | rdau:has subject Subproperty of: is associated with |
| SPA-E1 Endeavour | has subject | SPA-E18 Subject | is subject of | in analogy to RiC R51 has subject Subproperty of: is associated with |
| SPA-E1 Endeavour | is associated with | SPA-E18 Subject | is associated with | in analogy to RiC-R5 is associated with |
| SPA-E1 Endeavour | is associated with | SPA-E25 Concept | is associated with | |
| SPA-E1 Endeavour | has subject | SPA-E33 Performance Role | is subject of | |
| SPA-E1 Endeavour | is associated with | SPA-E37 Date | is associated with | in analogy to RiC-R5 is associated with |
| SPA-E1 Endeavour | has creation date | SPA-E37 Date | is creation date of | in analogy to RiC-R62 had |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|-------------------------------------|-----------------------------|--------------------------|-------------------------------|--|
| | | | | creation date Subproperty of: is associated with |
| SPA-E1 Endeavour | has related nomen | SPA-E39 Nomen | has related entity | |
| SPA-E1 Endeavour | has documentary form | SPA-E40 Documentary Form | is documentary form of | in analogy to RiC R59 has documentary form Subproperty of: is associated with |
| SPA-E1 Endeavour | is associated with | SPA-E40 Documentary Form | is associated with | in analogy to RiC R60 is associated with |
| 6.2 Relations of SPA-E2 Work | | | | |
| SPA-E2 Work | has adaptation | SPA-E2 Work | is adaptation of | frbr:adaptation |
| SPA-E2 Work | is adaptation of | SPA-E2 Work | has adaptation | frbr:adaptationOf |
| SPA-E2 Work | has part | SPA-E2 Work | is part of | frbr:part |
| SPA-E2 Work | is part of | SPA-E2 Work | has part | frbr:partOf |
| SPA-E2 Work | has derivative | SPA-E2 Work | is derivative of | FRBRoo R2 (has derivative) |
| SPA-E2 Work | is derivative of | SPA-E2 Work | has derivative | FRBRoo R2 is derivative of |
| SPA-E2 Work | has realisation | SPA-E3 Expression | is realisation of | frbr:realization |
| SPA-E2 Work | has single realisation | SPA-E3 Expression | is single realisation of | Subproperty of: has first realisation |
| SPA-E2 Work | has first realisation | SPA-E3 Expression | is first realisation of | Subproperty of: has realisation |
| SPA-E2 Work | has manifestation | SPA-E4 Manifestation | is manifestation of | fabio:hasManifestation experimental (is it really needed?) |
| SPA-E2 Work | has portrayal | SPA-E5 Item | is portrayal of | fabio:isPortrayalOf experimental (is it really needed?) |
| SPA-E2 Work | has creator | SPA-E14 Agent | is creator of | frbr:creator |
| SPA-E2 Work | has author | SPA-E14 Agent | is author of | Subproperty of: has creator |
| SPA-E2 Work | has librettist | SPA-E14 Agent | is librettist of | rdaw:has librettist Subproperty of: has author |
| SPA-E2 Work | has lyricist | SPA-E14 Agent | is lyricist of | rdaw:has lyricist Subproperty of: has author |
| SPA-E2 Work | has composer | SPA-E14 Agent | is composer of | rdaw:has composer Subproperty of: has creator |
| SPA-E2 Work | has screenwriter | SPA-E14 Agent | is screenwriter of | rdaw:has screenwriter Subproperty of: has author |
| SPA-E2 Work | has director of photography | SPA-E14 Agent | is director of photography of | rdaw:has director of photography |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|---|--------------------------|--------------------------|-------------------------|---|
| SPA-E2 Work | has photographer | SPA-E14 Agent | is photographer of | rdaw:has photographer Subproperty of: has creator |
| SPA-E2 Work | has designer | SPA-E14 Agent | is designer of | rdaw:has designer Subproperty of: has creator |
| SPA-E2 Work | has director | SPA-E14 Agent | is director of | rdaw:has director |
| SPA-E2 Work | has casting director | SPA-E14 Agent | is casting director of | rdaw:has casting director |
| SPA-E2 Work | defines | SPA-E33 Performance Role | is defined in | |
| 6.3 Relations of SPA-E3 Expression | | | | |
| SPA-E3 Expression | defines | SPA-E33 Performance Role | is defined in | |
| SPA-E3 Expression | is realisation of | SPA-E2 Work | has realisation | frbr:realizationOf |
| SPA-E3 Expression | is single realisation of | SPA-E2 Work | has single realisation | Subproperty of: is first realisation of |
| SPA-E3 Expression | is first realisation of | SPA-E2 Work | has first realisation | Subproperty of: is realisation of |
| SPA-E3 Expression | is incorporated in | SPA-E3 Expression | incorporates | CIDOC CRM P165 (is incorporated in) |
| SPA-E3 Expression | incorporates | SPA-E3 Expression | is incorporated in | CIDOC CRM P165 incorporates |
| SPA-E3 Expression | has adaptation | SPA-E3 Expression | is adaptation of | frbr:adaptation |
| SPA-E3 Expression | is adaptation of | SPA-E3 Expression | has adaptation | frbr:adaptationOf |
| SPA-E3 Expression | has arrangement | SPA-E3 Expression | is arrangement of | frbr:arrangement |
| SPA-E3 Expression | is arrangement of | SPA-E3 Expression | has arrangement | frbr:arrangementOf |
| SPA-E3 Expression | has part | SPA-E3 Expression | is part of | frbr:part |
| SPA-E3 Expression | is part of | SPA-E3 Expression | has part | frbr:partOf |
| SPA-E3 Expression | has revision | SPA-E3 Expression | is revision of | frbr:revision |
| SPA-E3 Expression | is revision of | SPA-E3 Expression | has revision | frbr:revisionOf |
| SPA-E3 Expression | has translation | SPA-E3 Expression | is translation of | frbr:translation |
| SPA-E3 Expression | is translation of | SPA-E3 Expression | has translation | frbr:translationOf |
| SPA-E3 Expression | has embodiment | SPA-E4 Manifestation | is embodiment of | frbr:embodiment; FRBRoo-R41 has representative manifestation product type |
| SPA-E3 Expression | has single embodiment | SPA-E4 Manifestation | is single embodiment of | Subproperty of: has first embodiment |
| SPA-E3 Expression | has first embodiment | SPA-E4 Manifestation | is first embodiment of | Subproperty of: has embodiment |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|-------------------|----------------------------|----------------|------------------------------|---|
| SPA-E3 Expression | has representation | SPA-E5 Item | is representation of | FRBRoo-R42 (has representative manifestation singleton); fabio:hasRepresentation experimental (is it really needed?) |
| SPA-E3 Expression | has adaptor | SPA-E14 Agent | is adaptor of | in analogy to eclap:adaptor Subproperty of: has contributor |
| SPA-E3 Expression | has television adaptor | SPA-E14 Agent | is television adaptor of | Subproperty of: has adaptor |
| SPA-E3 Expression | has editor | SPA-E14 Agent | is editor of | rdae:has editor Subproperty of: has contributor |
| SPA-E3 Expression | has photographer | SPA-E14 Agent | is photographer of | rdae:has photographer Subproperty of: has contributor |
| SPA-E3 Expression | has translator | SPA-E14 Agent | is translator of | rdae:has translator Subproperty of: has contributor |
| SPA-E3 Expression | has composer | SPA-E14 Agent | is composer of | rdae:has composer (expression) Subproperty of: has contributor |
| SPA-E3 Expression | has arranger of music | SPA-E14 Agent | is arranger of music of | rdae:has arranger of music Subproperty of: has contributor |
| SPA-E3 Expression | has writer of added text | SPA-E14 Agent | is writer of added text of | rdae:has writer of added text Subproperty of: has contributor |
| SPA-E3 Expression | has writer of added lyrics | SPA-E14 Agent | is writer of added lyrics of | rdae:has writer of added lyrics Subproperty of: has writer of added text |
| SPA-E3 Expression | has production designer | SPA-E14 Agent | is production designer of | rdae:has production designer Subproperty of: has contributor |
| SPA-E3 Expression | has technical director | SPA-E14 Agent | is technical director of | Subproperty of: has contributor |
| SPA-E3 Expression | has recording engineer | SPA-E14 Agent | is recording engineer of | rdae:has recording engineer Subproperty of: has contributor |
| SPA-E3 Expression | has recordist | SPA-E14 Agent | is recordist of | rdae:has recordist Subproperty of: has contributor |
| SPA-E3 Expression | has camera operator | SPA-E14 Agent | is camera operator of | Subproperty of: has recordist |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|--|---------------------------------|----------------------|-----------------------------------|--|
| SPA-E3 Expression | has lighting designer | SPA-E14 Agent | is lighting designer of | rdae:has lighting designer Subproperty of: has contributor |
| SPA-E3 Expression | has sound designer | SPA-E14 Agent | is sound designer of | rdae:has sound designer Subproperty of: has contributor |
| SPA-E3 Expression | has audio engineer | SPA-E14 Agent | is audio engineer of | rdae:has audio engineer Subproperty of: has contributor |
| SPA-E3 Expression | has editor of moving image work | SPA-E14 Agent | is editor of moving image work of | rdae:has editor of moving image work Subproperty of: has contributor |
| SPA-E3 Expression | has art director | SPA-E14 Agent | is art director of | rdae:has art director Subproperty of: has contributor |
| SPA-E3 Expression | has dramaturge | SPA-E14 Agent | is dramaturge of | Subproperty of: has contributor |
| SPA-E3 Expression | has moderator | SPA-E14 Agent | is moderator of | rdae:has moderator Subproperty of: has performer |
| SPA-E3 Expression | has on-screen presenter | SPA-E14 Agent | is on-screen presenter of | rdae:has on-screen presenter Subproperty of: has performer |
| SPA-E3 Expression | has host | SPA-E14 Agent | is host of | rdae:has host Subproperty of: has performer |
| 6.4 Relations of SPA-E4 Manifestation | | | | |
| SPA-E4 Manifestation | is manifestation of | SPA-E2 Work | has manifestation | fabio:isManifestationOf experimental (is it really needed?) |
| SPA-E4 Manifestation | is embodiment of | SPA-E3 Expression | has embodiment | frbr:embodimentOf; FRBRoo-R41 (is representative manifestation product type for) |
| SPA-E4 Manifestation | is single embodiment of | SPA-E3 Expression | has single embodiment | Subproperty of: is first embodiment of |
| SPA-E4 Manifestation | is first embodiment of | SPA-E3 Expression | has first embodiment | Subproperty of: is embodiment of |
| SPA-E4 Manifestation | has reproduction | SPA-E4 Manifestation | is reproduction | frbr:hasReproduction |
| SPA-E4 Manifestation | has part | SPA-E4 Manifestation | is part of | frbr:part |
| SPA-E4 Manifestation | is part of | SPA-E4 Manifestation | has part | frbr:partOf |
| SPA-E4 Manifestation | is reproduction of | SPA-E4 Manifestation | has reproduction | frbr:reproductionOf |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|----------------------|---------------------|----------------|-----------------------|---|
| SPA-E4 Manifestation | has exemplar | SPA-E5 Item | is exemplar of | frbr:exemplar |
| SPA-E4 Manifestation | has single exemplar | SPA-E5 Item | is single exemplar of | Subproperty of: has first exemplar |
| SPA-E4 Manifestation | has first exemplar | SPA-E5 Item | is first exemplar of | Subproperty of: has exemplar |
| SPA-E4 Manifestation | has publisher | SPA-E14 Agent | is publisher of | rdam:has publisher Subproperty of: has contributor |
| SPA-E4 Manifestation | has broadcaster | SPA-E14 Agent | is broadcaster of | rdam:has broadcaster Subproperty of: has publisher |
| SPA-E4 Manifestation | has manufacturer | SPA-E14 Agent | is manufacturer of | rdam:has manufacturer |
| SPA-E4 Manifestation | has lithographer | SPA-E14 Agent | is lithographer of | rdam:has lithographer Subproperty of: has manufacturer |
| SPA-E4 Manifestation | has engraver | SPA-E14 Agent | is engraver of | rdam:has engraver Subproperty of: has manufacturer |
| SPA-E4 Manifestation | has etcher | SPA-E14 Agent | is etcher of | rdam:has etcher Subproperty of: has manufacturer |
| SPA-E4 Manifestation | has printer | SPA-E14 Agent | is printer of | rdam:has printer Subproperty of: has manufacturer |

6.5 Relations of SPA-E5 Item

| | | | | |
|-------------|-----------------------|----------------------|---------------------|--|
| SPA-E5 Item | is portrayal of | SPA-E2 Work | has portrayal | fabio:isPortrayalOf experimental (is it really needed?) |
| SPA-E5 Item | is representation of | SPA-E3 Expression | has representation | FRBRoo-R42 is representative manifestation singleton for; fabio:isRepresentationOf experimental (is it really needed?) |
| SPA-E5 Item | is exemplar of | SPA-E4 Manifestation | has exemplar | frbr:exemplarOf |
| SPA-E5 Item | is single exemplar of | SPA-E4 Manifestation | has single exemplar | Subproperty of: is first exemplar of |
| SPA-E5 Item | is first exemplar of | SPA-E4 Manifestation | has first exemplar | Subproperty of: is exemplar of |
| SPA-E5 Item | has reproduction | SPA-E5 Item | is reproduction | frbr:hasReproduction |
| SPA-E5 Item | has part | SPA-E5 Item | is part of | frbr:part |
| SPA-E5 Item | is part of | SPA-E5 Item | has part | frbr:partOf |
| SPA-E5 Item | is reproduction of | SPA-E5 Item | has reproduction | frbr:reproductionOf |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|-----------------|--|----------------------------------|--|---|
| SPA-E5 Item | is component of | SPA-E5 Item | has component | rdai:is contained in (item) |
| SPA-E5 Item | has component | SPA-E5 Item | is component of | rdai:is container of (item) |
| SPA-E5 Item | is associated with | SPA-E12 Collection | is associated with | in analogy to RiC-17 is associated with Subproperty of: has manufacturer |
| SPA-E5 Item | is member of | SPA-E12 Collection | has member | in analogy to RiC-R18 is member of Subproperty of: is associated with |
| SPA-E5 Item | is finding aid for | SPA-E12 Collection | has finding aid | rdau:is finding aid for Subproperty of: is associated with |
| SPA-E5 Item | is index to | SPA-E12 Collection | has index | rdau:is index to Subproperty of: is associated with |
| SPA-E5 Item | has holder | SPA-E14 Agent | is holder of | RiC R25 is held by Subproperty of: is associated with |
| SPA-E5 Item | has owner | SPA-E14 Agent | is owner of | RiC R26 is owned by Subproperty of: is associated with |
| SPA-E5 Item | has addressee | SPA-E14 Agent | is addressee of | RiC R27 was addressed to Subproperty of: is associated with |
| SPA-E5 Item | has sender | SPA-E14 Agent | is sender of | RiC R34 was sent by Subproperty of: is associated with |
| SPA-E5 Item | has holding location | SPA-E19 Place | is holding location of | RiC R66 has holding location |
| SPA-E5 Item | has place indicated on postmark | SPA-E19 Place | is place indicated on postmark of | |
| SPA-E5 Item | was present at | SPA-E27 Event | occurred in the presence of | CIDOC CRM P12 (was present at) |
| SPA-E5 Item | resulted from | SPA-E27 Event | resulted in | in analogy to RiC-R53 resulted from |
| SPA-E5 Item | aggregates CHO | SPA-E34 Cultural Heritage Object | is CHO aggregated by | in analogy to ore:aggregates |
| SPA-E5 Item | has analog copy | SPA-E35 Analog Copy | is analog copy of | |
| SPA-E5 Item | has digital representation | SPA-E36 Digital Resource | is digital representation of | |
| SPA-E5 Item | has electronic reproduction | SPA-E36 Digital Resource | is electronic reproduction of | rdai:has electronic reproduction (item) Subproperty of: has digital representation |
| SPA-E5 Item | has electronic reproduction of the recto | SPA-E36 Digital Resource | is electronic reproduction of the recto of | Subproperty of: has electronic reproduction |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|-----------------|--|--------------------------|--|---|
| SPA-E5 Item | has electronic reproduction of the verso | SPA-E36 Digital Resource | is electronic reproduction of the verso of | Subproperty of: has electronic reproduction |
| SPA-E5 Item | has thumbnail | SPA-E36 Digital Resource | is thumbnail of | Subproperty of: has digital representation |
| SPA-E5 Item | has related nomen | SPA-E39 Nomen | has related item | rdai:has related nomen (item) |

6.6 Relations of the subclasses of SPA-E6 Endeavour of the Performing Arts

| | | | | |
|--|-------------------------|------------------|---------------------------|---|
| SPA-E6 Endeavour of the Performing Arts | is based on | SPA-E1 Endeavour | is basis of | in analogy to Wikidata P144 experimental (is it really needed?) |
| SPA-E7 Performance Work*, SPA-E9 Performing Arts Production | has producer | SPA-E14 Agent | is producer of | rdau:has producer Subproperty of: has contributor |
| SPA-E8 Performance Plan | has composer | SPA-E14 Agent | is composer of | rdae:has composer Subproperty of: has contributor |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production* | has video designer | SPA-E14 Agent | is video designer of | Subproperty of: has contributor |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production* | has projection designer | SPA-E14 Agent | is projection designer of | Subproperty of: has contributor |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production* | has dramaturge | SPA-E14 Agent | is dramaturge of | in analogy to eclap:dramaturge Subproperty of: has contributor |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production* | has set designer | SPA-E14 Agent | is set designer of | in analogy to eclap:set designer Subproperty of: has contributor |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production* | has choreographer | SPA-E14 Agent | is choreographer of | rdau:has choreographer Subproperty of: has contributor |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production* | has costume designer | SPA-E14 Agent | is costume designer of | rdau:has costume designer Subproperty of: has contributor |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production* | has lighting designer | SPA-E14 Agent | is lighting designer of | rdau:has lighting designer Subproperty of: has contributor |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production* | has sound designer | SPA-E14 Agent | is sound designer of | rdau:has sound designer Subproperty of: has contributor |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts | has stage director | SPA-E14 Agent | is stage director of | rdau:has stage director Subproperty of: has contributor |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|--|------------------------------|---------------------|--------------------------------|---|
| Production* | | | | |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production, SPA-E10 Performance* | has music performer | SPA-E14 Agent | is music performer of | Subproperty of: has performer |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production*, SPA-E10 Performance | has assistant stage director | SPA-E14 Agent | is assistant stage director of | in analogy to eclap:assistant director Subproperty of: has contributor |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production, SPA-E10 Performance* | has actor | SPA-E14 Agent | is actor of | rdau:has actor Subproperty of: has performer |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production*, SPA-E10 Performance | has choral conductor | SPA-E14 Agent | is choral conductor of | rdau:has choral conductor Subproperty of: has conductor |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production*, SPA-E10 Performance | has conductor | SPA-E14 Agent | is conductor of | rdau:has conductor Subproperty of: has contributor |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production, SPA-E10 Performance* | has dancer | SPA-E14 Agent | is dancer of | rdau:has dancer Subproperty of: has contributor |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production, SPA-E10 Performance* | has instrumentalist | SPA-E14 Agent | is instrumentalist of | rdau:has instrumentalist Subproperty of: has music performer |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production, SPA-E10 Performance* | has narrator | SPA-E14 Agent | is narrator of | rdau:has narrator Subproperty of: has performer |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production, SPA-E10 Performance* | has performer | SPA-E14 Agent | is performer of | rdau:has performer Subproperty of: has contributor |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production, SPA-E10 Performance* | has puppeteer | SPA-E14 Agent | is puppeteer of | rdau:has puppeteer Subproperty of: has performer |
| SPA-E8 Performance Plan, SPA-E9 Performing Arts Production, SPA-E10 Performance* | has singer | SPA-E14 Agent | is singer of | rdau:has singer Subproperty of: has music performer |
| SPA-E9 Performing Arts Production | has representation | SPA-E10 Performance | is representation of | |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|-----------------------------------|----------------------------|-----------------------------------|--|--|
| SPA-E9 Performing Arts Production | has first representation | SPA-E10 Performance | is first representation of | Subproperty of: has representation |
| SPA-E9 Performing Arts Production | has poster designer | SPA-E14 Agent | is poster designer of | Subproperty of: has contributor |
| SPA-E9 Performing Arts Production | has set builder | SPA-E14 Agent | is set builder of | in analogy to eclap:set builder Subproperty of: has contributor |
| SPA-E9 Performing Arts Production | has related nomen | SPA-E39 Nomen | has related performing arts production | |
| SPA-E10 Performance | is representation of | SPA-E9 Performing Arts Production | has representation | |
| SPA-E10 Performance | is first representation of | SPA-E9 Performing Arts Production | has first representation | Subproperty of: is representation of |
| SPA-E10 Performance | has guest performer | SPA-E14 Agent | is guest performer of | |

6.7 Relations of SPA-E12 Collection (and its subclass SPA-E13 Record Set)

| | | | | |
|--------------------|--------------------|--------------------|---------------------|---|
| SPA-E12 Collection | is associated with | SPA-E1 Endeavour | is associated with | in analogy to RiC-R136 is associated with |
| SPA-E12 Collection | has member | SPA-E5 Item | is member of | in analogy to RiC-R135 has member |
| SPA-E12 Collection | has finding aid | SPA-E5 Item | is finding aid for | rdau:is finding aid |
| SPA-E12 Collection | has index | SPA-E5 Item | is index to | rdau:is index |
| SPA-E12 Collection | has member | SPA-E12 Collection | is member of | in analogy to RiC-R141 has member |
| SPA-E12 Collection | is associated with | SPA-E12 Collection | is associated with | in analogy to RiC-R142 is associated with |
| SPA-E12 Collection | is member of | SPA-E12 Collection | has member | in analogy to RiC-R143 is member of Subproperty of: is associated with |
| SPA-E12 Collection | is predecessor of | SPA-E12 Collection | is successor of | in analogy to RiC-R144 is predecessor of Subproperty of: is associated with |
| SPA-E12 Collection | is successor of | SPA-E12 Collection | is predecessor of | in analogy to RiC-R145 is successor of Subproperty of: is associated with |
| SPA-E12 Collection | has rights held by | SPA-E14 Agent | is rights holder of | in analogy to RiC-R149 has rights held by Subproperty of: is associated with |
| SPA-E12 Collection | has subject | SPA-E14 Agent | is subject of | in analogy to RiC-R150 has subject Subproperty of: is associated with |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|--------------------|----------------------|--------------------------|------------------------|--|
| SPA-E12 Collection | is associated with | SPA-E14 Agent | is associated with | in analogy to RiC-R151 is associated with |
| SPA-E12 Collection | has holder | SPA-E14 Agent | is holder of | in analogy to RiC-R152 is held by Subproperty of: is associated with |
| SPA-E12 Collection | is managed by | SPA-E14 Agent | manages | in analogy to RiC-R153 is managed by Subproperty of: is associated with |
| SPA-E12 Collection | has owner | SPA-E14 Agent | is owner of | in analogy to RiC-R154 is owned by Subproperty of: is associated with |
| SPA-E12 Collection | has addressee | SPA-E14 Agent | is addressee of | in analogy to RiC-R156 was addressed to Subproperty of: is associated with |
| SPA-E12 Collection | has sender | SPA-E14 Agent | is sender of | in analogy to RiC-R165 was sent by Subproperty of: is associated with |
| SPA-E12 Collection | has creator | SPA-E14 Agent | is creator of | in analogy to RiC-R161 was created by Subproperty of: is associated with |
| SPA-E12 Collection | has subject | SPA-E18 Subject | is subject of | in analogy to RiC-R181 is subject of Subproperty of: is associated with |
| SPA-E12 Collection | is associated with | SPA-E18 Subject | is associated with | in analogy to RiC-R182 is associated with |
| SPA-E12 Collection | has holding location | SPA-E19 Place | is holding location of | in analogy to RiC-R196 has holding location |
| SPA-E12 Collection | resulted from | SPA-E27 Event | resulted in | in analogy to RiC-R183 resulted from |
| SPA-E12 Collection | has creation date | SPA-E37 Date | is creation date of | in analogy to RiC-R191 has creation date Subproperty of: is associated with |
| SPA-E12 Collection | has coverage date | SPA-E37 Date | is coverage date of | in analogy to RiC-R192 has coverage date Subproperty of: is associated with |
| SPA-E12 Collection | is associated with | SPA-E37 Date | is associated with | in analogy to RiC-R193 is associated with |
| SPA-E12 Collection | has related nomen | SPA-E39 Nomen | has related entity | |
| SPA-E12 Collection | is associated with | SPA-E40 Documentary Form | is associated with | in analogy to RiC-R189 is associated with |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|---------------------------------------|-------------------------------|-------------------|-----------------------------|--|
| 6.8 Relations of SPA-E14 Agent | | | | |
| SPA-E14 Agent | is associated with | SPA-E1 Endeavour | is associated with | in analogy to RiC-R207 is associated with |
| SPA-E14 Agent | is rights holder of | SPA-E1 Endeavour | has rights held by | in analogy to RiC-R209 is rights holder of Subproperty of: is associated with |
| SPA-E14 Agent | is contributor of | SPA-E1 Endeavour | has contributor | rdau:is contributor of Subproperty of: is associated with |
| SPA-E14 Agent | is subject of | SPA-E1 Endeavour | has subject | rdau:is subject of Subproperty of: is associated with |
| SPA-E14 Agent | is creator of | SPA-E2 Work | has creator | frbr:creatorOf |
| SPA-E14 Agent | is author of | SPA-E2 Work | has author | rdaa:is author of Subproperty of: is creator of |
| SPA-E14 Agent | is librettist of | SPA-E2 Work | has librettist | rdaa:is librettist of Subproperty of: is author of |
| SPA-E14 Agent | is lyricist of | SPA-E2 Work | has lyricist | rdaa:is lyricist of Subproperty of: is author of |
| SPA-E14 Agent | is composer of | SPA-E2 Work | has composer | rdaa:is composer of Subproperty of: is creator of |
| SPA-E14 Agent | is designer of | SPA-E2 Work | has designer | rdaa:is designer of Subproperty of: is creator of |
| SPA-E14 Agent | is screenwriter of | SPA-E2 Work | has screenwriter | rdaa:is screenwriter of Subproperty of: is author of |
| SPA-E14 Agent | is director of photography of | SPA-E2 Work | has director of photography | rdaa:is director of photography of |
| SPA-E14 Agent | is director of | SPA-E2 Work | has director | rdaa:is director of |
| SPA-E14 Agent | is casting director of | SPA-E2 Work | has casting director | rdaa:is casting director of |
| SPA-E14 Agent | is photographer of | SPA-E2 Work | has photographer | rdaa:is photographer of Subproperty of: is creator of |
| SPA-E14 Agent | is composer of | SPA-E2 Expression | has composer | rdaa:is composer (expression) of Subproperty of: is contributor of |
| SPA-E14 Agent | is adaptor | SPA-E3 Expression | has adaptor | Subproperty of: is contributor of |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|-----------------|-----------------------------------|-------------------|---------------------------------|--|
| SPA-E14 Agent | is television adaptor of | SPA-E3 Expression | has television adaptor | Subproperty of: is adaptor of |
| SPA-E14 Agent | is arranger of music of | SPA-E3 Expression | has arranger of music | rdaa:is arranger of music of Subproperty of: is contributor of |
| SPA-E14 Agent | is writer of added text of | SPA-E3 Expression | has writer of added text | rdaa:is writer of added text of Subproperty of: is contributor of |
| SPA-E14 Agent | is writer of added lyrics of | SPA-E3 Expression | has writer of added lyrics | rdaa: is writer of added lyrics of Subproperty of: is writer of added text of |
| SPA-E14 Agent | is editor of | SPA-E3 Expression | has editor | rdaa:is editor of Subproperty of: is contributor of |
| SPA-E14 Agent | is production designer of | SPA-E3 Expression | has production designer | rdaa:is production designer of Subproperty of: is contributor of |
| SPA-E14 Agent | is technical director of | SPA-E3 Expression | has technical director | Subproperty of: is contributor of |
| SPA-E14 Agent | is recording engineer of | SPA-E3 Expression | has recording engineer | rdaa:is recording engineer of Subproperty of: is contributor of |
| SPA-E14 Agent | is recordist of | SPA-E3 Expression | has recordist | rdaa:is recordist of Subproperty of: is contributor of |
| SPA-E14 Agent | is camera operator of | SPA-E3 Expression | has camera operator | Subproperty of: is recordist of |
| SPA-E14 Agent | is lighting designer of | SPA-E3 Expression | has lighting designer | rdaa:is lighting designer of Subproperty of: is contributor of |
| SPA-E14 Agent | is sound designer of | SPA-E3 Expression | has sound designer | rdaa:is sound designer of Subproperty of: is contributor of |
| SPA-E14 Agent | is audio engineer of | SPA-E3 Expression | has audio engineer | rdaa:is audio engineer of Subproperty of: is contributor of |
| SPA-E14 Agent | is editor of moving image work of | SPA-E3 Expression | has editor of moving image work | rdaa:is editor of moving image work of Subproperty of: is contributor of |
| SPA-E14 Agent | is art director of | SPA-E3 Expression | has art director | rdaa:is art director of Subproperty of: is contributor of |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|-----------------|---------------------------|----------------------|-------------------------|---|
| SPA-E14 Agent | is dramaturge of | SPA-E3 Expression | has dramaturge | Subproperty of: is contributor of |
| SPA-E14 Agent | is moderator of | SPA-E3 Expression | has moderator | rdaa:is moderator of Subproperty of: is performer of |
| SPA-E14 Agent | is on-screen presenter of | SPA-E3 Expression | has on-screen presenter | rdaa:is on-screen presenter of Subproperty of: is performer of |
| SPA-E14 Agent | is host of | SPA-E3 Expression | has host | rdaa:is host of Subproperty of: is performer of |
| SPA-E14 Agent | is photographer | SPA-E3 Expression | has photographer | rdaa:is photographer (expression) of Subproperty of: is contributor of |
| SPA-E14 Agent | is translator of | SPA-E3 Expression | has translator | rdaa:is translator of Subproperty of: is contributor of |
| SPA-E14 Agent | is publisher of | SPA-E4 Manifestation | has publisher | rdaa:is publisher of |
| SPA-E14 Agent | is broadcaster of | SPA-E4 Manifestation | has broadcaster | rdaa:is broadcaster of Subproperty of: is publisher of |
| SPA-E14 Agent | is manufacturer of | SPA-E4 Manifestation | has manufacturer | rdaa:is manufacturer of |
| SPA-E14 Agent | is lithographer of | SPA-E4 Manifestation | has lithographer | rdaa:is lithographer of Subproperty of: is manufacturer of |
| SPA-E14 Agent | is engraver of | SPA-E4 Manifestation | has engraver | rdaa:is engraver of Subproperty of: is manufacturer of |
| SPA-E14 Agent | is etcher of | SPA-E4 Manifestation | has etcher | rdaa:is etcher of Subproperty of: is manufacturer of |
| SPA-E14 Agent | is printer of | SPA-E4 Manifestation | has printer | rdaa:is printer of Subproperty of: is manufacturer of |
| SPA-E14 Agent | is holder of | SPA-E5 Item | has holder | RiC R208 is holder of Subproperty of: is associated with |
| SPA-E14 Agent | is owner of | SPA-E5 Item | has owner | RiC R212 owns Subproperty of: is associated with |
| SPA-E14 Agent | is addressee of | SPA-E5 Item | has addressee | RiC R214 was addressee of Subproperty of: is associated with |
| SPA-E14 Agent | is sender of | SPA-E5 Item | has sender | RiC R213 sent Subproperty of: is |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|-----------------|--------------------------------|--|------------------------------|---|
| | | | | associated with |
| SPA-E14 Agent | is producer of | SPA-E7 Performance Work*, SPA-E9 Performing Arts Production | has producer | rdau:is producer of Subproperty of: is contributor of |
| SPA-E14 Agent | is composer of | SPA-E8 Performance Plan | has composer | rdaa:is composer of Subproperty of: is contributor of |
| SPA-E14 Agent | is video designer of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production* | has video designer | Subproperty of: is contributor of |
| SPA-E14 Agent | is projection designer of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production | has projection designer | Subproperty of: is contributor of |
| SPA-E14 Agent | is dramaturge of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production* | has dramaturge | Subproperty of: is contributor of |
| SPA-E14 Agent | is set designer of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production* | has set designer | Subproperty of: is contributor of |
| SPA-E14 Agent | is choreographer of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production* | has choreographer | rdau:is choreographer of Subproperty of: is contributor of |
| SPA-E14 Agent | is stage director of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production* | has stage director | rdaa:is stage director of Subproperty of: is contributor of |
| SPA-E14 Agent | is costume designer of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production* | has costume designer | rdau:is costume designer of Subproperty of: is contributor of |
| SPA-E14 Agent | is lighting designer of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production* | has lighting designer | rdau:is lighting designer of Subproperty of: is contributor of |
| SPA-E14 Agent | is sound designer of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production* | has sound designer | rdau:is sound designer of Subproperty of: is contributor of |
| SPA-E14 Agent | is music performer of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production*, SPA-E10 Performance | has music performer | Subproperty of: is performer of |
| SPA-E14 Agent | is assistant stage director of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production, SPA-E10 Performance* | has assistant stage director | Subproperty of: is contributor of |
| SPA-E14 Agent | is puppeteer of | SPA-E8 Performance Plan, SPA-E9 Performing | has puppeteer | rdaa:is puppeteer of Subproperty of: is performer of |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|-----------------|------------------------|--|-----------------------|---|
| | | Arts Production, SPA-E10 Performance* | | |
| SPA-E14 Agent | is actor of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production, SPA-E10 Performance* | has actor | rdau:is actor of Subproperty of: is performer of |
| SPA-E14 Agent | is choral conductor of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production*, SPA-E10 Performance | has choral conductor | rdau:is choral conductor of Subproperty of: is conductor of |
| SPA-E14 Agent | is conductor of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production*, SPA-E10 Performance | has conductor | rdau:is conductor of Subproperty of: is contributor of |
| SPA-E14 Agent | is dancer of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production*, SPA-E10 Performance | has dancer | rdau:is dancer of Subproperty of: is performer of |
| SPA-E14 Agent | is instrumentalist of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production, SPA-E10 Performance* | has instrumentalist | rdau:is instrumentalist of Subproperty of: is music performer of |
| SPA-E14 Agent | is narrator of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production, SPA-E10 Performance* | has narrator | rdau:is narrator of Subproperty of: is performer of |
| SPA-E14 Agent | is performer of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production, SPA-E10 Performance* | has performer | rdau:is performer of |
| SPA-E14 Agent | is singer of | SPA-E8 Performance Plan, SPA-E9 Performing Arts Production, SPA-E10 Performance* | has singer | rdau:is singer of Subproperty of: is music performer of |
| SPA-E14 Agent | is poster designer of | SPA-E9 Performing Arts Production | has poster designer | Subproperty of: is contributor of |
| SPA-E14 Agent | is set builder of | SPA-E9 Performing Arts Production | has set builder | Subproperty of: is contributor of |
| SPA-E14 Agent | is guest performer of | SPA-E10 Performance | has guest performer | Subproperty of: is contributor of |
| SPA-E14 Agent | is associated with | SPA-E12 Collection | is associated with | |
| SPA-E14 Agent | is holder of | SPA-E12 Collection | has holder | Subproperty of: is associated with |
| SPA-E14 Agent | is rights holder of | SPA-E12 Collection | has rights held by | Subproperty of: is associated with |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|-------------------------------|-------------------------------|-------------------------------|-----------------------------|--|
| SPA-E14 Agent | is subject of | SPA-E12 Collection | has subject | Subproperty of: is associated with |
| SPA-E14 Agent | manages | SPA-E12 Collection | is managed by | Subproperty of: is associated with |
| SPA-E14 Agent | is owner of | SPA-E12 Collection | has owner | Subproperty of: is associated with |
| SPA-E14 Agent | is addressee of | SPA-E12 Collection | has addressee | Subproperty of: is associated with |
| SPA-E14 Agent | is sender of | SPA-E12 Collection | has sender | Subproperty of: is associated with |
| SPA-E14 Agent | is creator of | SPA-E12 Collection | has creator | Subproperty of: is associated with |
| SPA-E14 Agent | is associated with | SPA-E14 Agent | is associated with | RiC 260 is associated with |
| SPA-E14 Agent | controls | SPA-E14 Agent | is controlled by | RiC R251 controls Subproperty of: is associated with |
| SPA-E14 Agent | is controlled by | SPA-E14 Agent | controls | RiC R263 is controlled by |
| SPA-E14 Agent | has substitute | SPA-E14 Agent | is substitute of | |
| SPA-E14 Agent | is substitute of | SPA-E14 Agent | has substitute | |
| SPA-E14 Agent | is member of | SPA-E14 Agent (of type group) | has member | RiC-266 is member of |
| SPA-E14 Agent (of type group) | has member | SPA-E14 Agent | is member of | RiC-258 has member |
| SPA-E14 Agent | is founder of | SPA-E17 Corporate Body | has founder | rdau:has founded entity |
| SPA-E14 Agent | is director of | SPA-E17 Corporate Body | has director | RiC R265 is director of Subproperty of: is officer of |
| SPA-E14 Agent | is artistic director of | SPA-E17 Corporate Body | has artistic director | Subproperty of: is officer of |
| SPA-E14 Agent | is administrative director of | SPA-E17 Corporate Body | has administrative director | Subproperty of: is officer of |
| SPA-E14 Agent | is president of | SPA-E17 Corporate Body | has president | Subproperty of: is officer of |
| SPA-E14 Agent | is trustee of | SPA-E17 Corporate Body | has trustee | rdaa:is trustee of Subproperty of: is officer of |
| SPA-E14 Agent | is officer of | SPA-E17 Corporate Body | has officer | rdaa:is officer of |
| SPA-E14 Agent | is employee of | SPA-E17 Corporate Body | has employee | rdaa:is employee of |
| SPA-E14 Agent | is student at | SPA-E17 Corporate Body | has student | rdaa:is student at |
| SPA-E14 Agent | is graduate of | SPA-E17 Corporate Body | has graduate | rdaa:is graduate of |
| SPA-E14 Agent | is associated with | SPA-E18 Subject | is associated with | |
| SPA-E14 Agent | has location | SPA-E19 Place | is location of | RiC-R329 is located at |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|-----------------|--------------------|--------------------|-----------------------|---|
| SPA-E14 Agent | manages | SPA-E22 Venue | is managed by | |
| SPA-E14 Agent | is keeper of | SPA-E23 Object | has keeper | CIDOC CRM-P49 (is former or current keeper of) |
| SPA-E14 Agent | is owner of | SPA-E23 Object | has owner | CIDOC CRM-P51 (is former or current owner of) |
| SPA-E14 Agent | is donor of | SPA-E23 Object | has donor | rdaa:is donor of |
| SPA-E14 Agent | is seller of | SPA-E23 Object | has seller | rdaa:is seller of |
| SPA-E14 Agent | is associated with | SPA-E25 Concept | is associated with | RiC-R333 is associated with |
| SPA-E14 Agent | is organiser of | SPA-E27 Event | has organiser | rdaa:is organizer of |
| SPA-E14 Agent | participated in | SPA-E27 Event | had participant | CIDOC CRM P11 (participated in) |
| SPA-E14 Agent | performs | SPA-E28 Activity | is performed by | RiC-R309 performs |
| SPA-E14 Agent | pursues | SPA-E30 Occupation | is pursued by | RiC R294 pursues |
| SPA-E14 Agent | established | SPA-E31 Position | was established by | RiC-R296 established |
| SPA-E14 Agent | occupies | SPA-E31 Position | is occupied by | RiC-R299 occupies |
| SPA-E14 Agent | fulfils | SPA-E32 Function | is fulfilled by | RiC-R302 fulfils |
| SPA-E14 Agent | has related nomen | SPA-E39 Nomen | has related entity | rdaa:has related nomen (agent) |

6.9 Relations of SPA-E15 Person

| | | | | |
|----------------|-----------------|------------------|-------------------|--------------------------|
| SPA-E15 Person | is child of | SPA-E15 Person | is parent of | RiC R262 is child of |
| SPA-E15 Person | is parent of | SPA-E15 Person | is child of | RiC R267 is parent of |
| SPA-E15 Person | is sibling of | SPA-E15 Person | is sibling of | RiC R270 is sibling of |
| SPA-E15 Person | is spouse of | SPA-E15 Person | is spouse of | RiC R271 is spouse of |
| SPA-E15 Person | has descendants | SPA-E16 Family | has progenitor | rdaa:has descendants |
| SPA-E15 Person | has birth place | SPA-E19 Place | is birth place of | RiC R325 had birth place |
| SPA-E15 Person | has death place | SPA-E19 Place | is death place of | RiC R326 had death place |
| SPA-E15 Person | has nationality | SPA-E21 Country | is nationality of | schema:nationality |
| SPA-E15 Person | occupies | SPA-E31 Position | is occupied by | RiC R299 occupies |
| SPA-E15 Person | has birth date | SPA-E37 Date | is birth date of | RiC R317 had birth date |
| SPA-E15 Person | has death date | SPA-E37 Date | is death date of | RiC R318 had death date |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|---|------------------------------|------------------------|-------------------------------|--|
| 6.10 Relations of SPA-E16 Family | | | | |
| SPA-E16 Family | has progenitor | SPA-E15 Person | has descendants | rdaa:has progenitor |
| SPA-E16 Family | has descendant family | SPA-E16 Family | is descendant family of | rdaa:has descendant family |
| SPA-E16 Family | is descendant family of | SPA-E16 Family | has descendant family | rdaa:is descendant family of |
| 6.11 Relations of SPA-E17 Corporate Body | | | | |
| SPA-E17 Corporate Body | has founder | SPA-E14 Agent | is founder of | rdaa:has founder |
| SPA-E17 Corporate Body | has director | SPA-E14 Agent | is director of | RiC R264 is directed by Subproperty of: has officer |
| SPA-E17 Corporate Body | has artistic director | SPA-E14 Agent | is artistic director of | Subproperty of: has officer |
| SPA-E17 Corporate Body | has administrative director | SPA-E14 Agent | is administrative director of | Subproperty of: has officer |
| SPA-E17 Corporate Body | has president | SPA-E14 Agent | is president of | Subproperty of: has officer |
| SPA-E17 Corporate Body | has trustee | SPA-E14 Agent | is trustee of | rdaa:has trustee Subproperty of: has officer |
| SPA-E17 Corporate Body | has officer | SPA-E14 Agent | is officer of | rdaa:has officer |
| SPA-E17 Corporate Body | has employee | SPA-E14 Agent | is employee of | rdaa:has employee |
| SPA-E17 Corporate Body | has student | SPA-E14 Agent | is student at | rdaa:has student |
| SPA-E17 Corporate Body | has graduate | SPA-E14 Agent | is graduate of | rdaa:has graduate |
| SPA-E17 Corporate Body | has part | SPA-E17 Corporate Body | is part of | RiC R259 has part |
| SPA-E17 Corporate Body | is part of | SPA-E17 Corporate Body | has part | RiC-R268 is part of |
| SPA-E17 Corporate Body | has mergee | SPA-E17 Corporate Body | has mergee | rdaa:has mergee |
| SPA-E17 Corporate Body | has component of merger | SPA-E17 Corporate Body | has product of merger | rdaa:has component of merger |
| SPA-E17 Corporate Body | has product of merger | SPA-E17 Corporate Body | has component of merger | rdaa:has product of merger |
| SPA-E17 Corporate Body | has product of split | SPA-E17 Corporate Body | has predecessor of split | rdaa:has product of split |
| SPA-E17 Corporate Body | has predecessor of split | SPA-E17 Corporate Body | has product of split | rdaa:has predecessor of split |
| SPA-E17 Corporate Body | has predecessor | SPA-E17 Corporate Body | has successor | rdaa:has predecessor |
| SPA-E17 Corporate Body | has successor | SPA-E17 Corporate Body | has predecessor | rdaa:has successor |
| SPA-E17 Corporate Body | has absorbed corporate body | SPA-E17 Corporate Body | has absorbing corporate body | rdaa:has absorbed corporate body |
| SPA-E17 Corporate Body | has absorbing corporate body | SPA-E17 Corporate Body | has absorbed corporate body | rdaa:has absorbing corporate body |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|--|-----------------------------------|--------------------|---------------------------------|---|
| SPA-E17 Corporate Body | is host institution of | SPA-E27 Event | has host institution | rdaa:is host institution of |
| SPA-E17 Corporate Body | has active date | SPA-E37 Date | is active date of | |
| SPA-E17 Corporate Body | has date of termination | SPA-E37 Date | is date of termination of | RiC R322 had end date |
| SPA-E17 Corporate Body | has date of establishment | SPA-E37 Date | is date of establishment of | RiC-R320 had start date |
| 6.12 Relations of SPA-E18 Subject | | | | |
| SPA-E18 Subject | is associated with | SPA-E1 Endeavour | is associated with | |
| SPA-E18 Subject | is subject of | SPA-E1 Endeavour | has subject | |
| SPA-E18 Subject | is associated with | SPA-E12 Collection | is associated with | |
| SPA-E18 Subject | subject of | SPA-E12 Collection | has subject | |
| SPA-E18 Subject | is associated with | SPA-E14 Agent | is associated with | |
| SPA-E18 Subject | is associated with | SPA-E18 Subject | is associated with | |
| SPA-E18 Subject | has related nomen | SPA-E39 Nomen | has related entity | |
| 6.13 Relations of SPA-E19 Place, SPA-E21 Country, and SPA-E22 Venue | | | | |
| SPA-E19 Place | is holding location of | SPA-E5 Item | has holding location | |
| SPA-E19 Place | is place indicated on postmark of | SPA-E5 Item | has place indicated on postmark | |
| SPA-E19 Place | is holding location of | SPA-E12 Collection | has holding location | |
| SPA-E19 Place | is subject of | SPA-E12 Collection | has subject | |
| SPA-E19 Place | is location of | SPA-E14 Agent | has location | RiC R728 is location of |
| SPA-E19 Place | is birth place of | SPA-E15 Person | has birth place | RiC R730 was birth place of |
| SPA-E19 Place | is death place of | SPA-E15 Person | has death place | RiC R731 was death place of |
| SPA-E19 Place | is located in | SPA-E19 Place | is location of | |
| SPA-E19 Place | is location of | SPA-E19 Place | is located in | |
| SPA-E19 Place | is associated with | SPA-E19 Place | is associated with | RiC-R758 is associated with |
| SPA-E19 Place | is associated with | SPA-E25 Concept | is associated with | RiC-R760 is associated with |
| SPA-E19 Place | is location of | SPA-E27 Event | is located at | |
| SPA-E19 Place | has start date | SPA-E37 Date | is start date of | RiC R753 had start date |
| SPA-E19 Place | has active date | SPA-E37 Date | is active date of | RiC R754 has active date |
| SPA-E19 Place | has end date | SPA-E37 Date | is end date of | RiC R755 has end date |
| SPA-E21 Country | is nationality of | SPA-E15 Person | has nationality | |
| SPA-E22 Venue | is managed by | SPA-E14 Agent | manages | |
| SPA-E22 Venue | is located in | SPA-E24 Building | is location of | |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|--|-----------------------------|------------------------|------------------------|---|
| 6.14 Relations of SPA-E23 Object and SPA-E24 Building | | | | |
| SPA-E23 Object | has keeper | SPA-E14 Agent | is keeper of | CIDOC CRM-P49 has former or current keeper |
| SPA-E23 Object | has owner | SPA-E14 Agent | is owner of | CIDOC CRM-P51 has former or current owner |
| SPA-E23 Object | has donor | SPA-E14 Agent | is donor of | rdau:has donor |
| SPA-E23 Object | has seller | SPA-E14 Agent | is seller of | rdau:has seller |
| SPA-E23 Object | has location | SPA-E19 Place | is location of | FRBRoo P53 |
| SPA-E23 Object | is part of | SPA-E23 Object | has part | CIDOC CRM-P46 (forms part of) |
| SPA-E23 Object | has part | SPA-E23 Object | is part of | CIDOC CRM-P46 is composed of |
| SPA-E23 Object | is successor of | SPA-E23 Object | is predecessor of | |
| SPA-E23 Object | is predecessor of | SPA-E23 Object | is successor of | |
| SPA-E24 Building | is location of | SPA-E22 Venue | is located in | |
| 6.15 Relations of SPA-E25 Concept | | | | |
| SPA-E25 Concept | is associated with | SPA-E1 Endeavour | is associated with | |
| SPA-E25 Concept | is associated with | SPA-E12 Collection | is associated with | |
| SPA-E25 Concept | is subject of | SPA-E12 Collection | has subject | |
| SPA-E25 Concept | is associated with | SPA-E14 Agent | is associated with | RiC-R771 is associated with |
| SPA-E25 Concept | is associated with | SPA-E19 Place | is associated with | RiC-R789 is associated with |
| SPA-E25 Concept | is associated with | SPA-E25 Concept | is associated with | RiC-R792 is associated with |
| SPA-E25 Concept | is associated with | SPA-E28 Activity | is associated with | RiC R781 is associated with |
| 6.16 Relations of SPA-E27 Event | | | | |
| SPA-E27 Event | occurred in the presence of | SPA-E5 Item | was present at | CIDOC CRM P12 occurred in the presence of |
| SPA-E27 Event | resulted in | SPA-E5 Item | resulted from | |
| SPA-E27 Event | resulted in | SPA-E12 Collection | Resulted from | |
| SPA-E27 Event | had participant | SPA-E14 Agent | participated in | CIDOC CRM P11 had participant |
| SPA-E27 Event | has organiser | SPA-E14 Agent | is organiser of | rdau:has organizer |
| SPA-E27 Event | has host institution | SPA-E17 Corporate Body | is host institution of | rdau:has host institution |
| SPA-E27 Event | has location | SPA-E19 Place | is location of | |
| SPA-E27 Event | has part | SPA-E27 Event | is part of | |
| SPA-E27 Event | is part of | SPA-E27 Event | has part | |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|--|----------------------|--------------------------|-----------------------|---|
| SPA-E27 Event | is predecessor of | SPA-E27 Event | is successor of | |
| SPA-E27 Event | is successor of | SPA-E27 Event | is predecessor of | |
| SPA-E27 Event | has date | SPA-E37 Date | is date of | |
| SPA-E27 Event | has start date | SPA-E37 Date | is start date of | Subproperty of: has date |
| SPA-E27 Event | has active date | SPA-E37 Date | is active date of | Subproperty of: has date |
| SPA-E27 Event | has end date | SPA-E37 Date | is end date of | Subproperty of: has date |
| 6.17 Relations of SPA-E28 Activity | | | | |
| SPA-E28 Activity | is performed by | SPA-E14 Agent | performs | RiC R522 is performed by |
| SPA-E28 Activity | is associated with | SPA-E25 Concept | is associated with | RiC-R559 is associated with |
| SPA-E28 Activity | is associated with | SPA-E37 Date | is associated with | RiC R555 is associated with |
| SPA-E28 Activity | has end date | SPA-E37 Date | is end date of | RiC-554 has end date |
| SPA-E28 Activity | has start date | SPA-E37 Date | is start date of | RiC-R552 had start date |
| SPA-E28 Activity | has active date | SPA-E37 Date | is active date of | RiC-R553 has active date |
| 6.18 Relations of SPA-E30 Occupation, SPA-E31 Position, and SPA-E32 Function | | | | |
| SPA-E30 Occupation | is pursued by | SPA-E14 Agent | pursues | RiC R348 is pursued by |
| SPA-E31 Position | was established by | SPA-E14 Agent | established | RiC R390 was established by |
| SPA-E31 Position | is occupied by | SPA-E15 Person | occupies | RiC R388 is occupied by |
| SPA-E32 Function | is fulfilled by | SPA-E14 Agent | fulfils | RiC R437 is fulfilled by |
| 6.19 Relations of SPA-E33 Performance Role | | | | |
| SPA-E33 Performance Role | is subject of | SPA-E1 Endeavour | has subject | |
| SPA-E33 Performance Role | is defined in | SPA-E2 Work | defines | |
| SPA-E33 Performance Role | is defined in | SPA-E3 Expression | defines | |
| SPA-E33 Performance Role | is played by | SPA-E14 Agent | plays | |
| SPA-E33 Performance Role | corresponds to | SPA-E33 Performance Role | corresponds to | |
| 6.20 Relations of SPA-E34 Cultural Heritage Object, SPA-E35 Analog Copy, and SPA-E36 Digital Resource | | | | |
| SPA-E34 Cultural Heritage Object | is CHO aggregated by | SPA-E5 Item | aggregates CHO | |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|--|--|------------------------|---|---|
| SPA-E35 Analog Copy | is analog copy of | SPA-E5 Item | has analog copy | |
| SPA-E36 Digital Resource | is digital representation of | SPA-E5 Item | has digital representation | |
| SPA-E36 Digital Resource | is electronic reproduction of | SPA-E5 Item | has electronic reproduction | rdai:is electronic reproduction of (item) Subproperty of: is digital representation of |
| SPA-E36 Digital Resource | is electronic reproduction of the recto of | SPA-E5 Item | has electronic reproduction of the recto of | Subproperty of: is electronic reproduction |
| SPA-E36 Digital Resource | is electronic reproduction of the verso of | SPA-E5 Item | has electronic reproduction of the verso of | Subproperty of: is electronic reproduction |
| SPA-E36 Digital Resource | is thumbnail of | SPA-E5 Item | has thumbnail | schema:thumbnail Subproperty of: is digital representation of |
| 6.21 Relations of SPA-E37 Date | | | | |
| SPA-E37 Date | is associated with | SPA-E1 Endeavour | is associated with | |
| SPA-E37 Date | is creation date of | SPA-E1 Endeavour | has creation date | Subproperty of: is associated with |
| SPA-E37 Date | is associated with | SPA-E12 Collection | is associated with | |
| SPA-E37 Date | is coverage date of | SPA-E12 Collection | has coverage date | Subproperty of: is associated with |
| SPA-E37 Date | is creation date of | SPA-E12 Collection | has creation date | Subproperty of: is associated with |
| SPA-E37 Date | is birth date of | SPA-E15 Person | has birth date | RiC R659 was birth date of |
| SPA-E37 Date | is death date of | SPA-E15 Person | has death date | RiC R660 was death date of |
| SPA-E37 Date | is active date of | SPA-E17 Corporate Body | has active date | |
| SPA-E37 Date | is date of establishment of | SPA-E17 Corporate Body | has date of establishment | |
| SPA-E37 Date | is date of termination of | SPA-E17 Corporate Body | has date of termination | RiC R656 is end date of |
| SPA-E37 Date | is end date of | SPA-E19 Place | has end date | RiC R700 is end date of |
| SPA-E37 Date | is active date of | SPA-E19 Place | has active date | RiC-R698 is active date of |
| SPA-E37 Date | is start date of | SPA-E19 Place | has start date | RiC-R704 was start date of |
| SPA-E37 Date | is date of | SPA-E27 Event | has date | |
| SPA-E37 Date | is active date of | SPA-E27 Event | has active date | Subproperty of: is date of |
| SPA-E37 Date | is end date of | SPA-E27 Event | has end date | Subproperty of: is date of |
| SPA-E37 Date | is start date of | SPA-E27 Event | has start date | Subproperty of: is date of |
| 6.22 Relations of SPA-E39 Nomen | | | | |
| SPA-E39 Nomen | has related entity | SPA-E1 Endeavour | has related nomen | rdau:has related resource |

| Relation Domain | Relation Name | Relation Range | Inverse Relation Name | Equivalent Properties Superproperties Remarks |
|---|------------------------|--------------------------|-----------------------|---|
| SPA-E39 Nomen | has related entity | SPA-E12 Collection | has related nomen | |
| SPA-E39 Nomen | has related entity | SPA-E14 Agent | has related nomen | rdau:has related agent |
| SPA-E39 Nomen | has related entity | SPA-E18 Subject | has related nomen | |
| SPA-E39 Nomen | is associated with | SPA-E39 Nomen | is associated with | |
| 6.23 Relations of SPA-E40 Documentary Form | | | | |
| SPA-E40 Documentary Form | is associated with | SPA-E1 Endeavour | is associated with | |
| SPA-E40 Documentary Form | is documentary form of | SPA-E1 Endeavour | has documentary form | Subproperty of: is associated with |
| SPA-E40 Documentary Form | is associated with | SPA-E12 Collection | is associated with | |
| SPA-E40 Documentary Form | is subclass of | SPA-E40 Documentary Form | is superclass of | rdfs:subClassOf |
| SPA-E40 Documentary Form | is superclass of | SPA-E40 Documentary Form | is subclass of | |

7 Qualifiers

This section contains the inventory of the qualifiers defined within the SPA Data Model:

| 7.1 Qualifiers of any Attribute or Relation | | |
|---|----------------------------|--|
| # | Name | Definition |
| | SPA-Q date | the date of an attribute or a relation |
| | Domain | Any attribute or relation |
| | Subproperty of | - |
| | Superproperty of | start date, active date, end date |
| | Equivalent Property | - |
| | Scope Note | Qualifier used to indicate the date of an attribute or a relation, limiting the scope of validity of a statement. |
| | Data Type | Date or SPA-E Date |
| | Example | |
| | Comment | Use this qualifier only for punctual relations or in combination with a Time Span. For relations with a duration, use the qualifiers SPA-Q start date, SPA-Q active date, and SPA-Q end date for more precision. |
| # | Name | Definition |
| | SPA-Q start date | the date of the inception of an attribute or a relation |
| | Domain | Any attribute or relation |
| | Subproperty of | SPA-Q date |
| | Superproperty of | - |
| | Equivalent Property | |
| | Scope Note | Qualifier used to indicate the beginning of validity of a statement. |
| | Data Type | Date or SPA-E Date |
| | Example | |
| | Comment | - |
| # | Name | Definition |
| | SPA-Q active date | a date at which an attribute was valid or a relation was active |
| | Domain | Any attribute or relation |
| | Subproperty of | SPA-Q date |
| | Superproperty of | - |
| | Equivalent Property | |
| | Scope Note | Qualifier used to indicate a date at which a statement was valid. |
| | Data Type | Date or SPA-E Date |
| | Example | |
| | Comment | - |

| # | Name | Definition |
|--|----------------------------|--|
| | SPA-Q end date | a date at which an attribute stopped to be valid or a relation ended |
| | Domain | Any attribute or relation |
| | Subproperty of | SPA-Q date |
| | Superproperty of | - |
| | Equivalent Property | - |
| | Scope Note | Qualifier used to indicate the date at which the statement ceased to be valid. |
| | Data Type | Date or SPA-E Date |
| | Example | |
| | Comment | If the exact end date of a property's validity is unknown, use this qualifier in combination with owl:Nothing to express that a property is no longer valid. |
| 7.2 Qualifiers of any Attribute | | |
| # | Name | Definition |
| | SPA-Q language | language of an attribute |
| | Domain | Any attribute |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | dc:language |
| | Scope Note | Used to indicate the language of a label, alternative label, title, etc. |
| | Data Type | Controlled Term (ISO 639-1, ISO 639-2) |
| | Example | |
| | Comment | - |
| 7.3 Qualifiers of Specific Attributes | | |
| # | Name | Definition |
| | SPA-Q attribute label | label of a local or a generic attribute |
| | Domain | SPA-P generic attribute; SPA-P local attribute |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | - |
| | Scope Note | Used to indicate the label of a local or a external attribute. To be used for any attribute that has not been defined within the data model. |
| | Data Type | String or Controlled Term |
| | Example | - |
| | Comment | - |
| # | Name | Definition |
| | SPA-Q uri | URI of an equivalent property within an existing ontology |
| | Domain | SPA-P generic attribute; SPA-P local attribute |
| | Subproperty of | - |

| | | |
|----------|----------------------------|---|
| | Superproperty of | - |
| | Equivalent Property | - |
| | Scope Note | To be used in combination with the SPA-P external attribute for any attribute that has not been defined within the SPA Data Model, but for which an equivalent property is available in an existing ontology. |
| | Data Type | URL |
| | Example | |
| | Comment | - |
| # | Name | Definition |
| | SPA-Q attribute type | indication regarding the source or the context of a local attribute |
| | Domain | SPA-P generic attribute; SPA-P local attribute |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | - |
| | Scope Note | Used to make a SPA-P local attribute more specific, e.g. by attributing it to a particular organization or database. |
| | Data Type | Controlled Term |
| | Example | |
| | Comment | - |
| # | Name | Definition |
| | SPA-Q reference database | reference to a Reference Database |
| | Domain | SPA-P global persistent identifier SPA-P global identifier |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | - |
| | Scope Note | Used to indicate the Reference Database serving as the source of a global identifier. |
| | Data Type | SPA-E Reference Database |
| | Example | - |
| | Comment | - |
| # | Name | Definition |
| | SPA-Q thesaurus | reference to a Thesaurus |
| | Domain | SPA-P type |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | - |
| | Scope Note | Used to indicate the Thesaurus providing the controlled terms used for the categorization. |
| | Data Type | SPA-E Thesaurus |

| | | |
|-----------------------|----------------------------|---|
| | Example | - |
| | Comment | - |
| # | Name | Definition |
| SPA-Q identifier type | | indication regarding the source or the context of a local identifier |
| | Domain | SPA-P local identifier |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | - |
| | Scope Note | Used to make a local identifier more specific, e.g. by attributing it to a particular organization or database. |
| | Data Type | Controlled Term |
| | Example | - |
| | Comment | - |
| # | Name | Definition |
| SPA-Q method | | method used to generate the content checksum |
| | Domain | SPA-P content check sum |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | - |
| | Scope Note | |
| | Data Type | Controlled Term |
| | Example | "md5" |
| | Comment | - |
| # | Name | Definition |
| SPA-Q type and unit | | type and unit of the content for which the extent is indicated |
| | Domain | SPA-P content extent |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | "number of photographs" |
| | Comment | |
| # | Name | Definition |
| SPA-Q currency | | currency of the value or price indication |
| | Domain | SPA-P estimated value; SPA-P insurance value; SPA-P price |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |

| | | |
|---------------------------------------|------------------------------------|--|
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-Q type and unit of measurement | type and unit of measurement |
| | Domain | SPA-P dimensions; SPA-P size of content |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| # | Name | Definition |
| | SPA-Q unit of measurement | unit of measurement |
| | Domain | SPA-P duration |
| | Subproperty of | |
| | Superproperty of | |
| | Equivalent Property | |
| | Scope Note | |
| | Data Type | |
| | Example | |
| | Comment | |
| 7.4 Qualifiers of any Relation | | |
| # | Name | Definition |
| | SPA-Q named as | name used to refer to the entity |
| | Domain | Any relation |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | - |
| | Scope Note | Used to indicate the name used in a catalogue, program, etc. to refer to the entity in question. |
| | Data Type | String or SPA-E Nomen |
| | Example | |
| | Comment | - |

| 7.5 Qualifiers of Specific Relations | | |
|--------------------------------------|----------------------------|--|
| # | Name | Definition |
| | SPA-Q relation label | label of the generic relation SPA-R is associated with |
| | Domain | SPA-R is associated with |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | - |
| | Scope Note | Used to indicate the label of the generic relation SPA-R is associated with. To be used for any relation that has not been defined within the data model. |
| | Data Type | String or Controlled Term |
| | Example | |
| | Comment | - |
| # | Name | Definition |
| | SPA-Q uri | uri of an equivalent property within an existing ontology (to be used as qualifier of a generic property) |
| | Domain | SPA-R is associated with |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | - |
| | Scope Note | To be used in combination with the generic relation SPA-R is associated with for any attribute that has not been defined within the SPA Data Model, but for which an equivalent property is available in an existing ontology. |
| | Data Type | URL |
| | Example | |
| | Comment | - |
| # | Name | Definition |
| | SPA-Q contribution | description of the contribution |
| | Domain | SPA-R has contributor; SPA-R is contributor of; SPA-R has creator; SPA-R is creator of |
| | Subproperty of | - |
| | Superproperty of | - |
| | Equivalent Property | - |
| | Scope Note | |
| | Data Type | String or Controlled Term |
| | Example | |
| | Comment | Also to be used in connection with any of the sub-properties of the relations referring to the contributors of an Endeavour or the creators of a Work. |

8 Modelling Examples

The present section contains a series of modelling examples that were developed in the context of a test migration of data held by the Swiss Theatre Collection and the Swiss Dance Collection:

- **Figure 6** contains a modelling example of a **theatre production, its contributors** and the **relationship between a literary work and a performance work**. In the example, the literary work has several expressions (the original Spanish version of the play, a German translation, as well as its Swiss-German adaptation), that are each modelled separately. Furthermore, the example shows how performance roles are represented within the SPA Data Model: they are defined by an expression of a work and played by performers in the course of a performing arts production. Furthermore, the example shows how to describe the different types of creators and contributors of a performance work and the literary work it is based on (for the description of a music theatre work, refer to figure 9).
- **Figure 7** contains a modelling example of the **theatre operations at a particular venue during a particular theatre season**. Note that theatre productions may be described at the production level only (e.g. by indicating the first performance date and the number of representations) or at the level of individual performances (in the example, the premiere of each production is modelled separately).
- **Figure 8** contains a modelling example of a **guest performance**. In the example, the production was originally produced by a Parisian theatre (Théâtre Saint-Georges) and then taken on a tour through various European theatres by a touring theatre company (Les Galas Karsenty). Note that in this special case, the production has two producers: the producer of the original performance work (at the level of the work), and the producer of the European tour (at the level of the production). Of course, guest performances can take place without the intervention of a separate touring theatre company, resulting in a simpler description with only one production company (at the level of the work). In the example provided, only one guest performance took place in each of the Swiss theatres where the play was on. In case of several guest performances at the same venue, SPA-E11 Series of Performances can be used instead of SPA-E10 Performance to describe them.
- **Figure 9** contains a modelling example of a **guest appearance** by a star opera singer (Richard Tauber appearing in the operetta “Das Land des Lächelns” on 5 January 1939 at Stadttheater Bern) and of a **performer acting as a substitute for another performer** (Erika Druszowicz replacing the opera singer Lilli Langen in the 29 March 1939 representation of the same production).
- **Figure 10** contains a modelling example of **theatre organisations** and **theatre venues**. The example shows the relatively complex structure of a theatre production company which is controlled by another legal entity, is a member of a theatre association, manages several venues, some of them comprising several stages, and consists of several ensembles (theatre, dance, music theatre, choir, orchestra). The example illustrates how the model allows to provide information about directors, presidents, members, etc. for each of the organisations and organisational units separately.
- **Figure 11** contains a modelling example of an **archival collection** that is structured according to the ISAD(G) standard. Note that entities above the “fonds” level according to ISAD(G) are rendered as SPA-E12 Collection, while the entities ranging from the “fonds” level to the “file” level are rendered as SPA-E13 Record Set. The label of the respective level is provided in a *SPA-P type* attribute. By this means, the SPA Data Model allows to preserve any legacy tree structure that may be found in an archival description. Note also the different artefacts pertaining to the same item: the original item (a video recording on an analogue carrier), an analogue copy of the video as well as an electronic reproduction of the same video. Properties

pertaining to the item as such (and not only to one of the copies or the carrier of the original) are described at the level of the item. In the example, the item serves to document a performing arts production, which is indicated by the relation *SPA-R has subject* pointing to the production in question.

- **Figure 12** contains a modelling example of a **documentation collection** with a hierarchical structure that is flatter than the one of the archival collection in figure 11. The example also illustrates how the data can be read in two directions: On one hand, it provides information about the organizations and venues covered by a given record set. On the other hand, it provides information which record sets within the collections of a heritage institution contain information about a given organization. Obviously, the data can be complemented to comprise references to the collections to more than one heritage institution.

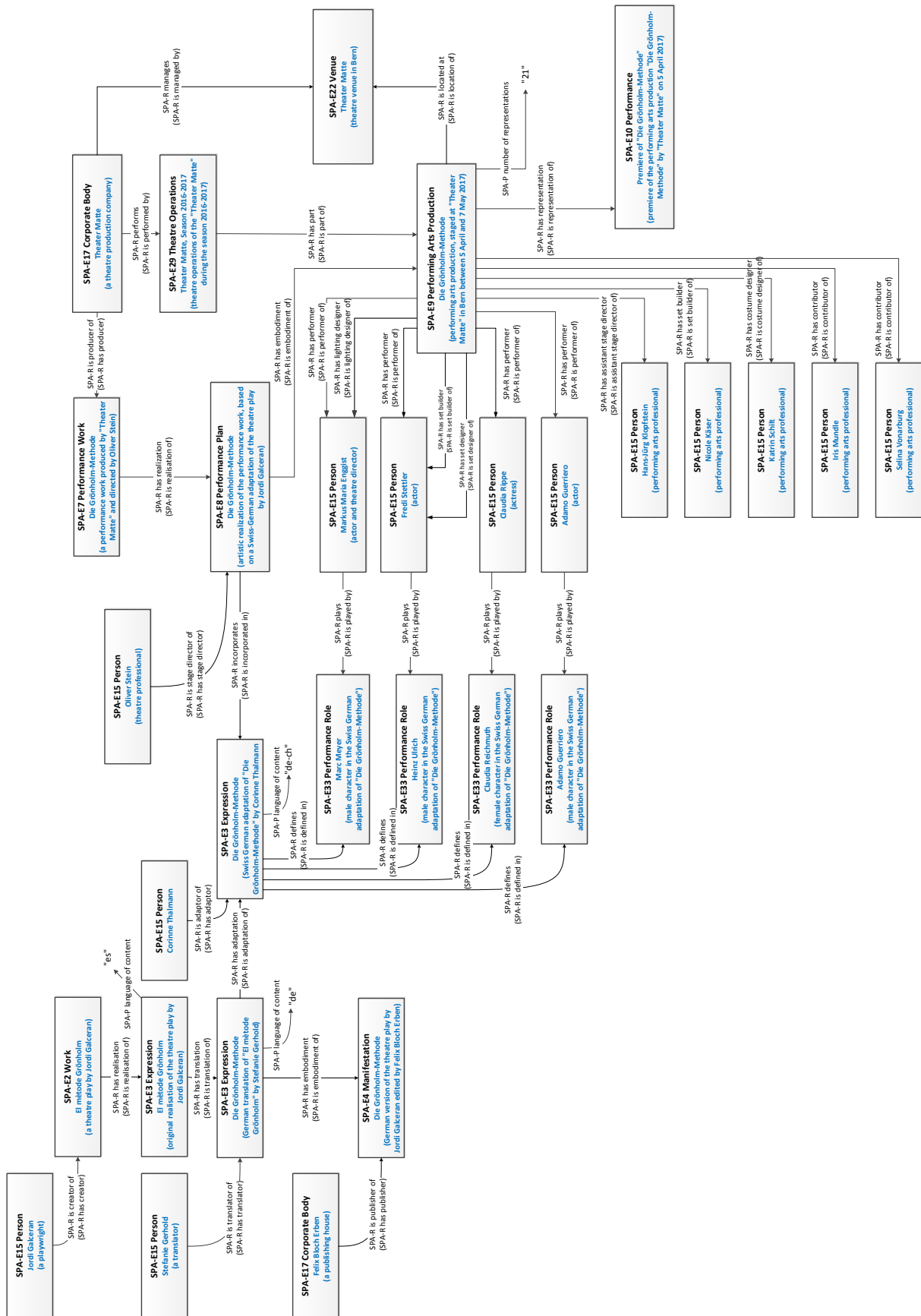


Figure 6: Theatre production (modelling example)

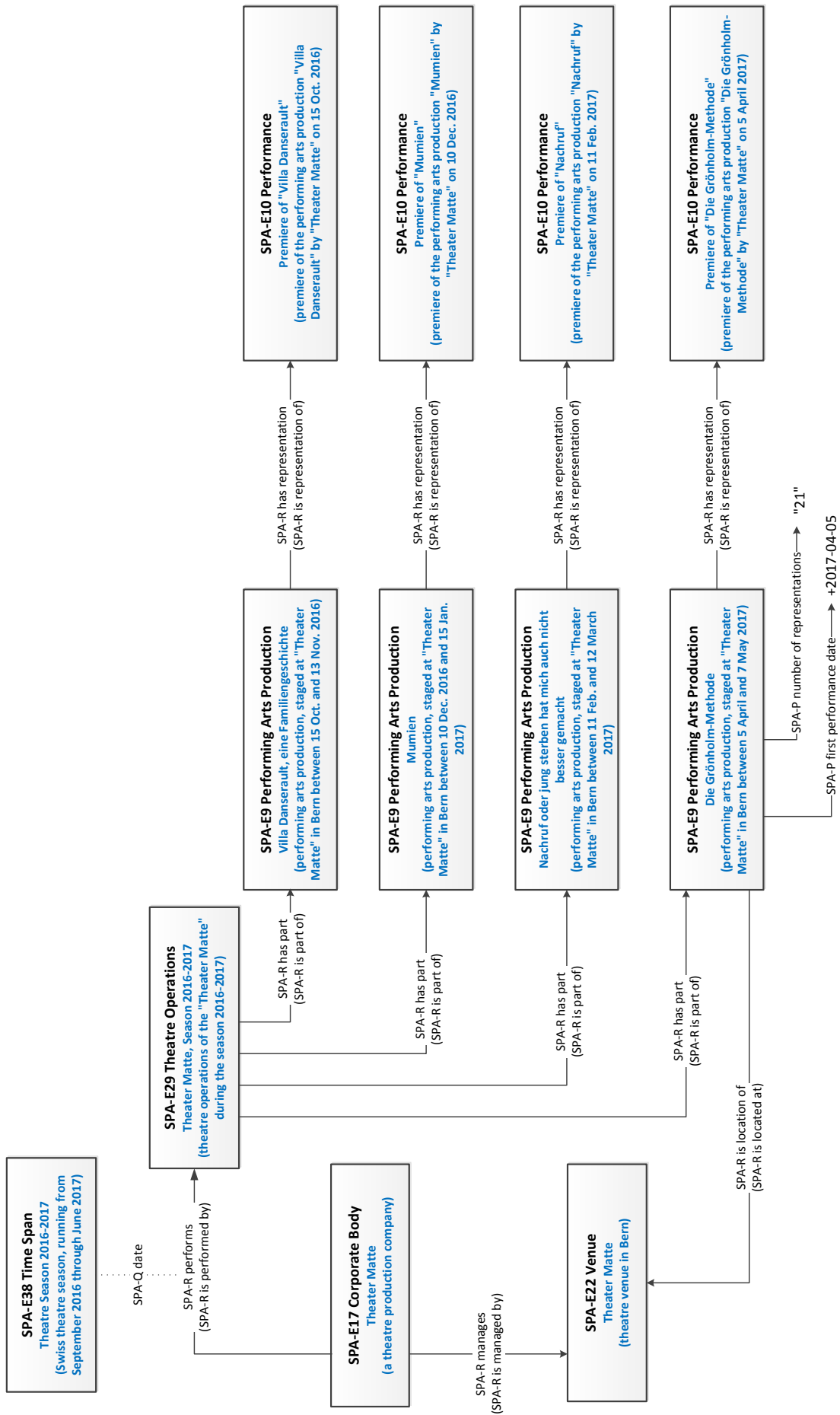


Figure 7: Theatre season (modelling example)

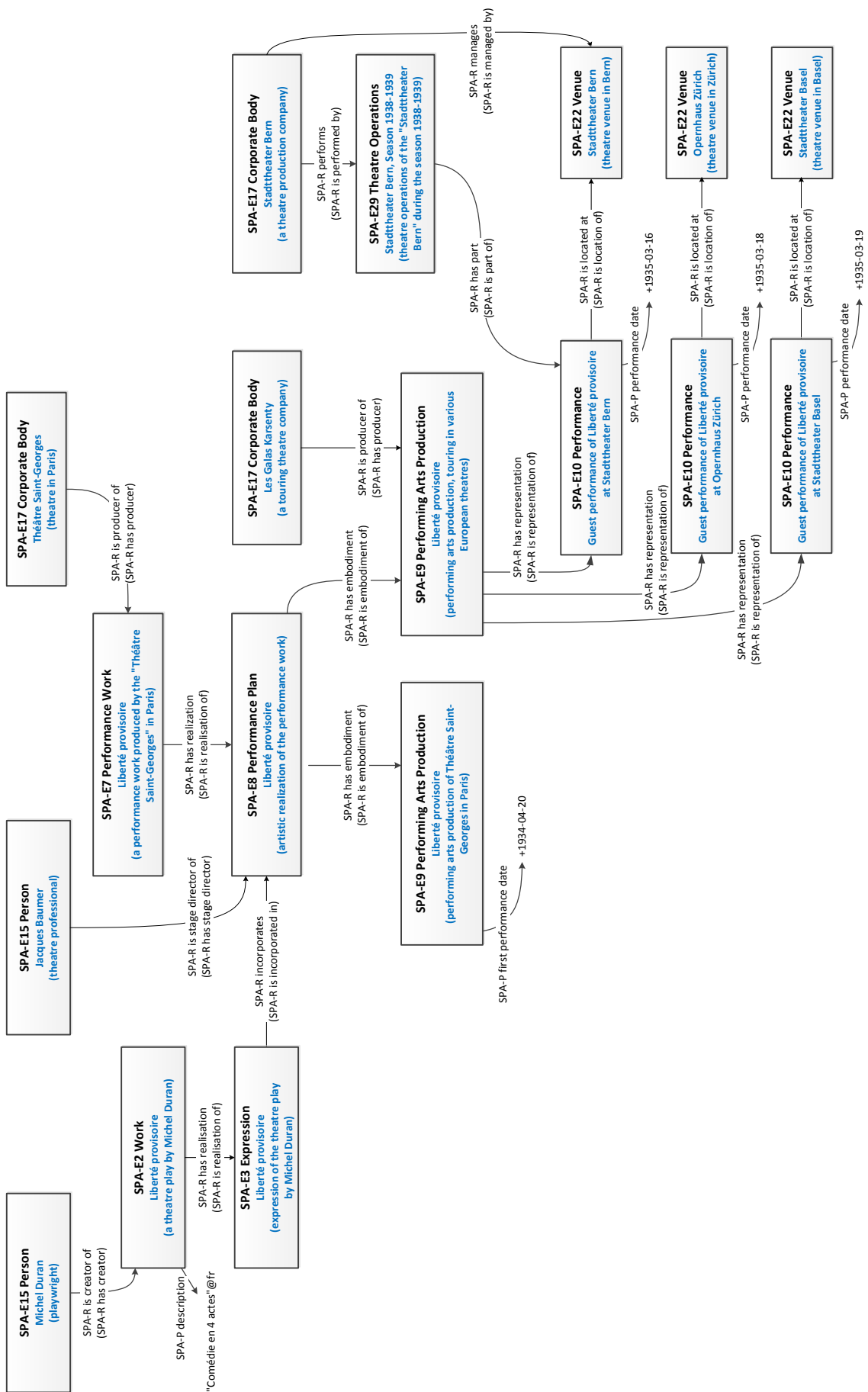
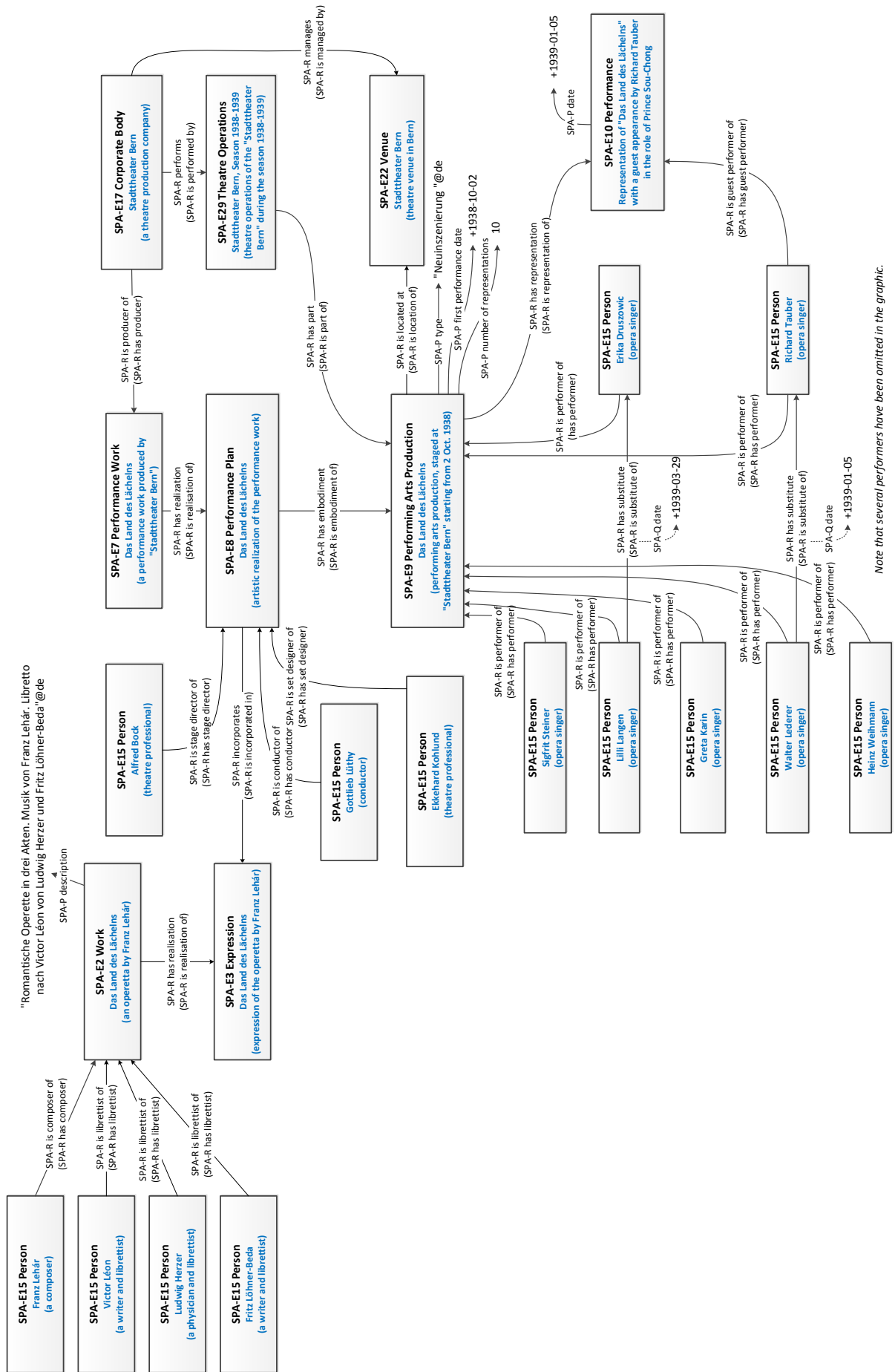


Figure 8: Guest performance (modelling example)



Note that several performers have been omitted in the graphic.

Figure 9: Guest appearance and substitute performers (modelling example)

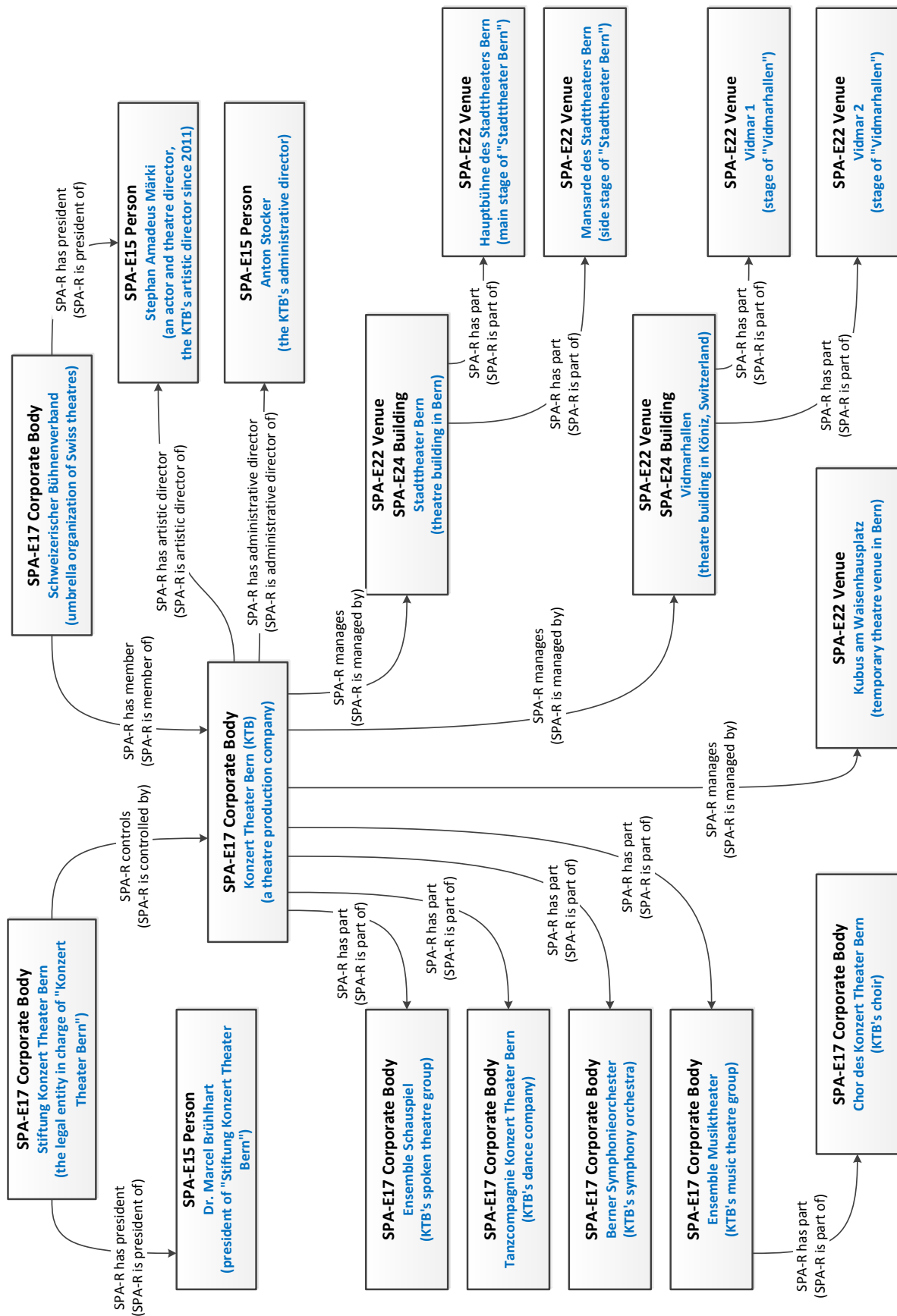


Figure 10: Theatre organisations and venues (modelling example)

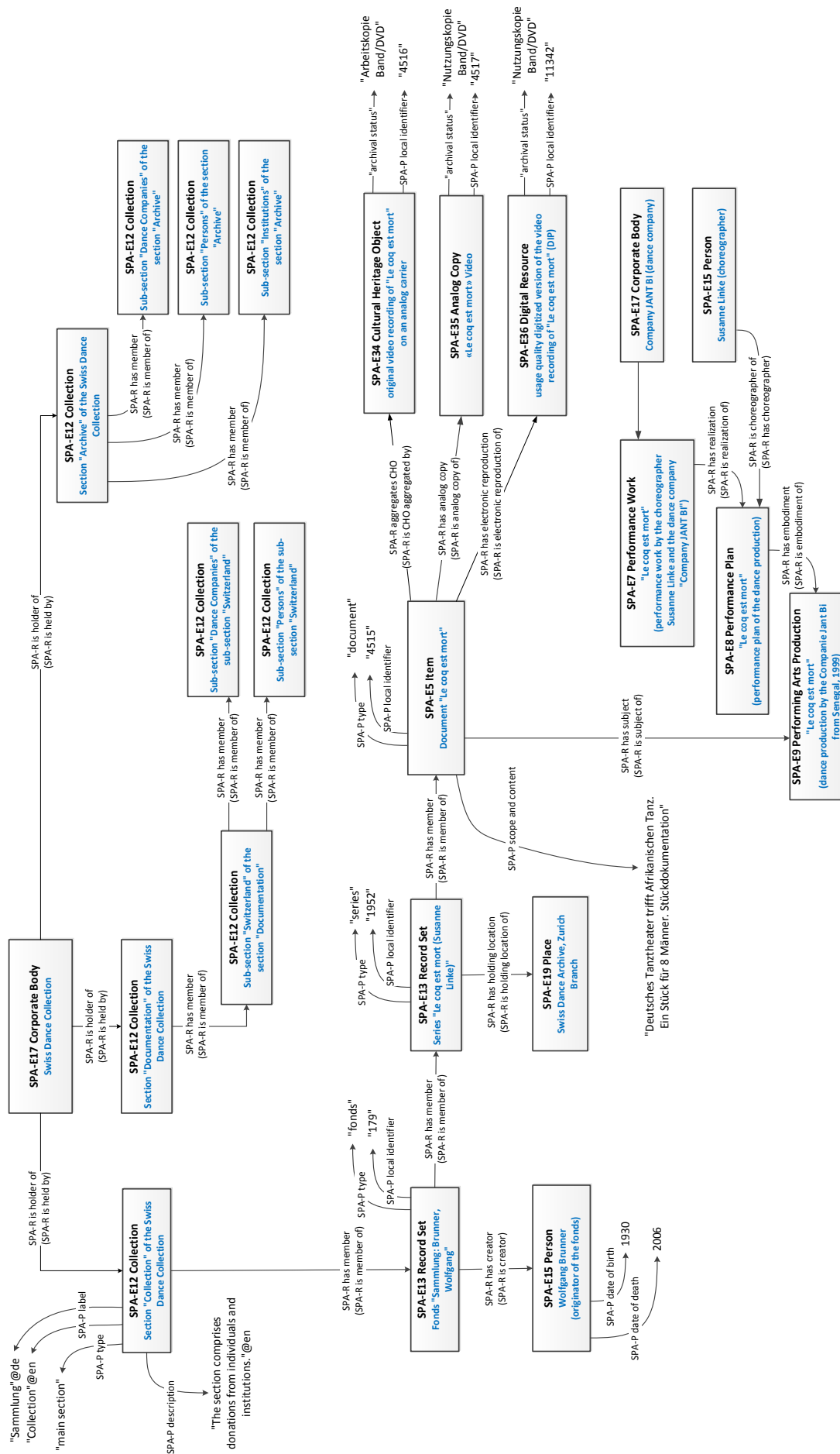


Figure 11: Structure of an archival collection (modelling example)

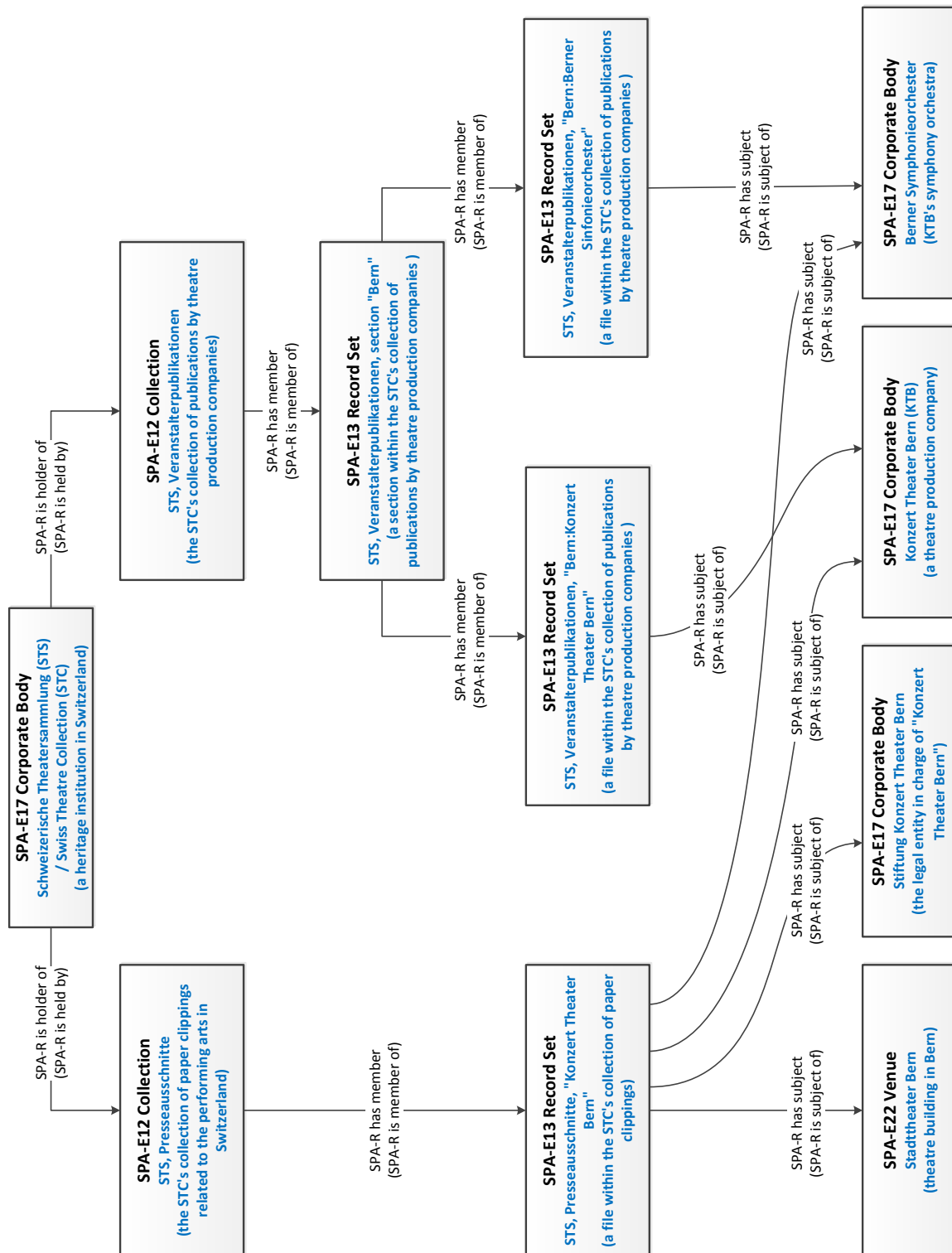


Figure 12: Structure of a documentation collection (modelling example)

9 Open Issues

There is a series of known issues that should be addressed in a future version of the data model:

- The SPA Data Model presently does not offer any possibility to describe ordered lists of items of the same kind, such as a list of actors in the sequence of their appearance on the official programme. There are different ways of modelling this in RDF. A specific approach should be adopted in view of a future release of the model.
- The SPA Data Model presently does not include any of the specialized vocabularies to describe rights and license information, such as the Creative Commons vocabulary (cc:License, cc:Jurisdiction, cc:Permission, cc:Requirement, cc:Prohibition). They may be defined as elements or as official extensions of the model.
- The SPA Data Model presently does only partly lend itself to the rendering of preservation and conservation information. In the future, the model may be extended by adding elements that can be used to describe concepts defined in PREMIS or OAIS.
- The idea of numbering all the properties has been abandoned at this stage due to the regular re-numbering of the properties that would have occurred during the model development phase if the numbering were to follow a logical order. A concept for the numbering of the properties should be adopted for one of the future releases of the model.
- Equivalent classes in relevant ontologies have been provided quite systematically. Equivalent properties in existing ontologies are however only indicated sporadically. A systematic review of relevant ontologies should provide complementary mapping information. In addition, pointers to equivalent Wikidata items should be provided.
- Again, regarding the properties, the model may benefit from additional definitions, scope notes, and examples.
- Controlled vocabularies (thesauri) used in the context of the data held by the Swiss Theatre Collection, the Swiss Dance Collection, and potentially further heritage institutions should be provided as part of a future version of the model or be released on a standalone basis.
- A review of existing/alternative initiatives to model the performing arts domain should be provided – ideally in cooperation with the respective authors (see for example: Doerr et al. 2008, Bellini & Nesi 2015, Thull et al. 2015, Beck et al. 2017). Mapping guidelines for passing from one data model to the other could be provided and agreement could be sought with regard to a converging modelling approach.

10 Bibliography

Standardization Documents

CIDOC CRM (2015) Definition of the CIDOC Conceptual Reference Model, Version 6.2.1., ICOM/CIDOC CRM Special Interest Group, October 2015.

ECLAP (2015) ECLAP, Performing Arts Vocabulary, by P. Nesi and P. Bellini, DISIT Lab, University of Florence, Italy.

EDM (2016) Definition of the Europeana Data Model v5.2.7, Europeana, 25 April 2016.

FRBR (2009) Functional Requirements for Bibliographic Records. Final Report. IFLA Study Group on the Functional Requirements for Bibliographic Records. Approved by the Standing Committee of the IFLA Section on Cataloguing. September 1997; as amended and corrected through February 2009.

FRBRoo (2015) FRBR. Object-oriented definition and mapping from FRBR_{ER}, FRAD and FRSAD, version 2.2, International Working Group on FRBR and CIDOC CRM Harmonisation, March 2016.

RiC (2016) Records in Contexts: A Conceptual Model for Archival Description, Consultation Draft v0.1, International Council on Archives, Experts Group on Archival Description, September 2016.

Other Sources

Allison-Cassin, S. (2016). A Scenes Approach to Metadata Models for Music. *Journal of Library Metadata*, 16(3-4), 181-201.

Beck, J., Büchner, M., Bartholmei, S., & Knepper, M. (2017). Performing Entity Facts. *Datenbank-Spektrum*, 17(1), 47-52.

Bellini, P., & Nesi, P. (2015). Modeling performing arts metadata and relationships in content service for institutions. *Multimedia Systems*, 21(5), 427-449.

Doerr, M., Bekiari, C., LeBoeuf, P., & nationale de France, B. (2008). FRBRoo, a conceptual model for performing arts. In 2008 Annual Conference of CIDOC, Athens (pp. 15-18).

Doerr, M., Gradmann, S., Hennicke, S., Isaac, A., Meghini, C., & van de Sompel, H. (2010, August). The europeana data model (edm). In World Library and Information Congress: 76th IFLA general conference and assembly (pp. 10-15).

Doty, C. (2013). The difficulty of an ontology of live performance. *InterActions: UCLA Journal of Education and Information Studies*, 9(1).

Riva, P., Doerr, M., & Zumer, M. (2008). FRBRoo: enabling a common view of information from memory institutions. In World Library and Information Congress: 74th IFLA General Conference and Council.

Thull, B., Diwisch, K., Marz V. (2015). Linked Data im digitalen Tanzarchiv der Pina Bausch Foundation. In: B. Ege et al. (Hrsg.), Corporate Semantic Web, X.media.press, Springer-Verlag, pp. 259-275.

11 Version Control

| Version | Date | Description | Author(s) |
|----------------|-------------|---|---------------------------------|
| 0.1 | 16.05.2017 | First draft version for consultation | Beat Estermann |
| 0.1 | 24.05.2017 | Integration of internal feedback | Beat Estermann |
| 0.5 | 12.09.2017 | Made a few minor corrections and additions (default ranges and domains; open issues: ordered list; contact address) | Beat Estermann |
| 0.51 | 26.09.2017 | Made a few minor corrections | Beat Estermann; Birk Weiberg |