DoD Architecture Framework

Version 2.02, Change 1

Volume III: DoDAF Meta-model Ontology Foundation and Physical Exchange Specification

Developer's Guide

31 January 2015

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1 INTRODUCTION

a. DoDAF Volume III describes the DoDAF ontology and the DoDAF physical exchange specification (PES) that are defined and specified in the DoD Meta Data Registry (MDR). The DoDAF meta-model is an ontology that is based upon the four-dimensional International Defence Enterprise Architecture Specification (IDEAS) ontology. The DoDAF extends the IDEAS ontology specifically to support the US Department of Defense. This Volume provides a summary description of the ontology. The DoDAF PES specifies an XML schema for sharing architectural data that conforms to the DoDAF Meta Model (DM2). This Volume provides a summary description of the PES.

2 DOD ARCHITECTURES ONTOLOGY

a. The DoDAF Meta Model (DM2) is founded upon the International Defence Enterprise Architecture Specification (IDEAS)[1], a formal ontology foundation developed by the defense departments and ministries of the United States, United Kingdom, Canada, Australia, and Sweden in coordination the North Atlantic Treaty Organization (NATO). All DoDAF concepts and concept relationships inherit several rigorously defined mathematical properties from the IDEAS Foundation ontology. **Error! Reference source not found.** shows the upper levels of the IDEAS Foundation ontology.

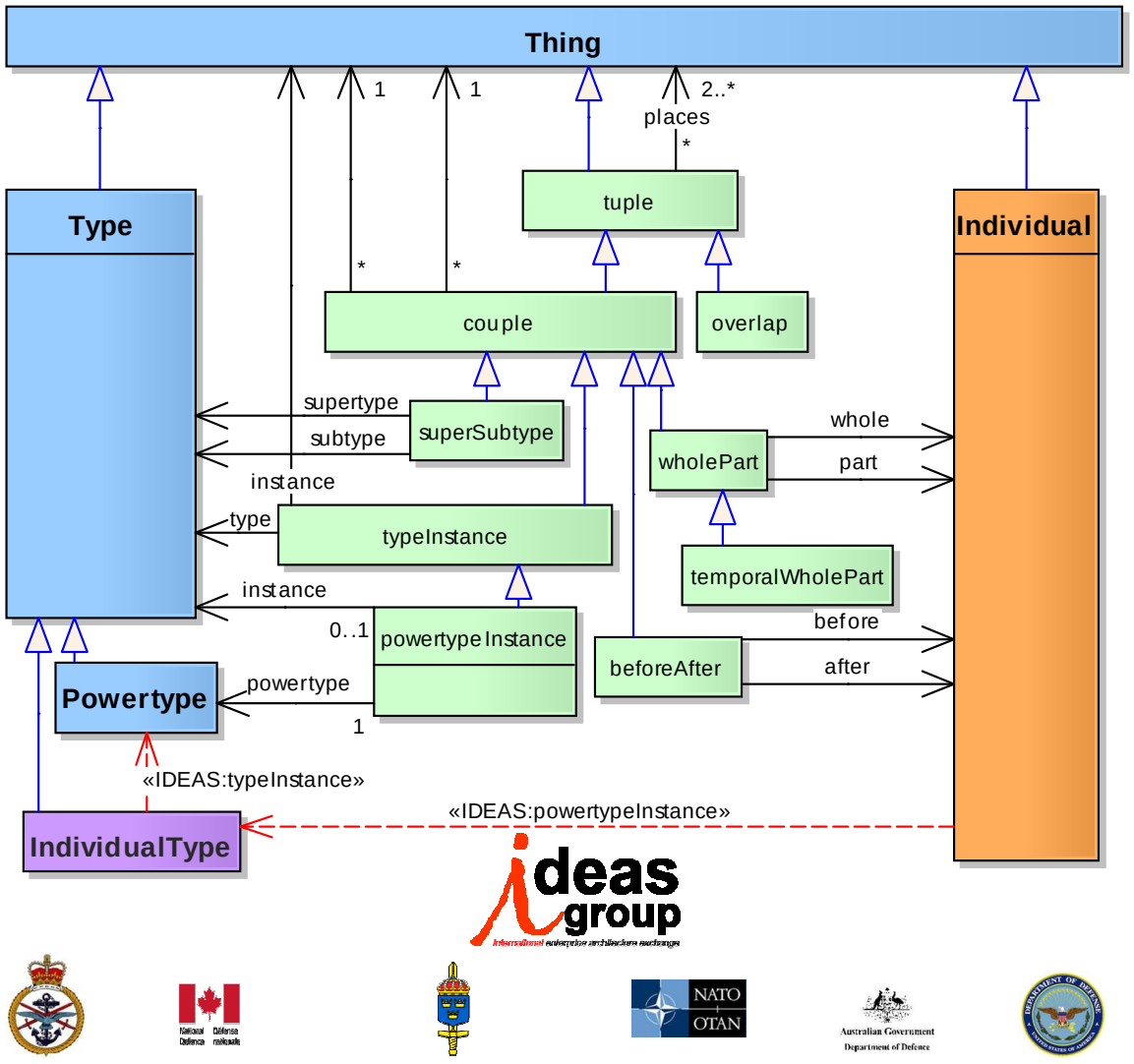

Figure 2-1: Top-level concepts of the IDEAS Foundation ontology

[1] http://www.ideasgroup.org

b. The IDEAS Foundation is a higher-order ontology. It is extensional, using physical existence as its criterion for identity. In practical terms, this means the ontology is well suited to managing change over time and identifying elements with a degree of precision that is not possible using names alone. The method for defining the ontology is very precise about criteria for identity by grounding reasoning about whether two things are the same using criteria that an observer (e.g., an architect) can accurately assess. Two individuals cannot occupy precisely the same space at the same time unless they are, after all, the same individual. Clearly, this only works for individuals, but we may use the principle to compare types as well. For two types to be the same, they must have the same members. If those members are individuals, we can compare their physical extents. If the members are types, then the analysis continues until individuals are reached, then they can be compared. This method separates names from things; thus, there can be no ontological confusion about what we are discussing. It is also four-dimensional. This means that the temporal parts (or states) of things can be represented, aw well as before & after behaviors.

c. Architects use IDEAS foundation concepts in everyday reasoning. The basic concepts include:

1) There are three basic sorts of things:

   a) Individuals, which are things that exist in both space and time. Each *individual* is four-dimensional: each *individual* has a spatiotemporal extent.

   b) Types, which are sets or collections of things. Two important sorts of *types* are distinguished: *types* whose members are *individuals* and *types* whose members are not *individuals*. (The IDEAS ontology relies upon type theory rather than ordinary or naïve set theory. This distinction between types whose members are individuals and types whose members is a feature of type theory.)

   c) Tuples, which are relations between things. The most common *tuple* is a *couple*, which is an ordered pair. Relationships and associations take the role of *tuples* in other contexts.

2) These three sorts of things are related by mathematically-founded relationships:

   a) Set theoretical:

   b) Super-subtype.

   c) Type-instance, similar to “element of” in set theory.

   d) Mereological:

   e) Whole-part.

   f) Temporal whole-part.

   g) Four-dimensional (4D) topological:

h) Overlap.

i) Before-after.

d. Several items are notable:

1) Types include sets of tuples and sets of sets.

2) Tuples can have other tuples in their tuple places.

3) The participants in a super-subtype relationship can be from the same type, e.g., a supertype can be an instance of a type as well as a subtype. This allows taxonomies to be as deep and as fine-grained as an architect needs.

4) Powertype members are generated from some type by taking all the possible subsets of the members of the type. For example, consider the type whose members are *a*, *b*, and *c*. The powertype of this type would be:

$$\{a,b,c\},\{a,b\},\{a,c\},\{b,c\},\{a\},\{b\},\{c\},\{\varnothing\}$$

5) For example, take some individual type we may call "aircraft", whose members include all aircraft including military, commercial, and private aircraft. The powertype of the type "aircraft" would contain these types:

$$\{a_1, a_2, ..., a_n\},\{\varnothing\}$$
$$\{\text{F-15}_1, \text{F-15}_2, ..., \text{F-15}_{lastF-15built}\}$$
$$\{\text{F-15}_1, 747_1, ..., \text{Cessna}_1\}$$

6) Many of these subsets are not interesting (e.g., the full set, the null set, or just some random subset). However, the second one, which we might call the type of "F-15 aircraft", may be quite useful for certain purposes. The last example is not useful to most unless you are interested in the first (assuming the subscript 1 means first) of any particular aircraft type, e.g., if you were doing a study of first-off-the-line aircraft production lessons-learned. This is the usefulness of powertypes and why the DM2 uses them: they allow us to categorize things in diverse ways that are useful for difference purposes. Yet, because we can trace the members of these categories back to four-dimensional individuals, we can understand the relationships among quite different category schemes. This was a DM2 requirement—multiple categorization schemes or taxonomies—because large enterprises can seldom use a single categorization scheme; rather, schemes vary depending on function. For example, a weaponeer might classify ordnance in ways that a logistician would not. The weaponeer might be concerned with concepts such as lethality and means of delivery; the logistician might instead be concerned with concepts like mass and dimension.

7) Note also that a powertype can have its own powertype. This allows us to build taxonomic hierarchies, which turn out to be quite useful for describing architectures.

e. The DM2 uses the formal ontology of IDEAS because it provides:

1) Mathematical rigor needed for precise architectural descriptions. Architects can analyze and use such descriptions to design processes for systems engineering and operations planning, specifically type (or set) theory and 4-dimensional mereotopology

2) Objective and explicit representation of what we can know vs. what we merely assume by addressing issues of states, powertypes, measures, and space.

3) Separation of concern between signs and representations from the real-world they refer to (the referenets).

4) A foundation for extension of DoD architecture domain concepts to the formal foundation that enables:

a) Reuse of rigorously worked-out common patterns such as super-subtype, whole-part, temporal whole-part, type-instance, before-after, overlap.

b) Model compactness through inheritance of supertype properties and common patterns.

c) Economy of software development for tools, databases, repositories, and simulations.

d) Higher quality and consistency throughout due reuse of the rigorously worked-out common patterns.

e) Agreed-upon analysis principles that provide a principled basis for issue analysis.

f) Better ability to integrate and analyze EA data for EA purposes.

f. The advantage over free text, structured documents, and databases in using this type of mathematically structured information is somewhat explained by Figure 2-2 that shows a spectrum of information structuring.

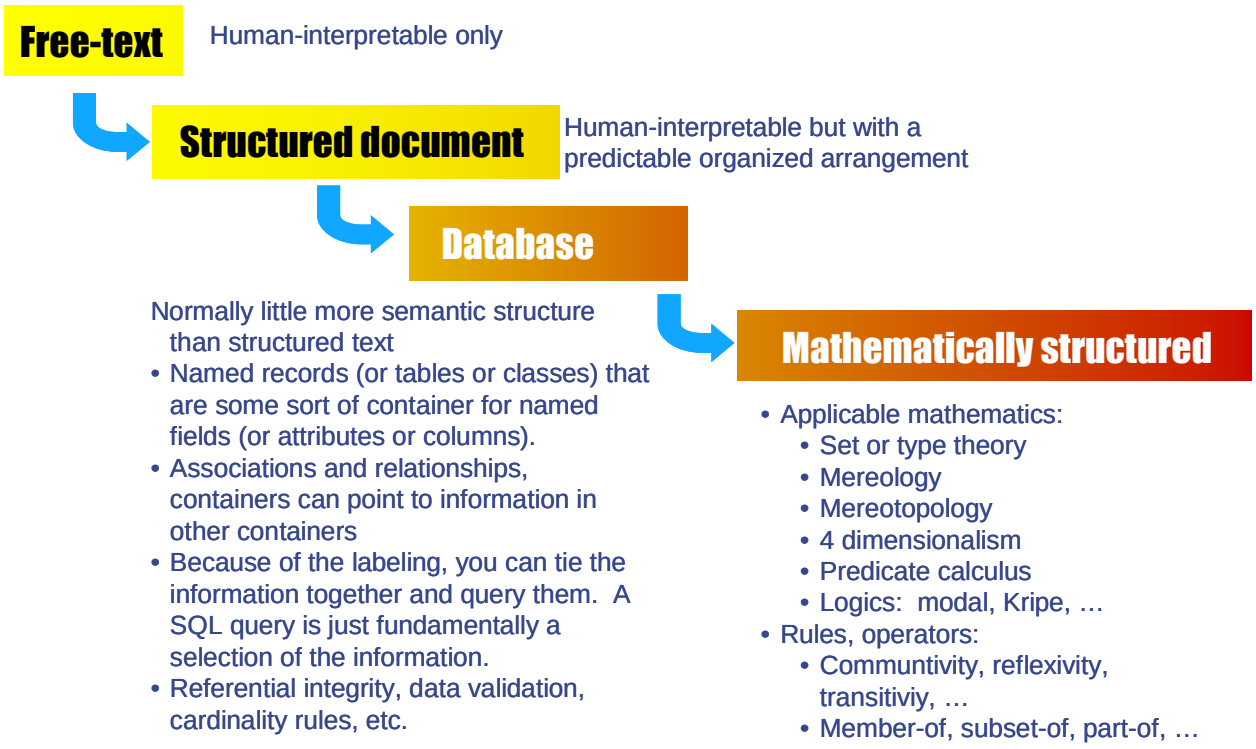

Figure 2-2: A spectrum of information structures

g. This shows that databases are really just storage and retrieval with connections only for exactly matching pieces of information (e.g., "keys" or exactly matching strings). The nature and purposes of architecture require more than just storage, retrieval, and exchange, e.g., integration, analysis, and assessment across datasets. Founding DM2 on IDEAS provides the ontologic foundation supports entailment and other sorts of mathematical understanding of the data with membership (~ set theory) and 4D mereotopology (parts and boundaries). Some of these structures are so fundamental in human reasoning that it may be hard to grasp that computers share these fundamental structures with us. However, these ontologic structures are needed if we want to use computers for something more than just storage and retrieval. These ontologic structures have to be encoded it into machine processing using formal methods.

h. Figure 2-3 shows re-use patterns useful to architectural descriptions.

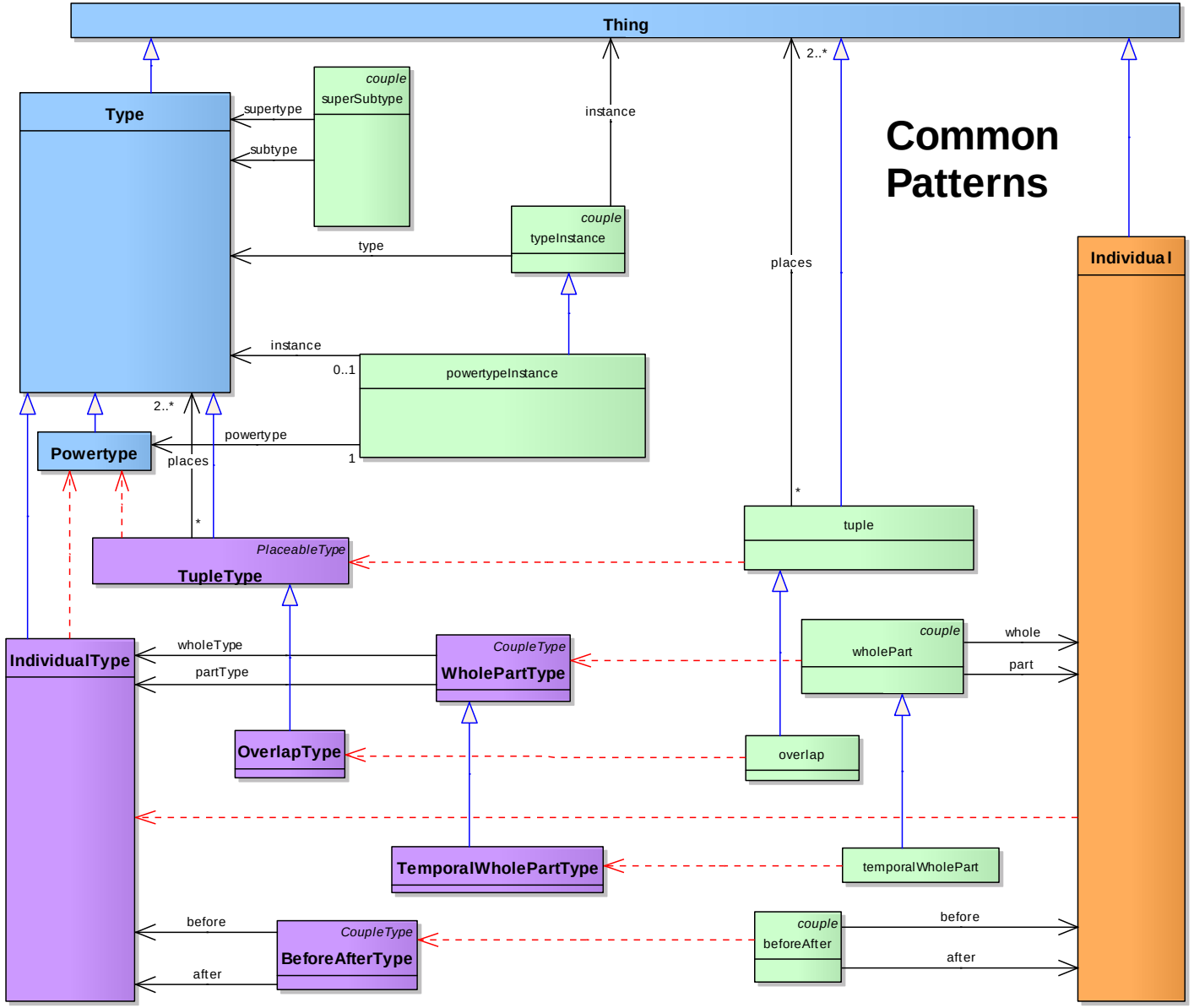

Figure 2-3. DM2 Common Patterns

i. Table 2-1 shows the IDEAS foundation concepts and Table 2 2shows IDEAS foundation association concepts that are common to all data groups.

Table 2-1. IDEAS Foundation Concepts Applicable to all DoDAF Data Groups

IDEAS Concept	Definition
DescriptionScheme	A RepresentationScheme and DescriptionType whose members are intentionally descriptions.
IndividualPerformer	A specific thing that can perform an action.
Information	Information is the state of a something of interest that is materialized and communicated or received.
InformationType	Category or type of information.
Location	A point or extent in space that may be referred to physically or logically.
LocationType	The powertype of Location.
Measure	The magnitude of some attribute of an individual.
MeasureType	A category of Measures.
Performer	A resource that performs an activity.
Representation	A SignType where all the individual Signs are intended to signify the same Thing.
RepresentationScheme	A RepresentationType that is a collection of Representations that are intended to be the preferred Representations in certain contexts.
Resource	Data, Information, Performers, Materiel, or PersonRoles that are produced or consumed.
Rule	A principle or condition that governs behavior; a prescribed guide for conduct or action.
ServiceLevel	A measurement of the performance of a system or service.
Thing	The union of Individual, Type, and tuple.

Table 2-2. IDEAS Foundation Association Concepts Applicable to all DoDAF Data Groups

Associations	Definition
beforeAfter	A couple that represents that the temporal extent end time for the individual in place 1 is less than temporal extent start time for the individual in place 2.
BeforeAfterType	An association between two Individual Types signifying that the temporal end of all the Individuals of one Individual Type is before the temporal start of all the Individuals of the other Individual Type.
describedBy	A tuple that asserts that Information describes a Thing.
descriptionSchemeInstance	A representationSchemeInstance that asserts a Description is a member of a DescriptionScheme.
endBoundary	A temporal whole part couple that relates the temporal boundary to the whole.
EndBoundaryType	A temporal whole part couple that relates the temporal boundary to the whole taken over a Type.
measureOfIndividualEndBoundary	endBoundary is a member of Measure.
measureOfIndividualStartBoundary	startBoundary is a member of Measure.
measureOfTypeEndBoundaryType	endBoundaryType is a member of Measure.
measureOfTypeStartBoundaryType	startBoundaryType is a member of Measure.
namedBy	A couple that asserts that a Name describes a Thing.
namingSchemeInstance	A representationSchemeInstance that asserts a Name is a member of a NamingScheme.
overlap	A couple of wholePart couples where the part in each couple is the same.
OverlapType	An overlap in which the places are taken by Types only.
representationSchemeInstance	A typeInstance that asserts a Representation is a member of a RepresentationScheme.
representedBy	A couple that asserts that a Representation represents a Thing.
startBoundary	The beginning of a temporalBoundary.
StartBoundaryType	The beginning of a temporalBoundaryType.
superSubType	An association in which one Type (the subtype) is a subset of the other Type (supertype).
temporalBoundary	The start and end times for the spatio-temporal extent of an Individual.
TemporalBoundaryType	The start and end times for the Individual members of a Type.
temporalWholePart	A wholePart that asserts the spatial extent of the (whole) individual is co-extensive with the spatial extent of the (part) individual for a particular period of time.
TemporalWholePartType	A couple between two Individual Types where for each member of the whole set, there is a corresponding member of the part set for which a wholePart relationship exists, and conversely.
typeInstance	A Thing can be an instance of a Type - i.e. set membership. Note that IDEAS is a higher-order model, hence Types may be instances of Types.
wholePart	A couple that asserts one (part) Individual is part of another (whole)

Associations	Definition
	Individual.
WholePartType	A coupleType that asserts one Type (the part) has members that have a whole-part relation with a member of the other Type (whole).

j. Because of the domain class hierarchies shown in Figure 2-4 and Figure 2-5, these concepts and associations are inherited by every data DM2 data group. Consequently, even though the description of each data group does not repeat these concepts, they are nevertheless present in the model and apply to the data group concepts.

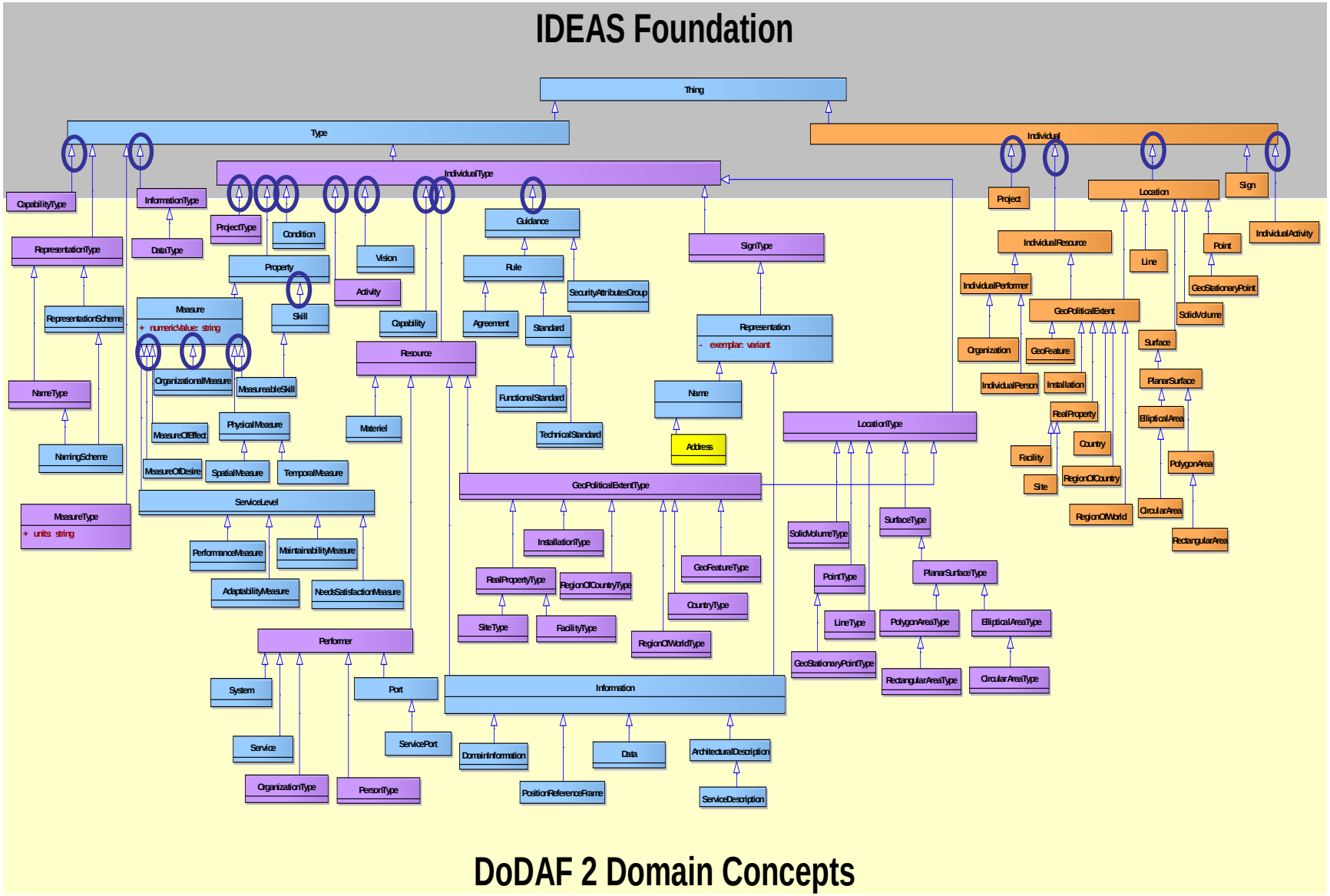

Figure 2-4. DM2 Domain Concepts are Subtypes (Extensions) of IDEAS Foundation Concepts

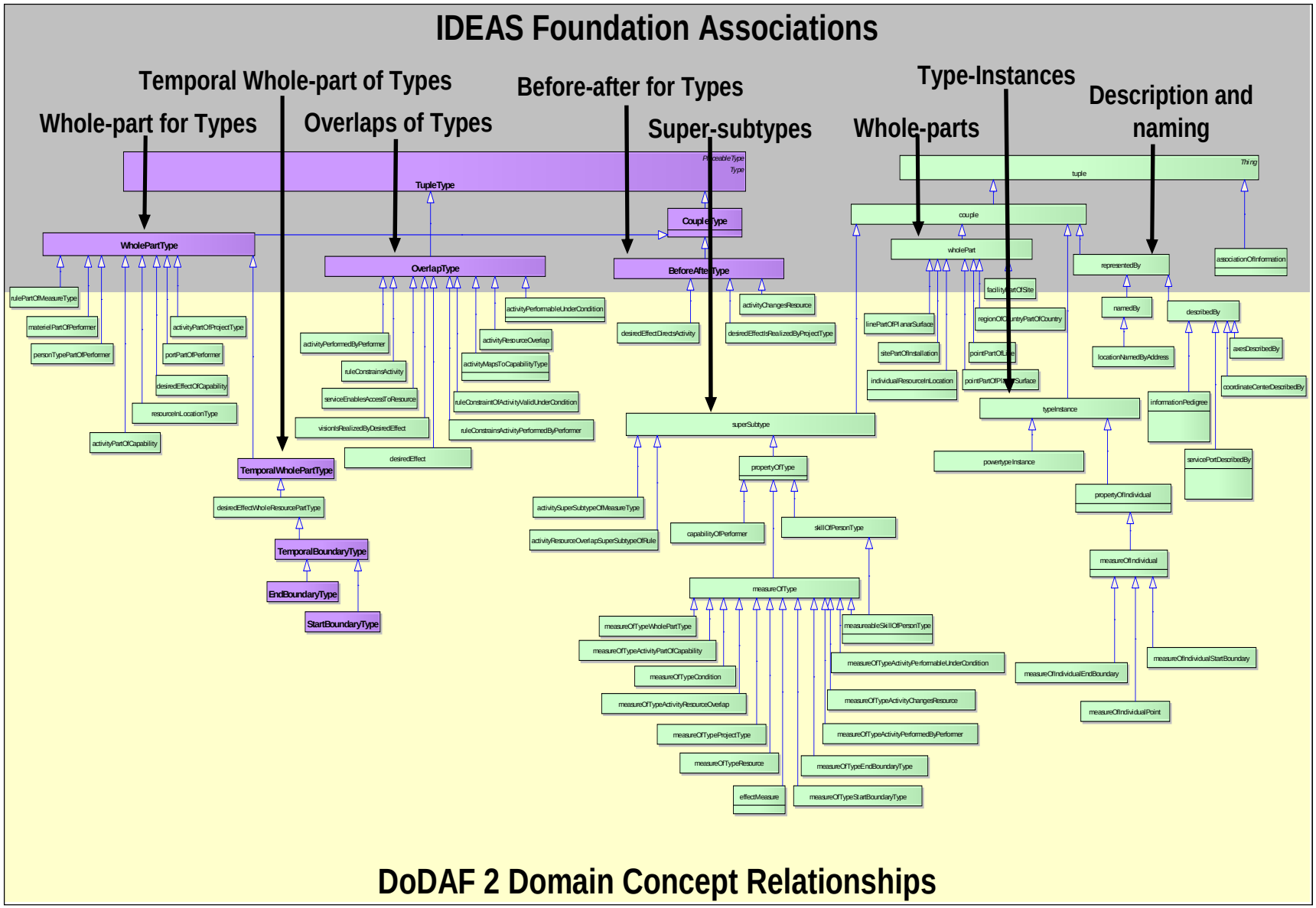

Figure 2-5. DM2 Associations are Subtyped to IDEAS Mathematical Associations

1.1 IDEAS Foundation Mathematics

When creating or analyzing DM2 data, these mathematical properties should hold:

1.1.1 Logic of Type Theory

Commutative and anti-commutative: $A \cap B = B \cap A$

Reflexive and irreflexive: $\mathrm{A} \subset \mathrm{A}$; $\mathrm{A} \subsetneq \mathrm{A}$

Associative: $A \cup (B \cup C) = (A \cup B) \cup C$; $A \cap (B \cap C) = (A \cap B) \cap C$

Transitive: $\mathrm{A} \subset \mathrm{B} \wedge \mathrm{B} \subset \mathrm{C} \Rightarrow \mathrm{A} \subset \mathrm{C}$; $a \in A \wedge A \subset B \Rightarrow a \in B$

If $\{A_i\}$ forms a partition of A then: $a \in A_j \Rightarrow a \notin A_k \forall j \neq k$

1.1.2 Logic of Mereotopology

Parthood: $xPy \equiv x \text{ is a part of } y$

Proper part x is a proper part of y: $x\langle P \rangle y \equiv xPy \wedge \neg yPx$

P and $\langle \mathrm{P} \rangle$ are transitive: $xPy \wedge yPz \Rightarrow xPz; aPb \wedge a \neq b \Rightarrow \neg bPa;$

P is antisymmetric: $xPy \wedge yPx \Leftrightarrow x = y$

Overlap proposition: $xOy \Leftrightarrow \exists z \ni zPx \wedge zPy$

Overlap operator: $x \bigcap y = z_o \ni z_oPx \wedge z_oPy \wedge \forall z_i \neq z_o; z_iPx \wedge z_iPy \Rightarrow z_iPPz_o$

Underlap: $xUy \equiv \exists z \ni xPz \wedge yPz$

xOy and xUy are reflexive, symmetric, and intransitive.

Overlap is associative: $aO(bOc) = (aOb)Oc$

Before xBy is transitive: $xBy \wedge yBz \Rightarrow xBz$

Proper before is irreflexive: $\neg u\langle B \rangle u$

Proper before is anti-commutative: $a\langle B \rangle b \Rightarrow \neg b\langle B \rangle a$

1.2 Superclass Association Usage

a. Elements designated as "if" are common to all models:

couple	CoupleType
Individual	IndividualType
Powertype	powertypeInstance
tuple	TupleType
Type	

b. Elements designated as "df" are common to all models:

GeoPoliticalExtent	GeoPoliticalExtentType
Guidance	IndividualResource
measureOfIndividual	measureOfType
NameType	Property
propertyOfIndividual	propertyOfType
RealProperty	RealPropertyType
RepresentationType	Sign
SignType	Standard

c. exclusion rule: Elements categorized as "if" or "df" cannot be directly used in any model. The above elements are therefore excluded from direct use.

d. inclusion rule: Elements categorized as "ifo" or "dfo" can however be used directly within any model:

Elements designated as "ifo" are common to all models:

superSubType	Thing
typeInstance	wholePart
WholePartType	

Elements designated as "dfo" are common to all models:

beforeAfter	BeforeAfterType
describedBy	DescriptionScheme
descriptionSchemeInstance	endBoundary
EndBoundaryType	IndividualPerformer
Information	InformationType
Location	LocationType
Measure	measureOfIndividualEndBoundary
measureOfIndividualStartBoundary	measureOfTypeEndBoundaryType
measureOfTypeStartBoundaryType	MeasureType
namedBy	namingSchemeInstance
overlap	OverlapType
Performer	Representation
RepresentationScheme	representationSchemeInstance
representedBy	Resource
Rule	ServiceLevel
startBoundary	StartBoundaryType
temporalBoundary	TemporalBoundaryType
temporalWholePart	TemporalWholePartType

e. The elements categorized as "ifo" yield the following rules:

1) superSubtype rule:
All elements that descend from Type can have subtypes of the same kind as the original element itself. (The IndividualType descends from Type; thus, this rule applies to all Types that descend from IndividualType.)

2) WholePartType rule:
All elements that descend from IndividualType can have whole-parts of the same kind as the original element itself.

3) wholePart rule:
All elements that descend from Individual can have whole-parts of the same kind as the original element itself.

f. All elements that descend from Type can have instances created by instantiation as long as these instances have already been recognized as distinct elements within DM2.

g. These "dfo" elements descend from Individual; thus, the wholePart rule can be applied to them:

1) IndividualPerformer

2) Location

h. These "dfo" elements descend from Type; thus, the superSubType rule and the WholePartType rule can be applied to them:

1) DescriptionScheme

2) Information

3) InformationType

4) LocationType

5) Measure

6) MeasureType

7) Performer

8) Representation

9) RepresentationScheme

10) Resource

11) Rule

12) ServiceLevel

i. The following "dfo" elements descend from wholePart; thus, they can be used with all elements for which the wholePart rule applies:

1) endBoundary

2) startBoundary

3) temporalBoundary

4) temporalWholePart

j. The following "dfo" elements descend from WholePartType; thus, they can be used with all elements for which the WholePartType rule applies:

1) TemporalWholePartType

2) EndBoundaryType

3) StartBoundaryType

4) TemporalBoundaryType

k. In addition to this some of the remaining elements in the "dfo" category establishes a few additional rules.

1) namedBy rule:
A *name* element can be related to any thing by the tuple *namedBy*.

2) describedBy rule:
An information element can be related to any thing by the tuple *describedBy*.

3) representedBy rule:
A representation element can be related to any thing by of the tuple *representedBy*.

4) beforeAfter rule:
A *beforeAfter* relationship can be created between any elements that descend from *individuals* of the same kind. (The “same kind” restriction does not follow explicitly but represents an imposed constraint.)

5) BeforeAfterType rule:
A *BeforeAfterType* relationship can be created between any elements that descend from *types* that are of the same kind. (The “same kind” restriction does not follow explicitly but represents an imposed constraint.)

6) overlap rule:
An *overlap* n-ary relationship can be established between elements that descend from *individuals* that are of the same kind. (The “same kind” restriction does not follow explicitly but represents an imposed constraint.)

7) OverlapType rule:
An OverlapType n-ary relationship can be established between any items that descend from *types* that are of the same kind. (The same-kind restriction does not follow explicitly but represents an imposed constraint.)

l. These before-after rules and overlap rules (The same-kind restriction does not follow explicitly but represents an imposed constraint.)

3 DODAF PHYSICAL EXCHANGE SPECIFICATION (PES)

a. Collection, management, use, and reuse of architectural data and information are complex tasks. Success in these tasks requires knowledge of both data structures and the body of knowledge related to the purpose of an architectrual description.

b. The PES is the specification for the exchange of DoD architectural data. The PES provides an efficient and standard way to share data without committing architects to particular tools or methods. Figure 3-1 illustrates the general pattern for exchanging architectural data.

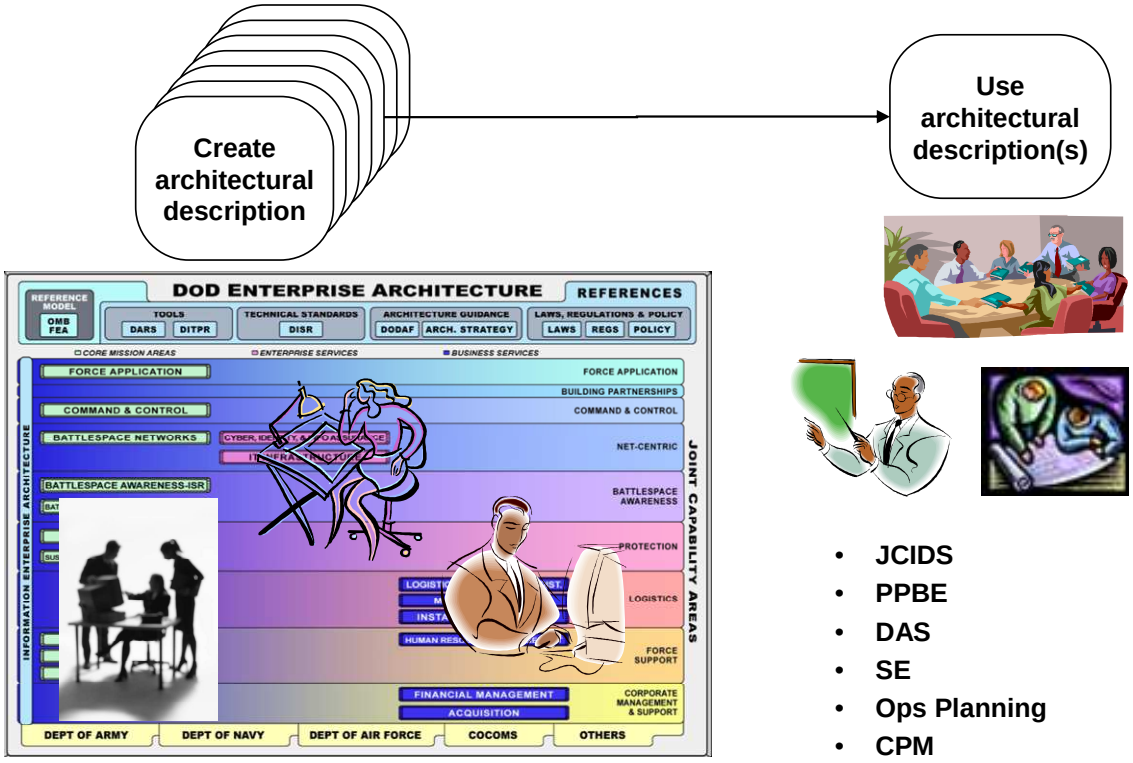

Figure 3-1: General pattern for sharing architectural data

c. The information needs of specific performers within DoD core processes determine the architectural data to be shared; decision-makers within each process require different data. Table 3-1 suggests notional use cases for sharing architectural data. Stakeholders within these use cases work with architects to determine what data they need and when they need it to support their decision-making.

Table 3-1: Notional use cases for sharing architectural data

core process	use case	general pattern
JCIDS		
	JCD/ICD/CPD/CDD review	assessment
	JCD/ICDFNA/FSA/FNA/AoA	optimization
	ISP/TISP evaluation	assessment
	Preparer	creation
DAS		
	milestone reviews	assessment
	functional control boards	assessment
PPBE		
	IRB & OMB 300 exhibits	assessment
	POM	optimization
Capabilities Portfolio Management		
	analyze/access portfolio	optimization
Systems Engineering		
	specification development	development
Operations Planning		
	plan development	development

d. Figure 3-2 illustrates such a notional exchange of architectural data. Note that in this case, the data presented for decisions might be analyses of architectural data rather than raw architectural data.

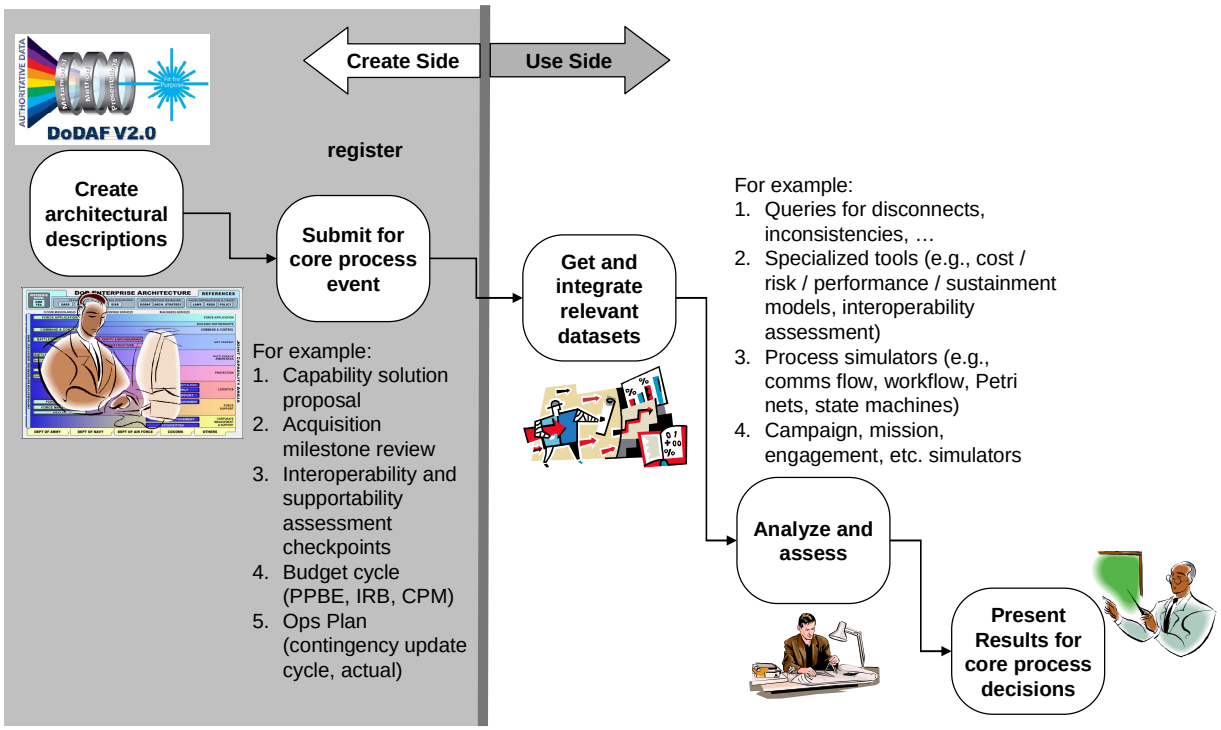

Figure 3-2. Notional pattern for sharing architectural data for assessment processes

e. The DM2 PES XML schema (XSD) provides a neutral format for data exchange between producers and consumers of architectural data. Figure 3-3 illustrates the role played by this XSD format.

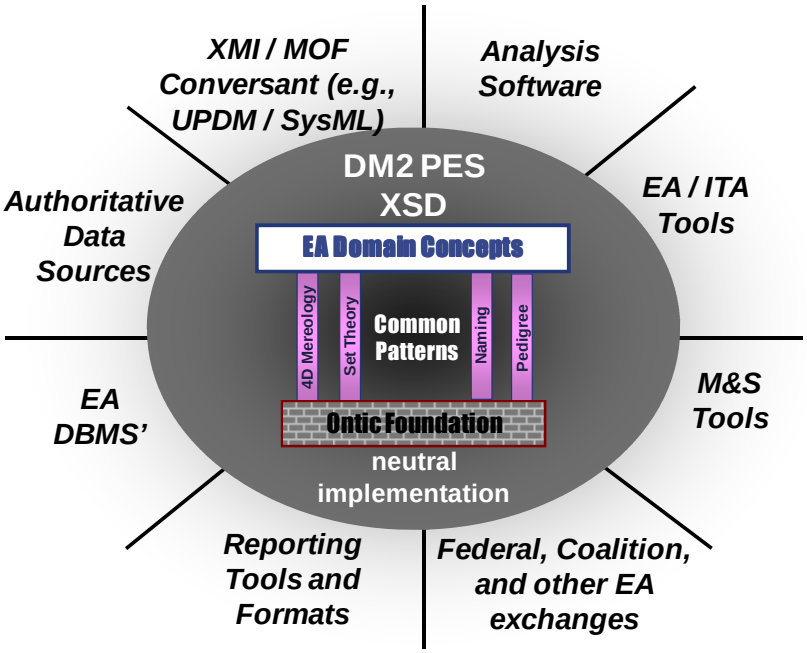

Figure 3-3. Illustration of DM2 Role in Providing a Neutral Model for Data Exchange

f. Note that within any particular community above, there may be a data exchange format particular to that community. A particularly important case is the UPDM-SysML XML Metadata Interchange (XMI) format for the exchange of UML models among certain UML tools. XMI provides a neutral way to exchange model data, including diagram data, between UML tools.

g. The DM2 PES XSDs are auto-generated from the DM2 logical data model. There are four DM2 PES XSDs:

1) IDEAS Foundation, version 1.0;

2) DM2 foundation;

3) classification marking (externally controlled); and

4) DM2 exchange data.

h. The DM2 PES XSD used for data exchange has a very simple structure; Figure 3-4 shows this structure.

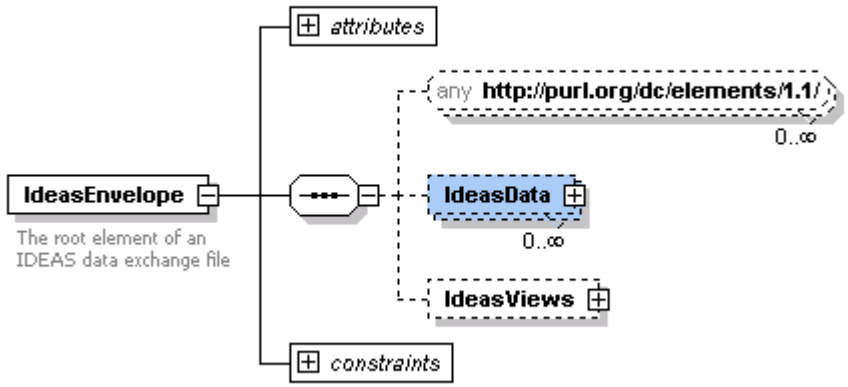

Figure 3-4. Top-Level Structure of a the DM2 PES XSD for Exchange

i. The IdeasData section of the PES schema contains all the DM2 domain data in a flat structure with elements linked together using standard XML document IDrefs. All DM2 data to be exchanged is contained in this section. Figure 3-5 shows a piece of this flat structure.

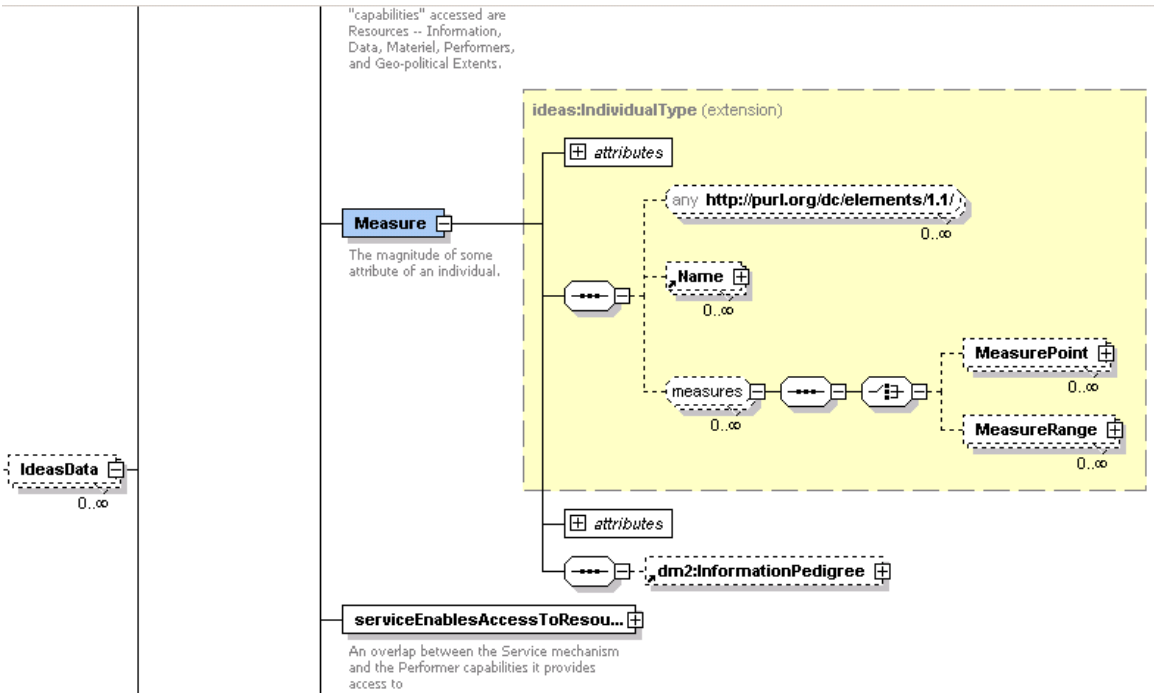

Figure 3-5. Sample of the IdeasData Section of the DM2 PES XSD for Data Exchange

j. The IdeasViews section then specifies what DoDAF standard models use this data. Figure 3-6 shows a sample of the IdeasViews section. Should a DM2 PES XML document say that DoDAF standard models are in the dataset, a consumer of the document can use the DM2 PES XSD to verify that mandatory data is present and that forbidden data is not.

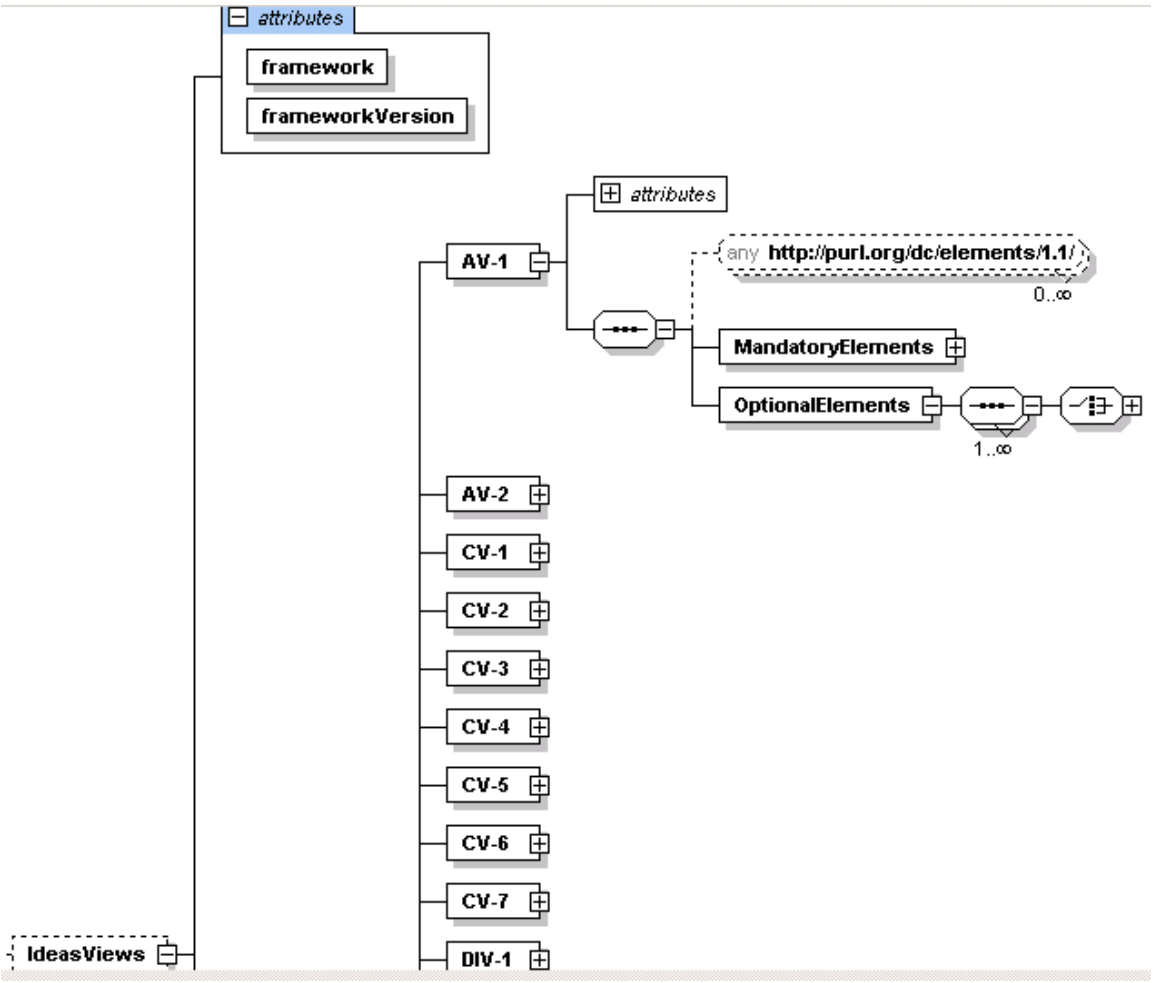

Figure 3-6. Sample of the IdeasViews Section of the DM2 PES XSD for Data Exchange

APPENDIX A ACRONYMS & ABBREVIATIONS

Acronym	Definition
AV	All Viewpoint
BEA	Business Enterprise Architecture
BMA	Business Mission Area
BPMN	Business Process Modeling Notation
C2	Command and Control
CA	Common Approach
CDM	Conceptual Data Model
CI	Configuration Item
CM	Configuration Management
COI	Community Of Interest
COMMPLAN	Communications Plan
CDD	Capability Development Document
CPD	Capability Production Document
CPM	Capability Portfolio Management
CV	Capability Viewpoint
DAS	Defense Acquisition System
DDMS	Department of Defense Discovery Metadata Specification
DISR	DoD Information Standards Registry
DIV	Data and Information Viewpoint
DM2	DoDAF meta-model
DNDAF	Department of National Defense Architecture Framework
DOTMLPF	Doctrine, Organization, Training, Material, Leadership and education, Personnel, and Facilities
E-R	Entity-Relationship

Acronym	Definition
EA	Enterprise Architecture
EEI	Essential Element of Information
FEA	Federal Enterprise Architecture
FFP	Fit For Purpose
FOC	Full Operational Capability
IC	Intelligence Community
IC-ISM	Intelligence Community – Intelligence Standard Markings
ICD	Initial Capabilities Document
IDEAS	International Defence Enterprise Architecture Specification
IEA	Information Environment Architecture
IER	Information Exchange Requirement
IMA	Information Mission Area
IPB	Intelligence Preparation of the Battlefield
IPOE	Intelligence Preparation of the Operational Environment
IOC	Initial Operational Capability
ISO	International Standards Organization
ISP	Interoperability Support Plan
ISR	Intelligence, Surveillance and Reconnaissance
IT	Information Technology
JCA	Joint Capability Areas
JCIDS	Joint Capabilities Integration and Development System
LDM	Logical Data Model
OMB	Office of Management and Budget
OPLAN	Operation Plan
OV	Operational Viewpoint

Acronym	Definition
MODAF	Ministry of Defence Architecture Framework
MOE	Measure Of Effectiveness
MOP	Measure of Performance
NIEM	National Information Exchange Model
NSS	National Security System
PE	Program Element
PES	Physical Exchange Specification
PIR	Priority Intelligence Requirement
POM	Program Objective Memorandum
PPBE	Planning, Programming, Budgeting, and Execution
PV	Project Viewpoint
QoS	Quality of Service
RA	Reference Architecture
RDBMS	Relational Database Management System
SA	Solution Architecture
SCI	Software Configuration Item
SE	Systems Engineering
SETR	System Engineering Technical Review
SOA	Service Oriented Architecture
SoS	System of Systems
SoSE	System of Systems Engineering
SV	Systems Viewpoint
SvcV	Services Viewpoint
StdV	Standards Viewpoint
TADIL	TActial Data and Information Link

Acronym	Definition
TEMP	Test and Evaluation Master Plan
TOGAF	The Open Group Architecture Framework
TTP	Tactics, Techniques, and Procedures
UJTL	Universal Joint Task List
UML	Unified Modeling Language
URL	Universal Resource Locator
WBS	Work Breakdown Structure
WMA	Warfighting Mission Area
XML	Extensible Markup Language
XSD	XML Schema Definition

APPENDIX B GLOSSARY TERMS APPLICABLE TO MODELS

a. This appendix defines data elements used to define each of the DoDAF models. The data elements and their inter-relationships are defined in the DM2 logical data model. Data elements are "required" or "optional". For required data elements, values must be included for a view to be DoDAF conformant. For optional data elements, values may be included in a view. If a data element is neither required nor optional, values cannot be included in a view. However, if needed, a Fit-For-Purpose (FFP) model could be defined.

B.1 AV-1

activity (required)
activity part of project type (required)
activity performable under condition (optional)
activity performed by performer (optional)
address (optional)
agreement (optional)
architectural description (required)
before after (optional following superclass rules)
before after type (optional following superclass rules)
condition (optional)
condition described by (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)
desire measure (optional)
effect measure (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
facility (optional)
facility part of site (optional)
facility type (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)

individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
location (optional following superclass rules)
location named by address (optional)
location type (optional following superclass rules)
maintainability measure (optional)
measure (optional following superclass rules)
measure of desire (optional)
measure of effect (optional)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type project type (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)

performer capable of responsibility (optional)
person role (optional)
person role part of performer (optional)
physical measure (optional)
project (required)
project type (required)
real property (optional)
real property type (optional)
real property type facility type partition (optional)
real property type site type partition (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
site (optional)
site part of installation (optional)
site type (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of organization type (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)

temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)
vision (optional)
vision realized by desired resource state (optional)

B.2 AV-2

activity (optional)
adaptability measure (optional)
agreement (optional)
architectural description (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
capability (optional)
capability type (optional)
condition (optional)
condition described by (optional)
country (optional)
country type (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
domain information (optional)
enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
facility (optional)
facility part of site (optional)
facility type (optional)

functional standard (optional)
geo feature (optional)
geo feature type (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
installation (optional)
installation type (optional)
line (optional)
line type (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
materiel (optional)
measurable skill (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type project type (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)

organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)
planar surface (optional)
planar surface type (optional)
project (optional)
project type (optional)
real property (optional)
real property type (optional)
real property type facility type partition (optional)
real property type site type partition (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule described by (optional)
security attributes group s
service (optional)
service described by (optional)
service description (optional)
service level (optional following superclass rules)

service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
site (optional)
site part of installation (optional)
site type (optional)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
surface (optional)
surface type (optional)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)
vision (optional)
vision realized by desired resource state (optional)

B.3 OV-1

architectural description (required)
before after (optional following superclass rules)
before after type (optional following superclass rules)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
guidance (optional following superclass rules)
individual performer (optional following superclass rules)
information (optional following superclass rules)
location (optional following superclass rules)
location type (optional following superclass rules)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performer (optional following superclass rules)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)

representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
rule (optional following superclass rules)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton resource (optional following superclass rules)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.4 OV-2

activity (required)
activity consumes resource (required)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (required)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
condition (optional)
condition described by (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
guidance (optional following superclass rules)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
joint action (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)

measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
organization (optional)
organization type (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
temporal boundary (optional following superclass rules)

temporal boundary type (optional following superclass rules)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.5 OV-3

activity (required)
activity consumes resource (required)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (required)
adaptability measure (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service standard (optional)
condition (optional)
condition described by (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
domain information (optional)
enabling service standard (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)

information (optional following superclass rules)
joint action (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)
representation (optional following superclass rules)

representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.6 OV-4

before after (optional following superclass rules)
before after type (optional following superclass rules)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
guidance (optional following superclass rules)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
location (optional following superclass rules)
location type (optional following superclass rules)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
organization (optional)
organization type (optional)
overlap (optional following superclass rules)

overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.7 OV-5a

activity (required)
activity performable under condition (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
condition (optional)
condition described by (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
guidance (optional following superclass rules)
individual activity (optional)
individual performer (optional following superclass rules)
information (optional following superclass rules)
location (optional following superclass rules)
location type (optional following superclass rules)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type units of measure (optional following superclass rules)
named by (required)p

naming scheme instance (required)p
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performer (optional following superclass rules)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.8 OV-5b

activity (required)
activity consumes resource (required)
activity maps to capability type
activity part of capability
activity part of project type
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (required)
adaptability measure (optional)
address
agreement (optional)
architectural description
axes described by
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service
business service standard
business service standard constrains business service
capability
capability of performer
capability type
circular area
circular area type
condition (optional)
condition described by (optional)
coordinate center described by
country
country type
data
described by (optional following superclass rules)
description of desired resource state (optional)

description of desired resource state directs activity
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect
desired resource state described by (optional)
desired resource state of capability
desired resource state realized by project type
desire measure
domain information (optional)
duration
effect measure
elliptical area
elliptical area type
enabling service
enabling service activity performed by enabling service
enabling service activity
enabling service standard
enabling service standard constrains enabling service activity
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
facility
facility part of site
facility type
functional standard (optional)
geo feature
geo feature type
geo stationary point
geo stationary point type
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)

individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
installation
installation type
instant
joint action (optional)
line
line part of planar surface
line type
location (optional following superclass rules)
location named by address
location type (optional following superclass rules)
maintainability measure (optional)
materiel
materiel part of performer
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire
measure of effect
measure of individual (optional following superclass rules)
measure of individual point
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type project type
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)

measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of service
organization type part of system
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
period
person role (optional)
person role part of performer
physical measure (optional)
planar surface
planar surface type
point
point part of line
point part of planar surface
point type
polygon area
polygon area type
position reference frame
project
project type
real property
real property type

real property type facility type partition
real property type site type partition
rectangular area
rectangular area type
region of country
region of country part of country
region of country type
region of world
region of world type
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service
service described by
service description
service enables access to resource
service level (optional following superclass rules)
service part of organization type
service part of system
singleton activity (optional)
singleton resource (optional following superclass rules)
site
site part of installation
site type
skill (optional)
skill of person role (optional)

solid volume
solid volume type
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
surface
surface type
system
system part of organization type
system part of service
technical standard
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)
vision
vision realized by desired resource state

B.9 OV-6a

activity (required)
activity consumes resource (optional)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
adaptability measure (optional)
agreement (optional)
axes described by (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
circular area (optional)
circular area type (optional)
condition (optional)
condition described by (optional)
coordinate center described by (optional)
country (optional)
country type (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)
desire measure (optional)
effect measure (optional)
elliptical area (optional)
elliptical area type (optional)
end boundary (optional following superclass rules)

end boundary type (optional following superclass rules)
facility (optional)
facility part of site (optional)
facility type (optional)
geo feature (optional)
geo feature type (optional)
geo stationary point (optional)
geo stationary point type (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
installation (optional)
installation type (optional)
joint action (optional)
line (optional)
line part of planar surface (optional)
line type (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire (optional)
measure of effect (optional)
measure of individual (optional following superclass rules)
measure of individual point (optional)
measure of type (optional following superclass rules)

measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)
planar surface (optional)
planar surface type (optional)
point (optional)
point part of line (optional)
point part of planar surface (optional)
point type (optional)
polygon area (optional)
polygon area type (optional)
position reference frame (optional)
real property (optional)
real property type (optional)

real property type facility type partition (optional)
real property type site type partition (optional)
rectangular area (optional)
rectangular area type (optional)
region of country (optional)
region of country part of country (optional)
region of country type (optional)
region of world (optional)
region of world type (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
site (optional)
site part of installation (optional)
site type (optional)
skill (optional)
skill of person role (optional)
solid volume (optional)
solid volume type (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
surface (optional)

surface type (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.10 OV-6b

activity (required)
activity consumes resource (required)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (required)
adaptability measure (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
condition (optional)
condition described by (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
domain information (optional)
duration (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
instant (optional)

joint action (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
period (optional)
person role (optional)
physical measure (optional)
representation (optional following superclass rules)

representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.11 OV-6c

activity (required)
activity consumes resource (optional)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
adaptability measure (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
condition (optional)
condition described by (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
domain information (optional)
duration (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
instant (optional)

joint action (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
period (optional)
person role (optional)
physical measure (optional)
representation (optional following superclass rules)

representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.12 SV-1

activity (required)
activity consumes resource (required)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (required)
adaptability measure (optional)
address (optional)
agreement (optional)
axes described by (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service standard (optional)
circular area (optional)
circular area type (optional)
condition (optional)
condition described by (optional)
coordinate center described by (optional)
country (optional)
country type (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
elliptical area (optional)
elliptical area type (optional)
enabling service standard (optional)
end boundary (optional following superclass rules)

end boundary type (optional following superclass rules)
facility (optional)
facility part of site (optional)
facility type (optional)
functional standard (optional)
geo feature (optional)
geo feature type (optional)
geo stationary point (optional)
geo stationary point type (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
installation (optional)
installation type (optional)
joint action (optional)
line (optional)
line part of planar surface (optional)
line type (optional)
location (optional following superclass rules)
location named by address (optional)
location type (optional following superclass rules)
maintainability measure (optional)
materiel (optional)
materiel part of performer (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)

measure of individual point (optional)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
person role part of performer (optional)
physical measure (optional)
planar surface (optional)
planar surface type (optional)
point (optional)
point part of line (optional)
point part of planar surface (optional)
point type (optional)
polygon area (optional)

polygon area type (optional)
position reference frame (optional)
real property (optional)
real property type (optional)
real property type facility type partition (optional)
real property type site type partition (optional)
rectangular area (optional)
rectangular area type (optional)
region of country (optional)
region of country part of country (optional)
region of country type (optional)
region of world (optional)
region of world type (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
site (optional)
site part of installation (optional)
site type (optional)
skill (optional)
skill of person role (optional)
solid volume (optional)
solid volume type (optional)

spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
surface (optional)
surface type (optional)
system (required)
system part of organization type (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.13 SV-2

activity (required)
activity consumes resource (required)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (required)
adaptability measure (optional)
address (optional)
agreement (optional)
axes described by (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service standard (optional)
circular area (optional)
circular area type (optional)
condition (optional)
condition described by (optional)
coordinate center described by (optional)
country (optional)
country type (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
elliptical area (optional)
elliptical area type (optional)
enabling service standard (optional)
end boundary (optional following superclass rules)

end boundary type (optional following superclass rules)
facility (optional)
facility part of site (optional)
facility type (optional)
functional standard (optional)
geo feature (optional)
geo feature type (optional)
geo stationary point (optional)
geo stationary point type (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
installation (optional)
installation type (optional)
joint action (optional)
line (optional)
line part of planar surface (optional)
line type (optional)
location (optional following superclass rules)
location named by address (optional)
location type (optional following superclass rules)
maintainability measure (optional)
materiel (optional)
materiel part of performer (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)

measure of individual point (optional)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
person role part of performer (optional)
physical measure (optional)
planar surface (optional)
planar surface type (optional)
point (optional)
point part of line (optional)
point part of planar surface (optional)
point type (optional)
polygon area (optional)

polygon area type (optional)
position reference frame (optional)
real property (optional)
real property type (optional)
real property type facility type partition (optional)
real property type site type partition (optional)
rectangular area (optional)
rectangular area type (optional)
region of country (optional)
region of country part of country (optional)
region of country type (optional)
region of world (optional)
region of world type (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
site (optional)
site part of installation (optional)
site type (optional)
skill (optional)
skill of person role (optional)
solid volume (optional)
solid volume type (optional)

spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
surface (optional)
surface type (optional)
system (required)
system part of organization type (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.14 SV-3

activity (optional)
activity consumes resource (optional)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
adaptability measure (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
joint action (optional)

location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)

representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (required)
system part of organization type (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.15 SV-4

activity (required)
activity consumes resource (required)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (required)
adaptability measure (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service standard (optional)
condition (optional)
condition described by (optional)
data (required)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
enabling service standard (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)

information (optional following superclass rules)
joint action (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)

representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (required)
system part of organization type (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.16 SV-5a

activity (required)
activity consumes resource (optional)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (optional)
adaptability measure (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
information (optional following superclass rules)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)

measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performer (optional following superclass rules)
performer capable of responsibility (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)

singleton activity (optional)
singleton resource (optional following superclass rules)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (required)
system part of organization type (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.17 SV-5b

activity (optional)
activity consumes resource (optional)
activity maps to capability type (optional)
activity part of capability (optional)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
adaptability measure (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service standard (optional)
capability (optional)
capability of performer (optional)
capability type (optional)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
enabling service standard (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)

individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
information (optional following superclass rules)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performer (optional following superclass rules)
performer capable of responsibility (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)

resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (required)
system part of organization type (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.18 SV-6

activity (required)
activity consumes resource (required)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (required)
adaptability measure (optional)
address (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service standard (optional)
condition (optional)
condition described by (optional)
data (required)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
enabling service standard (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)

individual person role (optional)
information (optional following superclass rules)
joint action (optional)
location (optional following superclass rules)
location named by address (optional)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)

person role (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (required)
system part of organization type (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.19 SV-7

activity (optional)
activity consumes resource (optional)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
adaptability measure (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
location (optional following superclass rules)
location type (optional following superclass rules)

maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)

resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (required)
system part of organization type (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.20 SV-8

activity (optional)
activity consumes resource (optional)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
adaptability measure (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service standard (optional)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)
desire measure (optional)
duration (optional)
effect measure (optional)
enabling service standard (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)

individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
instant (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
materiel (optional)
materiel part of performer (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire (optional)
measure of effect (optional)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of system (optional)
overlap (optional following superclass rules)

overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
period (optional)
person role (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (required)
system part of organization type (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

vision (optional)

vision realized by desired resource state (optional)

B.21 SV-9

activity (optional)
activity consumes resource (optional)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
adaptability measure (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service standard (optional)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)
desire measure (optional)
duration (optional)
effect measure (optional)
enabling service standard (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)

individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
instant (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
materiel (optional)
materiel part of performer (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire (optional)
measure of effect (optional)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of system (optional)
overlap (optional following superclass rules)

overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
period (optional)
person role (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (required)
system part of organization type (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

vision (optional)

vision realized by desired resource state (optional)

B.22 SV-10a

activity (required)
activity consumes resource (optional)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (optional)
adaptability measure (optional)
address (optional)
agreement (optional)
axes described by (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service standard (optional)
circular area (optional)
circular area type (optional)
condition (optional)
condition described by (optional)
coordinate center described by (optional)
country (optional)
country type (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)
desire measure (optional)
effect measure (optional)

elliptical area (optional)
elliptical area type (optional)
enabling service standard (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
facility (optional)
facility part of site (optional)
facility type (optional)
functional standard (optional)
geo feature (optional)
geo feature type (optional)
geo stationary point (optional)
geo stationary point type (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
installation (optional)
installation type (optional)
joint action (optional)
line (optional)
line part of planar surface (optional)
line type (optional)
location (optional following superclass rules)
location named by address (optional)
location type (optional following superclass rules)
maintainability measure (optional)
materiel (optional)
materiel part of performer (optional)

measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire (optional)
measure of effect (optional)
measure of individual (optional following superclass rules)
measure of individual point (optional)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)
planar surface (optional)
planar surface type (optional)

point (optional)
point part of line (optional)
point part of planar surface (optional)
point type (optional)
polygon area (optional)
polygon area type (optional)
position reference frame (optional)
real property (optional)
real property type (optional)
real property type facility type partition (optional)
real property type site type partition (optional)
rectangular area (optional)
rectangular area type (optional)
region of country (optional)
region of country part of country (optional)
region of country type (optional)
region of world (optional)
region of world type (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (required)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
site (optional)
site part of installation (optional)

site type (optional)
skill (optional)
skill of person role (optional)
solid volume (optional)
solid volume type (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
surface (optional)
surface type (optional)
system (required)
system part of organization type (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.23 SV-10b

activity (required)
activity consumes resource (required)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (required)
adaptability measure (optional)
address (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)

joint action (optional)
location (optional following superclass rules)
location named by address (optional)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)

representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (required)
system part of organization type (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.24 SV-10c

activity (required)
activity consumes resource (required)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (required)
adaptability measure (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
joint action (optional)

location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)

representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (required)
system part of organization type (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.25 SvcV-1

activity (required)
activity consumes resource (required)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (required)
adaptability measure (optional)
address (optional)
agreement (optional)
axes described by (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
circular area (optional)
circular area type (optional)
condition (optional)
condition described by (optional)
coordinate center described by (optional)
country (optional)
country type (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
elliptical area (optional)
elliptical area type (optional)

enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
enabling service standard constrains enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
facility (optional)
facility part of site (optional)
facility type (optional)
functional standard (optional)
geo feature (optional)
geo feature type (optional)
geo stationary point (optional)
geo stationary point type (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
installation (optional)
installation type (optional)
joint action (optional)
line (optional)
line part of planar surface (optional)
line type (optional)
location (optional following superclass rules)
location named by address (optional)
location type (optional following superclass rules)
maintainability measure (optional)

materiel (optional)
materiel part of performer (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of individual point (optional)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
person role part of performer (optional)
physical measure (optional)

planar surface (optional)
planar surface type (optional)
point (optional)
point part of line (optional)
point part of planar surface (optional)
point type (optional)
polygon area (optional)
polygon area type (optional)
position reference frame (optional)
real property (optional)
real property type (optional)
real property type facility type partition (optional)
real property type site type partition (optional)
rectangular area (optional)
rectangular area type (optional)
region of country (optional)
region of country part of country (optional)
region of country type (optional)
region of world (optional)
region of world type (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (required)
service described by (required)
service description (required)

service enables access to resource (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
site (optional)
site part of installation (optional)
site type (optional)
skill (optional)
skill of person role (optional)
solid volume (optional)
solid volume type (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
surface (optional)
surface type (optional)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.26 SvcV-2

activity (required)
activity consumes resource (required)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (required)
adaptability measure (optional)
address (optional)
agreement (optional)
axes described by (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
circular area (optional)
circular area type (optional)
condition (optional)
condition described by (optional)
coordinate center described by (optional)
country (optional)
country type (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
elliptical area (optional)
elliptical area type (optional)

enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
enabling service standard constrains enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
facility (optional)
facility part of site (optional)
facility type (optional)
functional standard (optional)
geo feature (optional)
geo feature type (optional)
geo stationary point (optional)
geo stationary point type (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
installation (optional)
installation type (optional)
joint action (optional)
line (optional)
line part of planar surface (optional)
line type (optional)
location (optional following superclass rules)
location named by address (optional)
location type (optional following superclass rules)
maintainability measure (optional)

materiel (optional)
materiel part of performer (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of individual point (optional)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
person role part of performer (optional)
physical measure (optional)

planar surface (optional)
planar surface type (optional)
point (optional)
point part of line (optional)
point part of planar surface (optional)
point type (optional)
polygon area (optional)
polygon area type (optional)
position reference frame (optional)
real property (optional)
real property type (optional)
real property type facility type partition (optional)
real property type site type partition (optional)
rectangular area (optional)
rectangular area type (optional)
region of country (optional)
region of country part of country (optional)
region of country type (optional)
region of world (optional)
region of world type (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (required)
service described by (required)
service description (required)

service enables access to resource (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
site (optional)
site part of installation (optional)
site type (optional)
skill (optional)
skill of person role (optional)
solid volume (optional)
solid volume type (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
surface (optional)
surface type (optional)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.27 SvcV-3a

activity (optional)
activity consumes resource (optional)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
adaptability measure (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
enabling service standard constrains enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)

guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
joint action (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)

parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (required)
service described by (required)
service description (required)
service enables access to resource (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (required)
system part of organization type (optional)
system part of service (optional)

technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.28 SvcV-3b

activity (optional)
activity consumes resource (optional)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
adaptability measure (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
enabling service standard constrains enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)

guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
joint action (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)

parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (required)
service described by (required)
service description (required)
service enables access to resource (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of organization type (optional)
system part of service (optional)

technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.29 SvcV-4

activity (required)
activity consumes resource (required)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (required)
adaptability measure (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
condition (optional)
condition described by (optional)
data (required)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)

individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
joint action (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)

performer capable of responsibility (optional)
person role (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (required)
service described by (required)
service description (required)
service enables access to resource (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)

temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.30 SvcV-5

activity (required)
activity consumes resource (optional)
activity maps to capability type (optional)
activity part of capability (optional)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (optional)
adaptability measure (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
capability (optional)
capability of performer (optional)
capability type (optional)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
enabling service standard constrains enabling service activity (optional)

end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
information (optional following superclass rules)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)

performer (optional following superclass rules)
performer capable of responsibility (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (required)
service described by (required)
service description (required)
service enables access to resource (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.31 SvcV-6

activity (required)
activity consumes resource (required)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (required)
adaptability measure (optional)
address (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
condition (optional)
condition described by (optional)
data (required)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
enabling service standard constrains enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)

guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
joint action (optional)
location (optional following superclass rules)
location named by address (optional)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)

overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (required)
service described by (required)
service description (required)
service enables access to resource (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)

system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.32 SvcV-7

activity (optional)
activity consumes resource (optional)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
adaptability measure (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)

individual person role (optional)
information (optional following superclass rules)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)

representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (required)
service described by (required)
service description (required)
service enables access to resource (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.33 SvcV-8

activity (optional)
activity consumes resource (optional)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
adaptability measure (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)
desire measure (optional)
duration (optional)
effect measure (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
enabling service standard constrains enabling service activity (optional)

end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
instant (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
materiel (optional)
materiel part of performer (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire (optional)
measure of effect (optional)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p

needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
period (optional)
person role (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (required)
service described by (required)
service description (required)
service enables access to resource (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)

singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)
vision (optional)
vision realized by desired resource state (optional)

B.34 SvcV-9

activity (optional)
activity consumes resource (optional)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
adaptability measure (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)
desire measure (optional)
duration (optional)
effect measure (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
enabling service standard constrains enabling service activity (optional)

end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
instant (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
materiel (optional)
materiel part of performer (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire (optional)
measure of effect (optional)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p

needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
period (optional)
person role (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (required)
service described by (required)
service description (required)
service enables access to resource (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)

singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)
vision (optional)
vision realized by desired resource state (optional)

B.35 SvcV-10a

activity (required)
activity consumes resource (optional)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (optional)
adaptability measure (optional)
address (optional)
agreement (optional)
axes described by (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
circular area (optional)
circular area type (optional)
condition (optional)
condition described by (optional)
coordinate center described by (optional)
country (optional)
country type (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)

desire measure (optional)
effect measure (optional)
elliptical area (optional)
elliptical area type (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
enabling service standard constrains enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
facility (optional)
facility part of site (optional)
facility type (optional)
functional standard (optional)
geo feature (optional)
geo feature type (optional)
geo stationary point (optional)
geo stationary point type (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
installation (optional)
installation type (optional)
joint action (optional)
line (optional)
line part of planar surface (optional)
line type (optional)

location (optional following superclass rules)
location named by address (optional)
location type (optional following superclass rules)
maintainability measure (optional)
materiel (optional)
materiel part of performer (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire (optional)
measure of effect (optional)
measure of individual (optional following superclass rules)
measure of individual point (optional)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)

performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)
planar surface (optional)
planar surface type (optional)
point (optional)
point part of line (optional)
point part of planar surface (optional)
point type (optional)
polygon area (optional)
polygon area type (optional)
position reference frame (optional)
real property (optional)
real property type (optional)
real property type facility type partition (optional)
real property type site type partition (optional)
rectangular area (optional)
rectangular area type (optional)
region of country (optional)
region of country part of country (optional)
region of country type (optional)
region of world (optional)
region of world type (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (required)

rule described by (optional)
security attributes group s
service (required)
service described by (required)
service description (required)
service enables access to resource (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
site (optional)
site part of installation (optional)
site type (optional)
skill (optional)
skill of person role (optional)
solid volume (optional)
solid volume type (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
surface (optional)
surface type (optional)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.36 SvcV-10b

activity (required)
activity consumes resource (required)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (required)
adaptability measure (optional)
address (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)

individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
joint action (optional)
location (optional following superclass rules)
location named by address (optional)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (required)p
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)

performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (required)
service described by (required)
service description (required)
service enables access to resource (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)

temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.37 SvcV-10c

activity (required)
activity consumes resource (required)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (required)
adaptability measure (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)

individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
joint action (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (optional following superclass rules)
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)

performer capable of responsibility (optional)
person role (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (required)
service described by (required)
service description (required)
service enables access to resource (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)

temporal measure (optional)

temporal whole part (optional following superclass rules)

temporal whole part type (optional following superclass rules)

B.38 StdV-1

activity (required)
activity performable under condition (optional)
activity performed by performer (required)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
enabling service standard constrains enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)

individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
location (optional following superclass rules)
location type (optional following superclass rules)
measurable skill (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (optional following superclass rules)
organization (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
person role part of performer (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)

represented by (optional following superclass rules)
resource (optional following superclass rules)
rule (optional following superclass rules)
rule constrains activity (required)
rule described by (optional)
security attributes group s
service (optional)
service described by (optional)
service description (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.39 StdV-2

activity (required)
activity performable under condition (optional)
activity performed by performer (required)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
duration (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
enabling service standard constrains enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)

individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
instant (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
measurable skill (optional)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (optional following superclass rules)
organization (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performer (optional following superclass rules)
performer capable of responsibility (optional)
period (optional)
person role (optional)
person role part of performer (optional)

representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
rule (optional following superclass rules)
rule constrains activity (required)
rule described by (optional)
security attributes group s
service (optional)
service described by (optional)
service description (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)
vision (optional)
vision realized by desired resource state (optional)

B.40 PV-1

activity (required)
activity consumes resource (optional)
activity part of project type (required)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
condition (optional)
condition described by (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)
desired resource state realized by project type (optional)
desire measure (optional)
effect measure (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)

individual person role (optional)
information (optional following superclass rules)
joint action (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire (optional)
measure of effect (optional)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type project type (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (optional following superclass rules)
needs satisfaction measure (optional)
organization (required)
organizational measure (optional)
organization type (required)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)

performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)
project (required)
project type (required)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of organization type (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)
vision (optional)
vision realized by desired resource state (optional)

B.41 PV-2

activity (required)
activity consumes resource (optional)
activity part of project type (required)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
condition (optional)
condition described by (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)
desired resource state realized by project type (optional)
desire measure (optional)
duration (optional)
effect measure (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
guidance (optional following superclass rules)

guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
instant (optional)
joint action (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
materiel (optional)
materiel part of performer (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire (optional)
measure of effect (optional)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type project type (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (optional following superclass rules)
needs satisfaction measure (optional)
organization (optional)

organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
period (optional)
person role (optional)
person role part of performer (optional)
physical measure (optional)
project (required)
project type (required)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (optional)
service described by (optional)
service description (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)

singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of organization type (optional)
system part of service (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)
vision (optional)
vision realized by desired resource state (optional)

B.42 PV-3

activity (required)
activity consumes resource (optional)
activity part of capability (required)
activity part of project type (required)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
adaptability measure (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
capability (required)
capability of performer (optional)
capability type (optional)
condition (optional)
condition described by (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)
desired resource state of capability (optional)
desired resource state realized by project type (optional)
desire measure (optional)
domain information (optional)
effect measure (optional)

enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
joint action (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire (optional)
measure of effect (optional)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type project type (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p

naming scheme instance (optional following superclass rules)
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
physical measure (optional)
project (required)
project type (required)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (optional)
service described by (optional)
service description (optional)
service level (optional following superclass rules)
service part of organization type (optional)

service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of organization type (optional)
system part of service (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)
vision (optional)
vision realized by desired resource state (optional)

B.43 CV-1

activity (optional)
activity maps to capability type (optional)
activity part of capability (optional)
activity performable under condition (optional)
adaptability measure (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
capability (required)
capability type (optional)
condition (optional)
condition described by (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)
desired resource state of capability (required)
desire measure (required)
domain information (optional)
effect measure (required)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
guidance (optional following superclass rules)

guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
information (optional following superclass rules)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measure (optional following superclass rules)
measure of desire (required)
measure of effect (required)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (optional following superclass rules)
needs satisfaction measure (optional)
organizational measure (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)

representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (optional)
service described by (optional)
service description (optional)
service enables access to resource (optional)
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)
vision (required)
vision realized by desired resource state (required)

B.44 CV-2

activity (optional)
activity maps to capability type (optional)
activity part of capability (optional)
activity performable under condition (optional)
adaptability measure (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
capability (required)
capability type (optional)
condition (optional)
condition described by (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)
desired resource state of capability (optional)
desire measure (optional)
domain information (optional)
effect measure (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)

enabling service standard constrains enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire (required)
measure of effect (required)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (optional following superclass rules)
needs satisfaction measure (optional)
organizational measure (optional)

overlap (optional following superclass rules)
overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
person role part of performer (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (optional)
service described by (optional)
service description (optional)
service enables access to resource (optional)
service level (optional following superclass rules)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of service (optional)

technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.45 CV-3

activity (required)
activity consumes resource (optional)
activity maps to capability type (optional)
activity part of capability (required)
activity part of project type (required)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
adaptability measure (optional)
agreement (optional)
architectural description (optional)
axes described by (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
capability (required)
capability of performer (optional)
capability type (optional)
circular area (optional)
circular area type (optional)
condition (optional)
condition described by (optional)
coordinate center described by (optional)
country (optional)
country type (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)

description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)
desired resource state of capability (required)
desire measure (optional)
domain information (optional)
duration (optional)
effect measure (optional)
elliptical area (optional)
elliptical area type (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
enabling service standard constrains enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
facility (optional)
facility part of site (optional)
facility type (optional)
functional standard (optional)
geo feature (optional)
geo feature type (optional)
geo stationary point (optional)
geo stationary point type (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)

individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
installation (optional)
installation type (optional)
instant (optional)
joint action (optional)
line (optional)
line part of planar surface (optional)
line type (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
materiel (optional)
materiel part of performer (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire (required)
measure of effect (required)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (optional following superclass rules)
needs satisfaction measure (optional)
organization (optional)

organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
period (optional)
person role (optional)
person role part of performer (optional)
physical measure (optional)
planar surface (optional)
planar surface type (optional)
point (optional)
point part of line (optional)
point part of planar surface (optional)
point type (optional)
polygon area (optional)
polygon area type (optional)
position reference frame (optional)
project (optional)
project type (required)
real property (optional)
real property type (optional)
real property type facility type partition (optional)
real property type site type partition (optional)
rectangular area (optional)
rectangular area type (optional)
region of country (optional)

region of country part of country (optional)
region of country type (optional)
region of world (optional)
region of world type (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (optional)
service described by (optional)
service description (optional)
service enables access to resource (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
site (optional)
site part of installation (optional)
site type (optional)
skill (optional)
skill of person role (optional)
solid volume (optional)
solid volume type (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)

surface (optional)
surface type (optional)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.46 CV-4

activity (optional)
activity consumes resource (optional)
activity maps to capability type (optional)
activity part of capability (optional)
activity part of project type (optional)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
adaptability measure (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
capability (required)
capability of performer (optional)
capability type (optional)
condition (optional)
condition described by (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)
desired resource state of capability (required)

desire measure (optional)
domain information (optional)
duration (optional)
effect measure (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
enabling service standard constrains enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
functional standard (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
instant (optional)
joint action (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
materiel (optional)
materiel part of performer (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire (required)
measure of effect (required)
measure of individual (optional following superclass rules)

measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (optional following superclass rules)
needs satisfaction measure (optional)
organization (optional)
organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
period (optional)
person role (optional)
person role part of performer (optional)
physical measure (optional)
project (optional)
project type (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)

resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (optional)
service described by (optional)
service description (optional)
service enables access to resource (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.47 CV-5

activity (required)
activity consumes resource (optional)
activity maps to capability type (optional)
activity part of capability (required)
activity part of project type (required)
activity performable under condition (optional)
activity performed by performer (required)
activity produces resource (optional)
adaptability measure (optional)
agreement (optional)
architectural description (optional)
axes described by (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
capability (required)
capability of performer (optional)
capability type (optional)
circular area (optional)
circular area type (optional)
condition (optional)
condition described by (optional)
coordinate center described by (optional)
country (optional)
country type (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)

description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)
desired resource state of capability (required)
desire measure (optional)
domain information (optional)
duration (optional)
effect measure (optional)
elliptical area (optional)
elliptical area type (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
enabling service standard constrains enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
facility (optional)
facility part of site (optional)
facility type (optional)
functional standard (optional)
geo feature (optional)
geo feature type (optional)
geo stationary point (optional)
geo stationary point type (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)

individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
installation (optional)
installation type (optional)
instant (optional)
joint action (optional)
line (optional)
line part of planar surface (optional)
line type (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
materiel (optional)
materiel part of performer (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire (required)
measure of effect (required)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (optional following superclass rules)
needs satisfaction measure (optional)
organization (optional)

organizational measure (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
period (optional)
person role (optional)
person role part of performer (optional)
physical measure (optional)
planar surface (optional)
planar surface type (optional)
point (optional)
point part of line (optional)
point part of planar surface (optional)
point type (optional)
polygon area (optional)
polygon area type (optional)
position reference frame (optional)
project (optional)
project type (required)
real property (optional)
real property type (optional)
real property type facility type partition (optional)
real property type site type partition (optional)
rectangular area (optional)
rectangular area type (optional)
region of country (optional)

region of country part of country (optional)
region of country type (optional)
region of world (optional)
region of world type (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (optional)
service described by (optional)
service description (optional)
service enables access to resource (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
site (optional)
site part of installation (optional)
site type (optional)
skill (optional)
skill of person role (optional)
solid volume (optional)
solid volume type (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)

surface (optional)
surface type (optional)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.48 CV-6

activity (required)
activity consumes resource (optional)
activity maps to capability type (optional)
activity part of capability (required)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
adaptability measure (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
capability (required)
capability of performer (optional)
capability type (optional)
condition (optional)
condition described by (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)
desired resource state described by (optional)
desired resource state of capability (optional)
desire measure (optional)
domain information (optional)
effect measure (optional)
enabling service (optional)

enabling service activity performed by enabling service (optional)
enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
joint action (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire (required)
measure of effect (required)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (optional following superclass rules)
needs satisfaction measure (optional)

organizational measure (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
person role part of performer (optional)
physical measure (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (optional)
service described by (optional)
service description (optional)
service enables access to resource (optional)
service level (optional following superclass rules)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
skill (optional)
skill of person role (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)

system (optional)
system part of service (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.49 CV-7

activity (required)
activity maps to capability type (optional)
activity part of capability (required)
activity performable under condition (optional)
activity performed by performer (required)
adaptability measure (optional)
axes described by (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
capability (required)
capability of performer (optional)
capability type (optional)
circular area (optional)
circular area type (optional)
condition (optional)
condition described by (optional)
coordinate center described by (optional)
country (optional)
country type (optional)
data (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of desired resource state directs activity (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired effect (optional)

desired resource state described by (optional)
desired resource state of capability (optional)
desire measure (optional)
domain information (optional)
effect measure (optional)
elliptical area (optional)
elliptical area type (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
enabling service standard constrains enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
facility (optional)
facility part of site (optional)
facility type (optional)
functional standard (optional)
geo feature (optional)
geo feature type (optional)
geo stationary point (optional)
geo stationary point type (optional)
guidance (optional following superclass rules)
guidance instance of measure type (optional)
guidance shapes activity (optional)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
individual person role (optional)
information (optional following superclass rules)
installation (optional)
installation type (optional)
line (optional)

line part of planar surface (optional)
line type (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
maintainability measure (optional)
measurable skill (optional)
measurable skill of person role (optional)
measure (optional following superclass rules)
measure of desire (required)
measure of effect (required)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type applicable to activity (optional)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (optional following superclass rules)
needs satisfaction measure (optional)
organizational measure (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performance measure (optional)
performer (optional following superclass rules)
performer capable of responsibility (optional)
person role (optional)
person role part of performer (optional)
physical measure (optional)
planar surface (optional)

planar surface type (optional)
point (optional)
point part of line (optional)
point part of planar surface (optional)
point type (optional)
polygon area (optional)
polygon area type (optional)
position reference frame (optional)
real property (optional)
real property type (optional)
real property type facility type partition (optional)
real property type site type partition (optional)
rectangular area (optional)
rectangular area type (optional)
region of country (optional)
region of country part of country (optional)
region of country type (optional)
region of world (optional)
region of world type (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (required)
service described by (required)
service description (required)
service enables access to resource (optional)

service level (optional following superclass rules)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
site (optional)
site part of installation (optional)
site type (optional)
skill (optional)
skill of person role (optional)
solid volume (optional)
solid volume type (optional)
spatial measure (optional)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
surface (optional)
surface type (optional)
system (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal measure (optional)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.50 DIV-1

activity (optional)
activity consumes resource (optional)
activity performable under condition (optional)
activity produces resource (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service standard (optional)
condition (optional)
condition described by (optional)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
domain information (optional)
enabling service standard (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
guidance (optional following superclass rules)
individual activity (optional)
individual performer (optional following superclass rules)
information (optional following superclass rules)
location (optional following superclass rules)
location type (optional following superclass rules)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)

measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (optional following superclass rules)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
pedigree information (optional following superclass rules)
performer (optional following superclass rules)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.51 DIV-2

activity (optional)
activity consumes resource (optional)
activity performable under condition (optional)
activity produces resource (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service standard (optional)
condition (optional)
condition described by (optional)
data (required)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
domain information (optional)
enabling service standard (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
guidance (optional following superclass rules)
individual activity (optional)
individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
information (optional following superclass rules)
joint action (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
measure (optional following superclass rules)

measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (optional following superclass rules)
organization (optional)
organization type (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performer (optional following superclass rules)
performer capable of responsibility (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)
rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service level (optional following superclass rules)
singleton activity (optional)
singleton resource (optional following superclass rules)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)

technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)

B.52 DIV-3

activity (optional)
activity consumes resource (optional)
activity performable under condition (optional)
activity performed by performer (optional)
activity produces resource (optional)
agreement (optional)
before after (optional following superclass rules)
before after type (optional following superclass rules)
business service (optional)
business service standard (optional)
business service standard constrains business service (optional)
condition (optional)
condition described by (optional)
data (required)
described by (optional following superclass rules)
description of desired resource state (optional)
description of rule (optional)
description of rule directs activity (optional)
description scheme (optional following superclass rules)
description scheme instance (optional following superclass rules)
desired resource state described by (optional)
domain information (optional)
enabling service (optional)
enabling service activity performed by enabling service (optional)
enabling service activity (optional)
enabling service standard (optional)
enabling service standard constrains enabling service activity (optional)
end boundary (optional following superclass rules)
end boundary type (optional following superclass rules)
guidance (optional following superclass rules)
individual activity (optional)

individual performer (optional following superclass rules)
individual performer capable of responsibility (optional)
information (optional following superclass rules)
joint action (optional)
location (optional following superclass rules)
location type (optional following superclass rules)
measure (optional following superclass rules)
measure of individual (optional following superclass rules)
measure of type (optional following superclass rules)
measure of type activity (optional)
measure of type condition (optional)
measure of type resource (optional)
measure of whole part type (optional)
measure type (optional following superclass rules)
measure type units of measure (optional following superclass rules)
named by (required)p
naming scheme instance (optional following superclass rules)
organization (optional)
organization type (optional)
organization type part of service (optional)
organization type part of system (optional)
overlap (optional following superclass rules)
overlap type (optional following superclass rules)
parties to an agreement (optional)
pedigree information (optional following superclass rules)
performer (optional following superclass rules)
performer capable of responsibility (optional)
representation (optional following superclass rules)
representation scheme (optional following superclass rules)
representation scheme instance (optional following superclass rules)
represented by (optional following superclass rules)
resource (optional following superclass rules)
resource in location type (optional)

rule (optional following superclass rules)
rule constrains activity (optional)
rule described by (optional)
security attributes group s
service (optional)
service described by (optional)
service description (optional)
service level (optional following superclass rules)
service part of organization type (optional)
service part of system (optional)
singleton activity (optional)
singleton resource (optional following superclass rules)
start boundary (optional following superclass rules)
start boundary type (optional following superclass rules)
system (optional)
system part of organization type (optional)
system part of service (optional)
technical standard (optional)
temporal boundary (optional following superclass rules)
temporal boundary type (optional following superclass rules)
temporal whole part (optional following superclass rules)
temporal whole part type (optional following superclass rules)