

Definition of the CIDOC object-oriented Conceptual Reference Model

Produced by the ICOM/CIDOC Documentation Standards Group, continued by CRM Special Interest Group

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Version 3.0

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Crofts, Matthew Stiff

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Acknowledgements for version 3

The extensions from version 2 to version 3 are based on a collaboration of members of the CIDOC CRM Special Interest Group:

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Introduction to version 3.0

Version 2 has been submitted and accepted by ISO TC46 SC4 in September 2000 as Committee Draft of a new work item. The CIDOC CRM Special Interest Group, founded by CIDOC in August 2000 to support the standardization process, is now elaborating version 3 as proposal for the final contents of the standard to become. This version 3.0 is a draft to demonstrate the effect of the extensions proposed in the Agios Pavlos meeting in June 2000 by members of the later officially founded Special Interest Group.

In the meeting of Agios Pavlos on 25/7/00 the following has been decided: 14, new entities and 23 new properties have been declared, domain or range of 8 properties was widened, 3 properties have been redefined, 2 properties deleted, 2 entities and 1 property renamed. These extensions were the outcome of comparing the Model with several relevant data formats and standards, and have been published in a separate document. This is the first version showing the integration of those extensions with the version 2.3 and the full set of inherited links. Naturally, this representation has revealed some short-comings of the Extensions, which should be addressed in the next versions. Those are inheritance problems caused by using "E1 CRM Entity" as range of the properties

E63 Begin of Existence brought into existence (was brought into existence by): CRM Entity E64 End of Existence. took out of existence (was taken out of existence by): CRM Entity E28 Conceptual Object. refers to (is referred to by): CRM Entity

And the classification of "Type" under "CRM Entity".

Further, the identification scheme of properties has been changed. In version 2.3 properties were identified relative to the entity (class) they are defined in. The experience from the Agios Pavlos Extensions taught us, that properties are likely to change the class they are defined in without changing meaning. This renders a class-relative identifier invalid, even though instances using such a property may not otherwise have been affected by the change (typically a property is recognized to be more generally applicable).

In addition to the Agios Pavlos Extensions, this text contains changes that became necessary to maintain consistency with other constructs, which have been overseen in the Agios Pavlos meeting. Those are:

1) The entity "E1 CIDOC Entity" was renamed to "E1 CRM Entity"

2) The property

E7 Activity. was intended use of (was made for): Man-Made Object (mode of use : String)

has been redirected to

E7 Activity. was intended use of (was made for): Man-Made Stuff (mode of use : String)

in order to be consistent with: "E24 Man-Made Stuff. was intended for (was intention of): Type". I.e., all properties concerning intention of an object should refer to or originate in "Man-Made Stuff", rather than "Man-Made Object".

3) The property:

E19 Physical Object. is composed of (forms part of): Physical Object has been redirected to:

E18 Physical Stuff. is composed of (forms part of): Physical Stuff In order to include "E26 Physical Feature".

4) The property

E14 Condition Assessment. concerns (assessed by): Physical Object has been redirected to:

E14 Condition Assessment. concerns (assessed by): Physical Stuff

in order to be consistent with: "E18 Physical Stuff. has condition (condition of): Condition State".

The property

E16 Measurement. measured (was measured): Physical Object has been redirected to:

E16 Measurement. measured (was measured): Physical Stuff

in order to be consistent with: "E18 Physical Stuff. has dimension (is dimension of): Condition State".

5) The following change has been made in the Agios Pavlos Extensions, but not been described as change. The property

E72 Legal Object. right held by (has right on): Actor, taken over from "Physical Object", has also be renamed from "right held by (owns rights to)" into "right held by (has right on)".

6) Finally we observe a violation of property naming rules. The properties

P34 concerns (assessed by)

P36 registers (registered by):

P39 measured (was measured)

should all use past simple and "by".

Martin Doerr,

February 15, 2001

Introduction

This document is a formal definition of the oo CIDOC Conceptual Reference Model (referred to in the following as the "CRM"). It is the result of work done by the CIDOC Documentation Standards Group, from 1994 1999, as the result of an initiative to define the underlying semantics of database schemata and document structures needed in museum documentation for the support of good practice, document structure generation, and the mediation of heterogeneous sources.

The CRM is a domain ontology in the sense used in computer science. As such, the model is designed to be explanatory and extensible rather than prescriptive and restrictive. Currently, no specific formalism for semantic models has been widely accepted as standard, nevertheless the semantic deviations between the various available models are minimal. Consequently, the model has been formulated as an object-oriented semantic model, which can easily be converted into other object-oriented models. It is our intention that this presentation format should be both natural and expressive for domain experts, and easily converted to other machine readable formats such as RDF and XML. Considerable effort has gone into achieving these goals, all cross-references and inheritance of properties, for example, are explicitly resolved. This has led to a high degree of redundancy, but makes the document more comprehensible to naïve readers and useable as a reference document, which does not require the use of electronic tools.²

The CRM is intended to cover all concepts relevant to museum documentation, but most particularly those needed for wide area data exchange. Due to the diversity of museum subjects, this goal can ultimately be achieved only by extensions to the model. In its current form, the scope of the CRM is limited to the concepts referred to in the CIDOC Information Groups and Categories, a widely accepted reference for the administration of material cultural heritage and other objects in museums. However, due to its object-oriented nature, the model comprises a backbone of powerful general concepts, which have a much wider area of application.

Of necessity, some concepts are less thoroughly elaborated than others: "Actor", "Right" and "Conceptual Object", for example. This is a natural consequence of focusing on specific functionality in an intrinsically unlimited field. These 'undeveloped' concepts can be considered as hook-in points for extensions compatible with the model. However, even without these extensions, the CRM is nevertheless 'complete' in that, through the use of free text fields, it allows information to be captured which is not modelled explicitly. Indeed, some information has deliberately not been developed into formal properties or links. This approach is preferable when detailed, targeted queries are not expected: a good text description, a drawing or diagram provides a better source of information. In general, only those concepts on which formal querying is required need to be made explicit - rather than all the information which needs to be stored and retrieved.

Applied form

From the various terminologies in use for object-oriented models, we have selected the following for ease of understanding by non-computer experts:

Cardinality constraints are deliberately omitted as they are considered to be implementation details with only minimal explanatory value. By default, all links (or properties) are regarded as optional, and potentially multiple. For example, several persons together may transfer ownership of a set of objects in one legal act to another group of persons. Alternatively, ownership may be acquired from nobody, but by collection. (See entity E8).

Links are strictly inherited to subclasses (entities again). This applies symmetrically to both entities to the

[&]quot;Entity" for anything that may be called "class", "entity" or "node".
"links" for anything that may be called "attribute", "reference", "link", or "property".

[&]quot;Superclass - Subclass" relations refer to "isA" relations, "subclass - superclass", "parent class - derived class", "generalization - specialization", etc.

¹ Using the TELOS system.

² Additional explanatory documents are available which present the CRM in the form of object-oriented entityrelationship diagrams.

connecting link. Any instance of a subclass can instantiate inherited links, and any instance link can reference a subclass of an entity to which it points.

Links may themselves have links, which point to other entities. Typically, these links are used for dynamically modified links such as roles.

The CRM is formulated in reference to a **metamodel**, such as that supported by TELOS. "**Metaclasses**" form sets of entities, typically used to handle lists of entities that form one subclass hierarchy. "**Metacategories**", which are like links between metaclasses, group links by related meaning. For the current purposes of the **model**, references to the metamodel can simply be regarded as comments to assist reading.

We have applied the following naming rules:

- Entities are named using initial capitals.
- Entities are named using noun phrases (nominal groups)
- Links are named using lower case letters and are labelled in both directions.
- The direction of links, and hence their names, are in accordance with the following priority list:
 - Events
 - Objects
 - Actors
 - Other
- link names are to be read from left to right and, in brackets, from right to left. Implementers can choose the appropriate name according to the orientation of their link attachment.
- Links are named using verbal phrases. References to states are named in present tense, whereas actions are named in past tense.

Examples

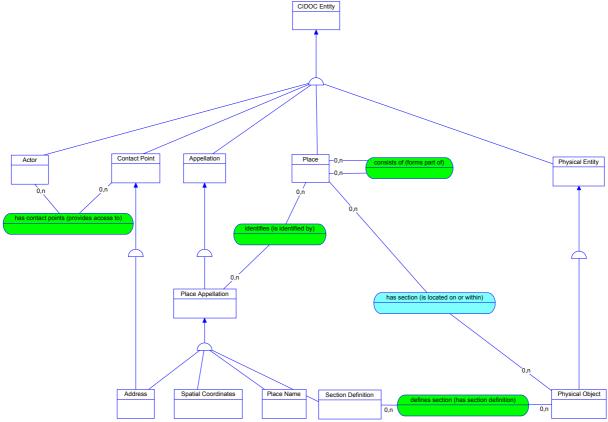


fig. 1 reasoning about spatial information

The diagram above shows a partial view of the CRM representing spatial information. Five of the main hierarchy branches are included in this view: Actor, Contact Point, Appellation, Place, and Physical Entity. The relationships between these main classes and their subclasses are shown as branching lines. Links between classes are shown as green ovals. A 'shortcut' link is included in this view: has section (is located on or within) between Place and Physical Object. In some cases the order of priority for link names has been modified in order to facilitate reading the model from left to right.

As can be seen, a Place is identified by a Place Appellation, which may be an Address, Spatial Coordinates, a Place Name, or a Section Definition such as 'basement', 'prow', or 'lower left-hand corner'. A Place may consist of or form part of another place, thereby allowing a hierarchy of physical 'containers' to be constructed. An Address can be considered both as a Place Appellation – a way of referring to a place – and as a Contact Point for an Actor. An Actor may have any number of Contact Points.

An interesting aspect of the model is the *defines section* link between section definition and physical object, (and the corresponding shortcut from place to physical object). This effectively means that a section of a *physical object* may be the reference for a *place*. We may know, for example that Nelson died on a particular spot on the Victory, without being able to locate the exact position of the vessel in geospatial terms. Similarly, a signature or inscription can be located 'on the lower right hand corner' of a painting, regardless of where the painting is hanging.

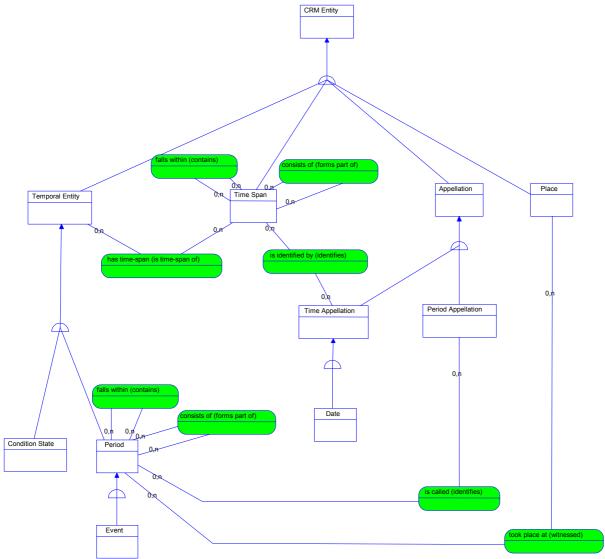


fig. 2 reasoning about temporal information

This second example shows how the model handles temporal information. Four of the main hierarchy branches are included in this view: Temporal Entity, Time-Span, Appellation and Place. The Temporal Entity class serves to group together all classes which have a temporal component, such as historical Periods, Events and Condition States. Typically, Periods and Events are identified by a name or Period Appellation. A Time-Span is simply a temporal interval which does not make any reference to cultural or geographical contexts, unlike Periods, which *take place at* a particular Place. Time-Spans are sometimes named, generally by reference to Dates. Time Appellations differ from Period Appellations in that one refers to a Period within a geo-cultural context while the other is purely temporal - a distinction which is often hard to recognise in natural language. Both Time-Span and Period have *consists of* and *falls within* reflexive links. Both of these allow part-whole hierarchies to be constructed. The distinction between the two types of link is that in first case the whole is thought to be *composed of* or defined by its parts whereas in the second the relationship is merely contingent. An example might be a period of national celebration, which could be said to be composed of the individual events, whereas the construction of a building might simply fall within the period of a particular government.

The Entity List

The following is the list of all entities and links contained in the **model.** It consists of an index and the entity declarations themselves. The list is ordered by herarichic level, in a "depth first" manner, from the smaller to the larger subhierarchies, and alphabetically between equal siblings. From this sequence, a unique identifier for each entity emerges, which facilitates cross-referencing.

Entity declarations use the following format:

- Entity names (terms) are presented as headings in bold face, preceded by the unique identifier.
- The line "Belongs to:" refers to the metaclass the entity is a member of.
- The line "Subclass of:" declares the superclass of the entity, from which it inherits links.
- The line "Superclass of:" is a cross-reference to the following subclasses of this entity.
- The line "Scope note" contains the textual definition of the concept the entity represents.
- The title "Properties" announces the list of links.
- Links are grouped by related meaning under metacategories, i.e. a series of titles. e.g. "classifications" etc., in normal face.
- Each link is represented by its forward and backward name, and the entity it links to, separated by colon.
- Links declared directly for the entity are given in bold face.
- Inherited links are given in italics as cross-references to the respective superclasses, for better comprehension.
- Inherited links with a redefined (restricted) target entity are given in bold face italics.
- Each link may be followed by a scope note for the link in an indented text in smaller characters.
- Links of links are given in an indented position in parenthesis under the respective link.
- The title "The entity is referenced by:" indicates the cross-reference list of links pointing to this entity (in the sequence called "incoming links"). In cases where there is no such link, the phrase "The entity is not referenced" is used.
- Each incoming link is represented by the entity it originates from, and its forward and backward name, separated by a colon, in normal face.
- The title "The entity inherits references:" indicates the cross-reference list of links pointing to any of the superclasses of this entity ("inherited incoming links").
- Each inherited incoming link is represented by the entity it originates from, and its forward and backward name, separated by a colon, in italics.

Index of the entities of the CIDOC CRM presented as a monohierarchy:

E1 CRM Entity E2 - Temporal Entity E3 - - Condition State E4 - - Period E5 - - - Event E7 - - - Activity E8 - - - - Acquisition E9 - - - - Move E10 - - - - Transfer of Custody E11 - - - - Modification E12 - - - - Production E13 - - - - Attribute Assignment E14 - - - - - Condition Assessment E15 - - - - - Identifier Assignment E16 - - - - Measurement E17 - - - - Type Assignment E65 - - - - Conceptual Creation E66 - - - - Formation E63 - - - Beginning of Existence E67 - - - - Birth E12 - - - - Production E65 - - - - Conceptual Creation E66 - - - - Formation E64 - - - End of Existence E6 - - - - Destruction E68 - - - - Dissolution E69 - - - - Death E72 - Stuff E18 - - Physical Stuff E19 - - - Physical Object E20 - - - Biological Object E21 - - - - Person E22 - - - Man-Made Object E23 - - - - Iconographic Object E24 - - - Physical Man-Made Stuff E22 - - - Man-Made Object E23 - - - Iconographic Object E25 - - - Man-Made Feature E26 - - Physical Feature E27 - - - Site E21 - - - Person E25 - - - Man-Made Feature E71 - - Man-Made Stuff E24 - - - Physical Man-Made Stuff E22 - - - Man-Made Object E23 - - - - Iconographic Object E25 - - - Man-Made Feature E28 - - - Conceptual Object E73 - - - Information Object E23 - - - - Iconographic Object E29 - - - Design or Procedure E31 - - - - Document E32 - - - - Authority Document E33 - - - - Linguistic Object E34 - - - - - Inscription E35 - - - - Title E36 - - - - Visual Item

- E37 - - Mark
- E34 - - Inscription
- E38 - - Image
- E30 - Right
- E72 Legal Object
- E18 - Physical Stuff
- E19 - Physical Object
- E20 - Biological Object
- E21 - - Person
- E22 - Man-Made Object
- E23 - - Iconographic Object
- E24 - Physical Man-Made Stuff
- E22 - Man-Made Object
- E23 - Iconographic Object
- E25 - Man-Made Feature
- E26 - Physical Feature
- E27 - Site
- E25 - Man-Made Feature
- E73 - Information Object
- E23 - Iconographic Object
- E29 - Design or Procedure
- E31 - Document
- E32 - Authority Document
- E33 - Linguistic Object
- E34 - - Inscription E35 - - Title
- E36 - Visual Item
- E37 - Mark
- E34 - - Inscription E38 - Image
- E39 Actor
- E74 - Group
- E40 - Legal Body
- E26 - Physical Feature
- E21 - Person
- E25 - Man-Made Feature
- E27 - Site
- E41 Appellation
- E42 - Object Identifier
- E44 - Place Appellation
- E45 - Address
- E46 - Section Definition
- E47 - Spatial Coordinates
- E48 - Place Name
- E49 - Time Appellation
- E50 - Date
- E75 - Conceptual Object Appellation
- E35 - Title
- E51 Contact Point
- E45 - Address
- E52 Time-Span
- E53 Place
- E54 Dimension
- E55 Type
- E56 - Language
- E57 - Material
- E58 - Measurement Unit
- E59 Primitive Value
- E60 Number
- E61 Time Primitive

E1 CRM Entity

Belongs to: Meta Entity
Superclass of: Temporal Entity

Actor

Appellation Contact Point Time-Span Place Dimension Type Number Stuff

Legal Object

Scope note: This is the abstract concept of the entities of our universe of discourse. It carries the rule that

all entities can be classified by a type, which further refines the specific subclass an instance belongs to, and a free text field for anything we want to express and that is not captured by

formal links.

Properties:

identification

is identified by (identifies): Appellation

classifications

has type (is type of): Type

other descriptions has note: String

(has type: Type)

The entity is referenced by:

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

End of Existence: took out of existence (was taken out of existence by)

Beginning of Existence: brought into existence (was brought into existence by)

Period Hierarchy

All entities in this hierarchy are instances of the metaclass "Period Type", which is the container for all these entities.

E2 Temporal Entity

Belongs to: Period Type
Subclass of: CRM Entity
Superclass of: Condition State

Period

Scope note: This is an abstract entity and has no examples. It groups together things such as events, states

and other phenomena which are limited in time. It is specialized into Period, which holds on some geographic area, and Condition State, which holds for, on, or over a certain object.

Properties:

identifications
 is identified by (identifies): Appellation
classifications
 has type (is type of): Type
temporal definitions
 has time-span (is time-span of): Time-Span
other descriptions
 has note: String
 (has type: Type)

The entity is not referenced.

The entity inherits references:

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E3 Condition State

Belongs to: Period Type Subclass of: Temporal Entity

Scope note: The state of an object characterized by a certain condition and a time-span, e.g. "In ruins from

1695 until 1952", where the qualifier "in ruins" is represented as the condition state type.

Properties:

identifications

is identified by (identifies):Appellation

classifications

has type (is type of): Type

temporal definitions

has time-span (is time-span of): Time-Span

structures

consists of (forms part of): Condition State

falls within (contains): Condition State

other descriptions

has note: String

(has type : Type)

The entity is referenced by:

Condition Assessment: has identified (identified by)

Physical Stuff: has condition (condition of)

and itself

The entity inherits references:

Type Assignment: classified (was classified by) Document: documents (is documented in)

Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E4 Period

Belongs to: Period Type Subclass of: Temporal Entity

Superclass of: Event

Scope note: A period is characterized by a coherent set of phenomena and or manifestations (explicitly

intended or not), which are assumed to have taken place over a certain space and time.

Examples: Glacial period, bronze period, Ming Dynasty, Impressionism, Neolithic Period, Mc

Carthy Era, The Sixties, Niniveh, 'Sturm und Drang'.

There are different opinions as to whether a 'style' is defined by physical features or by the

historical context.

Properties:

identifications

is identified by (identifies): Appellation

classifications

has type (is type of): Type

spatial definitions

took place at (witnessed): Place

spatial definitions, short cut

took place on or within (witnessed): Physical Object

temporal definitions

has time-span (is time-span of): Time-Span

structures

consists of (forms part of): Period falls within (contains): Period

other descriptions has note: String

(has type: Type)

The entity is referenced only by itself.

The entity inherits references:

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E5 Event

Belongs to: Period Type Subclass of: Period

Superclass of: End of Existence

Beginning of Existence

Activity

Scope note: A change of state in cultural, social, physical systems, regardless of scale, brought about by a

series or group of coherent physical, cultural, technological or legal phenomena.

Examples: World War II, Battle of Stalingrad, Earthquake in Lisbon, birth of Cleopatra, my birthday celebration 28-6-1995, the Yal ta Conference, "a tile fell from my roof", the CIDOC

Conference 2005.

The distinction between and event and a period is partly a question of scale. Viewed at a broad scale, an event is an 'instantaneous' change of state. At a fine scale, the event can be analysed into its component phenomena within a space and time frame, i.e., a period. The reverse is not necessarily the case, not all periods give rise to a noteworthy change of state.

Properties:

identifications

is identified by (identifies): Appellation

classifications

has type (is type of): Type

active participants

had participants (participated in):Actor

passive participants

occurred in the presence of (was present at): Stuff

spatial definitions

took place at (witnessed): Place

spatial definitions, short cut

took place on or within (witnessed): Physical Object

temporal definitions

has time-span (is time-span of): Time-Span

structures

consists of (forms part of): Period falls within (contains): Period

other descriptions

has note: String (has type: Type)

The entity is referenced by:

Physical Man-Made Stuff: depicts event (is depicted by)

(mode of depiction: Type)

The entity inherits references:

Period: consists of (forms part of)
Period: falls within (contains)

Type Assignment: classified (was classified by)
Document: documents (is documented in)
Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E6 Destruction

Belongs to: Period Type
Subclass of: End of Existence

Scope note: An event which causes one or more objects to lose their identity as the current subjects of

documentation. Some destructions are intentional, others are independent of human activity. The decision as to the point at which an object is destroyed rather than modified may be arbitrary in some cases. The same event may, in some cases, be documented both as a

destruction of one or more objects and as the creation of others using parts or material from the original, or, alternatively, as a modification. In the former case, the object record would close,

in the latter, it would continue.

For living beings, death is usually more clearly defined.

Examples: The Lisbon Earthquake, the destruction of Nineveh, "I broke a champagne glass vesterday", the shooting of the last wolf in Germany in 1729.

Properties:

identifications
is identified by (identifies): Appellation
classifications
has type (is type of): Type
active participants
had participants (participated in): Actor

passive participants

destroyed (was destroyed by): Physical Object

took out of existence (was taken out of existence by): CRM Entity occurred in the presence of (was present at): Stuff spatial definitions took place at (witnessed): Place

spatial definitions, short cut

took place on or within (witnessed): Physical Object

temporal definitions

has time-span (is time-span of): Time-Span

structures

consists of (forms part of): Period falls within (contains): Period other descriptions

has note: String (has type: Type)

The entity is not referenced.

The entity inherits references:

Physical Man-Made Stuff: depicts event (is depicted by)

(mode of depiction : Type)
Period: falls within (contains)
Period: consists of (forms part of)

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E7 Activity

Belongs to: Period Type Subclass of: Event Superclass of: Formation

Conceptual Creation

Modification

Transfer of Custody

Acquisition Move

Attribute Assignment

Scope note: An action or a series of actions, carried out by actors (people, groups or organisations) which

follow a certain explicit or implicit intention and result as a collective effect in some change of state in the cultural, social, physical systems we are interested in. This notion includes both complex and long lasting actions such as the building of a settlement, or a war, as well as simple, short-lived actions such as the opening of a door. It does not include the notion of activity in the sense of professions and other non-targeted notions. These are seen rather as

belonging to a part in the hierarchy above Event.

Properties:

identifications

is identified by (identifies): Appellation

classifications

has type (is type of): Type

active participants

carried out by (performed): Actor

(in the role of : Type)

had participants (participated in): Actor

passive participants

took into account (was taken into account by): Conceptual Object

property note: The equivalent of using something physical. May be better "used: Stuff".

used object (was used for): Physical Object

(mode of use: String)

occurred in the presence of (was present at):Stuff

motivations

was motivation for (motivated): Conceptual Object

motivated the creation of (was created for): Conceptual Object

was intended use of (was made for): Man-Made Stuff

(mode of use: String)

had specific purpose (was purpose of): Activity

had as general purpose (was purpose of): Type

spatial definitions

took place at (witnessed): Place

spatial definitions, short cut

took place on or within (witnessed): Physical Object

temporal definitions

has time-span (is time-span of): Time-Span

structures

consists of (forms part of): Period

falls within (contains): Period

other descriptions

has note: String

(has type : Type)

The entity is referenced only by itself.

The entity inherits references:

Physical Man-Made Stuff: depicts event (is depicted by)

(mode of depiction: Type)
Period: consists of (forms part of)
Period: falls within (contains)

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type : Type)

Beginning of Existence: brought into existence (was brought into existence by)

E8 Acquisition

Belongs to: Period Type Subclass of: Activity

This entity describes the transfer of the legal ownership from one legal person to another. Scope note:

> Either one of the actors may be omitted, unknown or not existing. The entity describes the beginning, the end or the transfer of an ownership, acquisition from unknown source or loss of title, depending on the circumstances. It takes a neutral position with respect to the actors involved. The museum notion of "accession" seems to differ between institutions. We preferred therefore to model the notions of legal ownership and physical custody instead, which are well defined in international business. Institutions can choose to model their specific

notions as combinations of these.

Annexation, donation, purchase, field collection - where legal title is appropriated by the collector, are types of acquisition. Examples: a fish collected in international waters, a painting bequeathed to a museum.

Properties:

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identifications
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is identified by (identifies): Appellation

classifications

has type (is type of): Type

active participants

transferred title to (acquired title of): Actor

transferred title from (surrendered title of): Actor

had participants (participated in): Actor carried out by (performed): Actor (in the role of : Type)

passive participants

transferred title of (changed ownership by): Physical Object

took into account (was taken into account by): Conceptual Object occurred in the presence of (was present at): Stuff

used object (was used for): Physical Object

(mode of use: String)

motivations

was motivation for (motivated): Conceptual Object

motivated the creation of (was created for): Conceptual Object

was intended use of (was made for): Man-Made Stuff

(mode of use: String)

had specific purpose (was purpose of): Activity

had as general purpose (was purpose of): Type

spatial definitions

took place at (witnessed): Place

spatial definitions, short cut

took place on or within (witnessed): Physical Object

temporal definitions

has time-span (is time-span of): Time-Span

structures

consists of (forms part of): Period falls within (contains): Period

other descriptions

has note: String (has type: Type)

The entity is not referenced.

The entity inherits references:

Activity: had specific purpose (was purpose of)

Physical Man-Made Stuff: depicts event (is depicted by) (mode of depiction: Type)

(mode of depiction: Type)
Period: consists of (forms part of)
Period: falls within (contains)

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E9 Move

Belongs to: Period Type Subclass of: Activity

Scope note: This entity captures the change of physical location of a museum object for exhibitions,

conservation, reorganization, loans, study etc.

e.g. Taking objects from storage and putting them on display is a type of move.

Properties:

identifications is identified by (identifies): Appellation classifications has type (is type of): Type active participants had participants (participated in): Actor carried out by (performed): Actor (in the role of: Type) passive participants moved (moved by): Physical Object took into account (was taken into account by): Conceptual Object occurred in the presence of (was present at): Stuff used object (was used for): Physical Object (mode of use: String) motivations was motivation for (motivated): Conceptual Object motivated the creation of (was created for): Conceptual Object was intended use of (was made for): Man-Made Stuff (mode of use: String) had specific purpose (was purpose of): Activity had as general purpose (was purpose of): Type spatial definitions moved to (occupied): Place moved from (vacated): Place took place at (witnessed): Place spatial definitions, short cut took place on or within (witnessed): Physical Object temporal definitions has time-span (is time-span of): Time-Span structures consists of (forms part of): Period falls within (contains): Period other descriptions has note: String (has type: Type)

The entity is not referenced.

The entity inherits references:

Conceptual Object: refers to (is referred to by)

(has type : Type)

Beginning of Existence: brought into existence (was brought into existence by) End of Existence: took out of existence (was taken out of existence by)

E10 Transfer of Custody

Belongs to: Period Type Subclass of: Activity

Scope note: This entity describes the transfer of physical custody from one legal person to another. Either

one of the actors may be omitted, unknown or not existing. The entity may describe the beginning, the end or the transfer of custody, field collection or declared loss of an object, depending on the circumstances. It takes a neutral position with respect to the actors involved.

The distinction between legal and physical custody can be modelled as types.

Some events can simultaneously be considered as acquisition, transfer of custody and move. For example, purchase of a Polynesian feather hat at a market. In other cases, separate events are involved, e.g. purchase by telephone of an object on auction, physical transportation, and reception by the new owner.

Properties:

```
identifications
  is identified by (identifies): Appellation
classifications
  has type (is type of): Type
active participants
  custody surrendered by (surrendered custody): Actor
  custody received by (received custody): Actor
  had participants (participated in): Actor
  carried out by (performed): Actor
      (in the role of: Type)
passive participants
   transferred custody of (custody changed by): Physical Object
  took into account (was taken into account by): Conceptual Object
  occurred in the presence of (was present at): Stuff
  used object (was used for): Physical Object
      (mode of use: String)
motivations
  was motivation for (motivated): Conceptual Object
  motivated the creation of (was created for): Conceptual Object
  was intended use of (was made for): Man-Made Stuff
       (mode of use: String)
  had specific purpose (was purpose of): Activity
  had as general purpose (was purpose of): Type
spatial definitions
  took place at (witnessed): Place
spatial definitions, short cut
  took place on or within (witnessed): Physical Object
temporal definitions
  has time-span (is time-span of): Time-Span
structures
   consists of (forms part of): Period
  falls within (contains): Period
other descriptions
  has note: String
      (has type: Type)
```

The entity is not referenced.

The entity inherits references:

Activity: had specific purpose (was purpose of)

Physical Man-Made Stuff: depicts event (is depicted by) (mode of depiction: Type)

(mode of depiction: Type)
Period: consists of (forms part of)
Period: falls within (contains)

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E11 Modification

Belongs to: Period Type Subclass of: Activity Superclass of: Production

Scope note: This entity comprises all activities which intentionally alter physical objects, regardless of the

degree of intervention: creation of some item from raw material, restorations, use of ancient objects in jewelry, etc.. Since many cases the distinction between modification and creation is not clear, and the actions implied are basically the same, modification is regarded as the more general (and less ambiguous) concept. This implies that some items may be consumed or destroyed in a modification process, and others emerge from it. Typically, objects involved in the process, such as tools, materials, etc., which are foreseen by the applied technique are modeled as attributes of the Design or Procedure, for reasons of efficient data representation. Nevertheless, unusual and remarkable items used for a specific instance of a process should be

referred to here.

This entity is thought to be collective, e.g. the printing of a thousand books should be one event. Conservation actions can be modeled as a type of modification.

Properties:

```
identifications
  is identified by (identifies): Appellation
classifications
  has type (is type of): Type
active participants
  had participants (participated in): Actor
  carried out by (performed): Actor
      (in the role of : Type)
passive participants
   has produced (was produced by): Physical Man-Made Stuff
  took into account (was taken into account by): Conceptual Object
  occurred in the presence of (was present at): Stuff
  used object (was used for): Physical Object
      (mode of use: String)
following
  used general technique (was technique of): Type
  used specific technique (was used by): Design or Procedure
motivations
  was motivation for (motivated): Conceptual Object
  motivated the creation of (was created for): Conceptual Object
  was intended use of (was made for): Man-Made Object
       (mode of use: String)
  had specific purpose (was purpose of): Activity
  had as general purpose (was purpose of): Type
spatial definitions
  took place at (witnessed): Place
spatial definitions, short cut
  took place on or within (witnessed): Physical Object
temporal definitions
  has time-span (is time-span of): Time-Span
structures
  consists of (forms part of): Period
  falls within (contains): Period
other descriptions
  has note: String
```

(has type: Type)

The entity is not referenced.

The entity inherits references:

Activity: had specific purpose (was purpose of)

Physical Man-Made Stuff: depicts event (is depicted by)

(mode of depiction: Type)
Period: consists of (forms part of)
Period: falls within (contains)

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E12 Production

Belongs to: Period Type Subclass of: Modification

Beginning of Existence

Scope note: This entity specializes the notion of modification into production, i.e. activities which are

designed to and succeed in creating one or a series of new items, new in the sense that there is no obvious similarity to the consumed items and material. Examples: painting a watercolour, printing an etching, producing a series of household forks, the recasting of the mermaid in

Copenhagen.

Properties:

```
identifications
  is identified by (identifies): Appellation
classifications
  has type (is type of): Type
active participants
  had participants (participated in): Actor
  carried out by (performed): Actor
      (in the role of : Type)
passive participants
  brought into existence (was brought into existence by): CRM Entity
  took into account (was taken into account by): Conceptual Object
  has produced (was produced by): Physical Man-Made Stuff
  occurred in the presence of (was present at): Stuff
  used object (was used for): Physical Object
      (mode of use: String)
following
  used general technique (was technique of): Type
  used specific technique (was used by): Design or Procedure
motivations
  was motivation for (motivated): Conceptual Object
  motivated the creation of (was created for): Conceptual Object
  was intended use of (was made for): Man-Made Stuff
       (mode of use: String)
  had specific purpose (was purpose of): Activity
  had as general purpose (was purpose of): Type
spatial definitions
  took place at (witnessed): Place
spatial definitions, short cut
  took place on or within (witnessed): Physical Object
temporal definitions
  has time-span (is time-span of): Time-Span
structures
   consists of (forms part of): Period
  falls within (contains): Period
other descriptions
  has note: String
      (has type: Type)
```

The entity is not referenced.

The entity inherits references:

Activity: had specific purpose (was purpose of)
Physical Man-Made Stuff: depicts event (is depicted by)
(mode of depiction: Type)

Period: consists of (forms part of) Period: falls within (contains)

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type : Type)

Beginning of Existence: brought into existence (was brought into existence by) End of Existence: took out of existence (was taken out of existence by)

E13 Attribute Assignment

Belongs to: Period Type Subclass of: Activity

Superclass of: Condition Assessment

Identifier Assignment

Measurement Type Assignment

Scope note:

This entity comprises the actions of making assertions about properties of an object. It serves the documentation of how the respective assessment came about, and whose opinion it was. All the attributes or properties assigned in such an action can also be seen as directly attached to the respective object, possibly as a collection of contradictory values. All cases of direct links from objects to values which are, in this model, also referred to indirectly through an action, are characterized as "short cuts" of this action. This redundant modeling of two alternative views is preferred because many implementations may have good reasons to model either the action or the short cut, and the relation between both alternatives can be captured by simple rules.

In addition, the entity describes the actions of people making propositions and statements during certain museum procedures, e.g. the person and date when a condition statement was made, an identifier was assigned, the museum object was measured, etc.. Which kinds of such assignments and statements need to be documented explicitly in schema structures rather than free text, depends on a museum's practice. In the latter case shortcuts may be used which refer directly to the museum object.

Properties:

```
identifications
  is identified by (identifies): Appellation
classifications
  has type (is type of): Type
active participants
  had participants (participated in): Actor
  carried out by (performed): Actor
      (in the role of : Type)
passive participants
  took into account (was taken into account by): Conceptual Object
  occurred in the presence of (was present at): Stuff
  used object (was used for): Physical Object
      (mode of use: String)
motivations
  was motivation for (motivated): Conceptual Object
  motivated the creation of (was created for): Conceptual Object
  was intended use of (was made for): Man-Made Stuff
       (mode of use: String)
  had specific purpose (was purpose of): Activity
  had as general purpose (was purpose of): Type
spatial definitions
  took place at (witnessed): Place
spatial definitions, short cut
  took place on or within (witnessed): Physical Object
temporal definitions
  has time-span (is time-span of): Time-Span
structures
   consists of (forms part of): Period
  falls within (contains): Period
other descriptions
```

has note: String (has type: Type)

The entity is not referenced.

The entity inherits references:

Activity: had specific purpose (was purpose of)

Physical Man-Made Stuff: depicts event (is depicted by)

(mode of depiction: Type)
Period: consists of (forms part of)
Period: falls within (contains)

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E14 Condition Assessment

Belongs to: Period Type

Subclass of: Attribute Assignment

Scope note: This entity describes the action of assessing the condition of preservation of an object over a

particular period, either by inspection, measurement or historical studies.

Properties:

identifications
 is identified by (identifies): Appellation
classifications
 has type (is type of): Type
active participants
 had participants (participated in): Actor
 carried out by (performed): Actor
 (in the role of : Type)
passive participants

concerns (assessed by): Physical Stuff

took into account (was taken into account by): Conceptual Object occurred in the presence of (was present at): Stuff used object (was used for): Physical Object (mode of use: String)

attributions

has identified (identified by): Condition State

was motivation for (motivated): Conceptual Object

motivations

motivated the creation of (was created for): Conceptual Object was intended use of (was made for): Man-Made Stuff (mode of use: String) had specific purpose (was purpose of): Activity had as general purpose (was purpose of): Type spatial definitions took place at (witnessed): Place spatial definitions, short cut took place on or within (witnessed): Physical Object temporal definitions has time-span (is time-span of): Time-Span structures consists of (forms part of): Period falls within (contains): Period other descriptions has note: String (has type: Type)

The entity is not referenced.

The entity inherits references:

Beginning of Existence: brought into existence (was brought into existence by) End of Existence: took out of existence (was taken out of existence by)

E15 Identifier Assignment

Belongs to: Period Type

Subclass of: Attribute Assignment

Scope note: This entity describes the action of assigning an identifier, such as a museum number, to an

object. The interest in this action arises when objects are exchanged, and multiple identifiers are used, or the identification system of an organization is changed. In order to cover these cases, it is important to document by whom, when and for what purpose an identifier is

assigned to a museum object.

Properties:

identifications is identified by (identifies): Appellation classifications has type (is type of): Type active participants had participants (participated in): Actor carried out by (performed): Actor (in the role of: Type) passive participants registers (registered by): Physical Object took into account (was taken into account by): Conceptual Object occurred in the presence of (was present at): Stuff used object (was used for): Physical Object (mode of use: String) attributions assigns (is assigned by): Object Identifier deassigns (is deassigned by): Object Identifier motivations was motivation for (motivated): Conceptual Object motivated the creation of (was created for): Conceptual Object was intended use of (was made for): Man-Made Stuff (mode of use: String) had specific purpose (was purpose of): Activity had as general purpose (was purpose of): Type spatial definitions took place at (witnessed): Place spatial definitions, short cut took place on or within (witnessed): Physical Object temporal definitions has time-span (is time-span of): Time-Span structures consists of (forms part of): Period falls within (contains): Period other descriptions has note: String (has type: Type)

The entity is not referenced.

The entity inherits references:

Activity: had specific purpose (was purpose of)
Physical Man-Made Stuff: depicts event (is depicted by)
(mode of depiction: Type)
Period: consists of (forms part of)
Period: falls within (contains)

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E16 Measurement

Belongs to: Period Type

Subclass of: Attribute Assignment

Scope note: This entity describes actions of measuring physical properties by counting or use of some tool,

whether by simple yardstick or complex radiation detection device. The interest is in the method and care applied, in order to decide afterwards on the reliability of the result. For properties which may change value over time, such as length, due to shrinkage, the date is of direct relevance as well. Details of methods and devices are best handled as free text, whereas

basic methods such as "C14" should be encoded in the type field.

Properties:

```
identifications
  is identified by (identifies): Appellation
classifications
  has type (is type of): Type
active participants
  had participants (participated in): Actor
  carried out by (performed): Actor
      (in the role of : Type)
passive participants
  measured (was measured): Physical Stuff
  took into account (was taken into account by): Conceptual Object
  occurred in the presence of (was present at): Stuff
  used object (was used for): Physical Object
      (mode of use: String)
attributions
  observed dimension (was observed): Dimension
motivations
  was motivation for (motivated): Conceptual Object
  motivated the creation of (was created for): Conceptual Object
  was intended use of (was made for): Man-Made Stuff
       (mode of use: String)
  had specific purpose (was purpose of): Activity
  had as general purpose (was purpose of): Type
spatial definitions
  took place at (witnessed): Place
spatial definitions, short cut
  took place on or within (witnessed): Physical Object
temporal definitions
  has time-span (is time-span of): Time-Span
structures
  consists of (forms part of): Period
  falls within (contains): Period
other descriptions
  has note: String
      (has type: `Type)
```

The entity is not referenced.

The entity inherits references:

Activity: had specific purpose (was purpose of)
Physical Man-Made Stuff: depicts event (is depicted by)
(mode of depiction: Type)
Period: consists of (forms part of)
Period: falls within (contains)

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: `Type)

Beginning of Existence: brought into existence (was brought into existence by)

E17 Type Assignment

Belongs to: Period Type

Subclass of: Attribute Assignment

Scope note: This entity describes the act of scientifically classifying some entity, an object, a work, an

action or whatever. The value of classification depends critically on general and personal knowledge and the scientific system used. Therefore the interest lies in the author and date.

Properties:

```
identifications
  is identified by (identifies): Appellation
classifications
  has type (is type of): Type
active participants
  had participants (participated in): Actor
  carried out by (performed): Actor
      (in the role of : Type)
passive participants
  classified (was classified by): CRM Entity
  took into account (was taken into account by): Conceptual Object
  occurred in the presence of (was present at): Stuff
  used object (was used for): Physical Object
      (mode of use: String)
attributions
  assigned (was assigned by): Type
motivations
  was motivation for (motivated): Conceptual Object
  motivated the creation of (was created for): Conceptual Object
  was intended use of (was made for): Man-Made Stuff
       (mode of use: String)
  had specific purpose (was purpose of): Activity
  had as general purpose (was purpose of): Type
spatial definitions
  took place at (witnessed): Place
spatial definitions, short cut
  took place on or within (witnessed): Physical Object
temporal definitions
  has time-span (is time-span of): Time-Span
structures
  consists of (forms part of): Period
  falls within (contains): Period
other descriptions
  has note: String
      (has type: Type)
```

The entity is not referenced.

The entity inherits references:

(has type: Type)
Beginning of Existence: brought into existence (was brought into existence by)
End of Existence: took out of existence (was taken out of existence by)

Object Hierarchy

All entities in this hierarchy are instances of the metaclass "Object Type". Two submetaclasses are defined, the "Physical Object Type" for the hierarchy of the "Physical Objects", the kinds of things which have weight, are created once and can be destroyed, and the "Concept Type" for the "Concepts", the intellectual or other products which are created once, and can exist on multiple carriers, and hence can rather be forgotten or lost than destroyed.

Physical Objects:

E18 Physical Stuff

Belongs to: Physical Object Type

Subclass of: Legal Object

Stuff

Superclass of: Physical Object

Physical Man-Made Stuff

Physical Feature

Scope Note: Physical entity is an abstract notion that groups all physical objects, man made and natural, as

well as physical features of objects, such as holes. We use the term 'feature' to refer to anything of a material nature, such as scratches, holes, rivers, and stains, which it would be strange to

refer to as 'objects'.

Properties:

identification

is identified by (identifies): Appellation

classifications

has type (is type of): Type

legal status

is subject to (applies to): Right

short cut, legal status

right held by (has right on): Actor

(has type: Type) (has note: String)

physical status, short cut

has dimension (is dimension of): Dimension has condition (condition of): Condition State

structures

consists of (is incorporated in): Material is composed of (forms part of): Physical Stuff

other descriptions

had as general use (was use of): Type

has note: String (has type: Type)

The entity is referenced by:

Physical Man-Made Stuff: depicts object (is depicted by)

(mode of depiction: Type)

Condition Assessment: concerns (assessed by) Measurement: measured (was measured)

and itself

The entity inherits references:

Event: occurred in the presence of (was present at) Type Assignment: classified (was classified by)

Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E19 Physical Object

Belongs to: Physical Object Type
Subclass of: Physical Stuff
Superclass of: Biological Object
Man-Made Object

Scope note: An discrete, real item of material nature which constitutes a unit for documentation. The

decision as to what constitutes a complete item, rather than parts or components, may be

purely administrative.

Examples: John Smith, Aphrodite of Milos, the Palace of Knossos, the Cullinan diamond,

Apollo 13 a the time of launch.

Properties:

identifications, short cut

is identified by (identifies): Object Identifier

identifications

preferred identifier is (is preferred identifier of): Object Identifier

is identified by (identifies): Appellation

classifications

has type (is type of): Type

legal status

is subject to (applies to): Right

legal status, short cut

has former or current keeper (is former or current keeper of): Actor

has current keeper (is current keeper of): Actor

has former or current owner (is former or current owner of): Actor

has current owner (is current owner of): Actor

right held by (has right on): Actor

(has type: Type) (has note: String)

physical status, short cut

has dimension (is dimension of): Dimension has condition (condition of): Condition State

locations, short cut

has former or current location (is former or current location of): Place

has current permanent location (is current permanent location of): Place

has current location (currently holds): Place

structures

bears feature (is found on): Physical Feature

has number of parts: Number

has section definition (defines section): Section Definition

is composed of (forms part of): Physical Stuff consists of (is incorporated in): Material

structures, short cut

has section (is located on or within): Place

other descriptions

had as general use (was use of): Type

has note: String
(has type: Type)

The entity is referenced by:

Acquisition: transferred title of (changed ownership by)

Move: moved (moved by)

Transfer of Custody: transferred custody of (custody changed by)

Identifier Assignment: registers (registered by)

The entity inherits references:

Physical Man-Made Stuff: depicts object (is depicted by)

(mode of depiction: Type)

Physical Stuff: is composed of (forms part of) Condition Assessment: concerns (assessed by) Measurement: measured (was measured)

Event: occurred in the presence of (was present at) Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E20 Biological Object

Physical Object Type Belongs to: Subclass of: Physical Object

Superclass of: Person

Scope note: An individual, real item of material nature, which lives, has lived, or is a natural products of

living organisms. Artificial objects which incorporate biological elements, such as Victorian

butterfly frames, can be classified as both natural and man-made objects.

Examples: Me, Tut-Ankh-Amun, Boukephalas.

Properties: identifications, short cut is identified by (identifies): Object Identifier identifications preferred identifier is (is preferred identifier of): Object Identifier is identified by (identifies): Appellation classifications has type (is type of): Type legal status is subject to (applies to): Right legal status, short cut has former or /current keeper (is former or current keeper of): Actor has current keeper (is current keeper of): Actor has former or current owner (is former or current owner of): Actor has current owner (is current owner of): Actor right held by (has right on): Actor (has type: Type) (has note: String) physical status, short cut has dimension (is dimension of): Dimension has condition (condition of): Condition State locations, short cut has former or current location (is former or current location of): Place has current permanent location (is current permanent location of): Place has current location (currently holds): Place structures bears feature (is found on): Physical Feature has number of parts: Number

has note: String (has type: Type)

structures, short cut

other descriptions

The entity is not referenced.

The entity inherits references:

Activity: used object (was used for) (mode of use: String) Physical Man-Made Stuff: depicts object (is depicted by) (mode of depiction: Type)

has section definition (defines section): Section Definition

consists of (is incorporated in): Material is composed of (forms part of): Physical Stuff

has section (is located on or within): Place

had as general use (was use of): Type

Physical Stuff: is composed of (forms part of)
Event: occurred in the presence of (was present at)
Period: took place on or within (witnessed)
Condition Assessment: concerns (assessed by)
Destruction: destroyed (was destroyed by)

Identifier Assignment: registers (registered by) Move: moved (moved by)

Acquisition: transferred title of (changed ownership by)

Transfer of Custody: transferred custody of (custody changed by)

Type Assignment: classified (was classified by)
Document: documents (is documented in)
Measurement: measured (was measured)
Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E21 Person

Belongs to: Actor Type

Physical Object Type

Subclass of: Biological Object

Actor

Scope note: A real person, who lives or is assumed to have lived.

Examples: John Smith, Tut-Ankh-Amun.

Legendary figures, such as Ulysses and King Arthur, who may have existed, fall into this class if the documentation refers to them as historical figures. In cases where doubt exists as to whether several persons are in fact identical, multiple instances can be created and linked to

indicate their relationship.

Properties:

identifications, short cut

is identified by (identifies): Object Identifier

identifications

preferred identifier is (is preferred identifier of): Object Identifier

is identified by (identifies): Appellation

classifications

has type (is type of): Type

legal status

is subject to (applies to): Right

legal status, short cut

has former or current keeper (is former or current keeper of) : Actor

has current keeper (is current keeper of): Actor

has former or current owner (is former or current owner of): Actor

has current owner is (current owner of): Actor

right held by (has right on): Actor

(has type: Type) (has note: String)

physical status, short cut

has dimension (is dimension of): Dimension

has condition (condition of): Condition State

locations, short cut

has former or current location (is former or current location of): Place

has current permanent location (is current permanent location of): Place

has current location (currently holds): Place

has current or former residence (is current or former residence of): Place

structures

bears feature (is found on): Physical Feature

has number of parts: Number

has section definition (defines section): Section Definition

consists of (is incorporated in): Material

is composed of (forms part of): Physical Stuff

structures, short cut

has section (is located on or within): Place

other descriptions

is member of (has members): Legal Body

has gender (is gender of): Gender

had as general use (was use of): Type

possesses (is possessed by): Right

has contact points (provides access to): Contact Point

has note: String

(has type: Type)

The entity is referenced by:

Birth: by mother (gave birth) Birth: from father (was father for) Birth: *brought into life (was born)* Death: was death of (died in)

The entity inherits references:

Activity: carried out by (performed)

(in the role of : Type)

Legal Object: right held by (has right on)

(has type: Type) (has note: String)

Activity: used object (was used for)

(mode of use: String)

Physical Man-Made Stuff: depicts object (is depicted by)

(mode of depiction: Type)

Physical Object: has current owner (is current owner of)

Physical Object: has former or current owner (is former or current owner of)

Physical Object: has current keeper (is current keeper of)

Physical Object: has former or current keeper (is former or current keeper of)

Physical Stuff: is composed of (forms part of) Event: had participants (participated in)

Event: occurred in the presence of (was present at)

Period: took place on or within (witnessed) Condition Assessment: concerns (assessed by) Destruction: destroyed (was destroyed by) *Identifier Assignment: registers (registered by)*

Move: moved (moved by)

Acquisition: transferred title from (surrendered title of) Acquisition: transferred title to (acquired title of) Acquisition: transferred title of (changed ownership by) *Transfer of Custody: custody received by (received custody) Transfer of Custody: custody surrendered by (surrendered custody)*

Transfer of Custody: transferred custody of (custody changed by)

Type Assignment: classified (was classified by) Document: documents (is documented in) *Measurement: measured (was measured)* Conceptual Object: refers to (is referred to by)

(has type: Type)

Group: had member (was member of)

Beginning of Existence: brought into existence (was brought into existence by)

E22 Man-Made Object

Belongs to: Physical Object Type Subclass of: Physical Object

Physical Man-Made Stuff

Superclass of: Iconographic Object

Scope note: An discrete real item of material nature, which is an artifact of technological actions.

Example: My car, chassis no. AMT-9566-XXX9384,

The Portland Vase,

The Colloseum, The Parthenon.

Properties:

```
identifications, short cut
  is identified by (identifies): Object Identifier
identifications
  is identified by (identifies): Appellation
  preferred identifier is (is preferred identifier of): Object Identifier
  has title (is title of): Title
     (has type: Type)
classifications
  has type (is type of): Type
legal status
  is subject to (applies to): Right
legal status, short cut
  has former or current keeper (is former or current keeper of): Actor
  has current keeper (is current keeper of): Actor
  has former or current owner (is former or current owner of): Actor
  has current owner (is current owner of): Actor
  right held by (has right on): Actor
        (has type: Type)
        (has note: String)
intellectual contents
  depicts concept (is depicted by): Type
      (mode of depiction: Type)
  depicts event (is depicted by): Event
      (mode of depiction: Type)
  depicts object (is depicted by): Physical Stuff
     (mode of depiction: Type)
physical status, short cut
  has dimension (is dimension of): Dimension
  has condition (condition of): Condition State
locations, short cut
  has former or current location (is former or current location of): Place
  has current permanent location (is current permanent location of): Place
  has current location (currently holds): Place
structures
  bears feature (is found on): Physical Feature
  has number of parts: Number
  is composed of (forms part of): Physical Stuff
  shows visual item (is shown by): Visual Item
  has section definition (defines section): Section Definition
  consists of (is incorporated in): Material
structures, short cut
  has section (is located on or within): Place
```

other descriptions

was intended for (was intention of): Type had as general use (was use of): Type

has note: String (has type: Type)

The entity is not referenced.

The entity inherits references:

Activity: used object (was used for)

(mode of use: String)

Physical Man-Made Stuff: depicts object (is depicted by)

(mode of depiction: Type)

Physical Stuff: is composed of (forms part of)
Event: occurred in the presence of (was present at)

Period: took place on or within (witnessed) Condition Assessment: concerns (assessed by) Destruction: destroyed (was destroyed by) Identifier Assignment: registers (registered by)

Move: moved (moved by)

Acquisition: transferred title of (changed ownership by)

Transfer of Custody: transferred custody of (custody changed by)

Type Assignment: classified (was classified by) Document: documents (is documented in) Modification: has produced (was produced by) Measurement: measured (was measured) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E23 Iconographic Object

(former E22, former E24)

Belongs to: Physical Object Type
Subclass of: Man-Made Object
Information Object

Scope note: This entity comprises objects which are designed primarily or in addition to another

functionality to represent or depict something in an optical manner, be it concrete or abstract. Examples: Paintings, Sculpture, a vase in form of a head, a decoration on a medieval gun.

This entity has a certain pragmatic value in the fine arts since it conveniently groups together objects such as paintings, drawings, watercolours and other similar objects. From a philosophical point of view, representation is an 'intentional' act. Natural objects may resemble other objects by chance but they can represent only as a result of intervention by some fairly sophisticated semiotic arrangements.

Properties:

```
identifications, short cut
  is identified by (identifies): Object Identifier
identifications
  is identified by (identifies): Appellation
  preferred identifier is (is preferred identifier of): Object Identifier
  has title (is title of): Title
      (has type: Type)
classifications
  has type (is type of): Type
legal status
  is subject to (applies to): Right
legal status, short cut
  right held by (has right on): Actor
        (has type: Type)
        (has note: String)
  has former or current keeper (is former or current keeper of): Actor
  has current keeper (is current keeper of): Actor
  has former or current owner (is former or current owner of): Actor
  has current owner (is current owner of): Actor
intellectual contents
  refers to concept (is referred to by): Type
  refers to (is referred to by): CRM Entity
      (has type: Type)
  depicts concept (is depicted by): Type
      (mode of depiction: Type)
  depicts event (is depicted by): Event
      (mode of depiction: Type)
  depicts object (is depicted by): Physical Stuff
     (mode of depiction: Type)
physical status, short cut
  has dimension (is dimension of): Dimension
  has condition (condition of): Condition State
locations, short cut
  has former or current location (is former or current location of): Place
  has current permanent location (is current permanent location of): Place
  has current location (currently holds): Place
structures
  bears feature (is found on): Physical Feature
  has number of parts: Number
```

shows visual item (is shown by): Visual Item is composed of (forms part of): Information Object has section definition (defines section): Section Definition consists of (is incorporated in): Material is composed of (forms part of): Physical Stuff structures, short cut has section (is located on or within): Place other descriptions was intended for (was intention of): Type had as general use (was use of): Type has note: String (has type: Type)

The entity is not referenced.

The entity inherits references:

Activity: used object (was used for)

(mode of use : String)

Activity: was intended use of (was made for)

(mode of use: String)

Physical Man-Made Stuff: depicts object (is depicted by)

(mode of depiction: Type)

Physical Stuff: is composed of (forms part of) Event: occurred in the presence of (was present at) Conceptual Creation: has created (was created by)

Period: took place on or within (witnessed) Condition Assessment: concerns (assessed by) Destruction: destroyed (was destroyed by) Identifier Assignment: registers (registered by)

Move: moved (moved by)

Acquisition: transferred title of (changed ownership by)

Transfer of Custody: transferred custody of (custody changed by)

Type Assignment: classified (was classified by) Document: documents (is documented in) Modification: has produced (was produced by) Measurement: measured (was measured)

Activity: motivated the creation of (was created for) Information Object: is composed of (forms part of) Activity: took into account (was taken into account by)

Conceptual Object: refers to (is referred to by)

(has type : Type)

Beginning of Existence: brought into existence (was brought into existence by)

End of Existence: took out of existence (was taken out of existence by)

Activity: was motivation for (motivated)

E24 Physical Man-Made Stuff

Belongs to: Physical Object Type Subclass of: Physical Stuff

Man-Made Stuff

Superclass of: Man-Made Object

Man-Made Feature

Scope Note: Man-made entity is a general class that groups man made objects and features. The distinction

between 'objects' and 'features' is useful since it avoids referring to things like holes and texture as objects. Features and objects share many common characteristics however, hence the need

for a general class of man-made things.

Properties:

identifications

is identified by (identifies): Appellation

has title (is title of): Title

(has type: Type)

classifications

has type (is type of): Type

legal status

is subject to (applies to): Right

short cut, legal status

right held by (has right on): Actor

(has type: Type) (has note: String)

intellectual contents

depicts object (is depicted by): Physical Stuff

(mode of depiction: Type)

physical status, short cut

has dimension (is dimension of): Dimension has condition (condition of): Condition State

structures

shows visual item (is shown by): Visual Item

consists of (is incorporated in): Material is composed of (forms part of): Physical Stuff

other descriptions

was intended for (was intention of): Type had as general use (was use of): Type

has note: String (has type: Type)

The entity is referenced by:

Modification: has produced (was produced by)

The entity inherits references:

Activity: was intended use of (was made for)

(mode of use: String)

Physical Man-Made Stuff: depicts object (is depicted by)

(mode of depiction: Type)

Physical Stuff: is composed of (forms part of)
Event: occurred in the presence of (was present at)
Type Assignment: classified (was classified by)

Condition Assessment: concerns (assessed by) Measurement: measured (was measured) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E25 Man-Made Feature

Physical Object Type Belongs to: Subclass of: Physical Man-Made Stuff

Physical Feature

Scope Note: Man made features are those physical features which result from human intervention. Cf. E27

Physical Feature.

Properties: identifications is identified by (identifies): Appellation has title (is title of): Title (has type: Type) classifications has type (is type of): Type legal status is subject to (applies to): Right short cut, legal status right held by (has right on): Actor (has type: Type) (has note: String) intellectual contents depicts concept (is depicted by): Type (mode of depiction: Type) depicts event (is depicted by): Event (mode of depiction: Type) depicts object (is depicted by): Physical Stuff (mode of depiction: Type) physical status, short cut has dimension (is dimension of): Dimension has condition (condition of): Condition State structures shows visual item (is shown by): Visual Item consists of (is incorporated in): Material is composed of (forms part of): Physical Stuff other descriptions was intended for (was intention of): Type had as general use (was use of): Type

The entity is not referenced.

(has type: Type)

has note: String

The entity inherits references:

Activity: was intended use of (was made for) (mode of use: String) Physical Man-Made Stuff: depicts object (is depicted by) (mode of depiction: Type) Physical Stuff: is composed of (forms part of) Condition Assessment: concerns (assessed by) *Measurement: measured (was measured)* Physical Object: bears feature (is found on) Event: occurred in the presence of (was present at) Type Assignment: classified (was classified by) Document: documents (is documented in) *Modification: has produced (was produced by)*

Conceptual Object: refers to (is referred to by)

(has type : Type)

Beginning of Existence: brought into existence (was brought into existence by) End of Existence: took out of existence (was taken out of existence by)

E26 Physical Feature

Physical Object Type Belongs to: Subclass of: Physical Stuff Man-Made Feature, Superclass of:

Site

Scope Note: This class was introduced in order to avoid the counter-intuitive sense of referring to holes and

> similar features of objects as physical objects. Features are logically or physically attached to a particular physical object, and they share many of the attributes of physical objects - they can be measured and dated, and we can sometimes say who was responsible for them. However, you can't pick up a hole and put it in your pocket - Yellow Submarine not withstanding.

> Physical feature groups together all features of physical objects. Cf. Man-made features for the

results of human intervention.

Properties:

identifications

is identified by (identifies): Appellation

classifications

has type (is type of): Type

legal status

is subject to (applies to): Right

short cut, legal status

right held by (has right on): Actor

(has type: Type) (has note: String)

physical status, short cut

has dimension (is dimension of): Dimension has condition (condition of): Condition State

structures

consists of (is incorporated in): Material

is composed of (forms part of): Physical Stuff

other descriptions

had as general use (was use of): Type

has note: String (has type: Type)

The entity is referenced by:

Physical Object: bears feature (is found on)

The entity inherits references:

Physical Man-Made Stuff: depicts object (is depicted by)

(mode of depiction: Type)

Physical Stuff: is composed of (forms part of) Condition Assessment: concerns (assessed by) Measurement: measured (was measured)

Event: occurred in the presence of (was present at) Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E27 Site

Belongs to: Physical Object Type Subclass of: Physical Feature

Scope Note: A site is a recognisable place that can be represented by an Iconographic object, such as a

photograph, painting or map. A site is composed of relatively immobile material items and

features in a particular configuration at a particular location.

Properties:

identifications is identified by (identifies): Appellation classifications has type (is type of): Type legal status is subject to (applies to): Right short cut, legal status right held by (has right on): Actor (has type: Type) (has note: String) physical status, short cut has dimension (is dimension of): Dimension has condition (condition of): Condition State structures consists of (is incorporated in): Material is composed of (forms part of): Physical Stuff other descriptions had as general use (was use of): Type has note: String (has type: Type)

The entity is not referenced.

The entity inherits references:

Physical Man-Made Stuff: depicts object (is depicted by)

(mode of depiction: Type)

Physical Stuff: is composed of (forms part of)
Condition Assessment: concerns (assessed by)
Measurement: measured (was measured)
Physical Object: bears feature (is found on)
Event: occurred in the presence of (was present at)
Type Assignment: classified (was classified by)
Document: documents (is documented in)
Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

The Conceptual Objects:

All object types of double nature, physical and conceptual, are already listed under the physical object types.

E28 Conceptual Object

Belongs to: Concept Type Subclass of: Man-Made Stuff

Superclass of: Right

Information Object

Scope note: This entity is the attempt to group the non-material products of our minds, and specifically to

allow for reasoning about their identity, circumstances of creation and historical implications. Characteristically, these things are created, invented or thought, and somehow documented or communicated between persons. Conceptual objects need not have a particular carrier, but may be found on several different carriers, such as paper, electronic signals, marks, audio media, paintings, photos, human memory, etc. They cannot be destroyed as long as they exist on at least one carrier or in memory. Examples include texts, maps, photos, music, sounds, fairy tales, signs, patterns, symbols, plans, rights, and rules. A greater distinction could be made between products having a clear identity, such as a specific text, or photographs, and the ideas

and concepts shared and traded by groups of people.

Properties:

identifications

is identified by (identifies): Appellation

has title (is title of): Title (has type: Type)

classifications

has type (is type of): Type

intellectual contents

refers to concept (is referred to by): Type

refers to (is referred to by): CRM Entity

(has type: Type)

other descriptions

was intended for (was intention of): Type

had as general use (was use of): Type

has note: String (has type: Type)

The entity is referenced by:

Activity: took into account (was taken into account by)

Activity: was motivation for (motivated)

Activity: motivated the creation of (was created for) Conceptual Creation: has created (was created by)

The entity inherits references:

Activity: was intended use of (was made for)

(mode of use: String)

Event: occurred in the presence of (was present at) Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E29 Design or Procedure

Belongs to: Concept Type Subclass of: Information Object

Scope note: An established plan for execution of a series or group of technological actions, which result in

a physical change of state in certain pieces of material and/or any physical object.

Examples: All elements of the AAT "processes and techniques" facets., a plan for a building,

conservation procedures, complex editing techniques, flint napping, etc..

Properties:

identifications is identified by (identifies): Appellation has title (is title of): Title (has type: Type) classifications has type (is type of): Type legal status is subject to (applies to): Right legal status, short cut right held by (has right on): Actor (has type: Type) (has note: String) intellectual contents refers to concept (is referred to by): Type refers to (is referred to by): CRM Entity (has type: Type) structures is composed of (forms part of): Information Object other descriptions usually employs (is usually employed by): Material associated with: Design or Procedure had as general use (was use of): Type was intended for (was intention of): Type has note: String (has type: Type)

The entity is referenced by:

Modification: used specific technique (was used by) and itself

The entity inherits references:

E30 Right

Belongs to Concept Type Subcass of Conceptual Object

Scope Note: Rights are used in the sense of legal privileges such as the right of property, reproduction

rights, etc.

Properties:

identifications

is identified by (identifies): Appellation

has title (is title of): Title (has type: Type)

classifications

has type (is type of): Type

intellectual contents

refers to concept (is referred to by): Type

refers to (is referred to by): CRM Entity

(has type: Type)

other descriptions

was intended for (was intention of): Type

had as general use (was use of): Type

has note: String (has type: Type)

The entity is referenced by:

Legal Object: is subject to (applies to) Actor: possesses (is possessed by)

The entity inherits references:

Activity: was intended use of (was made for)

(mode of use: String)

Event: occurred in the presence of (was present at) Conceptual Creation: has created (was created by) Type Assignment: classified (was classified by) Document: documents (is documented in)

Activity: motivated the creation of (was created for)
Activity: took into account (was taken into account by)

Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

End of Existence: took out of existence (was taken out of existence by)

Activity: was motivation for (motivated)

E31 Document

Belongs to: Concept Type
Subclass of: Information Object
Superclass of: Authority Document

Scope note: This entity comprises items which make propositions about reality, whether intentionally or by

chance. The means may be text, graphics, images, sound, video. Examples: Books on history,

maps, photos.

Properties:

identifications is identified by (identifies): Appellation has title (is title of): Title (has type: Type) classifications has type (is type of): Type legal status is subject to (applies to): Right short cut, legal status right held by (has right on): Actor (has type: Type) (has note: String) intellectual contents documents (is documented in): CRM Entity refers to concept (is referred to by): Type refers to (is referred to by): CRM Entity (has type: Type) structures is composed of (forms part of): Information Object other descriptions was intended for (was intention of): Type had as general use (was use of): Type

The entity is not referenced.

(has type: Type)

has note: String

The entity inherits references:

E32 Authority Document

Belongs to: Concept Type Subclass of: Document

Scope note: This entity describes encyclopedia, thesauri, authority lists: all documents which define

terminology or conceptual systems for consistent use.

e.g. Webster's, Getty Art and Architecture Thesaurus, MDA Archaeological Objects

Thesaurus, This Document, etc.

Properties:

identifications is identified by (identifies): Appellation has title (is title of): Title (has type: Type) classifications has type (is type of): Type legal status is subject to (applies to): Right short cut, legal status right held by (has right on): Actor (has type: Type) (has note: String) intellectual contents refers to concept (is referred to by): Type refers to (is referred to by): CRM Entity (has type: Type) documents (is documented in): CRM Entity structures contains (is part of): Type is composed of (forms part of): Information Object other descriptions was intended for (was intention of): Type had as general use (was use of): Type has note: String (has type: Type)

The entity is not referenced.

The entity inherits references:

E33 Linguistic Object

Belongs to: Concept Type Subclass of: Information Object

Superclass of: Inscription

Title

Scope note: This entity comprises texts of all kind, be they written or recorded speech, in any physical

language.

Properties:

identifications

is identified by (identifies): Appellation

has title (is title of): Title (has type: Type)

classifications

has language (is language of): Language

has type (is type of): Type

legal status

is subject to (applies to): Right

short cut, legal status

right held by (has right on): Actor

(has type: Type) (has note: String) intellectual contents

has translation (is translation of): Linguistic Object

refers to concept (is referred to by): Type refers to (is referred to by): CRM Entity

(has type: Type)

structures

is composed of (forms part of): Information Object

other descriptions

was intended for (was intention of): Type

had as general use (was use of): Type has note: String

(has type: Type)

The entity is only referenced by itself.

The entity inherits references:

Activity: was intended use of (was made for)

(mode of use : String)

Event: occurred in the presence of (was present at) Conceptual Creation: has created (was created by) Type Assignment: classified (was classified by) Document: documents (is documented in)

Activity: motivated the creation of (was created for) Information Object: is composed of (forms part of) Activity: took into account (was taken into account by)

Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

End of Existence: took out of existence (was taken out of existence by)

Activity: was motivation for (motivated)

E34 Inscription

Belongs to: Concept Type Subclass of: Linguistic Object

Mark

Scope note: This entity comprises texts attached to a physical object. The attributes of the entity could be

extended to include alphabet used, rather than documenting these features in the note. NB The entity does *not* describe idiosyncratic characteristics of individual physical embodiments of an

inscription but the underlying prototype, e.g. Dürer's signature.

Properties:

identifications is identified by (identifies): Appellation has title (is title of): Title (has type: Type) classifications has language (is language of): Language has type (is type of): Type legal status is subject to (applies to): Right short cut, legal status right held by (has right on): Actor (has type: Type) (has note: String) intellectual contents refers to concept (is referred to by): Type refers to (is referred to by): CRM Entity (has type: Type) has translation (is translation of): Linguistic Object structures is composed of (forms part of): Information Object other descriptions has language (is language of): Language was intended for (was intention of): Type had as general use (was use of): Type has note: String (has type: Type)

The entity is not referenced.

The entity inherits references:

Activity: was motivation for (motivated)

E35 Title

Belongs to: Concept Type

Appellation Type

Subclass of: Linguistic Object

Appellation

Scope note: This entity comprises the short pieces of texts that are used, by the creator or tradition, to

characterize or identify a work, often alluding to its subject. The work may be linguistic,

musical, iconographic or other.

Examples: Giaconda, La Joconde, Mona Lisa, Die Dreigroschenoper, La Pie, La Marseillaise.

Properties:

identifications

is identified by (identifies): Appellation

has title (is title of): Title

(has type: Type)

classifications

has language (is language of): Language

has type (is type of): Type

legal status

is subject to (applies to): Right

short cut, legal status

right held by (has right on): Actor

(has type: Type)

(has note: String)

intellectual contents

refers to concept (is referred to by): Type

refers to (is referred to by): CRM Entity

(has type: Type)

has translation (is translation of): Linguistic Object

structures

is composed of (forms part of): Information Object

other descriptions

was intended for (was intention of): Type

had as general use (was use of): Type

has note: String

(has type: Type)

The entity is referenced by:

Man-Made Stuff: has title (is title of)

(has type: Type)

The entity inherits references:

Activity: was intended use of (was made for)

(mode of use: String)

Event: occurred in the presence of (was present at) Conceptual Creation: has created (was created by) Linguistic Object: has translation (is translation of) Type Assignment: classified (was classified by)

Document: documents (is documented in)

Activity: motivated the creation of (was created for) Information Object: is composed of (forms part of)

CRM Entity: is identified by (identifies)

Activity: took into account (was taken into account by)

Conceptual Object: refers to (is referred to by)

(has type : Type)
Beginning of Existence: brought into existence (was brought into existence by)

End of Existence: took out of existence (was taken out of existence by)

Activity: was motivation for (motivated)

E36 Visual Item

Belongs to: Concept Type Subclass of: Information Object

Superclass of: Mark

Image

Scope Note: Visual Items refers to the intellectual or conceptual aspect of recognizable marks and images.

When we identify a trade mark, say the ICOM logo, we are generally prepared to say that the same logo is used on any number of publications. The size, orientation and colour may change, but something uniquely identifiable remains. The same can be said of images which are reproduced many times. What these examples highlight is that visual items are independent of their physical support. The visual items class provides a means of identifying and linking

together objects which carry the same visual symbols, marks, images or whatever.

Properties:

identifications is identified by (identifies): Appellation has title (is title of): Title (has type: Type) classifications has type (is type of): Type legal status is subject to (applies to): Right short cut, legal status right held by (has right on): Actor (has type: Type) (has note: String) intellectual contents refers to concept (is referred to by): Type refers to (is referred to by): CRM Entity (has type: Type) structures is composed of (forms part of): Information Object other descriptions was intended for (was intention of): Type had as general use (was use of): Type has note: String

The entity is referenced by:

(has type: Type)

Physical Man-Made Stuff: shows visual item (is shown by)

The entity inherits references:

Activity: was motivation for (motivated)

E37 Mark

Belongs to: Concept Type
Subclass of: Visual Item
Superclass of: Inscription

Scope note:

Martin Doerr: Symbols, signs, signatures or short texts applied to physical objects by arbitrary

techniques in order to indicate the creator, owner, dedications, purpose, etc.

Examples: Minoan double axe mark, ©, ©, STOP!.

This entity specifically does not included marks such as scratches, which have no semantic

significance. These case be documented as physical features.

Properties:

```
identifications
  is identified by (identifies): Appellation
  has title (is title of): Title
      (has type: Type)
classifications
  has type (is type of): Type
legal status
  is subject to (applies to): Right
short cut, legal status
  right held by (has right on): Actor
      (has type: Type)
      (has note: String)
intellectual contents
  refers to concept (is referred to by): Type
  refers to (is referred to by): CRM Entity
      (has type: Type)
structures
  is composed of (forms part of): Information Object
other descriptions
  was intended for (was intention of): Type
  had as general use (was use of): Type has note: String
      (has type: Type)
```

The entity is not referenced.

The entity inherits references:

E38 Image

Belongs to: Concept Type Subclass of: Visual Item

Scope note: This entity refers to distributions of form and colour which may be found on surfaces such as

photos, paintings, prints, and sculptures etc. or directly on electronic media. The degree to which variations in the distribution of form and colour are tolerated depends on a given

purpose.

The 'depiction' links between objects and depicted subjects may be regarded as short cuts of

an intermediate image node capturing the optical features of the depiction. Cf E25

Examples: The front side of all 20 Frs notes.

Properties:

identifications is identified by (identifies): Appellation has title (is title of): Title (has type: Type) classifications has type (is type of): Type legal status is subject to (applies to): Right short cut, legal status right held by (has right on): Actor (has type: Type) (has note: String) intellectual contents refers to concept (is referred to by): Type refers to (is referred to by): CRM Entity (has type: Type) structures is composed of (forms part of): Information Object other descriptions was intended for (was intention of): Type had as general use (was use of): Type has note: String (has type: Type)

The entity is not referenced.

The entity inherits references:

 End of Existence: took out of existence (was taken out of existence by) Activity: was motivation for (motivated)

Actors Hierarchy

All entities in this hierarchy are instances of the metaclass "Actor Type".

Until now, only one subclass is defined, the physical person. As this has a physical nature as well, it is listed already under physical objects (In a passive sense, as patient, mummy etc.). Here in the future, all kinds of social organizations should be characterized.

E39 Actor

Belongs to: Actor Type
Subclass of: CRM Entity
Superclass of: Group
Person

Scope note:

People, either individuals or a groups of persons, or organisations, under the aspect of their role in activities. E.g. The ISO central committe, the Benaki Museum in Athens, Greece, the

Bauhaus in Weimar, Germany, Monet, Me.

An informal group, such as a school of artists, may acquire an identity and perform actions without ever becoming an officially established legal entity. Such cases should be documented

as instances of Actors, using an appropriate sub type.

Properties:

identifications

is identified by (identifies): Appellation

classifications

has type (is type of): Type

other descriptions

has current or former residence (is current or former residence of): Place

possesses (is possessed by): Right

has contact points (provides access to): Contact Point

has note: String (has type: Type)

The entity is referenced by:

Activity: carried out by (performed)

(in the role of : Type)

Acquisition: transferred title to (acquired title of)
Acquisition: transferred title from (surrendered title of)

Transfer of Custody: custody surrendered by (surrendered custody)

Transfer of Custody: custody received by (received custody)

Legal Object: right held by (has right on)

(has type: Type) (has note: String)

Physical Object: has former or current keeper (is former or current keeper of)

Physical Object: has current keeper (is current keeper of)

Physical Object: has former or current owner (is former or current owner of)

Physical Object: has current owner (is current owner of)

Event: had participants (participated in) Group: had member (was member of)

The entity inherits references:

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E40 Legal Body

Belongs to: Actor Type Subcass of: Group

Scope Note: A legal body is any institution or group of people which can act collectively as an agent i.e. it

can perform actions, own property, create or destroy and be held responsible for its actions.

The term 'personne morale' is often used in French.

Examples: MDA (Europe) Ltd., GreenPeace.

Properties:

identifications

is identified by (identifies): Appellation

classifications

has type (is type of): Type

structures

consists of (belongs to): Legal Body

had member (was member of): Actor

other descriptions

has current or former residence (is current or former residence of): Place

possesses (is possessed by): Right

has contact points (provides access to): Contact Point

has note: String (has type: Type)

The entity is referenced by:

Person: is member of (has members)

and itself.

The entity inherits references:

Activity: carried out by (performed)

(in the role of : Type)

Acquisition: transferred title to (acquired title of)
Acquisition: transferred title from (surrendered title of)

Transfer of Custody: custody surrendered by (surrendered custody)

Transfer of Custody: custody received by (received custody)

Type Assignment: classified (was classified by) Legal Object: right held by (has right on)

(has type: Type)
(has note: String)

Physical Object: has former or current keeper (is former or current keeper of)

Physical Object: has current keeper (is current keeper of)

Physical Object: has former or current owner (is former or current owner of)

Physical Object: has current owner (is current owner of)

Event: had participants (participated in)
Document: documents (is documented in)
Formation: has formed (was formed by)
Dissolution: dissolved (was dissolved by)
Conceptual Object: refers to (is referred to by)

(has type: Type)

Group: had member (was member of)

Beginning of Existence: brought into existence (was brought into existence by)

End of Existence: took out of existence (was taken out of existence by)

Person (repetition from under Biological Object)

Belongs to: Actor Type

Actor Type Physical Object Type Actor

Subclass of: Actor

Biological Object

Properties (See under Biological Object)

Appellations Hierarchy

All entities in this hierarchy are instances of the metaclass "Appellation Type. This hierarchy is thought to capture all kinds of social or technical identifiers, names, numbers, codes etc. To which degree there is an overlap with conceptual objects should be discussed.

E41 Appellation

Belongs to: Appellation Type Subclass of: CRM Entity Superclass of: Object Identifier

Place Appellation Time Appellation

Title

Conceptual Object Appellation

Scope note: This entity comprises all names in the proper sense. Codes or words, meaningless or

meaningful, in the script of some group or encoding of an electronic system, used solely to identify a specific instance of some category within a certain context. These words do not

identify the object by their meaning but by convention, tradition or agreement.

Properties:

identifications

is identified by (identifies): Appellation

classifications

has type (is type of): Type

other descriptions
has note: String
(has type: Type)

The entity is referenced by:

CRM Entity: is identified by (identifies)

The entity inherits references:

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E42 Object Identifier

Belongs to: Appellation Type Subclass of: Appellation

Scope note: Unique codes assigned to objects in order to identify them uniquely within the context of one

or more organizations. Typically alphanumeric sequences.

examples: MM.GE.195, 13.45.1976, etc.

Properties:

identifications
 is identified by (identifies): Appellation
classifications
 has type (is type of): Type
other descriptions
 has note: String
 (has type: Type)

The entity is referenced by:

Identifier Assignment: assigns (is assigned by)
Identifier Assignment: deassigns (is deassigned by)

Physical Object: is identified by (identifies)

Physical Object: preferred identifier is (is preferred identifier of)

The entity inherits references:

CRM Entity: is identified by (identifies)
Type Assignment: classified (was classified by)
Document: documents (is documented in)
Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E44 Place Appellation

Belongs to: Appellation Type
Subclass of: Appellation
Superclass of Address

Section Definition Spatial Coordinates Place Name

Scope Note: A place appellation is any sort of identifier used to refer to a place. Place appellations may

vary over time, and the same appellation may be used to refer to several places, either because of cultural shifts, or because things move around. These unstable aspects of place appellations are dealt with in the more general Appellation class. Place appellations can be extremely varied in form, postal addresses and spatial coordinates and parts of buildings can all be

considered as place appellations.

Examples: Vienna, Wien, Aquae Sulis Minerva, Bath, Cambridge, "The Other Place". "The

City".

Properties:

identifications
 is identified by (identifies): Appellation
classifications
 has type (is type of): Type
other descriptions
 has note: String
 (has type: Type)

The entity is referenced by:

Place: is identified by (identifies)

The entity inherits references:

CRM Entity: is identified by (identifies)
Type Assignment: classified (was classified by)
Document: documents (is documented in)
Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E45 Address

Belongs to: Appellation Type Subclass of: Place Appellation

Contact Point

Scope Note: An address is generally a postal address used for mailing. An address can be considered both

as the name of a place and as a contact point for an actor. This dual aspect is reflected in the

multiple inheritance.

Example: 1-29-3 Otsuka, Bunkyo-ku,

Tokyo, 121, Japan

Properties:

identifications

is identified by (identifies): Appellation

classifications

has type (is type of): Type

other descriptions has note: String (has type: Type)

The entity is not referenced.

The entity inherits references:

CRM Entity: is identified by (identifies)
Type Assignment: classified (was classified by)
Actor: has contact points (provides access to)

Place: is identified by (identifies)

Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E46 Section Definition

Belongs to: Appellation Type Subclass of: Place Appellation

Superclass of

Scope Note: section definition groups together names used to refer to parts of objects. The 'prow' of a boat,

the 'frame' of the picture, the 'basement' of the building are all section definitions. The entity highlights the fact that parts of objects can be treated as locations. (cf. E53 Place) In answer to

the question 'where is the signature?' one might reply 'on the lower left corner'.

Example: The entrance lobby to MDA House, Matthew's bedroom, the poop deck of H.M.S.

Victory, the Venus de Milo's left buttock, "left inner side of the box".

Properties:

identifications
is identified by (identifies): Appellation
classifications
has type (is type of): Type
other descriptions
has note: String
(has type: Type)

The entity is referenced by:

Physical Object: has section definition (defines section)

The entity inherits references:

CRM Entity: is identified by (identifies)
Type Assignment: classified (was classified by)

Place: is identified by (identifies)

Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E47 Spatial Coordinates

Belongs to: Appellation Type Subclass of: Place Appellation

Scope Note: Coordinates are a specific form of place appellation, that is, a means of referring to a particular

place. (cf E53 place) Coordinates are not restricted to longitude, latitude and altitude. Any regular system of reference that maps onto a physical object can be considered as coordinates.

Examples: 6°5'29"N 45°12'13"W,

Black queen's bishop 4.

Properties:

identifications
 is identified by (identifies): Appellation
classifications
 has type (is type of): Type
other descriptions
 has note: String
 (has type: Type)

The entity is not referenced.

The entity inherits references:

CRM Entity: is identified by (identifies) Type Assignment: classified (was classified by)

Place: is identified by (identifies)
Document: documents (is documented in)
Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E48 Place Name

Belongs to: Appellation Type Subclass of: Place Appellation

Scope Note: A place name is a particular and common form of place appellation. 'Greece', 'Athens',

'Geneva', are all place names. Place names may shift their meaning over time. Cf Place

appellations.

Properties:

identifications
is identified by (identifies): Appellation
classifications
has type (is type of): Type
other descriptions
has note: String
(has type: Type)

The entity is not referenced.

The entity inherits references:

CRM Entity: is identified by (identifies)

Type Assignment: classified (was classified by)

Place: is identified by (identifies)

Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E49 Time Appellation

Belongs to: Appellation Type
Subclass of: Appellation
Superclass of Date

Scope Note: Time appellation groups all forms of names or codes, such as historical periods, and dates,

which are used to refer to specific time frames. Time appellations may vary in their degree of precision, and they may be relative to other time frames, 'prehistoric' for example. These aspects of time appellations are dealt with in the more general 'appellations' class.

In contrast to cultural periods, proper names are seldom given to particular Time-spans, hence it was decided to exclude a specific entity 'Time-spans name'. Time-spans are often referred to in association with cultural periods, and events e.g. 'the duration of Ming Dynasty'. cf. E52 Time-span.

Examples: Meiji, 1st half of the XX century, Quaternary, 1215 Hegira. Last century.

Properties:

identifications
is identified by (identifies): Appellation
classifications
has type (is type of): Type
other descriptions
has note: String
(has type: Type)

The entity is referenced by:

Time-Span: is identified by (identifies)

The entity inherits references:

CRM Entity: is identified by (identifies)
Type Assignment: classified (was classified by)
Document: documents (is documented in)
Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E50 Date

Belongs to: Appellation Type Subclass of: Time Appellation

Superclass of:

Scope Note: Dates are a specific form of time appellation. Dates may vary in their degree of precision. E.g.

1900, 4-4-1959, 19640604.

Properties:

identifications
 is identified by (identifies): Appellation
classifications
 has type (is type of): Type
other descriptions
 has note: String
 (has type: Type)

The entity is not referenced.

The entity inherits references:

CRM Entity: is identified by (identifies)

Type Assignment: classified (was classified by)

Time-Span: is identified by (identifies)
Document: documents (is documented in)
Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

End of Existence: took out of existence (was taken out of existence by)

Title (Repetition from under Linguistic Object)

Belongs to: Concept Type

Appellation Type

Subclass of: Appellation

Linguistic Object

Properties: (see under Linguistic Object)

Appellation associated entities:

E51 Contact Point

(new)

Belongs to: Meta Entity
Subcass of: CRM Entity
Superclass of: Address

Scope Note: This entity comprises identifiers used to communicate with Actors. Examples: E-mail

addresses, telephone numbers, post office boxes, Fax numbers, etc. NB postal addresses can be

considered both as place appellations and Contact Points.

Properties:

identifications
 is identified by (identifies): Appellation
classifications
 has type (is type of): Type
other descriptions
 has note: String
 (has type: Type)

The entity is referenced by:

Actor: has contact points (provides access to)

The entity inherits references:

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by) End of Existence: took out of existence (was taken out of existence by)

Address (Repetition from under Place Appellation)

Belongs to: Appellation Type Subclass of: Contact Point

Place Appellation

Properties: (see under Place Appellation)

Measures Hierarchy

All entities in this hierarchy are instances of the metaclass "Measure Type". Three submetaclasses are defined, the "Time Type" for the hierarchy of determinators of a date range in any possible system (e.g. rules of Egyptian kings, Julian dates, C14 etc.), the "Location Type" for the determinators of areas in space, relative to the surface of the earth or other relevant methods, and the "Dimension Types" for all relative measures, as money, lengths, durations, degrees etc.

E52 Time-Span

(former E36)

Belongs to: Time Type Subclass of: CRM Entity

Scope note: A determination of a range of dates or duration without any further connotations, to be used to

confine periods, events, and any other phenomena valid for a certain time. A time appellation is a verbal form which refers to a time-span. The time-span itself is a temporal extent in the sense of Galilean physics. Different time-appellations may express the same time-span.

Examples: from 12-17-1993 to 12-8-1996, 14h30 – 16h22 4th July 1945, 9.30 am 1.1.1999 to

2.OO pm 1.1.1999, Duration of the Ming Dynasty.

Properties:

identifications

is identified by (identifies): Time-Appellation

is identified by (identifies): Appellation

classifications

has type (is type of): Type

numerical values

begins at qualify: String ends at qualify: String

at least covering: Time Primitive

property note: the inner bound, can be omitted

at most within: Time Primitive

property note: the outer bound (ensuring recall)

had at least duration: Dimension had at most duration: Dimension

structures

consists of (forms part of): Time-Span falls within (contains): Time-Span

other descriptions
has note: String
(has type: Type)

The entity is referenced by:

Temporal Entity: has time-span (is time-span of)

and by itself

The entity inherits references:

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E53 Place

Belongs to: Location Type Subclass of: CRM Entity

Scope note:

This entity describes extents in space, in particular on the surface of the earth, in the pure sense of physics: independent from temporal phenomena and matter. Places are usually determined by reference to the position of "immobile" objects such as buildings, cities, mountains, and rivers. On a large time-scale however, these things are either not persistent or may actually move, with respect to each other. This motivates the search for a global or absolute system of reference.

However, relative references are more relevant in the context of cultural documentation and records of relative places tend to be more precise. In particular, we are often interested in position in relation to large objects, such as ships, which move. Any object can serve as a reference for place determination; therefore the model foresees the notion of a "section" of a physical object as a place determination of equal validity.

Matching between multiple reference systems is in principle possible for a given moment in time, but depends on the precision and completeness of the information available. However, the resolution of places to "absolute" coordinates is not, in general, necessary in cultural documentation systems, and absolute referencing may be dependent on the present state of global knowledge.

Example: the place at which Nelson died is known with reference to a large mobile object – H.M.S Victory. A resolution of this place in terms of absolute coordinates requires knowledge about the position of the vessel and the precise time of his death, either of which may be revised. Hence, documenting only an absolute reference effectively removes the possibility of recalculating. It is more relevant to preserve the *reasoning* behind an assumption than the result.

Hence a *place* can be determined by combining, one or more times, a frame of reference and a location with respect to this frame. These combinations are modelled by Place Appellation. (Instance of place are themselves nameless.)

Example: The place referred to by the "Fish collected at three miles north of the confluence of the Arve and the Rhone, or N W. (GPS)", Here -> <-

Properties:

identifications

is identified by (identifies): Place Appellation

is identified by (identifies): Appellation

classifications

has type (is type of): Type

structures

consists of (forms part of): Place falls within (contains): Place

other descriptions

has note: String

(has type: Type)

The entity is referenced by:

Period: took place at (witnessed) Move: moved to (occupied) Move: moved from (vacated)

Physical Object: has section (located on or within)

Physical Object: has former or current location (is former or current location of)

Physical Object: has current permanent location (is current permanent location of)

Physical Object: has current location (currently holds)

Actor: has current or former residence (is current or former residence of)

and by itself

The entity inherits references:

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E54 Dimension

Belongs to: Measure Type Subclass of: CRM Entity

Scope note: This entity is an abstract class for properties that are measured by some calibrated means and

result in numerical values,

Examples: currency: £26.00, length: 4 cm, diameter 26 mm, weight 150 lbs, density: 0.85 gm/cc, luminescence: 56 ISO lumens, tin content: 0.46 %, taille au garot: 5 hands, C14 date:

2460 years, etc.

Properties:

identifications

is identified by (identifies): Appellation

classifications

has type (is type of): Type

numerical values value: Number

unit: Measurement Unit

other descriptions

has note: String

(has type: Type)

The entity is referenced by:

Measurement: observed dimension (was observed) Physical Stuff: has dimension (is dimension of)

Time-Span: had at most duration Time-Span: had at least duration

The entity inherits references:

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

Types Hierarchy

All entities in this hierarchy are instances of the metaclass "Type Type". This hierarchy does not belong to the CIDOC Entities in the proper sense, as its instances are names for aggregations, sets, or undefined masses of physical items or intellectual constructs. They are thought as elements of authority files on one side, on the other they are used to refer to entities of the Model or any refinement of it as data elements at appropriate points from within the Model in a consistent way. This implies, that the respective authorities must be compatible in structure with the Model. As a rule, every entity of the model gives rise to a "Type Type", which are not listed here, as they are defined by rule. Only those types of types not generated by the rule are given explicitly:

E55 Type

Belongs to: Type Type
Subclass of: CRM Entity
Superclass of: Language
Material

Measurement Unit

Scope note:

This entity captures the names of all entities in the model and any refinements of these entities which do not require further analysis of their formal properties, but which represent typological distinctions important to a given user group. The semantic interpretation of these subtypes is based on the agreement of specific groups. Instances of the Type entity have to be formally organized in thesauri, with scope notes, illustrations, etc. to clarify their meaning. In general, it is expected that different domains and cultural groups develop different thesauri in parallel. Consistent reasoning on the expansion of sub terms used in a thesaurus is possible insofar as it conforms to both the entities and the hierarchies of this Model.

Examples: Weight, length, depth are types of measurement. Portrait, sketch, animation could be types of depiction. Oral, written could be types of language. Excellent, good, poor could be types of condition state.

Properties:

identifications
 is identified by (identifies): Appellation
classifications
 has type (is type of): Type
other descriptions
 has note: String
 (has type : Type)

The entity is referenced by:

CRM Entity: has type (is type of)

Physical Man-Made Stuff: depicts event (is depicted by)

(mode of depiction : Type)

Type Assignment: assigned (was assigned by)

Modification: used general technique (was technique of) Activity: had as general purpose (was purpose of) Conceptual Object: refers to concept (is referred to by)

Authority Document: contains (is part of)

Man-Made Stuff: was intended for (was intention of)

Stuff: had as general use (was use of) CRM Entity: has note: has type

Conceptual Object: refers to (is referred to by): has type

Physical Man-Made Stuff: depicts object (is depicted by): mode of depiction Physical Man-Made Stuff: depicts concept (is depicted by): mode of depiction Physical Man-Made Stuff: depicts event (is depicted by): mode of depiction

Activity: carried out by (performed): in the role of Legal Object: right held by (has right on): has type Man-Made Stuff: has title (is title of): has type

The entity inherits references:

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E56 Language

Belongs to: Type Type Subclass of: Type

Scope note: This entity comprises the names identifying natural languages. Internationally used codes are

recommended (ISO...). This type does not correspond to another explicit entity in the Model.

Example: ISO language codes.

Properties:

identifications
 is identified by (identifies): Appellation
classifications
 has type (is type of): Type
other descriptions
 has note: String
 (has type: Type)

The entity is referenced by:

Linguistic Object: has language (is language of)

The entity inherits references:

CRM Entity: has type (is type of)

Physical Man-Made Stuff: depicts event (is depicted by)

(mode of depiction: Type)

Type Assignment: assigned (was assigned by)

Modification: used general technique (was technique of) Activity: had as general purpose (was purpose of) Conceptual Object: refers to concept (is referred to by)

Authority Document: contains (is part of)

Man-Made Stuff: was intended for (was intention of)

Stuff: had as general use (was use of) CRM Entity: has note: has type

Conceptual Object: refers to (is referred to by): has type

Physical Man-Made Stuff: depicts object (is depicted by): mode of depiction Physical Man-Made Stuff: depicts concept (is depicted by): mode of depiction Physical Man-Made Stuff: depicts event (is depicted by): mode of depiction

Activity: carried out by (performed): in the role of Legal Object: right held by (has right on): has type Man-Made Stuff: has title (is title of): has type Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E57 Material

Belongs to: Type Type Subclass of: Type

Scope note: This entity comprises the names used to identify materials. Internationally used codes and

terminology are recommended. This type does not correspond to any other explicit entity in the Model, because materials do not have well-defined instances, especially after they are used. Discrete pieces of raw-materials kept in museums, such as bricks, sheets of fabric, pieces of metal, should be modelled separately just as other objects. Discrete used or processed pieces,

such as the stones from Nefer Titi's temple, should be modelled as parts.

Properties:

identifications
 is identified by (identifies): Appellation
classifications
 has type (is type of): Type
other descriptions
 has note: String
 (has type: Type)

The entity is referenced by:

Physical Stuff: consists of (is incorporated in)

Design or Procedure: usually employs (is usually employed by)

The entity inherits references:

CRM Entity: has type (is type of)

Physical Man-Made Stuff: depicts event (is depicted by)

(mode of depiction: Type)

Type Assignment: assigned (was assigned by)

Modification: used general technique (was technique of) Activity: had as general purpose (was purpose of) Conceptual Object: refers to concept (is referred to by)

Authority Document: contains (is part of)

Man-Made Stuff: was intended for (was intention of)

Stuff: had as general use (was use of) CRM Entity: has note: has type

Conceptual Object: refers to (is referred to by): has type

Physical Man-Made Stuff: depicts object (is depicted by): mode of depiction Physical Man-Made Stuff: depicts concept (is depicted by): mode of depiction Physical Man-Made Stuff: depicts event (is depicted by): mode of depiction

Activity: carried out by (performed): in the role of Legal Object: right held by (has right on): has type Man-Made Stuff: has title (is title of): has type Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E58 Measurement Unit

Belongs to: Type Type Subclass of: Type

Scope Note: This entity provides the authority list for all types of measurement units: feet, inches,

centimeters, litres, lumens, etc.

Properties:

identifications

is identified by (identifies): Appellation

classifications

has type (is type of): Type

other descriptions
has note: String
(has type: Type)

The entity is referenced by:

Dimension: unit

The entity inherits references:

CRM Entity: has type (is type of)

Physical Man-Made Stuff: depicts event (is depicted by)

(mode of depiction: Type)

Type Assignment: assigned (was assigned by)

Modification: used general technique (was technique of) Activity: had as general purpose (was purpose of) Conceptual Object: refers to concept (is referred to by)

Authority Document: contains (is part of)

Man-Made Stuff: was intended for (was intention of)

Stuff: had as general use (was use of) CRM Entity: has note: has type

Conceptual Object: refers to (is referred to by): has type

Physical Man-Made Stuff: depicts object (is depicted by): mode of depiction Physical Man-Made Stuff: depicts concept (is depicted by): mode of depiction Physical Man-Made Stuff: depicts event (is depicted by): mode of depiction

Activity: carried out by (performed): in the role of Legal Object: right held by (has right on): has type Man-Made Stuff: has title (is title of): has type Type Assignment: classified (was classified by) Document: documents (is documented in)

Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

Other entities:

E59 Primitive Value

Belongs to: Value Type

Scope Note: This entity is a container for primitive values used as documentation elements which are not

further analysed. As such they are not considered as elements within our universe of discourse.

No specific implementation recommendations are made.

The entity is not referenced.

E60 Number

Belongs to: Primitive Value Subcass of: CRM Entity

Superclass of:

Scope Note: Integers, real or complex numbers.

Properties:

identifications
 is identified by (identifies): Appellation
classifications
 has type (is type of): Type
other descriptions
 has note: String
 (has type : Type)

The entity is referenced by:

Physical Object: has number of parts

Dimension: value

The entity inherits references:

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E61 Time Primitive

Belongs to: Value

Subclass of: Primitive Value

Scope Note: This entity is a primitive value that should implement appropriate validation and interval logic

for date ranges and precision relevant to cultural documentation. It is not further analysed in

this model

The entity is referenced by:

Time-Span: at most within Time-Span: at least covering

E62 String

Belongs to: Value

Subclass of: Primitive Value

Scope Note: This entity is a primitive value to be used for any kind of documentation which lacks formal

structure defined within the model e.g. free text, bitmaps, vector graphics, etc.

The entity is referenced by:

CRM Entity: has note

Legal Object: right held by (has right on): has note Activity: used object (was used for): mode of use

Activity: was intended use of (was made for): mode of use

Time-Span: begins at qualify Time-Span: ends at qualify

E63 Beginning of Existence

Belongs to: Period Type Subclass of: Event

Superclass of: Conceptual Creation

Production Formation Birth

Scope note: Entity for temporal reasoning about things beginning to exist –

Intellectual products, physical items, groups of people, living beings, periods ?— A hook for termini postquem and antequem. It may turn out useful to define more specializations of this

entity for Natural History.

Properties:

identifications

is identified by (identifies): Appellation

classifications

has type (is type of): Type

active participants

had participants (participated in): Actor

passive participants

brought into existence (was brought into existence by): CRM Entity

property note: this is the superproperty of "has produced", "has formed", "brought to life", "has created".

occurred in the presence of (was present at): Stuff

spatial definitions

took place at (witnessed): Place

short cut, spatial definitions

took place on or within (witnessed): Physical Object

temporal definitions

has time-span (is time-span of): Time-Span

structures

consists of (forms part of): Period falls within (contains): Period

other descriptions

has note: String (has type: Type)

The entity is not referenced:

The entity inherits references:

Physical Man-Made Stuff: depicts event (is depicted by)

(mode of depiction: Type)
Period: falls within (contains)
Period: consists of (forms part of)

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E64 End of Existence

Belongs to: Period Type
Subclass of: Event
Superclass of: Destruction
Dissolution

Dissolution Death

Scope note: Entity for temporal reasoning about things stopping to exist –

physical items, groups of people, living beings – A hook for termini postquem and antequem.

Properties:

identifications

is identified by (identifies): Appellation

classifications

has type (is type of): Type

active participants

had participants (participated in): Actor

passive participants

took out of existence (was taken out of existence by): CRM Entity

<u>property note</u>: this is the superproperty of "destroyed", "dissolved" "was death of".

occurred in the presence of (was present at): Stuff

spatial definitions

took place at (witnessed): Place

short cut, spatial definitions

took place on or within (witnessed): Physical Object

temporal definitions

has time-span (is time-span of): Time-Span

structures

consists of (forms part of): Period falls within (contains): Period

other descriptions

has note: String

(has type : Type)

The entity is not referenced:

The entity inherits references:

Physical Man-Made Stuff: depicts event (is depicted by)

(mode of depiction : Type)
Period: falls within (contains)
Period: consists of (forms part of)

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E65 Conceptual Creation

Belongs to: Period Type

Subclass of: Beginning of Existence

Activity

Scope note: The creation of an immaterial product – Text, music, image, movie,

Law etc.

Properties:

identifications
is identified by (identifies): Appellation
classifications
has type (is type of): Type
active participants
had participants (participated in): Actor

carried out by (performed): Actor
(in the role of : Type)

passive participants

has created (was created by): Conceptual Object

property note: this is a subproperty of "brought into existence" brought into existence (was brought into existence by): CRM Entity took into account (was taken into account by): Conceptual Object occurred in the presence of (was present at): Stuff used object (was used for): Physical Object (mode of use: String)

motivations

was motivation for (motivated): Conceptual Object

motivated the creation of (was created for): Conceptual Object

had specific purpose (was purpose of): Activity had as general purpose (was purpose of): Type was intended use of (was made for): Man-Made Stuff

(mode of use: String) short cut, spatial definitions

took place on or within (witnessed): Physical Object

spatial definitions

took place at (witnessed): Place

temporal definitions

has time-span (is time-span of): Time-Span

structures

consists of (forms part of): Period falls within (contains): Period

other descriptions has note: String (has type: Type)

The entity is not referenced:

The entity inherits references:

Physical Man-Made Stuff: depicts event (is depicted by)

(mode of depiction: Type)
Period: falls within (contains)
Period: consists of (forms part of)

Activity: had specific purpose (was purpose of) Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)
Beginning of Existence: brought into existence (was brought into existence by)
End of Existence: took out of existence (was taken out of existence by)

E66 Formation

Belongs to: Period Type

Subclass of: Beginning of Existence

Activity

Scope note: The formation or foundation of a formal or informal group of people

Properties:

identifications

is identified by (identifies): Appellation

classifications

has type (is type of): Type

active participants

had participants (participated in): Actor

carried out by (performed): Actor

(in the role of: Type)

passive participants

has formed (was formed by): Group

property note: this is a subproperty of "brought into existence"

brought into existence (was brought into existence by): CRM Entity

took into account (was taken into account by): Conceptual Object

occurred in the presence of (was present at): Stuff

used object (was used for): Physical Object

(mode of use: String)

motivations

was motivation for (motivated): Conceptual Object

motivated the creation of (was created for): Conceptual Object

had specific purpose (was purpose of): Activity

had as general purpose (was purpose of): Type

was intended use of (was made for): Man-Made Stuff

(mode of use: String)

short cut, spatial definitions

took place on or within (witnessed): Physical Object

spatial definitions

took place at (witnessed): Place

temporal definitions

has time-span (is time-span of): Time-Span

structures

consists of (forms part of): Period

falls within (contains): Period

other descriptions

has note: String

(has type: Type)

The entity is not referenced:

The entity inherits references:

Physical Man-Made Stuff: depicts event (is depicted by)

(mode of depiction : Type)
Period: falls within (contains)

Period: consists of (forms part of)

Activity: had specific purpose (was purpose of)

Type Assignment: classified (was classified by) Document: documents (is documented in)

Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E67 Birth

Belongs to: Period Type

Subclass of: Beginning of Existence

Scope note: The birth of a human being.

Properties:

identifications

is identified by (identifies): Appellation

classifications

has type (is type of): Type

active participants

by mother (gave birth): Person

from father (was father for): Person

had participants (participated in): Actor

passive participants

brought into life (was born): Person

property note: this is a subproperty of "brought into existence" brought into existence (was brought into existence by): CRM Entity

occurred in the presence of (was present at): Stuff

spatial definitions

took place at (witnessed): Place

short cut, spatial definitions

took place on or within (witnessed): Physical Object

temporal definitions

has time-span (is time-span of): Time-Span

structures

consists of (forms part of): Period

falls within (contains): Period

other descriptions

has note: String

(has type: Type)

The entity is not referenced:

The entity inherits references:

Physical Man-Made Stuff: depicts event (is depicted by)

(mode of depiction: Type)

Period: falls within (contains)

Period: consists of (forms part of)

Type Assignment: classified (was classified by) Document: documents (is documented in)

Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E68 Dissolution

Belongs to: Period Type Subclass of: End of Existence

Scope note: The formal or informal end of a group of people. If it was a deliberate act, the instance should

also be instantiated as an activity

Properties:

identifications is identified by (identifies): Appellation classifications has type (is type of): Type active participants had participants (participated in): Actor passive participants dissolved (was dissolved by): Group property note: this is a subproperty of "took out of existence" took out of existence (was taken out of existence by): CRM Entity occurred in the presence of (was present at): Stuff short cut, spatial definitions took place on or within (witnessed): Physical Object spatial definitions took place at (witnessed): Place temporal definitions has time-span (is time-span of): Time-Span structures consists of (forms part of): Period falls within (contains): Period other descriptions has note: String (has type: Type)

The entity is not referenced:

The entity inherits references:

Physical Man-Made Stuff: depicts event (is depicted by)

(mode of depiction: Type)
Period: falls within (contains)
Period: consists of (forms part of)
Type Assignment: classified (year

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by) End of Existence: took out of existence (was taken out of existence by)

E69 Death

Belongs to: Period Type Subclass of: End of Existence

Scope note: The death of a human being. If the person was killed, the instance should also be instantiated

as an activity

Properties:

identifications is identified by (identifies): Appellation classifications has type (is type of): Type active participants had participants (participated in): Actor passive participants was death of (died in): Person property note: this is a subproperty of "took out of existence" took out of existence (was taken out of existence by): CRM Entity occurred in the presence of (was present at): Stuff spatial definitions took place at (witnessed): Place short cut, spatial definitions took place on or within (witnessed): Physical Object temporal definitions has time-span (is time-span of): Time-Span structures consists of (forms part of): Period falls within (contains): Period other descriptions has note: String

The entity is not referenced:

(has type: Type)

The entity inherits references:

Physical Man-Made Stuff: depicts event (is depicted by)

(mode of depiction: Type)
Period: falls within (contains)
Period: consists of (forms part of)

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E70 Stuff

Belongs to: Object Type
Subclass of: CRM Entity
Superclass of: Man-Made Stuff
Physical Stuff

Scope note: An identifiable, discrete, persistent item which constitutes a unit for documentation, be it an

intellectual product or a physical thing. Such items are characterized by a relative stability, i.e. either a solid physical form, an electronic encoding, a reproducible pattern, a logical concept or

structure. It introduces the concept of being used.

Excluded are liquids flowing, gases moving around etc. A packaged liquid however fits this

entity.

Properties

identifications
is identified by (identifies): Appellation
classifications
has type (is type of): Type
other descriptions
had as general use (was use of): Type
(moved up from E19 Physical Object)
has note: String
(has type: Type)

The entity is referenced by:

Event: occurred in the presence of (was present at)

The entity inherits references:

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E71 Man-Made Stuff

Belongs to: Object Type Subclass of: Stuff

Superclass of: Physical Man-Made Stuff

Conceptual Object

Scope note: An identifiable, discrete, persistent item deliberately produced, invented or created by humans

which constitutes a unit for documentation, be an intellectual product, idea or a physical thing.

Properties

identifications

has title (is title of): Title (has type: Type)

(taken over from E19 Physical Object):

is identified by (identifies): Appellation

classifications

has type (is type of): Type

other descriptions

was intended for (was intention of): Type

(moved up from E22 Man-Made Object)

had as general use (was use of): Type

has note: String (has type: Type)

The entity is referenced by:

Activity: was intended use of (was made for)

(mode of use: String)

The entity inherits references:

Event: occurred in the presence of (was present at) Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

E72 Legal Object

Belongs to: Object Type
Subclass of: CRM Entity
Superclass of: Information Object

Physical Stuff

Scope note: An identifiable item which can be owned or people can have a right on. It is not restricted to

Stuff. May be Legal Bodies should be included.

Properties:

identifications
 is identified by (identifies): Appellation
classifications
 has type (is type of): Type
legal status
 is subject to (applies to): Right
 (taken over from Physical Object)
short cut, legal status
 right held by (has right on): Actor
 (has type: Type)
 (has note: String)
 (taken over from Physical Object)
other descriptions
 has note: String

The object is not referenced:

(has type: Type)

The entity inherits references:

Type Assignment: classified (was classified by) Document: documents (is documented in) Conceptual Object: refers to (is referred to by)

(has type : Type)

Beginning of Existence: brought into existence (was brought into existence by)

E73 Information Object

Belongs to: Concept Type Subclass of: Conceptual Object

Legal Object

Superclass of: Iconographic Object

Linguistic Object Visual Item Document

Design or Procedure

Scope note: An identifiable immaterial item which constitutes a unit for documentation and has an

objectively recognizable structure. Examples are data sets, images, texts, procedure

prescriptions. It does not include types, ideas etc.

Properties:

identifications

is identified by (identifies): Appellation

has title (is title of): Title (has type: Type)

classifications

has type (is type of): Type

legal status

is subject to (applies to): Right

short cut, legal status

right held by (has right on): Actor

(has type: Type) (has note: String)

intellectual contents

refers to concept (is referred to by): Type refers to (is referred to by): CRM Entity

(has type: Type)

structures

is composed of (forms part of): Information Object

other descriptions

was intended for (was intention of): Type had as general use (was use of): Type

has note: String (has type: Type)

The entity is referenced only by itself.

Information Object: is composed of (forms part of)

The entity inherits references:

Activity: was intended use of (was made for)

(mode of use : String)

Event: occurred in the presence of (was present at) Conceptual Creation: has created (was created by) Type Assignment: classified (was classified by) Document: documents (is documented in)

Activity: motivated the creation of (was created for) Activity: took into account (was taken into account by)

Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by)

End of Existence: took out of existence (was taken out of existence by)

Activity: was motivation for (motivated)

E74 Group

Belongs to: Actor Type Subclass of: Actor Superclass of: Legal Body

Scope note: A group is any gathering of people that acts collectively or in a similar way due to any kind

of social bounds or contact. Nationality can be handled as a link to a group of appropriate type. Note the distinction between citizenship and ethnic group and other subtleties not easily

expressible by nationality adjectives.

Examples: A group of people painting together at some happening, A tribe of indigenous people, an artist workshop, a *museum*, "Those at the Bastille", a nation, a government, a

company.

Properties:

identifications

is identified by (identifies): Appellation

classifications

has type (is type of): Type

structures

had member (was member of): Actor

<u>property note</u>: Any kind of belonging to a group. May be seen as shortcut of a respective temporal entity other descriptions

has current or former residence (is current or former residence of): Place

possesses (is possessed by): Right

has contact points (provides access to): Contact Point

has note: String (has type: Type)

The object is referenced:

Dissolution: dissolved (was dissolved by) Formation: has formed (was formed by)

The object inherits references:

Activity: carried out by (performed)

(in the role of: Type)

Legal Object: right held by (has right on)

(has type: Type) (has note: String)

Physical Object: has current owner (is current owner of)

Physical Object: has former or current owner (is former or current owner of)

Physical Object: has current keeper (is current keeper of)

Physical Object: has former or current keeper (is former or current keeper of)

Event: had participants (participated in)

Acquisition: transferred title from (surrendered title of) Acquisition: transferred title to (acquired title of)

Transfer of Custody: custody received by (received custody)

Transfer of Custody: custody surrendered by (surrendered custody)

Type Assignment: classified (was classified by)
Document: documents (is documented in)
Conceptual Object: refers to (is referred to by)

(has type: Type)

Group: had member (was member of)

Beginning of Existence: brought into existence (was brought into existence by)

E75 Conceptual Object Appellation

Belongs to: Appellation Type Subclass of: Appellation

Scope note: Specific Identifiers of an intellectual product or standardized pattern

Examples: ISBN 3-7913-1418-1, ISO2788-1986 (E)

Properties:

identifications
 is identified by (identifies): Appellation
classifications
 has type (is type of): Type
other descriptions
 has note: String
 (has type : Type)

The entity is not referenced:

The entity inherits references:

Type Assignment: classified (was classified by) Document: documents (is documented in) CRM Entity: is identified by (identifies) Conceptual Object: refers to (is referred to by)

(has type: Type)

Beginning of Existence: brought into existence (was brought into existence by) End of Existence: took out of existence (was taken out of existence by)

E76 Gender

Subclass of: Type

APPENDIX

Index of the links of the CIDOC CRM sorted alphabetic:

Link id	Entity – Domain	Domain id	Link Name	Entity - Range	Range id
P42	Type Assignment	E17	assigned (was assigned by)	Туре	E55
P37	Identifier Assignment	E15	assigns (is assigned by)	Object Identifier	E42
P69	Design or Procedure	E29	associated with	Design or Procedure	E29
P81	Time-Span	E52	at least covering	Time Primitive	E61
P82	Time-Span	E52	at most within	Time Primitive	E61
P56	Physical Object	E19	bears feature (is found on)	Physical Feature	E26
P79	Time-Span	E52	begins at qualify	String	E62
P92	Beginning of Existence	E63	brought into existence (was brought into existence by)	CRM Entity	E1
P98	Birth	E67	brought into life (was born)	Person	E21
P96	Birth	E67	by mother (gave birth)	Person	E21
P14	Activity	E7	carried out by (performed) (in the role of : Type)	Actor	E39
P41	Type Assignment	E17	classified (was classified by)	CRM Entity	E1
P34	Condition Assessment	E14	concerns (assessed by)	Physical Stuff	E18
P77	Legal Body	E40	consists of (belongs to)	Legal Body	E40
P85	Time-Span	E52	consists of (forms part of)	Time-Span	E52
P88	Place	E53	consists of (forms part of)	Place	E53
P5	Condition State	E3	consists of (forms part of)	Condition State	E3
P9	Period	E4	consists of (forms part of)	Period	E4
P45	Physical Stuff	E18	consists of (is incorporated in)	Material	E57
P71	Authority Document	E32	contains (is part of)	Туре	E55
P29	Transfer of Custody	E10	custody received by (received custody)	Actor	E39
P28	Transfer of Custody	E10	custody surrendered by (surrendered custody)	Actor	E39
P38	Identifier Assignment	E15	deassigns (is deassigned by)	Object Identifier	E42
P64	Physical Man-Made Stuff	E24	depicts concept (is depicted by) (mode of depiction : Type)	Туре	E55
P63	Physical Man-Made Stuff	E24	depicts event (is depicted by) (mode of depiction: Type)	Event	E5
P62	Physical Man-Made Stuff	E24	depicts object (is depicted by) (mode of depiction : Type)	Physical Stuff	E18

Link id	Entity – Domain	Domain id	Link Name	Entity - Range	Range id
P13	Destruction	E6	destroyed (was destroyed by)	Physical Object	E19
P99	Dissolution	E68	dissolved (was dissolved by)	Group	E74
P70	Document	E31	documents (is documented in)	CRM Entity	E1
P80	Time-Span	E52	ends at qualify	String	E62
P6	Condition State	E3	falls within (contains)	Condition State	E3
P10	Period	E4	falls within (contains)	Period	E4
P86	Time-Span	E52	falls within (contains)	Time-Span	E52
P89	Place	E53	falls within (contains)	Place	E53
P97	Birth	E67	from father (was father for)	Person	E21
P21	Activity	E7	had as general purpose (was purpose of)	Туре	E55
P83	Time-Span	E52	had at least duration	Dimension	E54
P84	Time-Span	E52	had at most duration	Dimension	E54
P107	Group	E74	had member (was member of)	Actor	E39
P11	Event	E5	had participants (participated in)	Actor	E39
P20	Activity	E7	had specific purpose (was purpose of)	Activity	E7
P101	Stuff	E70	has as general use (was use of)	Туре	E55
P44	Physical Stuff	E18	has condition (condition of)	Condition State	E3
P76	Actor	E39	has contact points (provides access to)	Contact Point	E51
P94	Conceptual Creation	E65	has created (was created by)	Conceptual Object	E28
P50	Physical Object	E19	has current keeper (is current keeper of)	Actor	E39
P55	Physical Object	E19	has current location (currently holds)	Place	E53
P74	Actor	E39	has current or former residence (is current or former residence of)	Place	E53
P52	Physical Object	E19	has current owner (is current owner of)	Actor	E39
P54	Physical Object	E19	has current permanent location (is current permanent location of)	Place	E53
P43	Physical Stuff	E18	has dimension (is dimension of)	Dimension	E54
P35	Condition Assessment	E14	has identified (identified by)	Condition State	E3
P95	Formation	E66	has formed (was formed by)	Group	E74
P49	Physical Object	E19	has former or current keeper (is former or current keeper of)	Actor	E39
P53	Physical Object	E19	has former or current location (is former or current location of)	Place	E53
P51	Physical Object	E19	has former or current owner (is former or current owner of)	Actor	E39
P61	Person	E21	has gender (is gender of)	Gender	E76
P72	Linguistic Object	E33	has language (is language of)	Language	E56
Р3	CRM Entity	E1	has note (has type : Type)	String	E62
P57	Physical Object	E19	has number of parts	Number	E60
P31	Modification	E11	has produced (was produced by)	Physical Man-Made Stuff	E24

Link id	Entity – Domain	Domain id	Link Name	Entity - Range	Range id
P59	Physical Object	E19	has section (is located on or within)	Place	E53
P58	Physical Object	E19	has section definition (defines section)	Section Definition	E46
P4	Temporal Entity	E2	has time-span (is time-span of)	Time-Span	E52
P102	Man-Made Stuff	E71	has title (is title of)	Title	E35
			(has type: Type)		
P73	Linguistic Object	E33	has translation (is translation of)	Linguistic Object	E33
P2	CRM Entity	E1	has type (is type of)	Type	E55
P46	Physical Stuff	E18	is composed of (forms part of)	Physical Stuff	E18
P106	Information Object	E73	is composed of (forms part of)	Information Object	E73
P1	CRM Entity	E1	is identified by (identifies)	Appellation	E41
P47	Physical Object	E19	is identified by (identifies)	Object Identifier	E42
P87	Place	E53	is identified by (identifies)	Place Appellation	E44
P78	Time-Span	E52	is identified by (identifies)	Time Appellation	E49
P60	Person	E21	is member of (has members)	Legal Body	E40
P104	Legal Object	E72	is subject to (applies to)	Right	E30
P39	Measurement	E16	measured (was measured)	Physical Stuff	E18
P18	Activity	E7	motivated the creation of (was created for)	Conceptual Object	E28
P25	Move	E9	moved (moved by)	Physical Object	E19
P27	Move	E9	moved from (vacated)	Place	E53
P26	Move	E9	moved to (occupied)	Place	E53
P40	Measurement	E16	observed dimension (was observed)	Dimension	E54
P12	Event	E5	occurred in the presence of (was present at)	Stuff	E70
P75	Actor	E39	possesses (is possessed by)	Right	E30
P48	Physical Object	E19	preferred identifier is (is preferred identifier of)	Object Identifier	E42
P67	Conceptual Object	E28	refers to (is referred to by) (has type: Type)	CRM Entity	E1
P66	Conceptual Object	E28	refers to concept (is referred to by)	Type	E55
P36	Identifier Assignment	E15	registers (registered by)	Physical Object	E19
P105	Legal Object	E72	right held by (has right on) (has type: Type) (has note: String)	Actor	E39
P65	Physical Man-Made Stuff	E24	shows visual item (is shown by)	Visual Item	E36
P15	Activity	E7	took into account (was taken into account by)	Conceptual Object	E28
P93	End of Existence	E64	took out of existence (was taken out of existence by)	CRM Entity	E1
P7	Period	E4	took place at (witnessed)	Place	E53
P8	Period	E4	took place on or within (witnessed)	Physical Object	E19

Link id	Entity – Domain	Domain id	Link Name	Entity - Range	Range id
P30	Transfer of Custody	E10	transferred custody of (custody changed by)	Physical Object	E19
P23	Acquisition	E8	transferred title from (surrendered title of)	Actor	E39
P24	Acquisition	E8	transferred title of (changed ownership by)	Physical Object	E19
P22	Acquisition	E8	transferred title to (acquired title of)	Actor	E39
P91	Dimension	E54	unit	Measurement Unit	E58
P32	Modification	E11	used general technique (was technique of)	Туре	E55
P16	Activity	E7	used object (was used for)	Physical Object	E19
			(mode of use : String)		
P33	Modification	E11	used specific technique (was used by)	Design or Procedure	E29
P68	Design or Procedure	E29	usually employs (is usually employed by)	Material	E57
P90	Dimension	E54	value	Number	E60
P100	Death	E69	was death of (died in)	Person	E21
P103	Man-Made Stuff	E71	was intended for (was intention of)	Туре	E55
P19	Activity	E7	was intended use of (was made for)	Man-Made Stuff	E71
			(mode of use: String)		
P17	Activity	E7	was motivation for (motivated)	Conceptual Object	E28

Index of the links of the CIDOC CRM sorted by domain:

Link id	Entity – Domain	Domain id	Link Name	Entity - Range	Range id
P1	CRM Entity	E1	is identified by (identifies)	Appellation	E41
P2	CRM Entity	E1	has type (is type of)	Туре	E55
P3	CRM Entity	E1	has note	String	E62
			(has type : Type)		
P4	Temporal Entity	E2	has time-span (is time-span of)	Time-Span	E52
P5	Condition State	E3	consists of (forms part of)	Condition State	E3
P6	Condition State	E3	falls within (contains)	Condition State	E3
P7	Period	E4	took place at (witnessed)	Place	E53
P8	Period	E4	took place on or within (witnessed)	Physical Object	E19
P9	Period	E4	consists of (forms part of)	Period	E4
P10	Period	E4	falls within (contains)	Period	E4
P11	Event	E5	had participants (participated in)	Actor	E39
P12	Event	E5	occurred in the presence of (was present at)	Stuff	E70
P13	Destruction	E6	destroyed (was destroyed by)	Physical Object	E19
P14	Activity	E7	carried out by (performed)	Actor	E39
			(in the role of : Type)		
P15	Activity	E7	took into account (was taken into account by)	Conceptual Object	E28
P16	Activity	E7	used object (was used for)	Physical Object	E19
			(mode of use : String)		
P17	Activity	E7	was motivation for (motivated)	Conceptual Object	E28
P18	Activity	E7	motivated the creation of (was created for)	Conceptual Object	E28
P19	Activity	E7	was intended use of (was made for)	Man-Made Stuff	E71
			(mode of use: String)		
P20	Activity	E7	had specific purpose (was purpose of)	Activity	E7
P21	Activity	E7	had as general purpose (was purpose of)	Туре	E55
P22	Acquisition	E8	transferred title to (acquired title of)	Actor	E39
P23	Acquisition	E8	transferred title from (surrendered title of)	Actor	E39
P24	Acquisition	E8	transferred title of (changed ownership by)	Physical Object	E19
P25	Move	E9	moved (moved by)	Physical Object	E19
P26	Move	E9	moved to (occupied)	Place	E53
P27	Move	E9	moved from (vacated)	Place	E53
P28	Transfer of Custody	E10	custody surrendered by (surrendered custody)	Actor	E39

Link id	Entity – Domain	Domain id	Link Name	Entity - Range	Range id
P29	Transfer of Custody	E10	custody received by (received custody)	Actor	E39
P30	Transfer of Custody	E10	transferred custody of (custody changed by)	Physical Object	E19
P31	Modification	E11	has produced (was produced by)	Physical Man-Made Stuff	E24
P32	Modification	E11	used general technique (was technique of)	Туре	E55
P33	Modification	E11	used specific technique (was used by)	Design or Procedure	E29
P34	Condition Assessment	E14	concerns (assessed by)	Physical Stuff	E18
P35	Condition Assessment	E14	has identified (identified by)	Condition State	E3
P36	Identifier Assignment	E15	registers (registered by)	Physical Object	E19
P37	Identifier Assignment	E15	assigns (is assigned by)	Object Identifier	E42
P38	Identifier Assignment	E15	deassigns (is deassigned by)	Object Identifier	E42
P39	Measurement	E16	measured (was measured)	Physical Stuff	E18
P40	Measurement	E16	observed dimension (was observed)	Dimension	E54
P41	Type Assignment	E17	classified (was classified by)	CRM Entity	E1
P42	Type Assignment	E17	assigned (was assigned by)	Туре	E55
P43	Physical Stuff	E18	has dimension (is dimension of)	Dimension	E54
P44	Physical Stuff	E18	has condition (condition of)	Condition State	E3
P45	Physical Stuff	E18	consists of (is incorporated in)	Material	E57
P46	Physical Stuff	E18	is composed of (forms part of)	Physical Stuff	E18
P47	Physical Object	E19	is identified by (identifies)	Object Identifier	E42
P48	Physical Object	E19	preferred identifier is (is preferred identifier of)	Object Identifier	E42
P49	Physical Object	E19	has former /current keeper : (is former or current keeper of)	Actor	E39
P50	Physical Object	E19	has current keeper (is current keeper of)	Actor	E39
P51	Physical Object	E19	has former or current owner (is former or current owner of)	Actor	E39
P52	Physical Object	E19	has current owner (is current owner of)	Actor	E39
P53	Physical Object	E19	has former or current location (is former or current location of)	Place	E53
P54	Physical Object	E19	has current permanent location (is current permanent location of)	Place	E53
P55	Physical Object	E19	has current location (currently holds)	Place	E53
P56	Physical Object	E19	bears feature (is found on)	Physical Feature	E26
P57	Physical Object	E19	has number of parts	Number	E60
P58	Physical Object	E19	has section definition (defines section)	Section Definition	E46
P59	Physical Object	E19	has section (is located on or within)	Place	E53
P60	Person	E21	is member of (has members)	Legal Body	E40
P61	Person	E21	has gender (is gender of)	Gender	E76
P62	Physical Man-Made Stuff	E24	depicts object (is depicted by)	Physical Stuff	E18
			(mode of depiction : Type)		
P63	Physical Man-Made Stuff	E24	depicts event (is depicted by)	Event	E5

Link id	Entity – Domain	Domain id	Link Name	Entity - Range	Range id
			(mode of depiction: Type)		
P64	Physical Man-Made Stuff	E24	depicts concept (is depicted by)	Туре	E55
			(mode of depiction : Type)		
P65	Physical Man-Made Stuff	E24	shows visual item (is shown by)	Visual Item	E36
P66	Conceptual Object	E28	refers to concept (is referred to by)	Type	E55
P67	Conceptual Object	E28	refers to (is referred to by)	CRM Entity	E1
			(has type : Type)		
P68	Design or Procedure	E29	usually employs (is usually employed by)	Material	E57
P69	Design or Procedure	E29	associated with	Design or Procedure	E29
P70	Document	E31	documents (is documented in)	CRM Entity	E1
P71	Authority Document	E32	contains (is part of)	Туре	E55
P72	Linguistic Object	E33	has language (is language of)	Language	E56
P73	Linguistic Object	E33	has translation (is translation of)	Linguistic Object	E33
P74	Actor	E39	has current or former residence (is current or former residence of)	Place	E53
P75	Actor	E39	possesses (is possessed by)	Right	E30
P76	Actor	E39	has contact points (provides access to)	Contact Point	E51
P77	Legal Body	E40	consists of (belongs to)	Legal Body	E40
P78	Time-Span	E52	is identified by (identifies)	Time Appellation	E49
P79	Time-Span	E52	begins at qualify	String	E62
P80	Time-Span	E52	ends at qualify	String	E62
P81	Time-Span	E52	at least covering	Time Primitive	E61
P82	Time-Span	E52	at most within	Time Primitive	E61
P83	Time-Span	E52	had at least duration	Dimension	E54
P84	Time-Span	E52	had at most duration	Dimension	E54
P85	Time-Span	E52	consists of (forms part of)	Time-Span	E52
P86	Time-Span	E52	falls within (contains)	Time-Span	E52
P87	Place	E53	is identified by (identifies)	Place Appellation	E44
P88	Place	E53	consists of (forms part of)	Place	E53
P89	Place	E53	falls within (contains)	Place	E53
P90	Dimension	E54	value	Number	E60
P91	Dimension	E54	unit	Measurement Unit	E58
P92	Beginning of Existence	E63	brought into existence (was brought into existence by)	CRM Entity	E1
P93	End of Existence	E64	took out of existence (was taken out of existence by)	CRM Entity	E1
P94	Conceptual Creation	E65	has created (was created by)	Conceptual Object	E28
P95	Formation	E66	has formed (was formed by)	Group	E74
P96	Birth	E67	by mother (gave birth)	Person	E21

Link id	Entity – Domain	Domain id	Link Name	Entity - Range	Range id
P97	Birth	E67	from father (was father for)	Person	E21
P98	Birth	E67	brought into life (was born)	Person	E21
P99	Dissolution	E68	dissolved (was dissolved by)	Group	E74
P100	Death	E69	was death of (died in)	Person	E21
P101	Stuff	E70	has as general use (was use of)	Туре	E55
P102	Man-Made Stuff	E71	has title (is title of)	Title	E35
			(has type: Type)		
P103	Man-Made Stuff	E71	was intended for (was intention of)	Туре	E55
P104	Legal Object	E72	is subject to (applies to)	Right	E30
P105	Legal Object	E72	right held by (has right on)	Actor	E39
			(has type: Type) (has note: String)		
P106	Information Object	E73	is composed of (forms part of)	Information Object	E73
P107	Group	E74	had member (was member of)	Actor	E39

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Link id	Entity – Domain	Domain id	Link Name F	Entity - Range	Range id
P41	Type Assignment	E17	classified (was classified by)	CRM Entity	E1
P67	Conceptual Object	E28	refers to (is referred to by)	CRM Entity	E1
			(has type : Type)		
P70	Document	E31		CRM Entity	E1
P92	Beginning of Existence	E63	\mathcal{E}	CRM Entity	E1
P93	End of Existence	E64	took out of existence (was taken out of existence by)	CRM Entity	E1
P5	Condition State	E3	consists of (forms part of)	Condition State	E3
P6	Condition State	E3	falls within (contains)	Condition State	E3
P35	Condition Assessment	E14	has identified (identified by)	Condition State	E3
P44	Physical Stuff	E18	has condition (condition of)	Condition State	E3
P9	Period	E4	consists of (forms part of)	Period	E4
P10	Period	E4	falls within (contains)	Period	E4
P63	Physical Man-Made Stuff	E24		Event	E5
			(mode of depiction: Type)		
P20	Activity	E7	had specific purpose (was purpose of)	Activity	E7
P34	Condition Assessment	E14	concerns (assessed by)	Physical Stuff	E18
P62	Physical Man-Made Stuff	E24	depicts object (is depicted by)	Physical Stuff	E18
			(mode of depiction : Type)		
P46	Physical Stuff	E18		Physical Stuff	E18
P39	Measurement	E16		Physical Stuff	E18
P13	Destruction	E6		Physical Object	E19
P25	Move	E9	moved (moved by)	Physical Object	E19
P36	Identifier Assignment	E15		Physical Object	E19
P8	Period	E4	1	Physical Object	E19
P30	Transfer of Custody	E10		Physical Object	E19
P24	Acquisition	E8	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Physical Object	E19
P16	Activity	E7		Physical Object	E19
			(mode of use : String)		
P98	Birth	E67	8 7 /	Person	E21
P96	Birth	E67	, (C)	Person	E21
P97	Birth	E67		Person	E21
P100	Death	E69	J \ /	Person	E21
P31	Modification	E11	has produced (was produced by)	Physical Man-Made Stuff	E24

Link id	Entity – Domain	Domain id	Link Name	Entity - Range	Range id
P56	Physical Object	E19	bears feature (is found on)	Physical Feature	E26
P94	Conceptual Creation	E65	has created (was created by)	Conceptual Object	E28
P18	Activity	E7	motivated the creation of (was created for)	Conceptual Object	E28
P15	Activity	E7	took into account (was taken into account by)	Conceptual Object	E28
P17	Activity	E7	was motivation for (motivated)	Conceptual Object	E28
P69	Design or Procedure	E29	associated with	Design or Procedure	E29
P33	Modification	E11	used specific technique (was used by)	Design or Procedure	E29
P104	Legal Object	E72	is subject to (applies to)	Right	E30
P75	Actor	E39	possesses (is possessed by)	Right	E30
P73	Linguistic Object	E33	has translation (is translation of)	Linguistic Object	E33
P102	Man-Made Stuff	E71	has title (is title of) (has type: Type)	Title	E35
P65	Physical Man-Made Stuff	E24	shows visual item (is shown by)	Visual Item	E36
P14	Activity	E7	carried out by (performed) (in the role of : Type)	Actor	E39
P29	Transfer of Custody	E10	custody received by (received custody)	Actor	E39
P28	Transfer of Custody	E10	custody surrendered by (surrendered custody)	Actor	E39
P107	Group	E74	had member (was member of)	Actor	E39
P11	Event	E5	had participants (participated in)	Actor	E39
P50	Physical Object	E19	has current keeper (is current keeper of)	Actor	E39
P52	Physical Object	E19	has current owner (is current owner of)	Actor	E39
P49	Physical Object	E19	has former /current keeper: (is former or current keeper of)	Actor	E39
P51	Physical Object	E19	has former or current owner (is former or current owner of)	Actor	E39
P105	Legal Object	E72	right held by (has right on) (has type: Type) (has note: String)	Actor	E39
P23	Acquisition	E8	transferred title from (surrendered title of)	Actor	E39
P22	Acquisition	E8	transferred title to (acquired title of)	Actor	E39
P77	Legal Body	E40	consists of (belongs to)	Legal Body	E40
P60	Person	E21	is member of (has members)	Legal Body	E40
P1	CRM Entity	E1	is identified by (identifies)	Appellation	E41
P37	Identifier Assignment	E15	assigns (is assigned by)	Object Identifier	E42
P38	Identifier Assignment	E15	deassigns (is deassigned by)	Object Identifier	E42
P47	Physical Object	E19	is identified by (identifies)	Object Identifier	E42
P48	Physical Object	E19	preferred identifier is (is preferred identifier of)	Object Identifier	E42
P87	Place	E53	is identified by (identifies)	Place Appellation	E44

Link id	Entity – Domain	Domain id	Link Name	Entity - Range	Range id
P58	Physical Object	E19	has section definition (defines section)	Section Definition	E46
P78	Time-Span	E52	is identified by (identifies)	Time Appellation	E49
P76	Actor	E39	has contact points (provides access to)	Contact Point	E51
P85	Time-Span	E52	consists of (forms part of)	Time-Span	E52
P86	Time-Span	E52	falls within (contains)	Time-Span	E52
P4	Temporal Entity	E2	has time-span (is time-span of)	Time-Span	E52
P88	Place	E53	consists of (forms part of)	Place	E53
P89	Place	E53	falls within (contains)	Place	E53
P55	Physical Object	E19	has current location (currently holds)	Place	E53
P74	Actor	E39	has current or former residence (is current or former residence of)	Place	E53
P54	Physical Object	E19	has current permanent location (is current permanent location of)	Place	E53
P53	Physical Object	E19	has former or current location (is former or current location of)	Place	E53
P59	Physical Object	E19	has section (is located on or within)	Place	E53
P27	Move	E9	moved from (vacated)	Place	E53
P26	Move	E9	moved to (occupied)	Place	E53
P7	Period	E4	took place at (witnessed)	Place	E53
P83	Time-Span	E52	had at least duration	Dimension	E54
P84	Time-Span	E52	had at most duration	Dimension	E54
P43	Physical Stuff	E18	has dimension (is dimension of)	Dimension	E54
P40	Measurement	E16	observed dimension (was observed)	Dimension	E54
P42	Type Assignment	E17	assigned (was assigned by)	Туре	E55
P71	Authority Document	E32	contains (is part of)	Туре	E55
P64	Physical Man-Made Stuff	E24	depicts concept (is depicted by) (mode of depiction : Type)	Туре	E55
P21	Activity	E7	had as general purpose (was purpose of)	Туре	E55
P101	Stuff	E70	has as general use (was use of)	Type	E55
P2	CRM Entity	E1	has type (is type of)	Type	E55
P66	Conceptual Object	E28	refers to concept (is referred to by)	Type	E55
P32	Modification	E11	used general technique (was technique of)	Type	E55
P103	Man-Made Stuff	E71	was intended for (was intention of)	Type	E55
P72	Linguistic Object	E33	has language (is language of)	Language	E56
P45	Physical Stuff	E18	consists of (is incorporated in)	Material	E57
P68	Design or Procedure	E29	usually employs (is usually employed by)	Material	E57
P91	Dimension	E54	unit	Measurement Unit	E58
P57	Physical Object	E19	has number of parts	Number	E60
P90	Dimension	E54	value	Number	E60

Link id	Entity – Domain	Domain id	Link Name	Entity - Range	Range id
P81	Time-Span	E52	at least covering	Time Primitive	E61
P82	Time-Span	E52	at most within	Time Primitive	E61
P79	Time-Span	E52	begins at qualify	String	E62
P80	Time-Span	E52	ends at qualify	String	E62
P3	CRM Entity	E1	has note	String	E62
			(has type : Type)		
P12	Event	E5	occurred in the presence of (was present at)	Stuff	E70
P19	Activity	E7	was intended use of (was made for)	Man-Made Stuff	E71
			(mode of use: String)		
P106	Information Object	E73	is composed of (forms part of)	Information Object	E73
P99	Dissolution	E68	dissolved (was dissolved by)	Group	E74
P95	Formation	E66	has formed (was formed by)	Group	E74
P61	Person	E21	has gender (is gender of)	Gender	E76