Definition of CRM for Art and Architectural Argumentation Version 1.5.1

Version: 1.5.1

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Contributors: George Bruseker, Matthew Fielding, Denitsa Nenova

Introduction

Scope

This document represents the formal specification for an unofficial formal extension of the CIDOC CRM designed for application in the area of art and architectural historical research. The scope of this extension is to support art and architectural research in the sense of the study of primary and secondary documents for the derivation, manually and programmatically, of historically contextual facts that can be used to support reflection and structured argumentation. The core expressivity that this extension adds is the ability to accurately express historically bound, contextual social facts relative to the agents holding those beliefs and the temporal period for which those beliefs were valid. The extension enables this expressivity by introducing the notions of institutional fact and speech act as core modelling concepts. Institutional facts are collective beliefs about the world held by groups for a period of time. Such collective beliefs while subjectively grounded are epistemically objective for the community over which they hold sway. Introducing the notion of institutional fact allows for a specialization of the core CRM to be able to express these social realities (expressed in simple, aoristic binary properties in the core CRM) in their full social complexity as temporally and socially bound beliefs. The concomitant core notion introduced in this extension is the idea of Speech Act in the Austinian and Serlean sense. A speech act is a kind of intentional event (E7 Activity of CRM base) in which agents purposefully apply a rule and perform a set practice in order to bring about a new social state or institutional fact. Introducing the notion of speech act provides both a high level ontological category and set of relations for describing the kinds of events which are the cause of institutional facts as well as providing a starting point for the analysis of the non truth propositional use of information objects. In speech acts, information objects (e.g. phrases and formulae) are deployed not to convey states of the world but to generate states of the world. The subject of historical investigation is not simply the bare facts available to an empirical analysis of the physical world but involves an investigation of the social activities which generated contexts of understanding and belief that may differ significantly across times and peoples. Materializing the social facts implicit in CRM base as explicit institutional facts gives them a richer ontological representation and offers a consistent epistemological approach to their study by recognizing social, negotiated facts as objective realities in themselves and treating them as first order entities of study. This involves a departure from the aims of CRM base which is guided by an information integration functionality which favours the representation of the latest state of knowledge in a presentist perspective. In the study of the history of art and architecture it is in no small part the different non-coinciding facts held or supported by different actors over different times which are of interest. The materialization of institutional facts supports the information management functionality which guides this informal extension of the CIDOC CRM and which aims to support historians in representing the positive knowledge they can gather from primary and secondary sources of evidence of both past simple and institutional facts for the purposes of proposing hypotheses and analyses of texts, authors, periods, works and so on. In this regard, CRMaaa also provides an initial limited set of classes for describing traditional and digital methods of deriving facts from texts, in order to support the linking of contemporary research processes as provenance nodes for the different data points of simple and institutional facts which they generate in the course of their research.

Examples Used

With this in mind, examples have been chosen which potentially support a variety of social facts. Some of these facts, i.e., those held by one group of people at some time or other, may directly contradict another, i.e., that held by a different group of people at some potentially different time. Most of the examples have been reused across different types of social fact, in order to tell more completely the history of the objects in question and the beliefs that have been held about them by specific groups of people over a given period of time. These histories can in themselves be quite complex. References are thus provided for further contextualization. These appear in brackets following the examples, like so:

- The Ownership Status (ZE8) of the G'psgolox totem pole (E22) as 'has current owner' the Haisla people (E74) from 1872 - 2012 holds for the Haisla people (E74) and as 'has current owner' the Swedish National Museum of Ethnography (E74) from 1929 - 2006 holds for the Swedish Polity. (https://en.wikipedia.org/wiki/G%CA%BCpsgolox_totem_pole)

Compatibility and Nomenclature

This unofficial extension of the CIDOC CRM is formulated in relation to:

- CIDOC CRM v.7.1.2
- CIDOC CRM Dig v.4.0

The specification consists of a set of declarations for formalized classes and properties that extend the CIDOC CRM and the above official extensions.

Adopting the conventions of the CIDOC CRM each class and property have been given an identifier in addition to their names. The naming convention adopted for this extension is:

ZE = class

ZP = property

The choice of these names was arbitrary, making a conceptual connection with the official CRM representation while clearly distinguishing the new classes and properties from those of either CRM base or its official extensions.

Namespace

https://takin.solutions/ontologies/crmaaa

Maintenance and Archiving

CRMaaa is an actively maintained ontology. It is our aim to develop publicaly and participatively, learning from and engaging with the scholarly community that adopts it. Towards this end we maintain the ontology with the following processes and relative tools.

Ontology Development
We adopt the OntoMe tool developed by LARHRA to manage the ontology and produce editions. This ensures a consistent management of the ontology and provides a public space to engage in revisions.

The maintenance space for the ontology can be found here: https://ontome.net/project/69

Please note, at time of publishing, OntoME is not capable of producing complete, provenanced RDF serializations, so please only use the official RDF for this standard stored on our github. See below.

Issue Management and Revision Storage
We adopt github as a platform for inviting and managing issues related to the ontology as well as providing an active place to be able to access the latest edition of the ontology, its specification and relevant documentation.

The address for the github repository is: https://github.com/takinsolutions/crmaaa

Acknowledgements

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Institutional Support
The continuous maintenance and promotion of CRMaaa is made possible by the initial commitment of its partners to maintain the ontology and promote its understanding and adoption.

- Swiss Art Research Infrastracture - University of Zurich
- Takin.solutions

Status

Published version

Class Hierarchy

This class hierarchy lists:

- all classes declared in CRM for Art and Architectural Argumentation Version 1.5

- all classes declared in CIDOC CRM version 7.1.2 that are declared as superclasses of classes declared in the CRM for Art and Architectural Argumentation Version 1.5

- all classes declared in CRMdig version 4.0 version 4.0 unstable that are declared as superclasses of classes declared in the CRM for Art and Architectural Argumentation Version 1.5

- all classes declared in CIDOC CRM version 7.1.2 that are either domain or range for a property declared in the CRM for Art and Architectural Argumentation Version 1.5

- all classes declared in CRMdig version 4.0 version 4.0 unstable that are either domain or range for a property declared in the CRM for Art and Architectural Argumentation Version 1.5

Table 1: Class Hierarchy

E1	CRM Entity						
E2	-	Temporal Entity					
E4	-	-	Period				
E5	-	-	-	Event			
E7	-	-	-	-	Activity		
ZE13	-	-	-	-	-	Speech Act	
E13	-	-	-	-	-	-	Attribute Assignment
ZE19	-	-	-	-	-	-	- Naming
ZE21	-	-	-	-	-	-	Declarative Transfer of Custody
ZE33	-	-	-	-	-	-	Declarative Formation
ZE34	-	-	-	-	-	-	Declarative Dissolution
ZE22	-	-	-	-	-	-	Declarative Joining
ZE23	-	-	-	-	-	-	Declarative Leaving
ZE27	-	-	-	-	-	-	Declaration of Obligation
ZE29	-	-	-	-	-	-	Transfer of Property Right
ZE20	-	-	-	-	-	-	- Declarative Acquisition
ZE21	-	-	-	-	-	-	- Declarative Transfer of Custody
ZE18	-	-	-	-	-	-	Critical Reading
ZE19	-	-	-	-	-	-	Digital Reading
E8	-	-	-	-	-	Acquisition	

ZE20	-	-	-	-	-	-	Declarative Acquisition
E10	-	-	-	-	-	Transfer of Custody	
ZE21	-	-	-	-	-	-	Declarative Transfer of Custody
E66	-	-	-	-	-	Formation	
ZE33	-	-	-	-	-	-	Declarative Formation
E85	-	-	-	-	-	Joining	
ZE22	-	-	-	-	-	-	Declarative Joining
E86	-	-	-	-	-	Leaving	
ZE23	-	-	-	-	-	-	Declarative Leaving
D7	-	-	-	-	-	Digital Machine Event	
ZE19	-	-	-	-	-	-	Digital Reading
E63	-	-	-	-	Beginning of Existence		
E66	-	-	-	-	-	Formation	
ZE33	-	-	-	-	-	-	Declarative Formation
E64	-	-	-	-	End of Existence		
E68	-	-	-	-	-	Dissolution	
ZE34	-	-	-	-	-	-	Declarative Dissolution
ZE1	-	-	Institutional Fact				
ZE2	-	-	-	Appellative Status			
ZE3	-	-	-	-	Contact Point Status		
ZE4	-	-	-	Classificatory Status			
ZE5	-	-	-	-	Function Status		
ZE6	-	-	-	-	Social Status		
ZE9	-	-	-	Residential Status			
ZE10	-	-	-	Family Status			
ZE11	-	-	-	Membership Status			
ZE12	-	-	-	Referential Status			
ZE14	-	-	-	Similarity Status			
ZE15	-	-	-	Set Status			
ZE28	-	-	-	Obligation Status			
ZE25	-	-	-	Dating Status			
ZE30	-	-	-	Property Right Status			
ZE7	-	-	-	-	Custodial Status		

ZE8   -   -   -   -   Ownership Status

E77   -   Persistent Item

E70   -   -   Thing

E71   -   -   -   Human-Made Thing

E28   -   -   -   -   Conceptual Object

ZE24   -   -   -   -   -   Notional Set

Referenced Classes

Table 2: List of external classes grouped by model and ordered by model (exception: CRMbase always goes first) and then by class identifier.

Class identifier	Class name	Model	Version
E1	CRM Entity	CIDOC CRM	7.1.2
E2	Temporal Entity	CIDOC CRM	7.1.2
E4	Period	CIDOC CRM	7.1.2
E5	Event	CIDOC CRM	7.1.2
E7	Activity	CIDOC CRM	7.1.2
E8	Acquisition	CIDOC CRM	7.1.2
E10	Transfer of Custody	CIDOC CRM	7.1.2
E13	Attribute Assignment	CIDOC CRM	7.1.2
E18	Physical Thing	CIDOC CRM	7.1.2
E21	Person	CIDOC CRM	7.1.2
E28	Conceptual Object	CIDOC CRM	7.1.2
E29	Design or Procedure	CIDOC CRM	7.1.2
E39	Actor	CIDOC CRM	7.1.2
E41	Appellation	CIDOC CRM	7.1.2
E42	Identifier	CIDOC CRM	7.1.2
E53	Place	CIDOC CRM	7.1.2
E54	Dimension	CIDOC CRM	7.1.2
E55	Type	CIDOC CRM	7.1.2
E66	Formation	CIDOC CRM	7.1.2
E68	Dissolution	CIDOC CRM	7.1.2
E72	Legal Object	CIDOC CRM	7.1.2
E73	Information Object	CIDOC CRM	7.1.2
E74	Group	CIDOC CRM	7.1.2

E85	Joining	CIDOC CRM	7.1.2
E86	Leaving	CIDOC CRM	7.1.2
E89	Propositional Object	CIDOC CRM	7.1.2

Property Hierarchy

This property hierarchy lists:

- all properties declared in CRM for Art and Architectural Argumentation Version 1.5

- all properties declared in CIDOC CRM version 7.1.2 that are declared as superproperties of properties declared in the CRM for Art and Architectural Argumentation Version 1.5

- all properties declared in CRMdig version 4.0 version 4.0 unstable that are declared as superproperties of properties declared in the CRM for Art and Architectural Argumentation Version 1.5

Table 3: Property Hierarchy

Property id	Property Name	Entity – Domain	Entity - Range
P14	carried out by (performed)	E7 Activity	E39 Actor
ZP61	- transferred property right to (acquired property right through)	ZE29 Transfer of Property Right	E39 Actor
ZP62	- transferred property right from (surrendered property right through)	ZE29 Transfer of Property Right	E39 Actor
ZP67	- generated obligation upon (had obligation generated upon by)	ZE27 Declaration of Obligation	E39 Actor
ZP68	- generated obligation to (had obligation to generated by)	ZE27 Declaration of Obligation	E39 Actor
P16	used specific object (was used for)	E7 Activity	E70 Thing
ZP41	- uttered (was uttered by)	ZE13 Speech Act	E73 Information Object
ZP63	- transferred property right over (had change in property right through)	ZE29 Transfer of Property Right	E72 Legal Object
P33	used specific technique (was used by)	E7 Activity	E29 Design or Procedure
ZP40	- performed (was performed by)	ZE13 Speech Act	E29 Design or Procedure
ZP1	has intentional subject (is intentional subject of)	ZE1 Institutional Fact	E1 CRM Entity
ZP5	- has appellative subject (is appellative subject of)	ZE2 Appellative Status	E1 CRM Entity
ZP8	- - has contact point subject (is contact point subject of)	ZE3 Contact Point Status	E39 Actor
ZP11	- has classificatory subject (is classificatory subject of)	ZE4 Classificatory Status	E1 CRM Entity
ZP14	- - has functional subject (is functional subject of)	ZE5 Function Status	E1 CRM Entity
ZP17	- - has social status subject (is social status subject of)	ZE6 Social Status	E39 Actor
ZP20	- has custodial subject (is custodial subject of)	ZE7 Custodial Status	E18 Physical Thing

ZP23	- has ownership subject (is ownership subject of)	ZE8 Ownership Status	E18 Physical Thing
ZP29	- has familial subject (is familial subject of)	ZE10 Family Status	E21 Person
ZP32	- has membership subject (is membership subject of)	ZE11 Membership Status	E39 Actor
ZP35	- has referential subject (is referential subject of)	ZE12 Referential Status	E89 Propositional Object
ZP43	- has similarity subject (is similarity subject of)	ZE14 Similarity Status	E1 CRM Entity
ZP47	- has set belonging subject (is set belonging subject of)	ZE15 Set Status	E1 CRM Entity
ZP55	- has dating subject (is dating subject of)	ZE25 Dating Status	E4 Period
ZP57	- has obligation subject (is obligation subject of)	ZE28 Obligation Status	E54 Dimension
ZP64	- has property right subject (is property right subject of)	ZE30 Property Right Status	E72 Legal Object
ZP2	ascribes intentional target (is intentional target ascribed by)	ZE1 Institutional Fact	E1 CRM Entity
ZP6	- ascribes appellation (is appellation ascribed by)	ZE2 Appellative Status	E41 Appellation
ZP9	- - ascribes contact point (is contact point ascribed by)	ZE3 Contact Point Status	E42 Identifier
ZP12	- ascribes classification (is classification ascribed by)	ZE4 Classificatory Status	E55 Type
ZP15	- - ascribes function (is function ascribed by)	ZE5 Function Status	E55 Type
ZP18	- - ascribes social status (is social status ascribed by)	ZE6 Social Status	E55 Type
ZP21	- ascribes custodian (is custodian ascribed by)	ZE7 Custodial Status	E39 Actor
ZP24	- ascribes owner (is owners ascribed by)	ZE8 Ownership Status	E39 Actor
ZP27	- acribes residence place (is residence place ascribed by)	ZE9 Residential Status	E53 Place
ZP30	- ascribes relative (is relative ascribed by)	ZE10 Family Status	E21 Person
ZP33	- ascribes group (is group ascribed by)	ZE11 Membership Status	E74 Group
ZP36	- ascribes referent (is referent ascribed by)	ZE12 Referential Status	E1 CRM Entity
ZP44	- ascribes similarity target (is similarity target ascribed by)	ZE14 Similarity Status	E1 CRM Entity
ZP48	- ascribes set (is set ascribed by)	ZE15 Set Status	ZE24 Notional Set

ZP54	- ascribes relative date (is relative date ascribed by)	ZE25 Dating Status	E4 Period
ZP58	- ascribes debtor (is debtor ascribed by)	ZE28 Obligation Status	E39 Actor
ZP60	- ascribes debtee (is debtee ascribed by)	ZE28 Obligation Status	E39 Actor
ZP65	- ascribes property right holder (is property right holder ascribed by)	ZE30 Property Right Status	E39 Actor
ZP3	ascribes intentional relation (is intentional relation ascribed by)	ZE1 Institutional Fact	E55 Type
ZP7	- ascribes appellative relation (is appellative relation ascribed by)	ZE2 Appellative Status	E55 Type
ZP10	- - ascribes contact point relation (is contact point relation ascribed by)	ZE3 Contact Point Status	E55 Type
ZP13	- ascribes classification relation (is classification relations ascribed by)	ZE4 Classificatory Status	E55 Type
ZP16	- - ascribes functional relation (is functional relation ascribed by)	ZE5 Function Status	E55 Type
ZP19	- - ascribes social status relation (is social status relation ascribed by)	ZE6 Social Status	E55 Type
ZP22	- ascribes custodial relation (is custodial relation ascribed by)	ZE7 Custodial Status	E55 Type
ZP25	- ascribes ownership relation (is ownership relation ascribed by)	ZE8 Ownership Status	E55 Type
ZP28	- ascribes residence relation (is residence relation ascribed by)	ZE9 Residential Status	E55 Type
ZP31	- ascribes familial relation (is familial relation ascribed by)	ZE10 Family Status	E55 Type
ZP34	- ascribes membership relation (is membership relation ascribed by)	ZE11 Membership Status	E55 Type
ZP37	- ascribes referential relation (is referential relation ascribed by)	ZE12 Referential Status	E55 Type
ZP45	- ascribes similarity relation (is similarity relation ascribed by)	ZE14 Similarity Status	E55 Type
ZP49	- ascribes set belonging relation (is set belonging relation ascribed by)	ZE15 Set Status	E55 Type
ZP59	- ascribes obligation relation (is obligation relation ascribed by)	ZE28 Obligation Status	E55 Type
ZP66	- ascribes property right relation (is property right relation ascribed by)	ZE30 Property Right Status	E55 Type

Referenced Properties

Table 4: List of external properties grouped by model and ordered by model and then by property identifier.

P14	carried out by (performed)	CIDOC CRM	7.1.2
P16	used specific object (was used for)	CIDOC CRM	7.1.2
P33	used specific technique (was used by)	CIDOC CRM	7.1.2

Class Declarations

The classes are comprehensively declared in this section using the following format:

- Class names are presented as headings in bold face, preceded by the class' unique identifier;

- The line "Subclass of:" declares the superclass of the class from which it inherits properties;

- The line "Superclass of:" is a cross-reference to the subclasses of this class;

- The line "Scope note:" contains the textual definition of the concept the class represents;

- The line "Examples:" contains a bulleted list of examples of instances of this class.

- The line "Properties:" declares the list of the class's properties;

- Each property is represented by its unique identifier, its forward name and the range class that it links to, separated by colons;

- Inherited properties are not represented;

ZE1 Institutional Fact

Subclass of:

> E2 Temporal Entity

Superclass of:

> ZE2 Appellative Status
>
> ZE4 Classificatory Status
>
> ZE9 Residential Status
>
> ZE10 Family Status
>
> ZE11 Membership Status
>
> ZE12 Referential Status
>
> ZE14 Similarity Status
>
> ZE15 Set Status
>
> ZE25 Dating Status
>
> ZE28 Obligation Status
>
> ZE30 Property Right Status

Scope note:

> An instance of institutional fact is an ascription of a status function to an object by a community. The institutional fact is a concretization of a collective intentionality of the community in question towards a certain object over a certain period of time.

An instance of institutional fact is recognizable to a competent speaker/member of a symbolic community (native or learner with sufficient competence). It may not be perceived through a single sense impression but through multiple experiences and implicit reasonings (e.g.: embedded participation, behavioural observation, linguistic evidence and interview), yet typically such intermediate observations and inferences are not necessarily recorded or accessible. The historical statement is typically the assertion of the institutional fact, that such and such a fact was the case, and was in force for a given community, at some time. The epistemic veridicality of the stated /reference instance of institutional fact is always open to contestation. The means of contestation involve analyzing the sources which support it.

Instances of institutional fact come into existence based on conventions establishing the conditions under which they come into effect. Typically, an instance of institutional fact will come into existence either because of the performance of its stipulated, initiating speech act (e.g.: state of being married via marriage) or as a result of events fulfilling existing norm prescriptions in the community (e.g.: state of being uncle as result of birth of child of sister). An institutional fact comes to be through the agreed fiat of a community. It typically ceases to exist either because of a stipulated, nullifying speech act (e.g. divorce proceeding), because a community ceases to support the effective rule supporting its declaration (e.g.: ownership of people) or force majeure (e.g.: object ascribed function/status or community perceiving status is eliminated).

In First Order Logic:

$ZE1(x) \Rightarrow E2(x)$

Properties:

ZP1 has intentional subject (is intentional subject of): E1 CRM Entity

ZP2 ascribes intentional target (is intentional target ascribed by): E1 CRM Entity

ZP3 ascribes intentional relation (is intentional relation ascribed by): E55 Type

ZP4 holds for (holds): E74 Group

ZP75 applies for context (is context for): E5 Event

ZP76 applies for context type (is context type for): E55 Type

ZE2 Appellative Status

Subclass of:

ZE1 Institutional Fact

Superclass of:

ZE3 Contact Point Status

Scope note:

An instance of appellative status is the collective ascription of an appellation to an object by a community. The substance of the appellative status is the communal commitment to the naming of the object in question with a designated appellation, under a designated modality.

Instances of appellative status are recognizable through evidence of community members adopting the intentional stance of so-naming towards the object in question, as observable from direct witnesses, through the reports of competent observers or through evidence of a declarative act [e.g.: ZE19 Naming] initiating this status. Examples of such evidence include, several individuals so naming a thing, a witness declaring that a thing is 'so named, by us' or through documents reporting this fact.

Instances of appellative status may come to be through a formal process such as a declarative act of naming, or may have arisen through habit, fiat or be of unknown origin. Instances of appellative status may end either through a formal process, such as a new declarative act of naming, the formal stripping of a name, or may simply fade out of use, be eliminated by fiat or be of unknown reason.

Examples:

- The appellative status of the Polity of Macedonia (E74) as "is identified by" the "Former Yugoslavian Republic of Macedonia" (E41) 1991-2019 holds for the Greek Polity (E74). (https://en.wikipedia.org/wiki/North_Macedonia#Names_and_etymology)

- The appellative status for the city of Mumbai (E54) as "is identified by" "Mumbai" (E41) 1995-Present holds for the Indian Polity (E74). (https://www.hindustantimes.com/india/what-s-in-a-name-mumbai-20-years-on-from-bombay/story-8WiPZO0gfHDOle6WptGaGO.html)

In First Order Logic:

$ZE2(x) \Rightarrow ZE1(x)$

Properties:

ZP5 has appellative subject (is appellative subject of): E1 CRM Entity

ZP6 ascribes appellation (is appellation ascribed by): E41 Appellation

ZP7 ascribes appellative relation (is appellative relation ascribed by): E55 Type

ZE3 Contact Point Status

Subclass of:

ZE2 Appellative Status

Scope note:

An instance of contact status is the collective ascription of a contact point to an actor by a community. The substance of the contact status is the communal commitment to the addressing of messages to the actor in question according to a designated contact point appellation, using the implied message exchanging method.

Instances of contact status are recognizable through evidence of community members adopting the intentional stance of so-addressing messages to the actor in question, as observable from direct witnesses, through the reports of competent observers or through evidence of a declarative act [e.g.: E15 Identifier Assignment] initiating this status. Examples of such evidence include, several individuals so addressing messages to an actor via this contact point appellation, a witness declaring that an actor can so be reached, or through documents reporting this fact.

Instances of contact status may come to be through a formal process such as a declarative act of identifier assignment, or may have arisen through habit, fiat or be of unknown origin. Instances of contact status may end either though a formal process, such as a new declarative act of identifier assignment, through formal assignment, or may simply fade out of use, be eliminated by fiat or for unknown reasons.

Examples:

- The contact point status of the mailing address of the Charles the 3rd as "provides access to" King Charles III (E21) 6 May 2023 - Present holds for the British Polity (E74) (https://www.royal.uk/contact)

- The contact point status of the mailing address of Johnny Depp as "provides access to" Jonny Depp (E21) 1987 - Present holds for fans of Jonny Depp (E74) (https://www.bbc.com/news/magazine-21835118)

In First Order Logic:

$ZE3(x) \Rightarrow ZE2(x)$

Properties:

ZP8 has contact point subject (is contact point subject of): E39 Actor

ZP9 ascribes contact point (is contact point ascribed by): E42 Identifier

ZP10 ascribes contact point relation (is contact point relation ascribed by): E55 Type

ZE4 Classificatory Status

Subclass of:

ZE1 Institutional Fact

Superclass of:

ZE5 Function Status

ZE6 Social Status

Scope note:

An instance of classificatory status is the collective ascription of a type to an object by a community. The substance of the classificatory status is the communal commitment to the classification of the object in question according to the designated type.

Instances of classificatory status are recognizable through evidence of community members adopting the intentional stance of so-classifying the object in question, as observable from direct witnesses, through the reports of competent observers or through evidence of a declarative act [e.g.: E17 Type Assignment] initiating this status.

Instances of classificatory status may come to be through a formal process such as a declarative act of classification [E17 Type Assignment], or may have arisen through habit, fiat or be of unknown origin. Instances of classificatory status may end either though a formal process, such as a new declarative act of classification, be officially declassified, or may simply fade out of use, be eliminated by fiat or be of unknown reason.

Examples:

- The classificatory status of the assemblage of apatosaurus and camarasaurus remains (E19) as 'has type' Brontosaurus excelsus (E55) 1905 - Present holds for American Museum of Natural History (E74). (https://en.wikipedia.org/wiki/Brontosaurus)

- The classificatory status of the "French baguette" (E55) as 'has type' Intangible Cultural Heritage (E55) 2022 - Present holds for UNESCO (E74) (https://www.bbc.com/news/world-europe-63800674)

In First Order Logic:

ZE4(x) ⇒ ZE1(x)

Properties:

ZP11 has classificatory subject (is classificatory subject of): E1 CRM Entity

ZP12 ascribes classification (is classification ascribed by): E55 Type

ZP13 ascribes classification relation (is classification relations ascribed by): E55 Type

ZE5 Function Status

Subclass of:

ZE4 Classificatory Status

Scope note:

An instance of functional status is the collective ascription of an operative functionality to an object by a community. The substance of the function status is the communal commitment to relating to and / or using the object in question according to a designated function.

Instances of function status are recognizable through evidence of community members adopting the intentional stance of so-using or relating to the object in question, as observable from direct

witnesses, through the reports of competent observers or through evidence of a declarative act [e.g.: E17 Type Assignment] initiating this status.

Instances of function status may come to be through a formal process such as a declarative act of classification [E17 type Assignment], or may have arisen through habit, fiat or be of unknown origin. Instances of function status may end either though a formal process, such as a new declarative act of classification.

Examples:

- The function status of St Joe's Cathedral (E22) as 'has type' minor basilica (E55) 1984 - Present holds for the Catholic Church (E74)
  (https://en.wikipedia.org/wiki/St._Joseph%27s_Basilica_(Edmonton))

- The function status of Sen. Mary Jane McCallum's eagle feather (E20) as 'has type' sacred object (E55) holds for members of the Cree First Nation (E74) (https://www.cbc.ca/news/politics/tory-senator-eagle-feather-in-the-chamber-1.6061577)

In First Order Logic:

$ZE5(x) \Rightarrow ZE4(x)$

Properties:

ZP14 has functional subject (is functional subject of): E1 CRM Entity

ZP15 ascribes function (is function ascribed by): E55 Type

ZP16 ascribes functional relation (is functional relation ascribed by): E55 Type

ZE6 Social Status

Subclass of:

ZE4 Classificatory Status

Scope note:

An instance of social status is the collective ascription of a social function to an actor by a community. The substance of the social status is the communal commitment to relating to and acting toward the actor in question according to the designated status.

Instances of social status are recognizable through evidence of community members adopting the intentional stance of so relating or acting toward the actor in question, as observable from direct witnesses, through the reports of competent observers or through evidence of a declarative act [e.g.: E17 Type Assignment] initiating this status.

Instances of social status may attributed to individuals or to groups of individuals. Instances of social status may also be held in relation to a third party, to whom the subject of the social status bears certain rights and/or responsibilities.

Instances of social status may come to be through a formal process such as a declarative act of assignment [E17 Type Assignment], or may have arisen through habit, fiat or be of unknown origin. Instances of social status may end either though a formal process, such as a new declarative act of classification.

Examples:

- The social status of Charles III (E21) as 'has type' King (E55) 6 May 2023 - Present holds for the British Polity (E74). (https://en.wikipedia.org/wiki/Coronation_of_Charles_III_and_Camilla)

- The social status of the jurors in the O.J. Simpson murder trial (E74) as 'has type' juror (E55) in relation to O.J. Simpson (E21) 9 November 1994 - 3 October 1995 holds for the People of the State of California (E74). (https://en.wikipedia.org/wiki/Murder_trial_of_O._J._Simpson)

In First Order Logic:

$ZE6(x) \Rightarrow ZE4(x)$

Properties:

ZP17 has social status subject (is social status subject of): E39 Actor

ZP18 ascribes social status (is social status ascribed by): E55 Type

ZP19 ascribes social status relation (is social status relation ascribed by): E55 Type

ZP70 ascribes social status in relation to (is related to held social status): E39 Actor

ZE7 Custodial Status

Subclass of:

ZE30 Property Right Status

Scope note:

An instance of custodial status is the collective ascription of a relationship of custodianship of some actor over an object by a community. The substance of the custodial status is the communal commitment to the recognition of the relationship of custodianship over the designated object by the actor in question.

Instances of custodial status are recognizable through evidence of community members adopting the intentional stance of so-recognizing this status, as observable from direct witnesses, through the reports of competent observers or through evidence of a declarative act [e.g.: ZE21 Declarative Transfer of Custody] initiating this status.

Instances of classificatory status may come to be through a formal process such as a declarative transfer of custody, or may have arisen through habit, fiat or be of unknown origin. Instances of custodial status may end either though a formal process, such as a new declarative act of legal transfer of custody, or may simply fade out of use, be eliminated by fiat or be of unknown reason.

Examples:

- The custodial status of the G'psgolox totem pole (E22) as 'has current keeper' maintained by the Swedish National Museum of Ethnography (E74) 1929 - 2006 holds for the Haisla people (E74) (https://en.wikipedia.org/wiki/G%27psgolox_totem_pole)

- The custodial status of Banff National Park (E53) as 'has current keeper' maintained by Parks Canada (E74) 19 May 1911 - Present holds for the Canadian Polity (E74). (https://en.wikipedia.org/wiki/Parks_Canada)

In First Order Logic:

ZE7(x) $\Rightarrow$ ZE30(x)

Properties:

ZP20 has custodial subject (is custodial subject of): E18 Physical Thing

ZP21 ascribes custodian (is custodian ascribed by): E39 Actor

ZP22 ascribes custodial relation (is custodial relation ascribed by): E55 Type

ZE8 Ownership Status

Subclass of:

ZE30 Property Right Status

Scope note:

An instance of ownership status is the collective ascription of a relationship of legal possession of some actor over a legal object by a community. The substance of the ownership status is the communal commitment to the recognition of the relationship of possession over the designated legal object by the actor in question.

Instances of ownership status are recognizable through evidence of community members adopting the intentional stance of so-recognizing this status, as observable from direct witnesses, through the reports of competent observers or through evidence of a declarative act [e.g.: ZE20 Declarative Aquisition] initiating this status.

Instances of ownership status may come to be through a formal process such as a declarative act of taking ownership, or may have arisen through habit, fiat or be of unknown origin. Instances of ownership status may end either though a formal process, such as a new declarative act of acquisition, or may simply fade out of use, be eliminated by fiat or be of unknown reason.

Examples:

- The ownership status of the Euphronios Krater (E22) as 'has current owner' the Metropolitan Museum of Art (E74) from 1972 - 2006 holds for the American Polity (E74). (https://en.wikipedia.org/wiki/Euphronios_Krater)

- The ownership status of the G'psgolox totem pole (E22) as 'has current owner' the Haisla people (E74) from 1872 - 2012 holds for the Haisla people (E74) and as 'has current owner' the Swedish National Museum of Ethnography (E74) from 1929 - 2006 holds for the Swedish Polity. (https://en.wikipedia.org/wiki/G%CA%BCpsgolox_totem_pole)

In First Order Logic:

ZE8(x) ⇒ ZE30(x)

Properties:

ZP23 has ownership subject (is ownership subject of): E18 Physical Thing

ZP24 ascribes owner (is owners ascribed by): E39 Actor

ZP25 ascribes ownership relation (is ownership relation ascribed by): E55 Type

ZE9 Residential Status

Subclass of:

ZE1 Institutional Fact

Scope note:

An instance of residential status is the collective ascription to an actor of a formal place of residence by a community. The substance of the residential status is the communal commitment to the recognition and use of the designated place with regards to the residence of the designated actor.

Instances of residential status are recognizable through evidence of community members adopting the intentional stance of so-recognizing this status, as observable from direct witnesses, through the reports of competent observers or through evidence of a declarative act initiating this status.

Instances of residence status may come to be through a formal process such as a declarative act of taking up residence, or may have arisen through habit, fiat or be of unknown origin. Instances of residence status may end either though a formal process, such as a new declarative act, or may simply fade out of use, be eliminated by fiat or be of unknown reason.

Examples:

- The residential status of the Prime Minister Role of Canada as 'has former or current residence' 24 Sussex Drive (E53) 1951 - Present holds for the Canadian Polity (E74) (https://en.wikipedia.org/wiki/24_Sussex_Drive)

- The residential status of Governor General Mary Jeannie May Simon as 'has former or current residence' Rideau Hall (E53) 2015 - Present holds for the Canadian Polity (E74) (https://en.wikipedia.org/wiki/Rideau_Hall)

ZE9(x) ⇒ ZE1(x)

Properties:

ZP26 has residence subject (is residence subject of): E39 Actor

ZP27 acribes residence place (is residence place ascribed by): E53 Place

ZP28 ascribes residence relation (is residence relation ascribed by): E55 Type

ZE10 Family Status

Subclass of:

ZE1 Institutional Fact

Scope note:

An instance of family status is the collective ascription of a familial relationship between one actor and another by a community. The substance of the family status is the communal recognition of the familial connection between the two actors in question.

Instances of family status are recognizable through evidence of community members adopting the intentional stance and behaviour indicated as proper to this relation, as observable from direct witnesses, through the reports of competent observers or through evidence of a declarative act (e.g.: adoption) initiating this status.

Instances of family status may come to be simply through birth in a certain community or may require that a formal process such as a right of passage has been undertaken. Instances of family status may end either though a formal process such as a renunciation or through death.

Examples:

- The family status of "father" Trajan (E21) and adoptive son of Nerva (E21) 97BCE - 117BCE holds for the Roman Polity (E74) (https://en.wikipedia.org/wiki/Adoption_in_ancient_Rome)

- The family status of "husband" between Michael Leshner (E21) and Michael Stark (E21) 2003 - Present holds for the Canadian Polity (E74) (https://en.wikipedia.org/wiki/Michael_Leshner_and_Michael_Stark)

In First Order Logic:

ZE10(x) ⇒ ZE1(x)

Properties:

ZP29 has familial subject (is familial subject of): E21 Person

ZP30 ascribes relative (is relative ascribed by): E21 Person

ZP31 ascribes familial relation (is familial relation ascribed by): E55 Type

ZE11 Membership Status

Subclass of:

ZE1 Institutional Fact

Scope note:

An instance of membership status is the collective ascription of a membership relationship between an actor and some group by a community. The substance of the membership status is the communal recognition of the ascribed membership relation between the actor and the group in question.

Instances of membership status are recognizable through evidence of community members adopting the intentional stance and behaviour indicated as proper to this relation, as observable from direct witnesses, through the reports of competent observers or through evidence of a declarative act [e.g.: ZE22 Declarative Joining] initiating this status.

Instances of membership status may come to be through a formal process such as a declarative act of declarative joining or may have arisen through habit, fiat or be of unknown origin. Instances of membership status may end either though a formal process [e.g.: ZE23 Declarative Leaving], or may simply fade out, be eliminated by fiat or for unknown reasons.

Examples:

- The membership status of Mary Ellen Turpel-Lafond (E21) as "is current member of" the Cree First Nation (E74) 1963 - Present holds for the Turpel-Lafond family (E74). (https://www.cbc.ca/newsinteractives/features/mary-ellen-turpel-lafond-indigenous-cree-claims)

- The membership status of Pete Best (E21) as "is current member" of the group of people considered to be the 'Fifth Beatle' (E74) 12 August 1960 - Present holds for members of Beatles fandom (E74). (https://en.wikipedia.org/wiki/Fifth_Beatle)

In First Order Logic:

ZE11(x) $\Rightarrow$ ZE1(x)

Properties:

ZP32 has membership subject (is membership subject of): E39 Actor

ZP33 ascribes group (is group ascribed by): E74 Group

ZP34 ascribes membership relation (is membership relation ascribed by): E55 Type

ZE12 Referential Status

Subclass of:

> ZE1 Institutional Fact

Scope note:

> An instance of referential status is the collective ascription of a referential relationship between a propositional object and some entity by a community. The substance of the referential status is the communal recognition of the ascribed referential relation holding between the propositional object and the entity in question.
>
> Instances of referential status are recognizable through evidence of community members adopting the intentional stance and behaviour indicated as properly holding between the propositional object and the object it is taken to refer to in the manner it is meant to refer, as observable from direct witnesses, through the reports of competent observers or through evidence of a declarative act initiating this status.
>
> Instances of referential status may come to be through a formal process such as a declarative act or may have arisen through habit, fiat or be of unknown origin. Instances of referential status may end either though a formal process, or may simply fade out, be eliminated by fiat or for unknown reasons.

Examples:

- The referential status of the visual appearance of wearing a balaclava (E36) as 'refers to' "military identity" (E55) as "appropriated" (E55) February 1967 holds for members of the anarchist group Black Mask (E74) (https://en.wikipedia.org/wiki/Black_bloc)

- The referential status of 'Let's Go, Brandon' (E89) as 'refers to' Joe Biden (E21) as "anti-Joe Biden sentiment" (E55) 2 October 2021 - Present holds for members of the American Polity (E74) (https://apnews.com/article/lets-go-brandon-what-does-it-mean-republicans-joe-biden-ab13db212067928455a3dba07756a160)

In First Order Logic:

> $ZE12(x) \Rightarrow ZE1(x)$

Properties:

> ZP35 has referential subject (is referential subject of): E89 Propositional Object
>
> ZP36 ascribes referent (is referent ascribed by): E1 CRM Entity
>
> ZP37 ascribes referential relation (is referential relation ascribed by): E55 Type
>
> ZP38 ascribes referential mode (is referential mode ascribed by): E55 Type

ZE13 Speech Act

Subclass of:

> E7 Activity

Superclass of:

> ZE17 Digital Reading
>
> ZE18 Critical Reading
>
> ZE22 Declarative Joining
>
> ZE26 Dating Declaration
>
> ZE27 Declaration of Obligation
>
> ZE29 Transfer of Property Right
>
> ZE33 Declarative Formation
>
> ZE34 Declarative Dissolution

Scope note:

> An instance of speech act comprises an intentional activity engaged in by a set of actors to create a new institutional fact - or to nullify an existing one - that holds for a given community. Speech acts are carried out by intentional actors through invoking a social rule and performing a prescribed set of actions often including the locution of set formulae of phrases by certain actors, fulfilling certain roles. Correct execution of the speech act as specified by the rule results in the existence of new institutional facts or their negation. The substance of speech act is ritual action performed by a group.
>
> An instance of speech act begins when the intended ritual proceeding as specified by the rule invoked is initiated. The instance of speech act ends when the required set of actions specified for the act in question are executed or it is abandoned.

Examples:

> - The ratification of the Republic of Ireland Act on 18 April 1949 (ZE23), by which the Republic of Ireland (E74) left the Commonwealth of Nations (E74).
>   (https://en.wikipedia.org/wiki/The_Republic_of_Ireland_Act_1948)
>
> - The signing of the Louisiana Purchase in 1803 (ZE20), by which the United States of America (E74) acquired the territory of Louisiana (E27).
>   (https://en.wikipedia.org/wiki/Louisiana_Purchase)

In First Order Logic:

> ZE13(x) $\Rightarrow$ E7(x)

Properties:

> ZP40 performed (was performed by): E29 Design or Procedure

ZP41 uttered (was uttered by): E73 Information Object

ZP42 intentionally initiated (was intentionally initiated by): ZE1 Institutional Fact

ZP52 intentionally terminated (was intentionally terminated by): ZE1 Institutional Fact

ZP53 initiated institutional fact for (had institutional fact initiated by): E74 Group

ZP74 terminated institutional fact for (had institutional fact terminated by): E74 Group

ZE14 Similarity Status

Subclass of:

ZE1 Institutional Fact

Scope note:

An instance of similarity status is the collective ascription of a similarity relationship between any two objects by a community. The substance of the similarity status is the communal recognition of the ascribed similarity relation between the two entities in question.

Instances of similarity status are recognizable through evidence of community members adopting the intentional stance and behaviour indicated by the kind of similarity believed to hold between the two referenced entities, as observable from direct witnesses, through the reports of competent observers or through evidence of a declarative act initiating this status.

Instances of similarity status may come to be through a formal process such as a declarative act (e.g., scholarship) or may have arisen through habit, fiat or be of unknown origin. Instances of similarity status may end either though a formal process (e.g., disproof or refutation), or may simply fade out, be eliminated by fiat or for unknown reasons.

Examples:

- The similarity status of George (E21) and his dog Stilton (E20) 2021 - Present holds for the employees of Takin.Solutions (E74) (https://www.huffpost.com/entry/people-look-like-their-dogs-study_n_5838278)

- The similarity status of Ed Sheehan's song "Thinking Out Loud" (E73) and Marvin Gaye's song "Let's Get It On" (E73) 2017 - 2023 holds for the heirs of Gaye's co-writer Ed Townsend (E74) as "copyright infringement" (E55) (https://www.theguardian.com/music/2023/may/04/ed-sheeran-verdict-not-liable-copyright-lawsuit-marvin-gaye)

In First Order Logic:

ZE14(x) ⇒ ZE1(x)

Properties:

ZP43 has similarity subject (is similarity subject of): E1 CRM Entity

ZP44 ascribes similarity target (is similarity target ascribed by): E1 CRM Entity

ZP45 ascribes similarity relation (is similarity relation ascribed by): E55 Type

ZP46 ascribes similarity mode (is similarity mode ascribed by): E55 Type

ZE15 Set Status

Subclass of:

ZE1 Institutional Fact

Scope note:

An instance of set status is the collective ascription of some relationship of belonging between some entity and a notional set by a community. The substance of the set status is the communal recognition of the ascribed belonging between the subject entity and the set in question.

Instances of set status are recognizable through evidence of community members adopting the intentional stance and behaviour indicated as proper to this set-belonging relation, as observable from direct witnesses, through the reports of competent observers or through evidence of a declarative act initiating this status.

Instances of set status may come to be through a formal process or may have arisen through habit, fiat or be of unknown origin. Instances of membership status may end either though a formal process, or may simply fade out, be eliminated by fiat or for unknown reasons.

Examples:

- The set status of the Marvin Gaye's album 'Let's Get It On' (E73) as belonging to the 500 Greatest Albums of All Time (ZE24) 2020 - Present holds for Rolling Stone Magazine (E74) (https://www.rollingstone.com/music/music-lists/best-albums-of-all-time-1062063/)

- The set status of the Duffer Brother's 'Stranger Things' (E73) as belonging to the 50 Best TV Shows of 2022 (ZE24) 2022 - Present holds for the Guardian (E74) (https://www.theguardian.com/tv-and-radio/2022/dec/02/the-50-best-tv-shows-of-2022)

In First Order Logic:

ZE15(x) ⇒ ZE1(x)

Properties:

ZP47 has set belonging subject (is set belonging subject of): E1 CRM Entity

ZP48 ascribes set (is set ascribed by): ZE24 Notional Set

ZP49 ascribes set belonging relation (is set belonging relation ascribed by): E55 Type

ZE17 Digital Reading

Subclass of:

> D7 Digital Machine Event
>
> ZE13 Speech Act

Scope note:

> An instance of digital reading is a digital processing event guided by a set of instructions or parameters for returning an output result set of identifications that makes propositions about the content of an input dataset. Digital reading is a computational process guided by a parametrized hypothesis resulting in a new propositional dataset for scientific consideration. The propositional information generated by the digital reading process should be considered as provisional knowledge posited under a hypothesis. Typically propositions generated by the digital reading will become the subject of further scholarly research.

In First Order Logic:

> $ZE17(x) \Rightarrow D7(x)$
>
> $ZE17(x) \Rightarrow ZE13(x)$

ZE18 Critical Reading

Subclass of:

> ZE13 Speech Act

Scope note:

> An instance of critical reading is a process of analysis undertaken by a scholar to derive analytical facts from a specific information resource. Critical reading engages the background knowledge of the scholar and their interpretive horizon in order to support them in actively reading the research object to derive factual, historically contextualized/contextualizing information regarding the propositional content in question and the world(s) it pertains too. This process can take as input previous scholarly documentation or outputs of digital reading events. Critical reading may result in a series of constructed arguments, serving as a foundation for the documentation and analysis of an argument regarding the text and its referents. Critical reading might also result in the observation, documentation or assertion of a social fact, such as the assertion of an appelative or classificatory status. In the latter case, the instance of ZE18 Critical Reading serves as provenance for the existence of the fact in the network.

Examples:

- The critical reading of the Canadian literary canon (E89) by Margret Atwood (E21) in the 1972 book *Survival: A Thematic Guide to Canadian Literature* (E89). (https://en.wikipedia.org/wiki/Survival:_A_Thematic_Guide_to_Canadian_Literature)
- The critical reading of biblical canon (E89) commissioned by King James I (E21) in 1604, now known as *The King James Bible* (E89). (https://en.wikipedia.org/wiki/King_James_Version)

In First Order Logic:

ZE18(x) ⇒ ZE13(x)

ZE19 Naming

Subclass of:

E13 Attribute Assignment

Scope note:

Instances of naming are comprised of an act which officially confers a name to some object under a specific procedure. The substance of naming is an intentional, social act.

Instances of ZE19 Naming come about when the specific social procedure required is intentionally and successfully enacted according to the prevalent rules. They end with the successful termination of the act or because of its premature termination.

The result of the instance of naming is the coming to be of a collective acceptance of a name for some object in some mode for some time. The details of this institutional fact are documented in the resultant instance of ZE2 Appellative Status.

Examples:

- The re-naming of King Charles III (E21) in the Coronation of 6 May 2023 (https://en.wikipedia.org/wiki/Coronation_of_Charles_III_and_Camilla)
- The self-naming of The Artist Formerly Known as Prince (E21) 1993 (https://en.wikipedia.org/wiki/Prince_(musician))

In First Order Logic:

ZE19(x) ⇒ E13(x)

ZE20 Declarative Acquisition

Subclass of:

E8 Acquisition

ZE29 Transfer of Property Right

Scope note:

Instances of this class comprise official acquisition events undertaken following formal procedures within a social grouping leading to formal ownership status over an object by some actor according to the participating parties. The substance of declarative acquisition is an intentional, social act.

Instances of ZE20 Declarative Acquisition come about when the specific social procedure required is intentionally and successfully enacted according to the prevalent rules. They end with the successful termination of the act or because of its premature termination.

A successful act of ZE20 Declarative Acquisition leads to the generation of an instance of ZE8 Ownership Status, the institutional fact that thereafter mediates the social relation to this object until it has been abrogated.

Examples:

- The declarative acquisition of the territory of Louisiana (E27) by the United States of America (E74) in the 1803 signing of the Louisiana Purchase
  (https://en.wikipedia.org/wiki/Louisiana_Purchase)

- The declarative acquisition of the G'psgolox totem pole (E22) by Olof Hanson (E21) with the permission granted by the Canadian Department of Indian Affairs (E74) in 1929.
  (https://en.wikipedia.org/wiki/G%CA%BCpsgolox_totem_pole)

In First Order Logic:

ZE20(x) ⇒ E8(x)

ZE20(x) ⇒ ZE29(x)

ZE21 Declarative Transfer of Custody

Subclass of:

E10 Transfer of Custody

ZE29 Transfer of Property Right

Scope note:

Instances of this class comprise official transfer of custody events undertaken following formal procedures within a social grouping leading to formal change in the custody status over an object, ascribing it to some actor's custody, according to the participating parties. The substance of declarative transfer of custody is an intentional, social act.

Instances of ZE21 Declarative Transfer of Custody come about when the specific social procedure required is intentionally and successfully enacted according to the prevalent rules. They end with the successful termination of the act or because of its premature termination.

A successful act of declarative transfer of custody leads to the generation of an instance of ZE7 Custodial Status, the institutional fact that thereafter mediates the social relation to this object until it has been abrogated.

Examples:

- The declarative transfer of custody made by the Swedish National Museum (E74) upon the return of the G'psgolox totem pole to the Haisla people (E74) in 2006. (https://en.wikipedia.org/wiki/G%CA%BCpsgolox_totem_pole)

- The declarative transfer of cutody of Banff National Park (E27) by Parks Canada (E74) upon its creation in 1911. (https://en.wikipedia.org/wiki/Parks_Canada)

In First Order Logic:

ZE21(x) ⇒ E10(x)

ZE21(x) ⇒ ZE29(x)

ZE22 Declarative Joining

Subclass of:

E85 Joining

ZE13 Speech Act

Scope note:

Instances of this class comprise official joining events undertaken following formal procedures within a social grouping leading to formal change in the membership status of an actor relative to a group for the participating parties. The substance of declarative joining is an intentional, social act.

Instances of ZE22 Declarative Joining come about when the specific social procedure required is intentionally and successfully enacted according to the prevalent rules. They end with the successful termination of the act or because of its premature termination.

A successful act of ZE22 Declarative Joining leads to the generation of an instance of ZE11 Membership Status, the institutional fact that thereafter mediates the social relation between the group and actor in question until it has been abrogated.

Examples:

- The declarative joining of the Greek Polity (E74) by Tom Hanks (E21) in July 2018 through the honourary naturalisation order signed by the Greek President. (https://www.bbc.com/news/entertainment-arts-53554002)

- The declarative joining of collectivity of West Berliners (E74) by John F. Kennedy Jr. (E21) in the "Ich bin ein Berliner" speech of 26 June 1963.
  (https://en.wikipedia.org/wiki/Ich_bin_ein_Berliner)

In First Order Logic:

ZE22(x) ⇒ E85(x)

ZE22(x) ⇒ ZE13(x)

ZE23 Declarative Leaving

Subclass of:

E86 Leaving

Scope note:

Instances of this class comprise official leaving events undertaken following formal procedures within a social grouping leading to formal change in the membership status of an actor relative to a group for the participating parties. The substance of declarative leaving is an intentional, social act.

Instances of ZE23 Declarative Leaving come about when the specific social procedure required is intentionally and successfully enacted according to the prevalent rules. They end with the successful termination of the act or because of its premature termination.

A successful act of ZE23 Declarative Leaving leads to the termination of an instance of ZE11 Membership Status, the institutional fact that thereafter no longer mediates the social relation between the group and actor in question.

Examples:

- The declarative leaving of the Commonwealth of Nations (E74) by the Republic of Ireland (E74) on 18 April 1949 through the ratification of the Republic of Ireland Act
  (https://en.wikipedia.org/wiki/The_Republic_of_Ireland_Act_1948)

- The declarative leaving of the Polity of the United States of America (E74) by Li Lianjie (aka Jet Li) (E21) in 2009 through the relenquishment of citizenship. (https://nomadcapitalist.com/global-citizen/freedom/top-5-famous-people-renounce-us-citizenship/)

In First Order Logic:

ZE23(x) ⇒ E86(x)

ZE24 Notional Set

Subclass of:

> E28 Conceptual Object

Scope note:

> Instances of this class comprise notional sets of objects which have been grouped together for one reason or another. The substance of notional set is ideational.
>
> A notional set comes to be when it is asserted or otherwise declared. It gains or loses members according to the particular rules guiding its maintenance. Typically instances of ZE24 Notional Set serve a functional purpose such as the grouping of some objects according to an ad hoc, context particular, or a context categorical criterion.
>
> See also Linked.Art:Set

Examples:

- Rolling Stone's The 500 Greatest Albums of All Time (https://www.rollingstone.com/music/music-lists/best-albums-of-all-time-1062063/)

- The Guardian's 50 Best TV Shows of 2022 (https://www.theguardian.com/tv-and-radio/2022/dec/02/the-50-best-tv-shows-of-2022)

In First Order Logic:

> ZE24(x) ⇒ E28(x)

Properties:

> ZP51 has former or current set member (is current or former set member of): E1 CRM Entity

ZE25 Dating Status

Subclass of:

> ZE1 Institutional Fact

Scope note:

> An instance of dating status is the collective ascription of a relative dating to an event (such as the production or the use of an object or the despotional moment of an archaeological context) by its association to an established and named historical or archaeological period or event. The substance of the dating status is the communal recognition of the ascribed chronology as holding true for the dated event and potential, relative object(s) it involves.
>
> Instances of dating status are typically recorded in the archaeological / archival record.
>
> Instances of dating status are most typically initiated by a formal process such as a scholarly dating attribution (ZE26 Dating Declaration). Instances of dating status may be terminated either through

a formal process (official disproof), or be replaced by another dating declaration holding an updated belief and supported by further evidence.

Examples:

- The dating status of the first purposeful settlement of Crete (E7) as 'falls within' the pre-Neolithic period (E4) 2018 - Present holds for members of the archeology profession (E74). (Day, Jo (2018), "Crete, Archaeology of", Encyclopedia of Global Archaeology, Cham: Springer International Publishing, pp. 1–18)

- The dating status of the existence of Brontosaurus excelsus (E4) as 'falls within' late Jurassic period (E4) 2007 - Present holds for members of the palaeology profession (E74). (Foster, J. (2007). Jurassic West: The Dinosaurs of the Morrison Formation and Their World. Indiana University Press.)

In First Order Logic:

$$ZE25(x) \Rightarrow ZE1(x)$$

Properties:

ZP54 ascribes relative date (is relative date ascribed by): E4 Period

ZP55 has dating subject (is dating subject of): E4 Period

ZP56 ascribes dating relation (is dating relation ascibed by): E55 Type

ZE26 Dating Declaration

Subclass of:

ZE13 Speech Act

Scope note:

Instances of dating declaration are scholarly acts which officially assign a historical or archaeological period to an event of interest (paradigmatic cases being the production or the time of use or termination of existence of some object or physical thing) of which, typically, a material artefact is the material remain.

The result of the instance of dating declaration is the coming to be of a collective acceptance of the dating status for some object or some physical thing at some time by some group of people. This status may come to be contested or replaced by some new status, either through reasoned argumentation, assertion or even forgetting.

The details of this institutional fact are documented in the resultant instance of ZE25 Dating Status.

Examples:

- The dating declaration of the first purposeful settlement of Crete (E7) within the Neolithic period (E4). (https://en.wikipedia.org/wiki/Crete)

- The dating declaration of the existence of Brontosaurus excelsus (E4) within the late Jurassic period (E4). (https://en.wikipedia.org/wiki/Brontosaurus)

In First Order Logic:

ZE26(x) ⇒ ZE13(x)

ZE27 Declaration of Obligation

Subclass of:

ZE13 Speech Act

Scope note:

Instances of declaration of obligation are characterized by formal acts of recognition of a state of obligation between one party and another party for a certain measurable amount of goods.

Instances of this class comprise official acts undertaken following formal procedures within a social grouping leading to formal recognition of an obligation status between two actors. The substance of declaration of obligation is an intentional, social act.

Instances of ZE27 Declaration of Obligation come about when the specific social procedure required is intentionally and successfully enacted according to the prevalent rules. They end with the successful termination of the act or because of its premature termination.

A successful act of ZE27 Declaration of Obligation leads to the generation of an instance of ZE28 Obligation Status, the institutional fact that thereafter holds between two actors until it has been abrogated.

Examples:

- The declaration of obligation made from the United States of America (E74) to the Republic of France (E74) for the amount of 15 million USD (E54) as declared in the 1803 signing of the Louisiana Purchase (https://en.wikipedia.org/wiki/Louisiana_Purchase)

- The declaration of obligation made from Micheal Jackson (E21) to Associated TeleVision (E74) for the amount of 47.5 million USD (E54) as declared in the purchase of the Beatles back catalogue. (https://americansongwriter.com/the-story-behind-michael-jackson-buying-the-beatles-catalog-and-angering-friend-paul-mccartney/)

In First Order Logic:

ZE27(x) ⇒ ZE13(x)

Properties:

ZP67 generated obligation upon (had obligation generated upon by): E39 Actor

ZP68 generated obligation to (had obligation to generated by): E39 Actor

ZP69 generated obligation of (had obligation generated of by): E54 Dimension

ZE28 Obligation Status

Subclass of:

ZE1 Institutional Fact

Scope note:

An instance of obligation status demarks a socially recognized state of obligation holding between two parties, wherein the first party is recognized to have the requirement to fulfill a debt to the second party for a certain measurable amount. The substance of the obligation status is the commitment from one party to another for compensation in a socially recognized form.

Instances of obligation status are recognizable through evidence of community members adopting the intentional stance of so-recognizing this status, as observable from direct witnesses, through the reports of competent observers or through evidence of a declarative act [e.g.: ZE27 Declaration of Obligation) initiating this status.

Instances of obligation status may come to be through a formal process such as an act of declaring obligation [ZE27 Declaration of Obligation), or may have arisen through habit, fiat or be of unknown origin. Instances of obligation may end either though a formal process, such as an act of renunciation, or may simply fade out of use, be eliminated by fiat or be of unknown reason.

Examples:

- The obligation status of the United States of America (E74) to the Republic of France (E74) following the Louisiana Purchase to the amount of fifteen million USD (E54) 1803 - 1823 holds for members of the United States and French Polity (E74) (https://en.wikipedia.org/wiki/Louisiana_Purchase)

- The obligation status of Michael Jackson (E21) to Associated TeleVision (E74) following the purchase of the Beatles back catalogue to the amount of forty-seven million USD (E54) 1984 holds for members of the United States Polity (E74). (https://americansongwriter.com/the-story-behind-michael-jackson-buying-the-beatles-catalog-and-angering-friend-paul-mccartney/)

In First Order Logic:

ZE28(x) ⇒ ZE1(x)

Properties:

ZP57 has obligation subject (is obligation subject of): E54 Dimension

ZP58 ascribes debtor (is debtor ascribed by): E39 Actor

ZP59 ascribes obligation relation (is obligation relation ascribed by): E55 Type

ZP60 ascribes debtee (is debtee ascribed by): E39 Actor

ZE29 Transfer of Property Right

Subclass of:

ZE13 Speech Act

Superclass of:

ZE20 Declarative Acquisition

ZE21 Declarative Transfer of Custody

Scope note:

Instances of declaration of transfer of property right consist of events in which an official transfer of a property right is undertaken between two individuals with the result that a new right is assigned to the receiver and the right of the giver may be forfeited.

Instances of this class consist of events in which an official transfer of a property right is undertaken between two individuals with the result that a new right is assigned to the receiver and the right of the giver may be forfeited. The substance of transfer of property right is an intentional, social act.

Instances of ZE29 Transfer of Property Right come about when the specific social procedure required is intentionally and successfully enacted according to the prevalent rules. They end with the successful termination of the act or because of its premature termination.

A successful act of ZE29 Transfer of Property Right leads to the generation of an instance of ZE30 Property Right Status, the institutional fact that thereafter mediates the social relation to this object until it has been abrogated.

Examples:

- The transfer of property right made by Michael Jackson (E21) upon the purchase of the Beatles back catalogue (E73) 14 August 1985 (https://americansongwriter.com/the-story-behind-michael-jackson-buying-the-beatles-catalog-and-angering-friend-paul-mccartney/)

- The transfer of property right made by the First French Republic (E74) upon the sale of the territory of Louisiana (E27) 1803 (https://en.wikipedia.org/wiki/Louisiana_Purchase)

In First Order Logic:

ZE29(x) $\Rightarrow$ ZE13(x)

Properties:

ZP61 transferred property right to (acquired property right through): E39 Actor

ZP62 transferred property right from (surrendered property right through): E39 Actor

ZP63 transferred property right over (had change in property right through): E72 Legal Object

ZE30 Property Right Status

Subclass of:

ZE1 Institutional Fact

Superclass of:

ZE7 Custodial Status

ZE8 Ownership Status

Scope note:

Instances of property right status indicate the holding of a right over a legal object by some actor for some time.

An instance of property right status is the collective ascription of a relationship of legal right of some actor over a legal object by a community. The substance of the property right status is the communal commitment to the recognition of the right of use, right to earn incolm from, and right of disposal (of some sort) over the designated legal object by the actor in question.

Instances of property right status are recognizable through evidence of community members adopting the intentional stance of so-recognizing this status, as observable from direct witnesses, through the reports of competent observers or through evidence of a declarative act [e.g.: ZE29 Transfer of Property Right) initiating this status.

Instances of property right status may come to be through a formal process such as a declarative act of taking posession of right [ZE29 Transfer of Property Right), or may have arisen through habit, fiat or be of unknown origin. Instances of property right status may end either though a formal process, such as a new transfer or right, or may simply fade out of use, be eliminated by fiat or be of unknown reason.

Examples:

- The property right status exercised by the United States of America (E74) as 'has current owner' over the Louisiana territory (E27) 30 April 1803 - ? held by the American Polity. (https://en.wikipedia.org/wiki/Louisiana_Purchase)

- The property right status exercised by Michael Jackson (E21) as 'has current owner' over the Beatles back catalogue (E73) 14 August 1985 - 25 June 2009 held by the American Polity. (https://americansongwriter.com/the-story-behind-michael-jackson-buying-the-beatles-catalog-and-angering-friend-paul-mccartney/)

In First Order Logic:

ZE30(x) $\Rightarrow$ ZE1(x)

Properties:

> ZP64 has property right subject (is property right subject of): E72 Legal Object
>
> ZP65 ascribes property right holder (is property right holder ascribed by): E39 Actor
>
> ZP66 ascribes property right relation (is property right relation ascribed by): E55 Type

ZE33 Declarative Formation

Subclass of:

> E66 Formation
>
> ZE13 Speech Act

Scope note:

> Instances of this class comprise official group formation events undertaken following formal procedures within a social grouping leading to the formal existence of the group relative to the participating parties, whether subgroups or individual persons. The substance of declarative group formation is an intentional, social act.
>
> Instances of ZE33 Declarative Formation come about when the specific social procedure required is intentionally and successfully enacted according to the prevalent rules. They end with the successful termination of the act or because of its premature termination.
>
> A successful act of ZE33 Declarative Formation leads to the generation of an instance of ZE11 Membership Status, the institutional fact that thereafter mediates the social relation between the group and actor in question until it has been abrogated.

Examples:

- The signing of the Vienna Circle Manifesto by R. Carnap (E21), O. Neurath (E21), F. Waismann (E21), *inter alia*, in 1929. (https://plato.stanford.edu/entries/vienna-circle/)

- The founding of the Black Panther Party by Bobby Seale (E21) and Huey P. Newton (E21) on 15 Ocober 1966. (https://en.wikipedia.org/wiki/Black_Panther_Party)

In First Order Logic:

> ZE33(x) $\Rightarrow$ E66(x)
>
> ZE33(x) $\Rightarrow$ ZE13(x)

ZE34 Declarative Dissolution

Subclass of:

> E68 Dissolution
>
> ZE13 Speech Act

Scope note:

> Instances of this class comprise official group dissolution events undertaken following formal procedures within a social grouping leading to the formal termination of the existence of the group relative to the participating parties, whether subgroups or individual persons. The substance of declarative group dissolution is an intentional, social act.
>
> Instances of ZE34 Declarative Dissolution come about when the specific social procedure required is intentionally and successfully enacted according to the prevalent rules. They end with the successful completion of the act or because of its premature termination.
>
> A successful act of ZE34 Declarative Dissolution leads to the termination of an instance of ZE11 Membership Status for each of the groups members, whether individuals or subgroups, until such a time as the group is reformed.

In First Order Logic:

> $ZE34(x) \Rightarrow E68(x)$
>
> $ZE34(x) \Rightarrow ZE13(x)$

Property Declarations

The properties are comprehensively declared in this section using the following format:

- Property names are presented as headings in bold face, preceded by unique property identifiers;

- The line "Domain:" declares the class for which the property is defined;

- The line "Range:" declares the class to which the property points, or that provides the values for the property;

- The line "Superproperty of:" is a cross-reference to any subproperties the property may have;

- The line "Quantification:" declares the possible number of occurrences for domain and range class instances for the property. Possible values are: one to many, many to many, many to one. Quantifications are presented in UML format and in ER format (used by the CIDOC CRM);

- The line "Scope note:" contains the textual definition of the concept the property represents;

- The line "Examples:" contains a bulleted list of examples of instances of this property.

ZP1 has intentional subject (is intentional subject of)

Domain:

> ZE1 Institutional Fact

Range:

> E1 CRM Entity

Scope note:

> This property is used to connect an instance of institutional fact to an entity with which it is concerned. The intentional subject indicated by this property is the object about which the institutional fact holds for the group committed to this institutional reality.

Examples:

- The Ownership Status of the G'psgolox totem pole (ZE8) has ownership subject (ZP23) the G'psgolox totem pole (E22). (https://en.wikipedia.org/wiki/G%CA%BCpsgolox_totem_pole)

- The Classificatory Status of the "French baguette" (ZE4) has classificatory subject (ZP11) the "French baguette" (E55). (https://www.bbc.com/news/world-europe-63800674)

In First Order Logic:

> $ZP1(x,y) \Rightarrow ZE1(x)$

$ZP1(x,y) \Rightarrow E1(y)$

ZP2 ascribes intentional target (is intentional target ascribed by)

Domain:

>ZE1 Institutional Fact

Range:

>E1 CRM Entity

Scope note:

>This property is used to indicate the entity which an instance of institutional fact ascribes to its subject. The intentional target indicated by this property is the object which the institutional fact establishes as holding of its subject for the group committed to this institutional reality. The manner of its holding is indicated by the intentional relation.

Examples:

- The Ownership Status of the G'psgolox totem pole (ZE8) *ascribes owner* (ZP24) the Haisla people (E74). (https://en.wikipedia.org/wiki/G%CA%BCpsgolox_totem_pole)

- The Classificatory Status of the "French baguette" (ZE4) *ascribes classification* (ZP12) Intangible Cultural Heritage (E55). (https://www.bbc.com/news/world-europe-63800674)

In First Order Logic:

>$ZP2(x,y) \Rightarrow ZE1(x)$

>$ZP2(x,y) \Rightarrow E1(y)$

ZP3 ascribes intentional relation (is intentional relation ascribed by)

Domain:

>ZE1 Institutional Fact

Range:

>E55 Type

Scope note:

This property is used to indicate the relationship which an instance of institutional fact takes to hold between its subject and its object. The intentional relation indicated by this property is the kind of relationship which the institutional fact establishes as holding between them for the group committed to this institutional reality.

Examples:

- The Ownership Status of the G'psgolox totem pole (ZE8) *ascribes ownership relation* (ZP25) "has current owner" (E55).

- The Classificatory Status of the "French baguette" (ZE4) *ascribes classification relation* (ZP13) "has type" (E55).

In First Order Logic:

ZP3(x,y) ⇒ ZE1(x)

ZP3(x,y) ⇒ E55(y)

ZP4 holds for (holds)

Domain:

ZE1 Institutional Fact

Range:

E74 Group

Scope note:

This property is used to indicate the community or group for whom an instance of institutional fact holds. Institutional facts have identity only relative to some group for whom they have a significance as formulated through a chosen symbolic system.

Examples:

- The Family Status of Trajan to Nerva (ZE10) as "father" (E55) *holds for* the Roman Polity (E74). (https://en.wikipedia.org/wiki/Adoption_in_ancient_Rome)

- The Ownership Status of the G'psgolox totem pole (ZE8) of the Haisla people (E74) as "is current owner of" (E55) the G'psgolox totem pole (E22) *holds for* the Haisla people (E74). (https://en.wikipedia.org/wiki/G%CA%BCpsgolox_totem_pole)

In First Order Logic:

ZP4(x,y) ⇒ ZE1(x)

ZP4(x,y) ⇒ E74(y)

ZP5 has appellative subject (is appellative subject of)

Domain:

> ZE2 Appellative Status

Range:

> E1 CRM Entity

Subproperty of:

> ZE1 Institutional Fact:ZP1 has intentional subject (is intentional subject of):E1 CRM Entity

Scope note:

> This property is used to indicate the entity for which an appellation holds as institutional fact.

Examples:

- The appellative status of the Polity of Macedonia (ZE2) *has appellative subject* The Polity of Macedonia (E74)

- The appellative status for the city of Mumbai (ZE2) *has appellative subject* the city of Mumbai (E54)

In First Order Logic:

> $ZP5(x,y) \Rightarrow ZE2(x)$
>
> $ZP5(x,y) \Rightarrow E1(y)$
>
> $ZP5(x,y) \Rightarrow ZP1(x,y)$

ZP6 ascribes appellation (is appellation ascribed by)

Domain:

> ZE2 Appellative Status

Range:

> E41 Appellation

Subproperty of:

ZE1 Institutional Fact:ZP2 ascribes intentional target (is intentional target ascribed by):E1 CRM Entity

Scope note:

This property is used to indicate the appellation which is indicated as holding for the named subject of the appellative status.

Examples:

- The appellative status of the Polity of Macedonia (ZE2) *ascribes appellation* "Former Yugoslavian Republic of Macedonia" (E41)

- The appellative status for the city of Mumbai (ZE2) *ascribes appellation* "Mumbai" (E41)

In First Order Logic:

ZP6(x,y) $\Rightarrow$ ZE2(x)

ZP6(x,y) $\Rightarrow$ E41(y)

ZP6(x,y) $\Rightarrow$ ZP2(x,y)

ZP7 ascribes appellative relation (is appellative relation ascribed by)

Domain:

ZE2 Appellative Status

Range:

E55 Type

Subproperty of:

ZE1 Institutional Fact:ZP3 ascribes intentional relation (is intentional relation ascribed by):E55 Type

Scope note:

This property is used to indicate the specific manner in which the appellation which is indicated as holding for the named subject of the appellative status pertains to this subject.

Examples:

- The appellative status of the Polity of Macedonia (ZE2) *ascribes appellative relation* "is identified by" (E55)

- The appellative status for the city of Mumbai (ZE2) ascribes appellative relation "is identified by" (E55)

In First Order Logic:

ZP7(x,y) ⇒ ZE2(x)

ZP7(x,y) ⇒ E55(y)

ZP7(x,y) ⇒ ZP3(x,y)

ZP8 has contact point subject (is contact point subject of)

Domain:

ZE3 Contact Point Status

Range:

E39 Actor

Subproperty of:

ZE2 Appellative Status:ZP5 has appellative subject (is appellative subject of):E1 CRM Entity

Scope note:

This property is used to indicate the entity for which a contact point has been specified as means of contact.

Examples:

- The contact point status of the mailing address of the Charles the 3rd (ZE3) *has contact point subject* King Charles III (E21).

- The contact point status of the mailing address of Johnny Depp (ZE3) *has contact point subject* Jonny Depp (E21)

In First Order Logic:

ZP8(x,y) ⇒ ZE3(x)

ZP8(x,y) ⇒ E39(y)

$ZP8(x,y) \Rightarrow ZP5(x,y)$

ZP9 ascribes contact point (is contact point ascribed by)

Domain:

ZE3 Contact Point Status

Range:

E42 Identifier

Subproperty of:

ZE2 Appellative Status:ZP6 ascribes appellation (is appellation ascribed by):E41 Appellation

Scope note:

This property is used to indicate the contact point which is indicated as holding for the named subject of the contact status.

Examples:

- The contact point status of the mailing address of the Charles the 3rd (ZE3) *ascribes contact point* "His Majesty The King, Buckingham Palace, London SW1A 1AA, UK" (E42).

- The contact point status of the mailing address of Johnny Depp (ZE3) *ascribes contact point* "The Spanky Taylor Company, 916 West Burbank Blvd., Suite #206C, Burbank CA 91506, United States" (E42).

In First Order Logic:

$ZP9(x,y) \Rightarrow ZE3(x)$

$ZP9(x,y) \Rightarrow E42(y)$

$ZP9(x,y) \Rightarrow ZP6(x,y)$

ZP10 ascribes contact point relation (is contact point relation ascribed by)

Domain:

ZE3 Contact Point Status

Range:

E55 Type

Subproperty of:

ZE2 Appellative Status:ZP7 ascribes appellative relation (is appellative relation ascribed by):E55 Type

Scope note:

This property is used to indicate the specific manner in which the contact point which is indicated as holding for the named subject of the contact status pertains to this subject.

Examples:

- The contact point status of the mailing address of the Charles the 3rd (ZE3) *ascribes contact point relation* "P76 has contact point" (E55)

- The contact point status of the mailing address of Johnny Depp (ZE3) *ascribes contact point relation* "P76 has contact point" (E55)

In First Order Logic:

ZP10(x,y) ⇒ ZE3(x)

ZP10(x,y) ⇒ E55(y)

ZP10(x,y) ⇒ ZP7(x,y)

ZP11 has classificatory subject (is classificatory subject of)

Domain:

ZE4 Classificatory Status

Range:

E1 CRM Entity

Subproperty of:

ZE1 Institutional Fact:ZP1 has intentional subject (is intentional subject of):E1 CRM Entity

Scope note:

This property is used to indicate the entity for which a certain classification is taken to hold by the instance of classificatory status.

Examples:

- The classificatory status of the assemblage of apatosaurus and camarasaurus remains (ZE4) *has classificatory subject* the assemblage of apatosaurus and camarasaurus remains (E19)

- The classificatory status of the "French baguette" *(ZE4) has classificatory subject* the French baguette (E22)

In First Order Logic:

ZP11(x,y) $\Rightarrow$ ZE4(x)

ZP11(x,y) $\Rightarrow$ E1(y)

ZP11(x,y) $\Rightarrow$ ZP1(x,y)

ZP12 ascribes classification (is classification ascribed by)

Domain:

ZE4 Classificatory Status

Range:

E55 Type

Subproperty of:

ZE1 Institutional Fact:ZP2 ascribes intentional target (is intentional target ascribed by):E1 CRM Entity

Scope note:

This property is used to indicate the type which is indicated as holding for the subject of the classification status.

Examples:

- The classificatory status of the assemblage of apatosaurus and camarasaurus remains (ZE4) *ascribes classification* Brontosaurus excelsus (E55)

- The classificatory status of the "French baguette" (ZE4) *ascribes classification* Intangible Cultural Heritage (E55)

In First Order Logic:

ZP12(x,y) ⇒ ZE4(x)

ZP12(x,y) ⇒ E55(y)

ZP12(x,y) ⇒ ZP2(x,y)

ZP13 ascribes classification relation (is classification relations ascribed by)

Domain:

ZE4 Classificatory Status

Range:

E55 Type

Subproperty of:

ZE1 Institutional Fact:ZP3 ascribes intentional relation (is intentional relation ascribed by):E55 Type

Scope note:

This property is used to indicate the specific manner in which the type which is indicated as holding for the subject of the classification status pertains to this subject.

Examples:

- The classificatory status of the assemblage of apatosaurus and camarasaurus remains (ZE4) *ascribes classification relation "P2 has type"* (E55)

- The classificatory status of the "French baguette" (ZE4) ascribes classification relation "P2 has type" (E55)

In First Order Logic:

ZP13(x,y) ⇒ ZE4(x)

ZP13(x,y) ⇒ E55(y)

ZP13(x,y) ⇒ ZP3(x,y)

ZP14 has functional subject (is functional subject of)

Domain:

> ZE5 Function Status

Range:

> E1 CRM Entity

Subproperty of:

> ZE4 Classificatory Status:ZP11 has classificatory subject (is classificatory subject of):E1 CRM Entity

Scope note:

This property is used to indicate the entity for which a certain functional classification is taken to hold by the instance of functional status.

Examples:

- The function status of St Joe's Cathedral (ZE5) *has functional subject* St Joe's Cathedral (E22)

- The function status of Sen. Mary Jane McCallum's eagle feather (ZE5) *has functional subject* Sen. Mary Jane McCallum's eagle feather (E20)

In First Order Logic:

> ZP14(x,y) $\Rightarrow$ ZE5(x)
>
> ZP14(x,y) $\Rightarrow$ E1(y)
>
> ZP14(x,y) $\Rightarrow$ ZP11(x,y)

ZP15 ascribes function (is function ascribed by)

Domain:

> ZE5 Function Status

Range:

> E55 Type

Subproperty of:

ZE4 Classificatory Status:ZP12 ascribes classification (is classification ascribed by):E55 Type

Scope note:

This property is used to indicate the type of function which is indicated as holding for the subject of the function status.

Examples:

- The function status of St Joe's Cathedral (ZE5) *ascribes function* minor basilica (E55)

- The function status of Sen. Mary Jane McCallum's eagle feather *(ZE5) ascribes function* sacred object (E55)

In First Order Logic:

ZP15(x,y) ⇒ ZE5(x)

ZP15(x,y) ⇒ E55(y)

ZP15(x,y) ⇒ ZP12(x,y)

ZP16 ascribes functional relation (is functional relation ascribed by)

Domain:

ZE5 Function Status

Range:

E55 Type

Subproperty of:

ZE4 Classificatory Status:ZP13 ascribes classification relation (is classification relations ascribed by):E55 Type

Scope note:

This property is used to indicate the specific manner in which the function which is indicated as holding for the subject of the function status pertains to this subject.
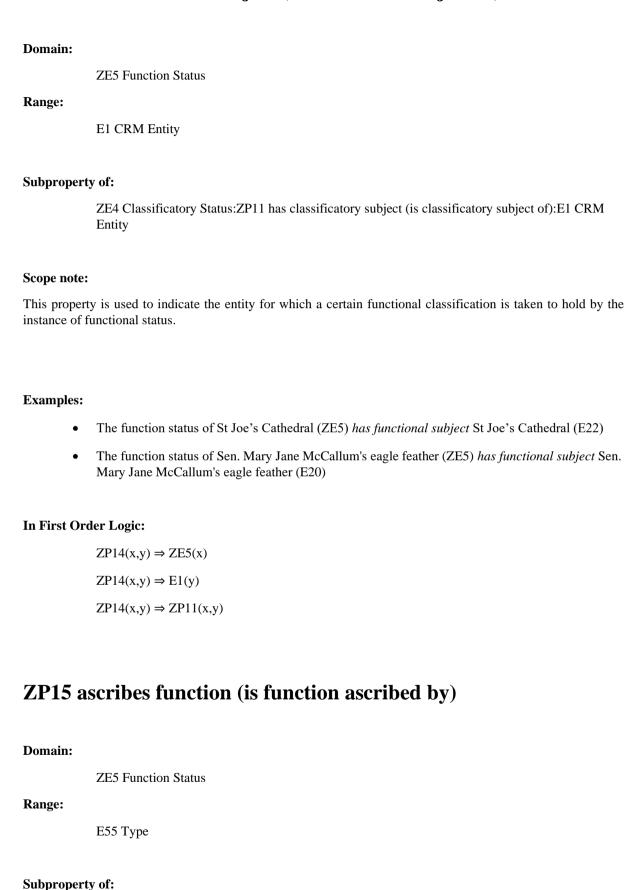
Examples:

- The function status of St Joe's Cathedral (ZE5) *ascribes functional relation* "has type" (E55)

- The function status of Sen. Mary Jane McCallum's eagle feather (ZE5) ascribes functional relation "has type" (E55)

In First Order Logic:

ZP16(x,y) ⇒ ZE5(x)

ZP16(x,y) ⇒ E55(y)

ZP16(x,y) ⇒ ZP13(x,y)

ZP17 has social status subject (is social status subject of)

Domain:

ZE6 Social Status

Range:

E39 Actor

Subproperty of:

ZE4 Classificatory Status:ZP11 has classificatory subject (is classificatory subject of):E1 CRM Entity

Scope note:

This property is used to indicate the actor for which a certain social status is taken to hold by the instance of social status.

Examples:

- The social status of Charles III (ZE6) *has social status subject* Charles III (E21)

- The social status of the jurors in the O.J. Simpson murder trial (ZE6) *has social status subject* the jurors in the O.J. Simpson murder trial (E74)

In First Order Logic:

ZP17(x,y) ⇒ ZE6(x)

ZP17(x,y) ⇒ E39(y)

ZP17(x,y) ⇒ ZP11(x,y)

ZP18 ascribes social status (is social status ascribed by)

Domain:

> ZE6 Social Status

Range:

> E55 Type

Subproperty of:

> ZE4 Classificatory Status:ZP12 ascribes classification (is classification ascribed by):E55 Type

Scope note:

This property is used to indicate the type of social status which is indicated as holding for the subject of the social status ascription.

Examples:

- The social status of Charles III (ZE6) *ascribes social status* King (E55)

- The social status of the jurors in the O.J. Simpson murder trial (ZE6) *ascribes social status* Juror (E55)

In First Order Logic:

> ZP18(x,y) $\Rightarrow$ ZE6(x)
>
> ZP18(x,y) $\Rightarrow$ E55(y)
>
> ZP18(x,y) $\Rightarrow$ ZP12(x,y)

ZP19 ascribes social status relation (is social status relation ascribed by)

Domain:

> ZE6 Social Status

Range:

> E55 Type

Subproperty of:

> ZE4 Classificatory Status:ZP13 ascribes classification relation (is classification relations ascribed by):E55 Type

Scope note:

This property is used to indicate the specific manner in which the type of social status which is indicated as holding for the subject pertains to this subject.

Examples:

- The social status of Charles III (ZE6) *ascribes social status relation* "has type" (E55)

- The social status of the jurors in the O.J. Simpson murder trial III (ZE6) ascribes social status relation "has type" (E55)

In First Order Logic:

> ZP19(x,y) ⇒ ZE6(x)
>
> ZP19(x,y) ⇒ E55(y)
>
> ZP19(x,y) ⇒ ZP13(x,y)

ZP20 has custodial subject (is custodial subject of)

Domain:

> ZE7 Custodial Status

Range:

> E18 Physical Thing

Subproperty of:

> ZE1 Institutional Fact:ZP1 has intentional subject (is intentional subject of):E1 CRM Entity

Scope note:

This property is used to indicate the physical thing over which a certain custodial status is taken to hold.

Examples:

- The custodial status of the G'psgolox totem pole (ZE7) *has custodial subject* G'psgolox totem pole (E22)

- The custodial status of Banff National Park (ZE7) *has custodial subject* Banff National Park (E53)

In First Order Logic:

ZP20(x,y) ⇒ ZE7(x)

ZP20(x,y) ⇒ E18(y)

ZP20(x,y) ⇒ ZP1(x,y)

ZP21 ascribes custodian (is custodian ascribed by)

Domain:

ZE7 Custodial Status

Range:

E39 Actor

Subproperty of:

ZE1 Institutional Fact:ZP2 ascribes intentional target (is intentional target ascribed by):E1 CRM Entity

Scope note:

This property is used to indicate the custodian to whom the custody of the physical thing which is the subject of the custodial status redounds.

Examples:

- The custodial status of the G'psgolox totem pole (ZE7) *ascribes custodian* the Swedish National Museum of Ethnography (E74)

- The custodial status of Banff National Park (ZE7) *ascribes custodian* Parks Canada (E74)

In First Order Logic:

ZP21(x,y) ⇒ ZE7(x)

ZP21(x,y) ⇒ E39(y)

ZP21(x,y) ⇒ ZP2(x,y)

ZP22 ascribes custodial relation (is custodial relation ascribed by)

Domain:

ZE7 Custodial Status

Range:

E55 Type

Subproperty of:

ZE1 Institutional Fact:ZP3 ascribes intentional relation (is intentional relation ascribed by):E55 Type

Scope note:

This property is used to indicate the specific manner in which the custodial status which is indicated as holding over the legal object by the custodian pertains to this subject.

Examples:

- The custodial status of the G'psgolox totem pole (ZE7) *ascribes custodial relation* "has current custodian" (E55)

- The custodial status of Banff National Park (ZE7) *ascribes custodial relation* "has current custodian" (E55)

In First Order Logic:

$ZP22(x,y) \Rightarrow ZE7(x)$

$ZP22(x,y) \Rightarrow E55(y)$

$ZP22(x,y) \Rightarrow ZP3(x,y)$

ZP23 has ownership subject (is ownership subject of)

Domain:

ZE8 Ownership Status

Range:

E18 Physical Thing

Subproperty of:

> ZE1 Institutional Fact:ZP1 has intentional subject (is intentional subject of):E1 CRM Entity

Scope note:

This property is used to indicate the legal object over which a certain ownership status is taken to hold.

Examples:

- The ownership status of the Euphronios Krater (ZE8) *has ownership subject* the Euphronios Krater (E22)
- The ownership status of the G'psgolox totem pole (ZE8) *has ownership subject* the G'psgolox totem pole (E22)

In First Order Logic:

> $ZP23(x,y) \Rightarrow ZE8(x)$
>
> $ZP23(x,y) \Rightarrow E18(y)$
>
> $ZP23(x,y) \Rightarrow ZP1(x,y)$

ZP24 ascribes owner (is owners ascribed by)

Domain:

> ZE8 Ownership Status

Range:

> E39 Actor

Subproperty of:

> ZE1 Institutional Fact:ZP2 ascribes intentional target (is intentional target ascribed by):E1 CRM Entity

Scope note:

This property is used to indicate the owner to whom the title of the legal object which is the subject of the ownership status redounds.

Examples:

- The ownership status of the Euphronios Krater (ZE8) *ascribes owner* the Metropolitan Museum of Art (E74)

- The ownership status of the G'psgolox totem pole (ZE8) *ascribes owner* the Haisla people (E74)

- The ownership status of the G'psgolox totem pole (ZE8) *ascribes owner* the Swedish National Museum of Ethnography (E74)

In First Order Logic:

ZP24(x,y) $\Rightarrow$ ZE8(x)

ZP24(x,y) $\Rightarrow$ E39(y)

ZP24(x,y) $\Rightarrow$ ZP2(x,y)

ZP25 ascribes ownership relation (is ownership relation ascribed by)

Domain:

ZE8 Ownership Status

Range:

E55 Type

Subproperty of:

ZE1 Institutional Fact:ZP3 ascribes intentional relation (is intentional relation ascribed by):E55 Type

Scope note:

This property is used to indicate the specific manner in which the ownership status which is indicated as holding over the legal object by the owner pertains to this subject.

Examples:

- The ownership status of the Euphronios Krater (ZE8) *ascribes ownership relation* "has current owner" (E55)

- The ownership status of the G'psgolox totem pole (ZE8) *ascribes ownership relation* "has current owner" (E55)

In First Order Logic:

$ZP25(x,y) \Rightarrow ZE8(x)$

$ZP25(x,y) \Rightarrow E55(y)$

$ZP25(x,y) \Rightarrow ZP3(x,y)$

ZP26 has residence subject (is residence subject of)

Domain:

ZE9 Residential Status

Range:

E39 Actor

Scope note:

This property is used to indicate the actor for whom the residence status is taken to hold.

Examples:

- The residential status of the Prime Minister Role of Canada (ZE9) *has residence subject* the current Prime Minister of Canada (E21)

- The residential status of Governor General Mary Jeannie May Simon (ZE9) *has residence subject* Governor General Mary Jeannie May Simon (E21)

In First Order Logic:

$ZP26(x,y) \Rightarrow ZE9(x)$

$ZP26(x,y) \Rightarrow E39(y)$

ZP27 acribes residence place (is residence place ascribed by)

Domain:

ZE9 Residential Status

Range:

E53 Place

Subproperty of:

ZE1 Institutional Fact:ZP2 ascribes intentional target (is intentional target ascribed by):E1 CRM Entity

Scope note:

This property is used to indicate the place at which the subject of the residence status is taken to reside or dwell.

Examples:

- The residential status of the Prime Minister Role of Canada (ZE9) *ascribes residence place* 24 Sussex Drive (E53)

- The residential status of Governor General Mary Jeannie May Simon (ZE9) *ascribes residence place* Rideau Hall (E53)

In First Order Logic:

ZP27(x,y) ⇒ ZE9(x)

ZP27(x,y) ⇒ E53(y)

ZP27(x,y) ⇒ ZP2(x,y)

ZP28 ascribes residence relation (is residence relation ascribed by)

Domain:

ZE9 Residential Status

Range:

E55 Type

Subproperty of:

ZE1 Institutional Fact:ZP3 ascribes intentional relation (is intentional relation ascribed by):E55 Type

Scope note:

This property is used to indicate the specific manner in which the residence status which is indicated as holding over the actor pertains to this subject.

Examples:

- The residential status of the Prime Minister Role of Canada (ZE9) *ascribes residence relation* "has current or former residence" (E55)

- The residential status of Governor General Mary Jeannie May Simon (ZE9) ascribes residence relation "has current or former residence" (E55)

In First Order Logic:

ZP28(x,y) ⇒ ZE9(x)

ZP28(x,y) ⇒ E55(y)

ZP28(x,y) ⇒ ZP3(x,y)

ZP29 has familial subject (is familial subject of)

Domain:

ZE10 Family Status

Range:

E21 Person

Subproperty of:

ZE1 Institutional Fact:ZP1 has intentional subject (is intentional subject of):E1 CRM Entity

Scope note:

This property is used to indicate the person for whom the family status is taken to hold.

Examples:

- The family status of "father" Trajan and adoptive son Nerva (ZE10) *has familial subject* Trajan (E21)

- The family status of "husband" between Michael Leshner and Michael Stark (ZE10) *has familial subject* Michael Leshner (E21)

In First Order Logic:

ZP29(x,y) ⇒ ZE10(x)

ZP29(x,y) ⇒ E21(y)

$$ZP29(x,y) \Rightarrow ZP1(x,y)$$

ZP30 ascribes relative (is relative ascribed by)

Domain:

> ZE10 Family Status

Range:

> E21 Person

Subproperty of:

> ZE1 Institutional Fact:ZP2 ascribes intentional target (is intentional target ascribed by):E1 CRM Entity

Scope note:

This property is used to indicate the person with whom the subject of the family relation status has the familial relation which they have.

Examples:

- The family status of "father" Trajan and adoptive son Nerva (ZE10) *ascribes relative* Nerva (E21)

- The family status of "husband" between Michael Leshner and Michael Stark (ZE10) *ascribes relative* Michael Stark (E21)

In First Order Logic:

> $ZP30(x,y) \Rightarrow ZE10(x)$
>
> $ZP30(x,y) \Rightarrow E21(y)$
>
> $ZP30(x,y) \Rightarrow ZP2(x,y)$

ZP31 ascribes familial relation (is familial relation ascribed by)

Domain:

> ZE10 Family Status

Range:

E55 Type

Subproperty of:

ZE1 Institutional Fact:ZP3 ascribes intentional relation (is intentional relation ascribed by):E55 Type

Scope note:

This property is used to indicate the specific type of family status which is indicated as holding between the subject individual and his/her ascribed relative.

Examples:

- The family status of "father" Trajan and adoptive son Nerva (ZE10) *ascribes familial relation* "father" (E55)

- The family status of "husband" between Michael Leshner and Michael Stark (ZE10) *ascribes familial relation* "husband" (E55)

In First Order Logic:

ZP31(x,y) ⇒ ZE10(x)

ZP31(x,y) ⇒ E55(y)

ZP31(x,y) ⇒ ZP3(x,y)

ZP32 has membership subject (is membership subject of)

Domain:

ZE11 Membership Status

Range:

E39 Actor

Subproperty of:

ZE1 Institutional Fact:ZP1 has intentional subject (is intentional subject of):E1 CRM Entity

Scope note:

This property is used to indicate the person or group for whom the membership status is taken to hold.

Examples:

- The membership status of Mary Ellen Turpel-Lafond (ZE11) *has membership subject* Mary Ellen Turpel-Lafond (E21)

- The membership status of Pete Best (ZE11) *has membership subject* Pete Best (E21)

In First Order Logic:

ZP32(x,y) ⇒ ZE11(x)

ZP32(x,y) ⇒ E39(y)

ZP32(x,y) ⇒ ZP1(x,y)

ZP33 ascribes group (is group ascribed by)

Domain:

ZE11 Membership Status

Range:

E74 Group

Subproperty of:

ZE1 Institutional Fact:ZP2 ascribes intentional target (is intentional target ascribed by):E1 CRM Entity

Scope note:

This property is used to indicate the group ascribed to the subject person of the membership status as having a membership relation thereto.

Examples:

- The membership status of Mary Ellen Turpel-Lafond (ZE11) *ascribes group* the Cree First Nation (E74)

- The membership status of Pete Best (ZE11) *ascribes group* the Fifth Beatles (E74)

In First Order Logic:

ZP33(x,y) ⇒ ZE11(x)

ZP33(x,y) ⇒ E74(y)

$$ZP33(x,y) \Rightarrow ZP2(x,y)$$

ZP34 ascribes membership relation (is membership relation ascribed by)

Domain:

ZE11 Membership Status

Range:

E55 Type

Subproperty of:

ZE1 Institutional Fact:ZP3 ascribes intentional relation (is intentional relation ascribed by):E55 Type

Scope note:

This property is used to indicate the specific type of membership status which is indicated as holding between the subject actor and the group to which it is ascribed as being a member.

Examples:

- The membership status of Mary Ellen Turpel-Lafond (ZE11) *ascribes membership relation* "has current member" (E55)

- The membership status of Pete Best (ZE11) *ascribes membership relation* "has current member" (E55)

In First Order Logic:

$$ZP34(x,y) \Rightarrow ZE11(x)$$

$$ZP34(x,y) \Rightarrow E55(y)$$

$$ZP34(x,y) \Rightarrow ZP3(x,y)$$

ZP35 has referential subject (is referential subject of)

Domain:

ZE12 Referential Status

Range:

E89 Propositional Object

Subproperty of:

ZE1 Institutional Fact:ZP1 has intentional subject (is intentional subject of):E1 CRM Entity

Scope note:

This property is used to indicate the propositional object for which the referential status is taken to hold.

Examples:

- The referential status of 'Let's Go, Brandon' (E12) *has referential subject* 'Let's Go, Brandon' (E89).

- The referential status of the visual appearance of wearing a balaclava (E12) *has referential subject* the visual appearance of wearing a balaclava (E36).

In First Order Logic:

ZP35(x,y) $\Rightarrow$ ZE12(x)

ZP35(x,y) $\Rightarrow$ E89(y)

ZP35(x,y) $\Rightarrow$ ZP1(x,y)

ZP36 ascribes referent (is referent ascribed by)

Domain:

ZE12 Referential Status

Range:

E1 CRM Entity

Subproperty of:

ZE1 Institutional Fact:ZP2 ascribes intentional target (is intentional target ascribed by):E1 CRM Entity

Scope note:

This property is used to indicate the referent to which the subject propositional object is taken to refer.

Examples:

- The referential status of 'Let's Go, Brandon' (ZE12) *ascribes referent* Joe Biden (E21)

- The referential status of the visual appearance of wearing a balaclava (ZE12) *ascribes referent* "military identity" (E55)

In First Order Logic:

ZP36(x,y) $\Rightarrow$ ZE12(x)

ZP36(x,y) $\Rightarrow$ E1(y)

ZP36(x,y) $\Rightarrow$ ZP2(x,y)

ZP37 ascribes referential relation (is referential relation ascribed by)

Domain:

ZE12 Referential Status

Range:

E55 Type

Subproperty of:

ZE1 Institutional Fact:ZP3 ascribes intentional relation (is intentional relation ascribed by):E55 Type

Scope note:

This property is used to indicate the specific type of referential status which is indicated as holding between the subject propositional object and its indicated intended referent.

Examples:

- The referential status of the visual appearance of wearing a balaclava (ZE12) *ascribes referential relation* "refers to" (E55)

- The referential status of 'Let's Go, Brandon' (ZE12) *ascribes referential relation* "refers to" (E55)

In First Order Logic:

ZP37(x,y) $\Rightarrow$ ZE12(x)

$$ZP37(x,y) \Rightarrow E55(y)$$

$$ZP37(x,y) \Rightarrow ZP3(x,y)$$

ZP38 ascribes referential mode (is referential mode ascribed by)

Domain:

ZE12 Referential Status

Range:

E55 Type

Scope note:

This property is used to indicate the specific manner in which the referential status which is indicated as holding between the subject propositional object and its indicated intended referent holds.

Examples:

- The referential status of the visual appearance of wearing a balaclava (ZE12) *ascribes referential mode* "appropriated" (E55)

- The referential status of 'Let's Go, Brandon'(ZE12) *ascribes referential mode* "anti-Joe Biden sentiment" (E55)

In First Order Logic:

$$ZP38(x,y) \Rightarrow ZE12(x)$$

$$ZP38(x,y) \Rightarrow E55(y)$$

ZP40 performed (was performed by)

Domain:

ZE13 Speech Act

Range:

E29 Design or Procedure

Subproperty of:

E7 Activity:P33 used specific technique (was used by):E29 Design or Procedure

Scope note:

This property is used to indicate the performance plan sanctioned by normative rule appealed to by the speech act to bring about a new institutional fact. This performance plan indicates the series of necessary procedures that must be followed in order for the speech act to have been successfully carried out and to have created a genuine instance of the institutional fact that it was designed to make possible.

Examples:

- Michael Leshner (E21) and Michael Stark (E21) *performed* the marriage ceremony (E29) in their 2003 wedding in Toronto, Ontario.
  (https://en.wikipedia.org/wiki/Michael_Leshner_and_Michael_Stark)

- Father Andres Arango's baptisms (ZE13) *performed* the Catholic Right of Baptism (E29) (https://www.cbc.ca/radio/asithappens/as-it-happens-the-thursday-edition-1.6355198/thousands-of-baptisms-declared-invalid-in-arizona-because-of-a-single-word-1.6355339)

In First Order Logic:

ZP40(x,y) ⇒ ZE13(x)

ZP40(x,y) ⇒ E29(y)

ZP40(x,y) ⇒ P33(x,y)

ZP41 uttered (was uttered by)

Domain:

ZE13 Speech Act

Range:

E73 Information Object

Subproperty of:

E7 Activity:P16 used specific object (was used for):E70 Thing

Scope note:

It is typical of performance plans for normative procedures to include a necessary invoking clause or set of clauses which must be uttered in the course of the performance of the speech act in order to for it to be successfully carried out. This property enables the documentation of the use of such a linguistic object.

Examples:

- John F. Kennedy's speech on 26 June 1963 (ZE13) *uttered* "Ich bin ein Berliner" (E89) (https://en.wikipedia.org/wiki/Ich_bin_ein_Berliner)

- Father Andres Arango's baptisms (ZE13) *uttered* "We baptize you in the name of the Father, and of the Son, and of the Holy Spirit." (E89) (https://www.cbc.ca/radio/asithappens/as-it-happens-the-thursday-edition-1.6355198/thousands-of-baptisms-declared-invalid-in-arizona-because-of-a-single-word-1.6355339)

In First Order Logic:

ZP41(x,y) ⇒ ZE13(x)

ZP41(x,y) ⇒ E73(y)

ZP41(x,y) ⇒ P16(x,y)

ZP42 intentionally initiated (was intentionally initiated by)

Domain:

ZE13 Speech Act

Range:

ZE1 Institutional Fact

Scope note:

This property is used to connect the instance of speech act to the instance of institutional fact which it brought into existence through the correct performance of the specified performance to bring about the norm type it aimed to bring about.

Examples:

- The permission granted by the Canadian Department of Indian Affairs in 1929 (ZE13) *intentionally initiated* the Custodial Status (ZE7) of G'psgolox totem pole (E22) vis. Olof Hanson (E21). (https://en.wikipedia.org/wiki/G%CA%BCpsgolox_totem_pole)

- The signing of the Louisiana Purchase in 1803 (ZE13) *intentionally intiated* the Ownership Status (ZE8) of the territory of Louisiana (E27) vis. the United States of America (E74) (https://en.wikipedia.org/wiki/Louisiana_Purchase)

In First Order Logic:

ZP42(x,y) ⇒ ZE13(x)

ZP42(x,y) ⇒ ZE1(y)

ZP43 has similarity subject (is similarity subject of)

Domain:

ZE14 Similarity Status

Range:

E1 CRM Entity

Subproperty of:

ZE1 Institutional Fact:ZP1 has intentional subject (is intentional subject of):E1 CRM Entity

Scope note:

This property is used to indicate one of two entities for which the similarity status is taken to hold.

Examples:

- The similarity status of George and his dog Stilton (ZE14) *has similarity subject* George (E21)

- The similarity status of Ed Sheehan's song "Thinking Out Loud" and Marvin Gaye's song "Let's Get It On" (ZE14) *has similarity subject* Ed Sheehan's song "Thinking Out Loud" (E73)

In First Order Logic:

ZP43(x,y) ⇒ ZE14(x)

ZP43(x,y) ⇒ E1(y)

ZP43(x,y) ⇒ ZP1(x,y)

ZP44 ascribes similarity target (is similarity target ascribed by)

Domain:

ZE14 Similarity Status

Range:

E1 CRM Entity

Subproperty of:

> ZE1 Institutional Fact:ZP2 ascribes intentional target (is intentional target ascribed by):E1 CRM Entity

Scope note:

> This property is used to indicate the other entity for which the similarity status is taken to hold.

Examples:

- The similarity status of George and his dog Stilton (ZE14) *ascribes similarity target* Stilton (E20)

- The similarity status of Ed Sheehan's song "Thinking Out Loud" and Marvin Gaye's song "Let's Get It On" (ZE14) *ascribes similarity target* Marvin Gaye's song "Let's Get It On" (E73)

In First Order Logic:

> ZP44(x,y) ⇒ ZE14(x)
>
> ZP44(x,y) ⇒ E1(y)
>
> ZP44(x,y) ⇒ ZP2(x,y)

ZP45 ascribes similarity relation (is similarity relation ascribed by)

Domain:

> ZE14 Similarity Status

Range:

> E55 Type

Subproperty of:

> ZE1 Institutional Fact:ZP3 ascribes intentional relation (is intentional relation ascribed by):E55 Type

Scope note:

> This property is used to indicate the specific type of similarity which is indicated as holding between the two entities indicated in the similarity status.

Examples:

- The similarity status of George and his dog Stilton (ZE14) *ascribes similarity relation* "has similarity" (E55)

- The similarity status of Ed Sheehan's song "Thinking Out Loud" and Marvin Gaye's song "Let's Get It On" *ascribes similarity relation* "has similarity" (E55)

In First Order Logic:

ZP45(x,y) ⇒ ZE14(x)

ZP45(x,y) ⇒ E55(y)

ZP45(x,y) ⇒ ZP3(x,y)

ZP46 ascribes similarity mode (is similarity mode ascribed by)

Domain:

ZE14 Similarity Status

Range:

E55 Type

Scope note:

This property is used to indicate the specific manner in which the similarity status, which is indicated as holding between the two entities indicated in the similarity status, is the case. It's function corresponds with the .1 properties in CIDOC-CRM 7.1.1.

Examples:

- The similarity status of Ed Sheehan's song "Thinking Out Loud" and Marvin Gaye's song "Let's Get It On" (ZE14) *ascribes similarity mode* "copy of" (E55)

In First Order Logic:

ZP46(x,y) ⇒ ZE14(x)

ZP46(x,y) ⇒ E55(y)

ZP47 has set belonging subject (is set belonging subject of)

Domain:

ZE15 Set Status

Range:

E1 CRM Entity

Subproperty of:

ZE1 Institutional Fact:ZP1 has intentional subject (is intentional subject of):E1 CRM Entity

Scope note:

This property is used to indicate an entity which is taken as belonging to a particular set by the instance of set status.

Examples:

- The set status of the Marvin Gaye's album 'Let's Get It On' (ZE16) *has set belonging subject* Marvin Gaye's album 'Let's Get It On' (E73)

- The set status of the Duffer Brother's 'Stranger Things' (ZE16) *has set belonging subject* the Duffer Brother's 'Stranger Things' (E73)

In First Order Logic:

$ZP47(x,y) \Rightarrow ZE15(x)$

$ZP47(x,y) \Rightarrow E1(y)$

$ZP47(x,y) \Rightarrow ZP1(x,y)$

ZP48 ascribes set (is set ascribed by)

Domain:

ZE15 Set Status

Range:

ZE24 Notional Set

Subproperty of:

ZE1 Institutional Fact:ZP2 ascribes intentional target (is intentional target ascribed by):E1 CRM Entity

Scope note:

This property is used to indicate the set to which an entity is indicated as belonging .

Examples:

- The set status of the Marvin Gaye's album 'Let's Get It On' (ZE16) *ascribes set* the 500 Greatest Albums of All Time (ZE24)

- The set status of the Duffer Brother's 'Stranger Things' (ZE16) *ascribes set* the 50 Best TV Shows of 2022 (ZE24)

In First Order Logic:

ZP48(x,y) ⇒ ZE15(x)

ZP48(x,y) ⇒ ZE24(y)

ZP48(x,y) ⇒ ZP2(x,y)

ZP49 ascribes set belonging relation (is set belonging relation ascribed by)

Domain:

ZE15 Set Status

Range:

E55 Type

Subproperty of:

ZE1 Institutional Fact:ZP3 ascribes intentional relation (is intentional relation ascribed by):E55 Type

Scope note:

This property is used to indicate the specific type of belonging to the set which is indicated as holding between the subject entity and the target set.

Examples:

- The set status of the Marvin Gaye's album 'Let's Get It On' (ZE16) *ascribes set belonging relation* "has current set member" (E55)

- The set status of the Duffer Brother's 'Stranger Things' (ZE16) ascribes set belonging relation "has current set member" (E55)

In First Order Logic:

ZP49(x,y) ⇒ ZE15(x)

ZP49(x,y) ⇒ E55(y)

$$ZP49(x,y) \Rightarrow ZP3(x,y)$$

ZP51 has former or current set member (is current or former set member of)

Domain:

ZE24 Notional Set

Range:

E1 CRM Entity

Scope note:

This property is used to connect an instance of set to an entity considered to be one of its members.

Examples:

- The 500 Greatest Albums of All Time (ZE24) *has former or current set member* Marvin Gaye's album 'Let's Get It On' (E73). (https://www.rollingstone.com/music/music-lists/best-albums-of-all-time-1062063/)
- The 50 Best TV Shows of 2022 (ZE24) *has former or current set member* the Duffer Brother's 'Stranger Things' (E73).(https://www.theguardian.com/tv-and-radio/2022/dec/02/the-50-best-tv-shows-of-2022)

In First Order Logic:

$$ZP51(x,y) \Rightarrow ZE24(x)$$

$$ZP51(x,y) \Rightarrow E1(y)$$

ZP52 intentionally terminated (was intentionally terminated by)

Domain:

ZE13 Speech Act

Range:

ZE1 Institutional Fact

Scope note:

This property is used to connect the instance of speech act to the instance of institutional fact which it cancels through the correct performance of the specified performance to bring about the norm type it aimed to bring about.

Examples:

- The ratification of the Republic of Ireland Act on 18 April 1949 (ZE13) *intentionally terminated* Ireland's Membership Status (ZE11) vis. the Commonwealth of Nations (E74) (https://en.wikipedia.org/wiki/The_Republic_of_Ireland_Act_1948)

- The permission for repatriation of the G'psgolox totem pole granted in 2006 (ZE13) *intentionally terminated* its Custodial Status (ZE8) vis. the Swedish National Museum (E74) (https://en.wikipedia.org/wiki/G%CA%BCpsgolox_totem_pole)

In First Order Logic:

$ZP52(x,y) \Rightarrow ZE13(x)$

$ZP52(x,y) \Rightarrow ZE1(y)$

ZP53 initiated institutional fact for (had institutional fact initiated by)

Domain:

ZE13 Speech Act

Range:

E74 Group

Scope note:

This property is used to connect the instance of speech act to the instance of group for whom it initiates the existence of a social fact through its performance.

It serves as a shortcut for the fully developed semantic pathway, which instantiates the ZE1 Institutional Fact, in the path ZE13 Speech Act -> ZP42 intentionally initiated -> ZE1 Institutional Fact -> ZP4 held by -> E74 Group.

Examples:

- The signing of the Louisiana Purchase in 1803 (ZE13) *intiated institutional fact for* the United States of America (E74) (https://en.wikipedia.org/wiki/Louisiana_Purchase)

- The permission granted by the Canadian Department of Indian Affairs in 1929 vis. the G'psgolox totem pole (ZE13) *initiated institutional fact for* the Haisla people (E74). (https://en.wikipedia.org/wiki/G%CA%BCpsgolox_totem_pole)

In First Order Logic:

ZP53(x,y) ⇒ ZE13(x)

ZP53(x,y) ⇒ E74(y)

ZP54 ascribes relative date (is relative date ascribed by)

Domain:

ZE25 Dating Status

Range:

E4 Period

Subproperty of:

ZE1 Institutional Fact:ZP2 ascribes intentional target (is intentional target ascribed by):E1 CRM Entity

Scope note:

This property is used to connect the instance of dating status to the instance of a period to which another instance of period is related for the purposes of datation.

Examples:

- The dating status of the first purposeful settlement of Crete (ZE25) *ascribes relative date* the pre-Neolithic period (E4)

- The dating status of the Bronosaurus excelus (ZE25) *ascribes relative date* the late Jurassic period (E4)

In First Order Logic:

ZP54(x,y) ⇒ ZE25(x)

ZP54(x,y) ⇒ E4(y)

ZP54(x,y) ⇒ ZP2(x,y)

ZP55 has dating subject (is dating subject of)

Domain:

ZE25 Dating Status

Range:

E4 Period

Subproperty of:

ZE1 Institutional Fact:ZP1 has intentional subject (is intentional subject of):E1 CRM Entity

Scope note:

This property is used to connect the instance of dating status to an instance of a period typically associated with the existence or use of a physical thing or an object which is the ultimate object of inquiry.

Examples:

- The dating status of the first purposeful settlement of Crete (ZE25) *has dating subject* the first purposeful settlement of Crete (E7)

- The dating status of the Bronosaurus excelus (ZE25) *has dating subject* the existence of Brontosaurus excelsus (E5)

In First Order Logic:

ZP55(x,y) ⇒ ZE25(x)

ZP55(x,y) ⇒ E4(y)

ZP55(x,y) ⇒ ZP1(x,y)

ZP56 ascribes dating relation (is dating relation ascibed by)

Domain:

ZE25 Dating Status

Range:

E55 Type

Scope note:

This property is used to assign the type of relationship the dated period of the object under investigation bears towards the period assigned to it as its datation.

Examples:

- The dating status of the first purposeful settlement of Crete (ZE25) *ascribes dating relation* "falls within" (E55)

- The dating status of the Bronosaurus excelus (ZE25) *ascribes dating relation* "falls within" (E55)

In First Order Logic:

ZP56(x,y) ⇒ ZE25(x)

ZP56(x,y) ⇒ E55(y)

ZP57 has obligation subject (is obligation subject of)

Domain:

ZE28 Obligation Status

Range:

E54 Dimension

Subproperty of:

ZE1 Institutional Fact:ZP1 has intentional subject (is intentional subject of):E1 CRM Entity

Scope note:

This property is used to indicate a dimension which represents an amount of debt owed from one party to another within an instance of formal obligation.

Examples:

- The obligation status of the United States of America to the Republic of France following the Louisiana Purchase (ZE28) *has obligation subject* fifteen million USD (E54)

- The obligation status of Michael Jackson to Associated TeleVision following the purchase of the Beatles back catalogue (ZE28) *has obligation subject* forty-seven million USD (E54)

In First Order Logic:

ZP57(x,y) ⇒ ZE28(x)

ZP57(x,y) ⇒ E54(y)

ZP57(x,y) ⇒ ZP1(x,y)

ZP58 ascribes debtor (is debtor ascribed by)

Domain:

ZE28 Obligation Status

Range:

E39 Actor

Subproperty of:

ZE1 Institutional Fact:ZP2 ascribes intentional target (is intentional target ascribed by):E1 CRM Entity

Scope note:

This property is used to indicate an actor whom is bound by an obligation which it is their duty to repay.

Examples:

- The obligation status of the United States of America to the Republic of France following the Louisiana Purchase (ZE28) *ascribes debtor* The United States of America (E74)

- The obligation status of Michael Jackson to Associated TeleVision following the purchase of the Beatles back catalogue (ZE28) *ascribes debtor* Michael Jackson (E21)

In First Order Logic:

ZP58(x,y) ⇒ ZE28(x)

ZP58(x,y) ⇒ E39(y)

ZP58(x,y) ⇒ ZP2(x,y)

ZP59 ascribes obligation relation (is obligation relation ascribed by)

Domain:

ZE28 Obligation Status

Range:

E55 Type

Subproperty of:

ZE1 Institutional Fact:ZP3 ascribes intentional relation (is intentional relation ascribed by):E55 Type

Scope note:

This property is used to indicate the specific type of obligation relation that holds between the two parties.

Examples:

- The obligation status of the United States of America to the Republic of France following the Louisiana Purchase (ZE28) *ascribes obligation relation "*financial obligation" (E55)

- The obligation status of Michael Jackson to Associated TeleVision following the purchase of the Beatles back catalogue (ZE28) *ascribes obligation relation* "financial obligation" (E55)

In First Order Logic:

ZP59(x,y) ⇒ ZE28(x)

ZP59(x,y) ⇒ E55(y)

ZP59(x,y) ⇒ ZP3(x,y)

ZP60 ascribes debtee (is debtee ascribed by)

Domain:

ZE28 Obligation Status

Range:

E39 Actor

Subproperty of:

ZE1 Institutional Fact:ZP2 ascribes intentional target (is intentional target ascribed by):E1 CRM Entity

Scope note:

This property is used to indicate the actor to whom an obligation is owed in the context of an obligation.

Examples:

- The obligation status of the United States of America to the Republic of France following the Louisiana Purchase (ZE28) *ascribes debtee* The Republic of France (E74)

- The obligation status of Michael Jackson to Associated TeleVision following the purchase of the Beatles back catalogue (ZE28) *ascribes debtee* Associated TeleVision (E74)

In First Order Logic:

ZP60(x,y) ⇒ ZE28(x)

ZP60(x,y) ⇒ E39(y)

ZP60(x,y) ⇒ ZP2(x,y)

ZP61 transferred property right to (acquired property right through)

Domain:

ZE29 Transfer of Property Right

Range:

E39 Actor

Subproperty of:

E7 Activity:P14 carried out by (performed):E39 Actor

Scope note:

This property is used to indicate the receiver of a property right from another party within the context of a transfer of property right.

Examples:

- Transfer of Property Right (ZE29) *transferred property right to* Michael Jackson (E21). (https://americansongwriter.com/the-story-behind-michael-jackson-buying-the-beatles-catalog-and-angering-friend-paul-mccartney/)

- Transfer of Property Right (ZE29) *transferred property right to* the United States of America (E74) (https://en.wikipedia.org/wiki/Louisiana_Purchase)

In First Order Logic:

ZP61(x,y) ⇒ ZE29(x)

ZP61(x,y) ⇒ E39(y)

ZP61(x,y) ⇒ P14(x,y)

ZP62 transferred property right from (surrendered property right through)

Domain:

ZE29 Transfer of Property Right

Range:

E39 Actor

Subproperty of:

E7 Activity:P14 carried out by (performed):E39 Actor

Scope note:

This property is used to indicate the party ceding property right to another party within the context of a transfer of property right.

Examples:

- Transfer of Property Right (ZE29) *transferred property right from* Associated TeleVision (E74). (https://americansongwriter.com/the-story-behind-michael-jackson-buying-the-beatles-catalog-and-angering-friend-paul-mccartney/)
- Transfer of Property Right (ZE29) *transferred property right from* the First French Republic (E74). (https://en.wikipedia.org/wiki/Louisiana_Purchase)

In First Order Logic:

ZP62(x,y) ⇒ ZE29(x)

ZP62(x,y) ⇒ E39(y)

ZP62(x,y) ⇒ P14(x,y)

ZP63 transferred property right over (had change in property right through)

Domain:

ZE29 Transfer of Property Right

Range:

E72 Legal Object

Subproperty of:

E7 Activity:P16 used specific object (was used for):E70 Thing

Scope note:

This property is used to indicate the legal object over which property right has been transfered from one party to another.

Examples:

- Transfer of Property Right (ZE29) *transferred property right over* the Beatles back catalogue (E73). (https://americansongwriter.com/the-story-behind-michael-jackson-buying-the-beatles-catalog-and-angering-friend-paul-mccartney/)

- Transfer of Property Right (ZE29) *transferred property right over* the territory of Louisiana (E27). (https://en.wikipedia.org/wiki/Louisiana_Purchase)

In First Order Logic:

ZP63(x,y) $\Rightarrow$ ZE29(x)

ZP63(x,y) $\Rightarrow$ E72(y)

ZP63(x,y) $\Rightarrow$ P16(x,y)

ZP64 has property right subject (is property right subject of)

Domain:

ZE30 Property Right Status

Range:

E72 Legal Object

Subproperty of:

ZE1 Institutional Fact:ZP1 has intentional subject (is intentional subject of):E1 CRM Entity

Scope note:

This property is used to indicate an object that is subject to a property right of some actor.

Examples:

- The property right status exercised by the United States of America over the Louisiana Territory (ZE30) *has property right subject* the Louisiana Territory (E27).

- The property right status exercised by Michael Jackson over the Beatles back catalogue (ZE30) *has property right subject* the Beatles back catalogue (E73).

In First Order Logic:

ZP64(x,y) ⇒ ZE30(x)

ZP64(x,y) ⇒ E72(y)

ZP64(x,y) ⇒ ZP1(x,y)

ZP65 ascribes property right holder (is property right holder ascribed by)

Domain:

ZE30 Property Right Status

Range:

E39 Actor

Subproperty of:

ZE1 Institutional Fact:ZP2 ascribes intentional target (is intentional target ascribed by):E1 CRM Entity

Scope note:

This property is used to indicate an actor who holds a right over a legal object within the context of a property right status.

Examples:

- The property right status exercised by the United States of America over the Louisiana Territory (ZE30) *ascribes property right holder* the United States of America (E74).

- The property right status exercised by Michael Jackson over the Beatles back catalogue (ZE30) *ascribes property right holder* Michael Jackson (E21).

In First Order Logic:

ZP65(x,y) ⇒ ZE30(x)

ZP65(x,y) ⇒ E39(y)

ZP65(x,y) ⇒ ZP2(x,y)

ZP66 ascribes property right relation (is property right relation ascribed by)

Domain:

> ZE30 Property Right Status

Range:

> E55 Type

Subproperty of:

> ZE1 Institutional Fact:ZP3 ascribes intentional relation (is intentional relation ascribed by):E55 Type

Scope note:

> This property is used to indicate the specific type of property right relation that is held over the legal object by the actor in the context of a property right status.

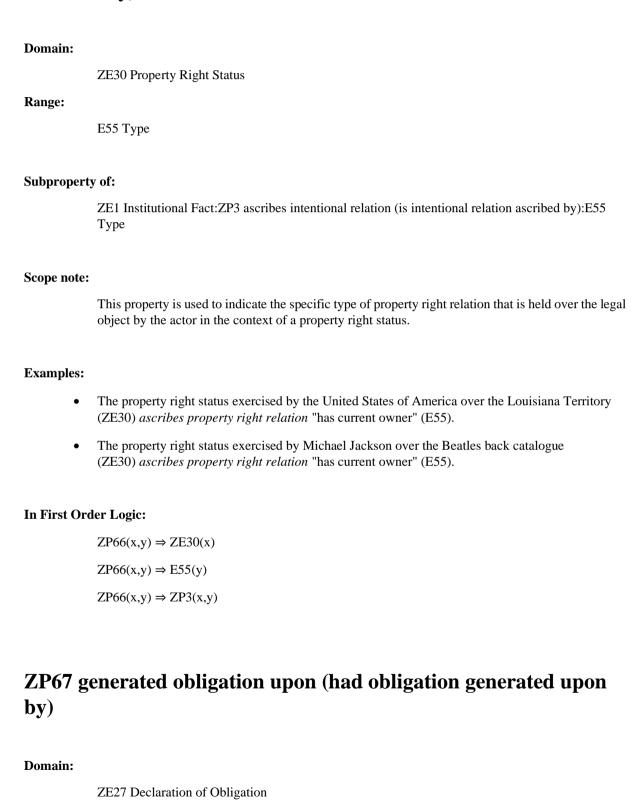**Examples:**

- The property right status exercised by the United States of America over the Louisiana Territory (ZE30) *ascribes property right relation* "has current owner" (E55).

- The property right status exercised by Michael Jackson over the Beatles back catalogue (ZE30) *ascribes property right relation* "has current owner" (E55).

In First Order Logic:

> ZP66(x,y) ⇒ ZE30(x)
>
> ZP66(x,y) ⇒ E55(y)
>
> ZP66(x,y) ⇒ ZP3(x,y)

ZP67 generated obligation upon (had obligation generated upon by)

Domain:

> ZE27 Declaration of Obligation

Range:

E39 Actor

Subproperty of:

E7 Activity:P14 carried out by (performed):E39 Actor

Scope note:

This property is used to indicate the party who owes another party within the the context of a declaration of obligation.

Examples:

- The signing of the Louisiana Purchase (ZE27) *generated obligation upon* the United States of America (E74). (https://en.wikipedia.org/wiki/Louisiana_Purchase)

- The purchase of the Beatles back catalogue (ZE27) *generated obligation upon* Micheal Jackson (E21). (https://americansongwriter.com/the-story-behind-michael-jackson-buying-the-beatles-catalog-and-angering-friend-paul-mccartney/)

In First Order Logic:

ZP67(x,y) $\Rightarrow$ ZE27(x)

ZP67(x,y) $\Rightarrow$ E39(y)

ZP67(x,y) $\Rightarrow$ P14(x,y)

ZP68 generated obligation to (had obligation to generated by)

Domain:

ZE27 Declaration of Obligation

Range:

E39 Actor

Subproperty of:

E7 Activity:P14 carried out by (performed):E39 Actor

Scope note:

This property is used to indicate the party who is owed by another party within the the context of a declaration of obligation.

Examples:

- The signing of the Louisiana Purchase (ZE27) *generated obligation to* the Republic of France (E74). (https://en.wikipedia.org/wiki/Louisiana_Purchase)

- The purchase of the Beatles back catalogue (ZE27) *generated obligation to* Associated TeleVision (E74). (https://americansongwriter.com/the-story-behind-michael-jackson-buying-the-beatles-catalog-and-angering-friend-paul-mccartney/)

In First Order Logic:

ZP68(x,y) ⇒ ZE27(x)

ZP68(x,y) ⇒ E39(y)

ZP68(x,y) ⇒ P14(x,y)

ZP69 generated obligation of (had obligation generated of by)

Domain:

ZE27 Declaration of Obligation

Range:

E54 Dimension

Scope note:

This property is used to indicate the specific amount owed by one party to another within the context of a declaration of obligation.

Examples:

- The signing of the Louisiana Purchase (ZE27) *generated obligation of* 15 million USD (E54). (https://en.wikipedia.org/wiki/Louisiana_Purchase)

- The purchase of the Beatles back catalogue (ZE27) *generated obligation of* 47.5 million USD (E54). (https://americansongwriter.com/the-story-behind-michael-jackson-buying-the-beatles-catalog-and-angering-friend-paul-mccartney/)

In First Order Logic:

ZP69(x,y) ⇒ ZE27(x)

ZP69(x,y) ⇒ E54(y)

ZP70 ascribes social status in relation to (is related to held social status)

Domain:

    ZE6 Social Status

Range:

    E39 Actor

Scope note:

    This property is used to indicate a third party actor for whom another's social status holds relevance (in the form of rights and/or responsibilities that are thus due to them) in the instance of social status.

Examples:

- The social status of the jurors in the O.J. Simpson murder trial (ZE6) *ascribes social status in relation to* O.J. Simpson (E21)

In First Order Logic:

    ZP70(x,y) $\Rightarrow$ ZE6(x)

    ZP70(x,y) $\Rightarrow$ E39(y)

ZP74 terminated institutional fact for (had institutional fact terminated by)

Domain:

    ZE13 Speech Act

Range:

    E74 Group

Scope note:

    This property is used to connect the instance of speech act to the instance of group for whom it terminates the existence of a social fact through its performance.

    It serves as a shortcut for the fully developed semantic pathway, which instantiates the ZE1 Institutional Fact, in the path ZE13 Speech Act -> ZP52 intentionally terminated -> ZE1 Institutional Fact -> ZP4 held by -> E74 Group.

Examples:

- The ratification of the Republic of Ireland Act on 18 April 1949 (ZE13) *terminated institutional fact* for the Commonwealth of Nations (E74) (https://en.wikipedia.org/wiki/The_Republic_of_Ireland_Act_1948)

- The decision taken in 2012 to leave the G'psgolox totem pole outdoors to deteriorate (ZE13) *terminated institutional fact for* the Haisla people (E74) (https://en.wikipedia.org/wiki/G%CA%BCpsgolox_totem_pole)

In First Order Logic:

ZP74(x,y) ⇒ ZE13(x)

ZP74(x,y) ⇒ E74(y)

ZP75 applies for context (is context for)

Domain:

ZE1 Institutional Fact

Range:

E5 Event

Scope note:

This property is used to indicate an event context which limits the temporal scope within which an instance of institutional fact is meant to hold. When indicated the event context stands as the frame in which the institutional fact is held to be valid by the associcated group for whom it has significance.

In First Order Logic:

ZP75(x,y) ⇒ ZE1(x)

ZP75(x,y) ⇒ E5(y)

ZP76 applies for context type (is context type for)

Domain:

ZE1 Institutional Fact

Range:

E55 Type

Scope note:

> This property is used to indicate an event context type which limits the spatio-temporal scope within which an instance of institutional fact is meant to hold to certain kinds of event. When indicated the event context type stands as the frame or frames in which the institutional fact is held to be valid by the associated group for whom it has significance.

In First Order Logic:

> ZP76(x,y) ⇒ ZE1(x)
>
> ZP76(x,y) ⇒ E55(y)