PRESSoo

Extension of CIDOC CRM and FRBR_{OO} for the modelling of bibliographic information pertaining to continuing resources

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Introduction

This document is the draft definition of $PRESS_{OO}$, a formal ontology intended to capture and represent the underlying semantics of bibliographic information about continuing resources, and more specifically about periodicals (journals, newspapers, magazines, etc.). $PRESS_{OO}$ is an extension of $FRBR_{OO}$, which in turn is an extension of CIDOC CRM. $FRBR_{OO}$ is an ontology of the underlying semantics of bibliographic information in general; it already deals with continuing resources, but at a very general level, and does not go into all the specific details required by the description of periodicals.

Continuing resources pose a particular modelling issue, in that their descriptions do not only reflect characteristics of existing products, but also, as long as the described resource still is being published, the expected characteristics of future behaviour. The main difference between cataloguing a monograph and cataloguing a serial could be expressed as follows: when you catalogue a monograph, you make statements about the past; when you catalogue a serial, you both make statements about the past and assumptions about the future. The CIDOC CRM model does not strive to model assumptions about the future; but it does declare a class that accounts for planned behaviours (no matter whether they were planned in the past or are still currently planned), E29 Design or Procedure. This class proved extremely useful, and even central, when developing the PRESS₀₀ model, as it was used as a superclass for Z12 Issuing Rule, which refers to elements of the policy established by the editor and/or publisher of a continuing resource. Bibliographic information about a continuing resource actually contains data about the various (and successive) instances of Z12 Issuing Rule that were followed in the course of the publication of a continuing resource. Most data elements found in a bibliographic record for a serial pertain to Z12 Issuing Rule rather than directly to the F18 Serial Work that was declared in FRBR_{OO}.

(*Note:* Multi-volume monographs, the volumes of which are not issued at once but over time, are very similar, in that regard, to continuing resources, although they are not defined as such in normative documents used in libraries. In a sense, PRESS_{OO} can be said to cover multi-volume monographs as well, as long as the publication is not complete.)

ISBD defines continuing resources as resources that are 'issued over time with no predetermined conclusion.' As a logical consequence, FRBR_{OO} asserts that 'there is in general no single expression or manifestation representing a complete serial work, unless the serial work is ended.' It is only possible to model the relationships between a serial work and its past issues. The sum, at a given point in time (e.g., at the time the description is being made, or updated), of all the expressions of all past issues published so far, does not represent the complete serial work, but can be thought of as a 'component' of a virtual complete expression that does not exist yet. The serial work is being partially realised through an instance of F30 Publication Event that is still on-going as long as there is no ascertained knowledge that the continuing resource is 'dead.' This state of affairs is represented in **Figure 1**, where dotted lines indicate 'virtual' instantiations of classes and properties that are expected to exist at some point in the future but do not belong to the present and cannot, therefore, be modelled in a strict sense.

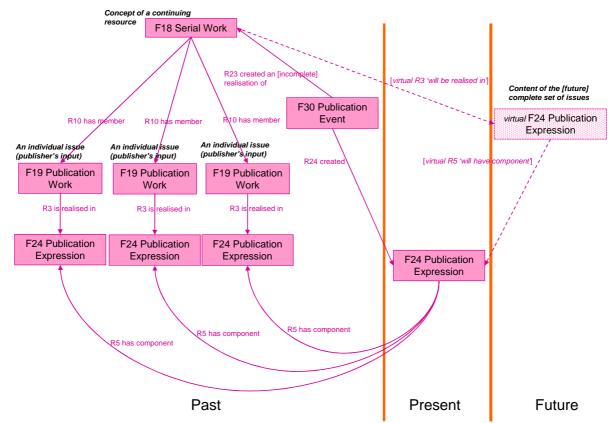


Figure 1. A continuing resource that is still being published

Once a continuing resource is 'dead,' it can be modelled in a strict sense as an object that exists in its entirety. **Figure 2** shows how 'dead' serials are modelled in PRESS_{OO}, in the context of physical publishing (as opposed to online publishing), and more particularly how the serial is connected with each of its individual issues, and how each individual issue is connected with individual articles. Of course, more complex cases occur in real life; e.g., a lengthy article can be 'sliced' and published over several issues. Such a case can be easily modelled, using either the *R5 has component* or *R15 has fragment* FRBR_{OO} property.

PRESS_{OO} deals with all kinds of periodicals, including online periodicals. FRBR_{OO} distinguishes between physical publishing and electronic (i.e., online) publishing. Physical publishing involves the creation of an instance of F3 Manifestation Product Type, while electronic publishing ignores that notion altogether. **Figure 3** shows how online serials are modelled in PRESS_{OO}, i.e., without using the F3 Manifestation Product Type class, once they are dead. Instances of F53 Material Copy are downloaded files that carry either the publication expression of the complete serial, the publication expressions of individual issues, or the publication expression of an individual article.

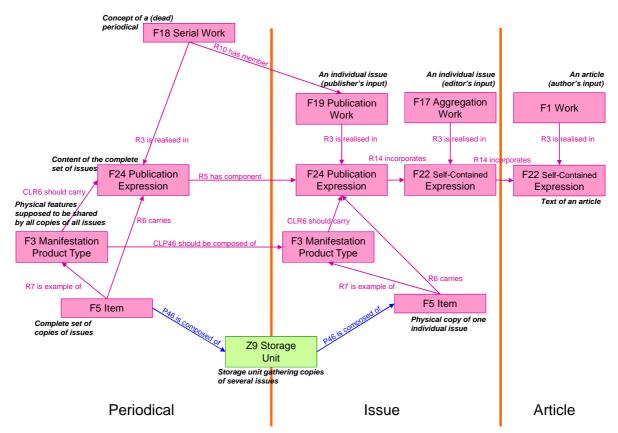


Figure 2. Periodical, Issue, Article (physical publishing; assuming the periodical is dead)

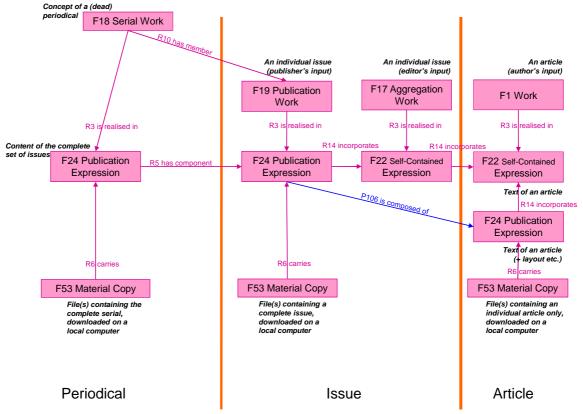


Figure 3. Periodical, Issue, Article (electronic publishing; assuming the periodical is dead)

Figure 4 shows how cases of 'continuation' are modelled in PRESS_{OO}. The ISBD prescriptions include very specific rules as to when to regard a serial as the 'continuation' of another serial; it is essentially a matter of title change. Some title changes are deemed 'minor,' in which case there is no formal 'continuation,' but just a title change for the same serial, while other title changes are deemed 'major' and imply the creation of a new bibliographic record for a serial that is regarded as distinct from what it was prior to the title change – no matter whether the publisher actually intended to publish a 'new' serial or not. Minor title changes are modelled through property *Y24 foresees use of title (is title foreseen in)* that relates a given title with a given instance of Z12 Issuing Rule, and the Z5 Issuing Rule Change class that allows for assigning chronological borders (if they are readily known) to the use of a specific title for one instance of F18 Serial Work. Major title changes are modelled through the notion of Z1 Serial Transformation which is introduced in PRESS_{OO} and does not exist in FRBR_{OO}.

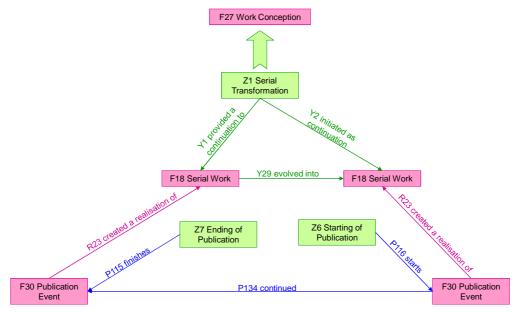


Figure 4. Modelling the relationship between two serials, one of which is the 'continuation' of the other

Figure 5 shows the modelling of cases of 'replacement.' The notion of replacement is very close to that of continuation, except that some circumstances are particular: while cases of continuation most often result from a deliberate decision on behalf of the publisher or editor of the serial, cases of replacement can be the consequence of external events, such as suppression by censorship. Also, a serial can supersede another without strictly 'continuing' it, because it carries out the same function as the serial that has ceased to be published.

Figure 6 shows how cases of 'absorption' are modelled in PRESS_{OO}. The activity of absorption is an event that puts an end to the publication of the absorbed serial(s) while it does not bring another serial into being but just 'falls within' (P10 property from CIDOC CRM) the publication process of the absorbing serial. A given periodical can be absorbed by more than one periodical. In some cases, a periodical that was absorbed can be 'revived'.

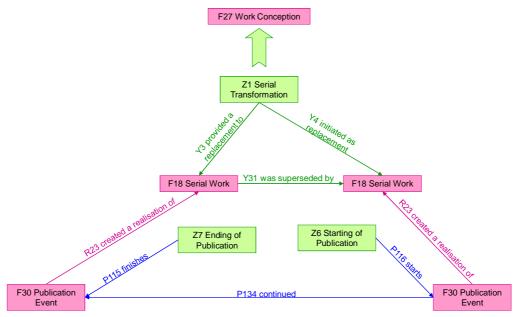


Figure 5. Modelling the relationship between two serials, one of which 'supersedes' the other

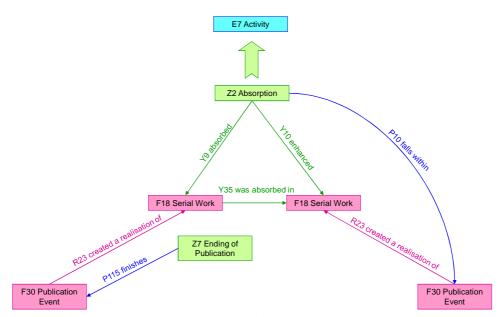


Figure 6. Modelling the relationship between two serials, one of which is 'absorbed' by the other

Figure 7 shows how cases of 'separation' are modelled in PRESS_{OO}. The activity of separation is an event that initiates the publication of one (or more than one) serial that continues in part another serial which does not cease to be published. Such an event just 'falls within' the publication process of the original serial. In some cases, a periodical that separated itself from another serial can be absorbed back by the serial of which it originally was a part.

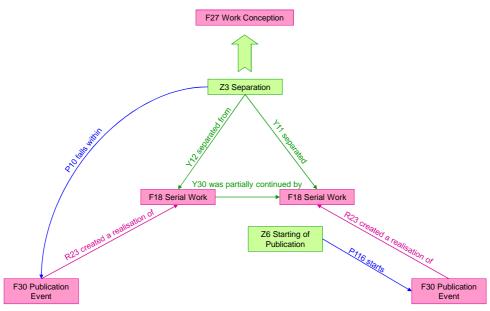


Figure 7. Modelling the relationship between two serials, one of which 'separated' itself from the other

Figure 8 shows how mergers are modelled in PRESS $_{OO}$. A merger is a particular case of Z1 Serial Transformation that simultaneously brings a new serial work into being, and puts an end to the publication of at least two serials.

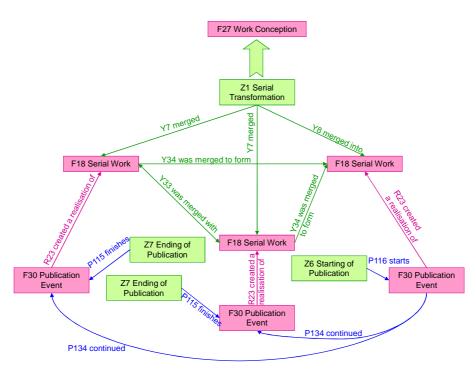


Figure 8. Modelling the relationships among three serials, two of which are 'merged' to create the third one

Figure 9 shows how splits are modelled in $PRESS_{OO}$. A split is a particular case of Z1 Serial Transformation that simultaneously brings at least two new serial works into being, and puts an end to the publication of one serial.

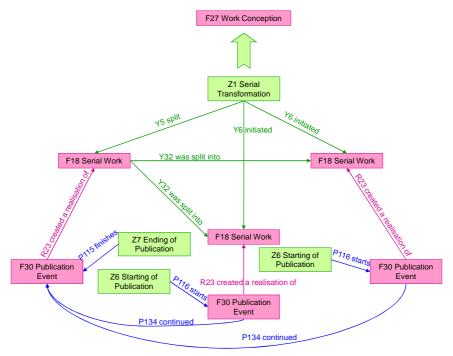


Figure 9. Modelling the relationships among three serials, one of which is 'split' to create the other two

Figure 10 shows how a case of temporary replacement of a serial with another serial (whether that other serial pre-existed the replacement or was created specifically on that occasion) is modelled in PRESS_{OO}. The replacement does not put an end to the event of publication of the serial, but is regarded as a component of the overall activity that consists of publishing the serial (Z4 Temporary Substitution is declared as a subclass of F30 Publication Event, which makes a clear distinction between a (temporary) replacement and a continuation, since the notion of continuation is understood as a specific case of Z1 Serial Transformation, which is subclass of F27 Work Conception). If the replacing serial pre-exists the replacement and continues to be published after the replacement period is over, then the replacement just *P10 falls within* the publication event that creates a realisation of the replacing serial. If the replacing serial is created specifically for the purpose of replacing the earlier serial (and ceases to be published after the replacement period is over), then it is possible to assert that the instance of F27 Work Conception that initiated the replacing serial *P20 has specific purpose* the instance of Z4 Temporary Substitution.

Figure 11 shows how the facsimile reprint of a (dead) serial as a monograph is modelled in FRBR_{OO} (there was no need to introduce any new class or property in PRESS_{OO} as everything that was required was already present in FRBR_{OO}). The reprint is not necessarily a serial by its own nature; but end-users will usually expect to retrieve it even if they restrict their query parameters in a library catalogue to serials only. The *R14 incorporates* property between the two instances of F24 Publication Expression, in addition to the path from F18 Serial Work to F19 Publication work (the reprint) through F33 Reproduction Event, makes it possible to bypass this restriction and to include the reprint in the hit list without having to qualify wrongly the reprint as a serial.

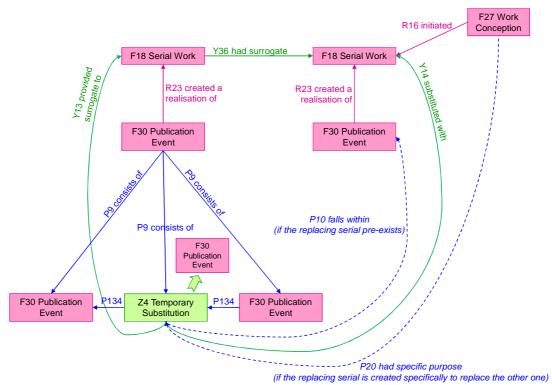


Figure 10. Modelling the temporary replacement of a serial with another serial

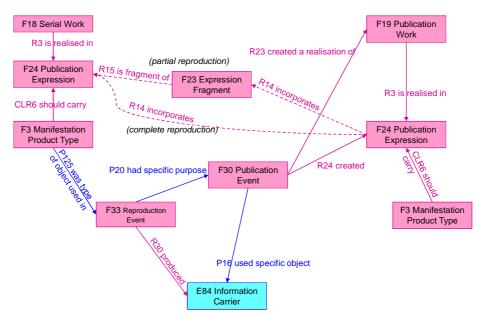


Figure 11. Modelling the relationship between a (dead) serial and its facsimile reprint as a monograph

Figure 12 shows how the digitization of a (dead) serial, and the subsequent publication of the resulting digital file on the Web, are modelled in FRBR_{OO}, with the adjunction of the corresponding classes in CRMdig (an extension of the CIDOC CRM model that deals specifically with digitization processes and digital preservation). The resulting digital files are not necessarily published in the form of a serial: they can also be published as monographs. Once again, the *R14 incorporates* property makes it possible to retrieve the

digitization as a match to a query restricted on serials without having to qualify wrongly the digitization as a serial if it has been released as a monograph.

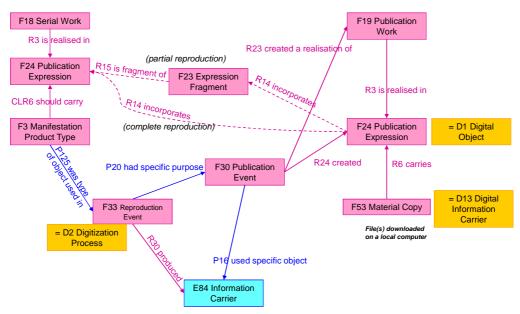


Figure 12. Modelling the relationship between a (dead) serial and its digitization made available online

A cumulative issue that repeats the content of several previously released issues of a periodical can be modelled as a publication that incorporates a fragment of the overall expression of a serial work (see **Figure 13**).

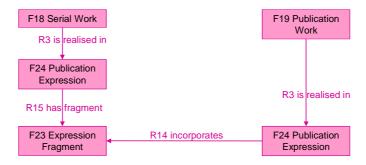


Figure 13. Modelling the relationship between a periodical and a cumulative issue

Naming conventions

The following naming conventions have been applied throughout PRESS₀₀:

- Classes borrowed from CIDOC CRM are identified by numbers preceded by the letter 'E', and are named using noun phrases. For example: E7 Activity.
- Classes borrowed from FRBR_{OO} are identified by numbers preceded by the letter 'F', and are named using noun phrases. For example: F1 Work.
- Classes declared for the first time in PRESS_{OO} are identified by numbers preceded by the letter 'Z' (which was chosen just because it is the last letter in the alphabet, and has no other meaning here), and are named using noun phrases. For example: Z1 Serial Transformation.
- Properties borrowed from CIDOC CRM are identified by numbers preceded by the letter 'P', and are named in both directions using verbal phrases. For example: *P1 identifies (is identified by)*.
- Properties borrowed from FRBR_{OO} are identified by numbers preceded by the letter 'R', the letters 'CLP' or the letters 'CLR', and are named in both directions using verbal phrases. For example: *R3 is realised in (realises)*; *CLP2 should have type (should be type of)*; *CLR6 should carry (should be carried by)*.
- Properties declared for the first time in PRESS_{OO} are identified by numbers preceded by the letter 'Y' (which was chosen just because it is the next to last letter in the alphabet, and has no other meaning here), and are named in both directions using verbal phrases. For example: *Y1 provided a continuation to (was continued through)*.
- Property names should be read in their non-parenthetical form for the domain-to-range direction, and in parenthetical form for the range-to-domain direction.
- Properties with a range that is a subclass of E59 Primitive Value have no parenthetical name form, because reading the property name in the range-to-domain direction is not regarded as meaningful.
- Properties that have identical domain and range are either symmetric or transitive. Instantiating a symmetric property implies that the same relation holds for both the domain-to-range and the range-to-domain directions. For example: F18 Serial Work. Y33 was merged with: F18 Serial Work. The names of symmetric properties have no parenthetical form, because reading in the range-to-domain direction is the same as the domain-to-range reading. Transitive asymmetric properties have a parenthetical form that relates to the meaning of the inverse direction. For example: F18 Serial Work. Y34 was merged to form (resulted from merging): F18 Serial Work.

Property quantifiers

Property quantifiers are repeated just as they stand in CIDOC CRM and $FRBR_{OO}$, with the same specific conventions as in these models.

PRESS₀₀ class hierarchy, aligned with portions from the FRBR₀₀ and the CIDOC CRM class hierarchies

This class hierarchy lists:

- all classes declared in PRESS_{OO},
- all classes declared in FRBR_{OO} and CIDOC CRM that are declared as superclasses of classes declared in PRESS_{OO},
- all classes declared in FRBR_{OO} or CIDOC CRM that are either domain or range for a property declared in PRESS_{OO},
- all classes declared in FRBR_{OO} and CIDOC CRM that are either domain or range for a
 property declared in FRBR_{OO} or CIDOC CRM that is declared as superproperty of a
 property declared in PRESS_{OO},
- all classes declared in FRBR_{OO} and CIDOC CRM that are either domain or range for a
 property that is part of a complete path of which a property declared in PRESS_{OO} is
 declared to be a shortcut.

This class hierarchy does *not* list all classes that are necessary in order to account completely for the bibliographic description of a continuing resource; in particular, this class hierarchy does not list all the classes mentioned in the "Mapping from the data elements listed in the *ISSN Manual* to PRESS_{OO}" to be found in a subsequent section of the present document.

E1	CRN	M En	tity						
E2		Ten	pora	ıl En	tity				
E4		_	Peri	od					
E5				Eve	nt				
E7					Acti	ivity			
$\mathbb{Z}2$		_				Abs	sorption	n	
$\mathbf{Z}5$					_		iing Ru		hange
Z8					_				agement
E11					_		dificatio		
E12							Produc	ction	
F28							— E	xpres	ssion Creation
F30								– Pı	ublication Event
Z4					—				 Temporary Substitution
Z 6	_	_	_	_	_	_			 Starting of Publication
Z7						_			 Ending of Publication
Z14								- S t	torage Unit Creation
E65	_	_	_	_	_	Crea	ation		
F27			—		—		Work	Conc	ception
Z 1			—		—		— S	erial	Transformation
Z 3	_	_	_		_	_			ation
F28	_	_	_		_	_			Creation
F30				—	—		— <i>P</i>	ublic	eation Event
Z4									emporary Substitution
Z6									tarting of Publication
Z 7									nding of Publication
Z14					—				ge Unit Creation
E63							ng of Ex		ice
E12						Pro	duction		
F28	_		—	—	—				Creation
F30	_		—	—	—		-P		cation Event
Z4	—	—	_	_	—	—		- T	emporary Substitution

Z6	_	_	_	_	_	— — Starting of Publication
Z 7		_	_	_	_	— — Ending of Publication
Z14						— Storage Unit Creation
E65						Creation Creation
F27						— Work Conception
Z 1						— Serial Transformation
Z 3		_		_	_	— — Separation
F28		_		_	_	— Expression Creation
F30		_		_	_	— — Publication Event
Z 4						— — Temporary Substitution
Z6		_		_	_	— — Starting of Publication
Z 7						— — Ending of Publication
Z14	_	_	_	_	_	— — Storage Unit Creation
E77		Per	sister	nt Ite	m	<u> </u>
E70	_	_	Thi	ng		
E72				Leg	al Ol	bject
E90				_		mbolic Object
E73				_	_	Information Object
E31						Document
E32						— Authority Document
F2						Expression
F23						— Expression Fragment
E29						 Design or Procedure
Z12						— — Issuing Rule
E33				_		 Linguistic Object
E35				_		— Title
E41				_		Appellation
E35		—				— Title
E51						Contact Point
Z 11		—				- $-$ URL
E71		—		Ma	n-Ma	ade Thing
E24	—	_	_	_	Phy	ysical Man-Made Thing
F4	—	_	_	_	_	Manifestation Singleton
Z9	—	_	_	_	_	Storage Unit
E28		_			Cor	nceptual Object
E55	—	_	_	_	_	Type
Z10						 Sequencing Pattern
E56	—	_	_	_	_	Language
E89	—	_	_	_	_	Propositional Object
F1	—	—		—	—	— Work
F15	—	—		—	—	— — Complex Work
F18	—	—		—	—	— — Serial Work
F16						— Container Work
F19	—	—				— — Publication Work
F18		_	_	_	_	— — — Serial Work
Z13	—	—		—	—	— — — Monograph
E73	—	—				— Information Object
E31	—	_	_	_	_	— — Document
E32	—	_	_	_	_	— — Authority Document
F2						— Expression
F23						— — Expression Fragment
E29						— Design or Procedure
Z12						— — Issuing Rule
E33						— — Linguistic Object
E35		_	_	_	_	— — Title

E90	_	— — — Symbolic Object
E73		— — — Information Object
E31		— — — — Document
E32		— — — — — Authority Document
<i>F</i> 2		— — — — Expression
F23		— — — — Expression Fragment
E29		— — — — Design or Procedure
<i>Z12</i>		— — — — — Issuing Rule
E33		— — — — Linguistic Object
E35		— — — — Title
E41		— — — Appellation
E35		— — — — Title
E51		— — — — Contact Point
Z11		- $ -$
E39		— Actor
E53		Place
E54		Dimension

PRESS₀₀ property hierarchy, aligned with portions from the FRBR₀₀ and the CIDOC CRM property hierarchies

This property hierarchy lists:

- all properties declared in PRESS_{OO},
- all properties declared in FRBR_{OO} and CIDOC CRM that are declared as superproperties of properties declared in PRESS_{OO},
- all properties declared in FRBR_{OO} and CIDOC CRM that are part of a complete path of which a property declared in PRESS_{OO} is declared to be a shortcut.

This property hierarchy does *not* list all properties that are necessary in order to account completely for the bibliographic description of a continuing resource; in particular, this property hierarchy does not list all the properties mentioned in the "Mapping from the data elements listed in the *ISSN Manual* to PRESS_{OO}" to be found in a subsequent section of the present document.

Property id	Property name	Domain	Range
P2	has type (is type of)	E1 CRM Entity	E55 Type
Y43	— is indicative of (is exemplified by)	F23 Expression Fragment	Z10 Sequencing Pattern
P12	occurred in the presence of (was present at)	E5 Event	E77 Persistent Item
P11	— had participant (participated in)	E5 Event	E39 Actor
P14	— carried out by (performed)	E7 Activity	E39 Actor
P16	— used specific object (was used for)	E7 Activity	E70 Thing
R19	 — created a realisation of (was realised through) 	F28 Expression Creation	F1 Work
R23	— — created a realisation of (was realised through)	F30 Publication Event	F19 Publication Work
Y13	— — — provided surrogate to (had surrogate through)	Z4 Temporary Substitution	F18 Serial Work
Y9	— absorbed (was absorbed through)	Z2 Absorption	F18 Serial Work
Y10	— — enhanced (was enhanced through)	Z2 Absorption	F18 Serial work
Y14	— — substituted with (became surrogate through)	Z4 Temporary Substitution	F18 Serial Work
Y16	— replaced with (was introduced through)	Z5 Issuing Rule Change	Z12 Issuing Rule
Y46	 — aggregated in a single storage unit (was aggregated in a single unit through) 	Z14 Storage Unit Creation	E18 Physical Thing
P31	— has modified (was modified by)	E11 Modification	E24 Physical Man-Made Thing
P108	— — has produced (was produced by)	E12 Production	E24 Physical Man-Made Thing
R18 Y45	 — — created (was created by) — — — created (was created by) 	F28 Expression Creation Z14 Storage Unit Creation	F4 Manifestation Singleton Z9 Storage Unit
P92	— brought into existence (was brought into existence by)	E63 Beginning of Existence	E77 Persistent Item
P94 R16	 — has created (was created by) — — initiated (was initiated by) 	E65 Creation F27 Work Conception	E28 Conceptual Object F1 Work
Y2	— — — initiated as continuation (was initiated as continuation through)	Z1 Serial Transformation	F18 Serial Work
Y4	— — — initiated as replacement (was replaced through)	Z1 Serial Transformation	F18 Serial Work
Y6	— — — initiated (resulted from split)	Z1 Serial Transformation	F18 Serial Work
Y8	— — — merged into (resulted from merger)	Z1 Serial Transformation	F18 Serial Work
Y11	— — — separated (was separated through)	Z3 Separation	F18 Serial Work
P108	— has produced (was produced by)	E12 Production	E24 Physical Man-Made Thing
R18	— — created (was created by)	F28 Expression Creation	F4 Manifestation Singleton
Y45	— — — created (was created by)	Z14 Storage Unit Creation	Z9 Storage Unit

Property id	Property name	Domain	Range
P93	— took out of existence (was taken out of existence by)	E64 End of Existence	E77 Persistent Item
Y12	— separated from (was diminished	Z3 Separation	F18 Serial Work
374 F	through)	75 Ii Dl- Ch	712 Ii D1-
Y15	— replaced (was replaced through)	Z5 Issuing Rule Change	Z12 Issuing Rule
P15	was influenced by (influenced)	E7 Activity	E1 CRM Entity
P16	— used specific object (was used for)	E7 Activity	E70 Thing
R19	— — created a realisation of (was realised through)	F28 Expression Creation	F1 Work
R23	— — created a realisation of (was realised through)	F30 Publication Event	F19 Publication Work
Y13	— — — provided surrogate to (had surrogate through)	Z4 Temporary Substitution	F18 Serial Work
Y9	— absorbed (was absorbed through)	Z2 Absorption	F18 Serial Work
Y10	— enhanced (was enhanced through)	Z2 Absorption	F18 Serial Work
Y14	— substituted with (became surrogate through)	Z4 Temporary Substitution	F18 Serial Work
Y16	— replaced with (was introduced through)	Z5 Issuing Rule Change	Z12 Issuing Rule
Y46	— aggregated in a single storage unit (was aggregated in a single unit through)	Z14 Storage Unit Creation	E18 Physical Thing
P17	— was motivated by (motivated)	E7 Activity	E1 CRM Entity
P134	— continued (was continued by)	E7 Activity	E7 Activity
P67	refers to (is referred to by)	E89 Propositional Object	E1 CRM Entity
P71	— lists (is listed in)	E32 Authority Document	E1 CRM Entity
Y20	— foresees type (is type foreseen in)	Z12 Issuing Rule	E55 Type
Y21	— — foresees use of language (is language foreseen in)	Z12 Issuing Rule	E56 Language
Y22	— — foresees sequencing pattern (is sequencing pattern foreseen in)	Z12 Issuing Rule	Z10 Sequencing Pattern
Y23	— foresees dimension (is dimension foreseen in)	Z12 Issuing Rule	E54 Dimension
Y24	— foresees use of title (is title foreseen in)	Z12 Issuing Rule	E35 Title
Y28	— foresees URL (is URL foreseen in)	Z12 Issuing Rule	Z11 URL
P69	has association with (is associated with)	E29 Design or Procedure	E29 Design or Procedure
Y25	— foresees association with (foresees to be associated with)	Z12 Issuing Rule	Z12 Issuing Rule
Y26	— foresees other edition (foresees to be another edition of)	Z12 Issuing Rule	Z12 Issuing Rule
Y27	— — foresees translation in (foresees	Z12 Issuing Rule	Z12 Issuing Rule
Y44	translation of) — foresees topic (is topic foreseen in)	Z12 Issuing Rule	E1 CRM Entity
P74	has current or former residence (is current or	E39 Actor	E53 Place
	former residence of)	E37 Actor	
P89	falls within (contains)	E53 Place	E53 Place
P115	finishes (is finished by)	E2 Temporal Entity	E2 Temporal Entity
P116	starts (is started by)	E2 Temporal Entity	E2 Temporal Entity
R11	has issuing rule (is issuing rule of)	F18 Serial Work	E29 Design or Procedure
Y37	— has former or current issuing rule (is	F18 Serial Work	Z12 Issuing Rule
20.	former or current issuing rule)		
Y38	 — has current issuing rule (is current issuing rule of) 	F18 Serial Work	Z12 Issuing Rule
Y1	provided a continuation to (was continued through)	Z1 Serial Transformation	F18 Serial Work
Y3	provided a replacement to (was replaced through)	Z1 Serial Transformation	F18 Serial Work
Y5	split (was split through)	Z1 Serial Transformation	F18 Serial Work
Y7	merged (was merged through)	Z1 Serial Transformation	F18 Serial Work
Y17	launched (was launched through)	Z6 Starting of Publication	F18 Serial Work
Y18	ended (was ended through)	Z7 Ending of Publication	F18 Serial Work
Y19	concerned (was the concern of)	Z8 Metadata Management	F18 Serial Work
Y29	evolved into (continues)	F18 Serial Work	F18 Serial Work
Y30	was partially continued by (was separated from)	F18 Serial Work	F18 Serial Work
Y31	was superseded by (superseded)	F18 Serial Work	F18 Serial Work

Property id	Property name	Domain	Range
Y32	was split into (resulted from splitting)	F18 Serial Work	F18 Serial Work
Y33	was merged with	F18 Serial Work	F18 Serial Work
Y34	was merged to form (resulted from merging)	F18 Serial Work	F18 Serial Work
Y35	was absorbed in (was enhanced by absorbing)	F18 Serial Work	F18 Serial Work
Y36	had surrogate (was surrogate for)	F18 Serial Work	F18 Serial Work
Y39	is enhanced by monograph (enhances serial)	F18 Serial Work	Z13 Monograph
Y40	enhances monograph (is enhanced by serial)	F18 Serial Work	Z13 Monograph
Y41	has former or current area of publication (is former or current area of publication)	F18 Serial Work	E53 Place
Y42	 has current area of publication (is current area of publication) 	F18 Serial Work	E53 Place

PRESS₀₀ classes

Z1 Serial Transformation

Subclass of: <u>F27</u> Work Conception

Scope note: This class comprises activities that transform instances of F18 Serial Work into new instances

of F18 Serial Work.

An instance of Z1 Serial Transformation consists of having the idea of starting the publication of one or more than one new serial (this is a particular case of F27 Work Conception), with a distinct intention of thus prolonging, under a new identity, one or more than one earlier serial, the publication of which has ceased, either due directly to the transformation project, or for any other reason.

The idea of starting a new serial can be contiguous with the disappearance of a serial, or occur quite some time after that event.

A transformation can be complete or only partial (e.g., a serial devoted to history of the Middle Ages and Renaissance can cease to be published as such and be continued by a new serial that is devoted to the Middle Ages only). This information element can be reflected through the *P2 has type (is type of):* E55 Type from the CIDOC CRM model.

The most frequent cases of serial transformation are: continuation (in which a serial undergoes a major title change), replacement (in which a new serial supersedes an earlier serial), split (in which one serial is transformed into at least two serials), and merger (in which at least two serials are transformed into one serial).

The temporary substitution of a serial with another serial (either pre-existing or created for that purpose) is not regarded as a serial transformation but simply as an episode within the publication process of the serial that temporarily disappeared (see Scope Note for Z4 Temporary Substitution).

Cases of separation and absorption are not regarded as serial transformations either, as they do not involve the combination of the disappearance of a serial and the appearance of another serial, but just either the latter or the former.

Examples:

Changing the title 'Journal of the Chemical Society. Dalton transactions' (ISSN '0300-9246') into 'Dalton: an international journal of inorganic chemistry' (ISSN '1470-479X') (a major title change)

Splitting the periodical entitled 'Colloids and surfaces' (ISSN '0166-6622') into the two periodicals entitled 'Colloids and surfaces. A, Physicochemical and engineering aspects' (ISSN '0927-7757') and 'Colloids and surfaces. B, Biointerfaces' (ISSN '0927-7765') (a split)

Merging the periodicals entitled 'Animal research' (ISSN '1627-3583'), 'Animal science' (ISSN '1357-7298'), and 'Reproduction nutrition development' (ISSN '0926-5287') into the periodical entitled 'Animal' (ISSN '1751-7311') (a merger)

Replacing the periodical entitled 'Le Patriote de Saône-et-Loire' (ISSN '1959-9935') with the new periodical entitled 'Le Démocrate de Saône-et-Loire' (ISSN '1959-9943') after the former was suppressed by censorship in 1850 (a definitive replacement)

Properties:

Y1 provided a continuation to (was continued through): F18 Serial Work

Y2 initiated as continuation (was initiated as continuation through): F18 Serial Work

<u>Y3</u> provided a replacement to (was replaced through): <u>F18</u> Serial Work

Y4 initiated as replacement (was initiated as replacement through): F18 Serial Work

Y5 split (was split through): F18 Serial Work

Y6 initiated (resulted from split): F18 Serial Work

Y7 merged (was merged through): F18 Serial Work

Y8 merged into (resulted from merger): F18 Serial Work

Z2 Absorption

Subclass of: <u>E7</u> Activity

Scope note: This class comprises activities that result in instances of F18 Serial Work being absorbed by

pre-existing instances of F18 Serial Work.

An absorption can be complete or only partial (e.g., a serial devoted to history in general can absorb specifically the portion devoted to the history of the Middle Ages of another serial that is devoted to the Middle Ages and Renaissance, while the portion devoted to the Renaissance is just abandoned). This information element can be reflected through the *P2 has type (is type of)*:

E55 Type from the CIDOC CRM model.

Examples: Absorbing the periodical entitled 'Archiv für mathematische Logik und Grundlagenforschung'

(ISSN '0003-9268') into the periodical entitled 'Archiv für Philosophie' (ISSN '0066-6467')

Properties: Y9 absorbed (was absorbed through): F18 Serial Work

Y10 enhanced (was enhanced through): F18 Serial Work

Z3 Separation

Subclass of: F27 Work Conception

Scope note: This class comprises activities that result in new instances of F18 Serial Work coming into

being as the 'offspring' of pre-existing instances of F18 Serial Work that continue to be

published after the separation has occurred.

Examples: Separating, in 1992, the periodical entitled 'The Electrochemical society interface' (ISSN

'1064-8208') from the periodical entitled 'Journal of the Electrochemical society' (ISSN

'0013-4651'), which was founded in 1948 and continued to exist after 1992

Separating, in 1989, the annual publication entitled 'Means plumbing cost data' (ISSN '1042-3850') from the periodical entitled 'Means mechanical cost data' (ISSN '0748-2698), which

was founded in 1983 and continued to exist after 1989

Properties: Y11 separated (was separated through): F18 Serial Work

Y12 separated from (was diminished through): F18 Serial Work

Z4 Temporary Substitution

Subclass of: F30 Publication Event

Scope note: This class comprises activities that consist of publishing an instance of F18 Serial Work as a

replacement for another instance of F18 Serial Work. The replacing instance of F18 Serial Work can either pre-exist the replacement, or be created specifically for the purpose of

replacing the other instance of F18 Serial Work.

Examples: Temporarily substituting the periodical entitled 'Le Petit Ardennais' (ISSN '2019-2606') with

the periodical entitled 'Le Journal ardennais' (ISSN '2103-1622') during a strike of printers and typographers from 23 December 1922 to 5 January 1923 [Comment: the periodical entitled 'Le Journal ardennais' was created specifically for the purpose of being substituted to 'Le Petit Ardennais' during the strike, and ceased to be published after the end of the strike]

Temporarily substituting the periodical entitled 'L'Annonce: journal universel d'annonces civiles, judiciaires, commerciales et d'avis divers du département de la Seine' with the periodical entitled 'Le Pont-Neuf' in April 1840 [Comment: the periodical entitled 'Le Pont-

Neuf' already existed prior to April 1840, and continued to be published after the periodical entitled 'L'Annonce...' resumed being published]

Properties: Y13 provided surrogate to (had surrogate through): F18 Serial Work

Y14 substituted with (became surrogate through): F18 Serial Work

Z5 Issuing Rule Change

Subclass of: <u>E7</u> Activity

Scope note: This class comprises activities resulting in the modification of an element of the issuing policy

followed in publishing a given continuing resource.

Examples: Transforming the bimonthly periodical entitled 'L'Avispa' (ISSN '1022-5870') into a quarterly

from issue No. 9 (1992, April-June)

Changing the complete title of the periodical 'L'Avispa' (ISSN '1022-5870') from: 'L'Avispa, bimensual de teoría y debate' to: 'L'Avispa, revista trimestrial de teoría y debate' from issue

No. 9 (1992, April-June)

Properties: Y15 replaced (was replaced through): Z12 Issuing Rule

Y16 replaced with (was introduced through): Z12 Issuing Rule

Z6 Starting of Publication

Subclass of: F30 Publication Event

Scope note: This class comprises activities that consist of publishing the first issue of a given continuing

resource.

An instance of Z6 Starting of Publication is part of the instance of F30 Publication Event that realises the entire continuing resource, and it is associated with it through property *P116 starts* (is started by) (i.e., the starting point of the instance of Z6 Starting of Publication coincides

with the starting point of the instance of F30 Publication Event).

This class and Z7 Ending of Publication are not declared as disjoint, as the publication of the first issue of a continuing resource can also be the publication of its last issue, in cases where only one issue of a continuing resource was ever published. If no other issue of a periodical is published after the first issue, then both the instance of Z6 Starting of Publication and the instance of Z7 Ending of Publication P114 [are] equal in time to the instance of F30 Publication Event. As a matter of fact, the same event is then an instance of all three classes.

Examples: The publication of Volume 1, Number 1, of the periodical entitled 'Animal' (ISSN '1751-

7311') in February 1997

Properties: Y17 launched (was launched through): F18 Serial Work

Z7 Ending of Publication

Subclass of: F30 Publication Event

Scope note: This class comprises activities that consist of publishing the latest known issue of a given

continuing resource.

An instance of Z7 Ending of Publication is part of the instance of F30 Publication Event that realises the entire continuing resource, and it is associated with it through property *P115 finishes (is finished by)* (i.e., the ending point of the instance of Z7 Ending of Publication

coincides with the ending point of the instance of F30 Publication Event).

This class and Z6 Starting of Publication are not declared as disjoint, as the publication of the first issue of a continuing resource can also be the publication of its latest known issue, in cases where only one issue of a continuing resource was ever published. If no other issue of a periodical is published after the first issue, then both the instance of Z6 Starting of Publication and the instance of Z7 Ending of Publication P114 [are] equal in time to the instance of F30 Publication Event. As a matter of fact, the same event is then an instance of all three classes.

Examples: The publication of Volume 15, Number 4, of the periodical entitled 'The Mask' in December

1929, which was not followed by the publication of any other issue of that periodical

Properties: Y18 ended (was ended through): F18 Serial Work

Z8 Metadata Management

Subclass of: <u>E7</u> Activity

Scope note: This class comprises activities performed by ISSN agencies (either at the international or a

regional level) and consisting of exerting a responsibility on the metadata relating to a continuing resource identified by an ISSN, which includes, among other things: storing and preserving the metadata, checking the accuracy of the recorded information, making decisions as to whether new records and new ISSNs are required or not due to modifications in the continuing resource described, checking the uniqueness of key titles, etc. Z8 Metadata Management does not *necessarily* include the activity of *creating* the metadata.

A set of ISSN metadata can be managed by various agencies over time, but at a given point in time it cannot be managed by more than one agency. In practice, information relating to the agency that was previously responsible for a given set of metadata is erased from that set of metadata when the responsibility on it is handed over to another agency.

[Comment. This scope note is very restrictive and specific, while the label for the class is deliberately very vague and general. The intention is to make it possible in the future, if needed, to generalize this class and include it in other conceptual models.]

Examples: The activities performed by U.S. ISSN Center with regard to the metadata relating to the

periodical entitled 'The Atlantic Monthly' (ISSN '1072-7825')

Properties: Y19 concerned (was the concern of): F18 Serial Work

Z9 Storage Unit

Subclass of: F4 Manifestation Singleton

Scope note: This class comprises physical objects consisting of copies of individual issues (instances of F5 Item) of a periodical that are bound together, or otherwise physically united, for the sake of preservation, and are communicated to library users as single, indivisible units, although they

were not initially issued as such by the publisher of the periodical they belong to.

[That scope note is very restrictive, and specific to the domain covered by PRESS₀₀; a more generic scope note, such as the following, might prove more useful] This class comprises unique combinations of instances of E24 Physical Man-Made Thing that are bound together, or otherwise physically united, for the sake of preservation, and are communicated to library users as single, indivisible units. The individual components of a given instance of Z9 Storage Unit are generally instances of F4 Manifestation Singleton and/or F5 Item, but the binding itself that holds them together can be a valuable piece of cultural heritage that is worth describing for its own sake. Z9 Storage Unit makes it possible to account indifferently for the description of the various materials (printed or manuscript or of any other type) that make up a holding, and of the binding (or any other type of device, e.g. a box, a casket, etc.) that was produced for that holding, if needed.

Examples: The physical storage unit held by the BnF and containing under one binding exemplars of Vol.

307, No. 1 (January 2011) through Vol. 308, No. 5 (December 2011) of the periodical entitled 'The Atlantic Monthly' (ISSN '1072-7825')

The physical storage unit held by the BnF and containing, under one binding with the arms of Madame de Pompadour, exemplars of volumes 3 and 4 (1674) of the periodical entitled 'Le

Mercure galant'

The physical storage unit held by the BnF and containing, in one box, printed exemplars of volumes 1 to 6 (1930-33) of the periodical entitled 'Le Surréalisme au service de la révolution', together with holograph manuscripts by André Breton, Louis Aragon, Salvador Dalí, René Char, Max Ernst, and others (both the box and the individual bindings were created by bookbinder and craftsman Renaud Vernier in 2006)

Z10 Sequencing Pattern

Subclass of: <u>E55</u> Type

Scope note: This class comprises 'forms anticipated to be used in designating volumes/issues, etc. and/or

dates for the individual units of the serial (e.g. Volume ..., number ...)' [FRBR definition].

A sequencing pattern is a type exemplified in one or more than one statement transcribed from one or more than one issue of a serial. The type itself is never recorded as such, but is only inferred from the transcribed statements.

interred from the transcribed statements

Examples: The pattern consisting of a volume number in Arabic numerals, and an issue number in Arabic

numerals, as exemplified by the statement 'Vol. 272, no. 5 (Nov. 1993)-'

Z11 URL

Subclass of: <u>E51</u> Contact Point

Scope note: This class comprises identifiers for servers from which digital files can be obtained online.

Examples: 'http://www.mechanics-industry.org/action/displayJournal?jid=MIN'

Z12 Issuing Rule

Subclass of: <u>E29</u> Design or Procedure

Scope note: This class comprises plans that specify bits of the issuing policy followed at some point in time

for instances of F18 Serial Work.

The notion of issuing policy may include: regularity, frequency, sequencing pattern, the language of the linguistic objects contained in each issue, dimension of each issue, the font used to print each issue, the layout and editorial rules adhered to in each issue, etc.

[Note: The notion of issuing rule is to be understood differently in PRESS_{OO} than in FRBR_{OO}. In FRBR_{OO}, property R11 has issuing rule (is issuing rule) points to a complete issuing policy that comprises a variety of parameters (regularity, frequency, dimension, language, etc.), while in PRESS_{OO} an instance of Z12 Issuing Rule focuses on only one of those parameters and consists of a plan for just the expected regularity, just the expected frequency, just the expected dimension, etc. This perspective shift was made necessary when it was realized that any change in just one of those parameters led to a new instantiation of Z12 Issuing Rule and new instantiations of all the ranges of the associated properties, with exactly the same value for each of them except for the one parameter that changes. It was deemed preferable to associate an instance of Z12 Issuing Rule with just one parameter of the issuing policy, which makes it possible that, e.g., a monthly was transformed into a quarterly without having to repeat that the expected language of its issues remains English.]

Examples:

The policy consisting of publishing a magazine (entitled 'The Atlantic Monthly', ISSN '1072-7825') the issues of which are to be released every month

The policy consisting of publishing a magazine (ISSN '1072-7825') the issues of which are to be entitled 'The Atlantic Monthly'

The policy consisting of publishing a magazine (entitled 'The Atlantic Monthly', ISSN '1072-7825') the issues of which are to contain articles in English

Properties:

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Y20 foresees type (is type foreseen in): E55 Type Y20.1 has type: E55 Type
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<u>Y21</u> foresees use of language (is language foreseen in): <u>E56</u> Language

Y21.1 mode of use: E55 Type

Y22 foresees sequencing pattern (is sequencing pattern foreseen in): Z10 Sequencing Pattern

Y23 foresees dimension (is dimension foreseen in): E54 Dimension

Y24 foresees use of title (is title foreseen in): E35 Title

Y24.1 has type: <u>E55</u> Type

Y25 foresees association with (foresees to be associated with): Z12 Issuing Rule

Y25.1 has type: E55 Type

Y26 foresees other edition (foresees to be another edition of): Z12 Issuing Rule

Y26.1 has type: E55 Type

Y27 foresees translation in (foresees translation of): Z12 Issuing Rule

Y28 foresees URL (is URL foreseen in): Z11 URL

Z13 Monograph

Subclass of: F19 Publication Work

Scope note: This class comprises instances of F19 Publication Work that are planned to result in an

instance of F24 Publication Expression that should either be complete in one part, or completed within a finite (and predetermined) number of parts, as opposed to instances of F18 Serial Work. [Adapted from Appendix E: Glossary of ISBD, International Standard

Bibliographic Description: Consolidated Edition, 2011]

F18 Serial Work and Z13 Monograph are two distinct subclasses of F19 Publication Work; however, they are neither declared as disjoint nor complementary, in order to allow for a

certain amount of uncertainty as to the actual nature of some publications.

Examples: The sum of editorial concepts that should be conveyed through all copies of the instance of F3

Manifestation Product Type identified by ISBN '978-2-503-53894-5' (the content of which is entitled: 'Medieval manuscripts, their makers and users: a special issue of Viator in honor of

Richard and Mary Rouse')

The sum of editorial concepts that should be conveyed through all copies of the instance of F3 Manifestation Product Type identified by ISBN '978-1-902896-80-9' (the content of which is

entitled: 'The international lily register and checklist 2007')

Z14 Storage Unit Creation

Subclass of: F28 Expression Creation

Scope note: This class comprises activities through which instances of Z9 Storage Unit are produced.

Although the activity of producing a storage unit can be motivated by preservation only, it inevitably results in the creation of an expression that consists of the sum of all expressions conveyed by the individual items and/or manifestation singletons that make up the resulting storage unit. Z14 Storage Unit Creation is therefore declared as a subclass of F28 Expression

Creation.

A given instance of Z14 Storage Unit Creation can involve truly artistic endeavours, such as the conception and realisation of a binding which can be regarded as a piece of cultural

heritage in its own right.

Examples: The activity consisting of binding together exemplars of Vol. 307, No. 1 (January 2011)

through Vol. 308, No. 5 (December 2011) of the periodical entitled 'The Atlantic Monthly'

(ISSN '1072-7825')

The activity consisting of producing a binding with the arms of Madame de Pompadour, that holds together exemplars of volumes 3 and 4 (1674) of the periodical entitled 'Le Mercure

galant'

The activity consisting of producing the individual bindings and the box for the physical storage unit held by the BnF and containing printed exemplars of volumes 1 to 6 (1930-33) of the periodical entitled 'Le Surréalisme au service de la révolution', together with holograph manuscripts by André Breton, Louis Aragon, Salvador Dalí, René Char, Max Ernst, and others (both the box and the individual bindings were created by bookbinder and craftsman Renaud

Vernier in 2006)

Properties: Y45 created (was created by): Z9 Storage Unit

Y46 aggregated in a single storage unit (was aggregated in a single storage unit through): E18

Physical Thing

PRESS₀₀ properties

Y1 provided a continuation to (was continued through)

Domain: Z1 Serial Transformation

Range: F18 Serial Work

Shortcut of: Z1 Serial Transformation. Y2 initiated as continuation: F18 Serial Work. R23i was realised

through: F30 Publication Event. P134 continued: F30 Publication Event. R23 created a

realisation of: F18 Serial Work

Quantification: (0,1:0,1)

Scope note: This property associates an instance of Z1 Serial Transformation with an instance of F18 Serial

Work that underwent a 'major' title change that transformed it into another instance of F18

Serial Work.

Examples: Changing the title 'Journal of the Chemical Society. Dalton transactions' (ISSN '0300-9246')

into 'Dalton: an international journal of inorganic chemistry' (ISSN '1470-479X') (Z1) Y1 provided a continuation to the periodical entitled 'Journal of the Chemical Society. Dalton

transactions' (ISSN '0300-9246') (F18)

Y2 initiated as continuation (was initiated as continuation through)

Domain: Z1 Serial Transformation

Range: F18 Serial Work

Subproperty of: F27 Work Conception. R16 initiated (was initiated by): F1 Work

Quantification: (0,1:0,1)

Scope note: This property associates an instance of Z1 Serial Transformation with an instance of F18 Serial

Work that resulted from a 'major' title change that affected another instance of F18 Serial

Work.

Examples: Changing the title 'Journal of the Chemical Society. Dalton transactions' (ISSN '0300-9246')

into 'Dalton: an international journal of inorganic chemistry' (ISSN '1470-479X') (Z1) Y2 initiated as continuation the periodical entitled 'Dalton: an international journal of inorganic

chemistry' (ISSN '1470-479X') (F18)

Y3 provided a replacement to (was replaced through)

Domain: Z1 Serial Transformation

Range: <u>F18</u> Serial Work

Shortcut of: Z1 Serial Transformation. Y4 initiated as replacement: F18 Serial Work. R23i was realised

through: F30 Publication Event. P134 continued: F30 Publication Event. R23 created a

realisation of: F18 Serial Work

Quantification: (0,n:0,1)

Scope note: This property associates an instance of Z1 Serial Transformation with an instance of F18 Serial

Work the publication of which had ceased and that was superseded by one or more than one

instance of F18 Serial Work.

Examples: Replacing the periodical entitled 'Le Patriote de Saône-et-Loire' (ISSN '1959-9935') with the

new periodical entitled 'Le Démocrate de Saône-et-Loire' (ISSN '1959-9943') after the former had been suppressed by censorship in 1850 (Z1) *Y3 provided a replacement to* the periodical

entitled 'Le Patriote de Saône-et-Loire' (ISSN '1959-9935') (F18)

Y4 initiated as replacement (was initiated as replacement through)

Domain: Z1 Serial Transformation

Range: F18 Serial Work

Subproperty of: F27 Work Conception. R16 initiated (was initiated by): F1 Work

Quantification: (0,n:0,1)

Scope note: This property associates an instance of Z1 Serial Transformation with an instance of F18 Serial

Work that was created with the distinct intention of being published in lieu of another instance

of F18 Serial Work the publication of which had ceased.

Examples: Replacing the periodical entitled 'Le Patriote de Saône-et-Loire' (ISSN '1959-9935') with the

new periodical entitled 'Le Démocrate de Saône-et-Loire' (ISSN '1959-9943') after the former had been suppressed by censorship in 1850 (Z1) Y4 initiated as replacement the periodical

entitled 'Le Démocrate de Saône-et-Loire' (ISSN '1959-9943') (F18)

Y5 split (was split through)

Domain: Z1 Serial Transformation

Range: <u>F18</u> Serial Work

Shortcut of: Z1 Serial Transformation. Y6 initiated: F18 Serial Work. R23i was realised through: F30

Publication Event. P134 continued: F30 Publication Event. R23 created a realisation of: F18

Serial Work

Quantification: (0,1:0,1)

Scope note: This property associates an instance of Z1 Serial Transformation with an instance of F18 Serial

Work that was split in order to create new instances of F18 Serial Work.

Examples: Splitting the periodical entitled 'Colloids and surfaces' (ISSN '0166-6622') into the two

periodicals entitled 'Colloids and surfaces. A, Physicochemical and engineering aspects' (ISSN '0927-7757') and 'Colloids and surfaces. B, Biointerfaces' (ISSN '0927-7765') (Z1) *Y5 split*

the periodical entitled 'Colloids and surfaces' (ISSN '0166-6622') (F18)

Y6 initiated (resulted from split)

Domain: Z1 Serial Transformation

Range: <u>F18</u> Serial Work

Subproperty of: F27 Work Conception. R16 initiated (was initiated by): F1 Work

Quantification: (0,n:0,1)

Scope note: This property associates an instance of Z1 Serial Transformation with one or more than one

instance of F18 Serial Work that resulted from splitting another instance of F18 Serial Work.

Examples: Splitting the periodical entitled 'Colloids and surfaces' (ISSN '0166-6622') into the two

periodicals entitled 'Colloids and surfaces. A, Physicochemical and engineering aspects' (ISSN '0927-7757') and 'Colloids and surfaces. B, Biointerfaces' (ISSN '0927-7765') (Z1) *Y6 initiated* the periodical entitled 'Colloids and surfaces. A, Physicochemical and engineering

aspects' (ISSN '0927-7757') (F18)

Splitting the periodical entitled 'Colloids and surfaces' (ISSN '0166-6622') into the two periodicals entitled 'Colloids and surfaces. A, Physicochemical and engineering aspects' (ISSN '0927-7757') and 'Colloids and surfaces. B, Biointerfaces' (ISSN '0927-7765') (Z1) *Y6 initiated* the periodical entitled 'Colloids and surfaces. B, Biointerfaces' (ISSN '0927-7765')

(F18)

Y7 merged (was merged through)

Domain: Z1 Serial Transformation

Range: F18 Serial Work

Shortcut of: Z1 Serial Transformation. Y8 merged into: F18 Serial Work. R23i was realised through: F30

Publication Event. P134 continued: F30 Publication Event. R23 created a realisation of: F18

Serial Work

Quantification: (0,n:0,1)

Scope note: This property associates an instance of Z1 Serial Transformation with any one of the instances

of F18 Serial Work that were merged with each other in order to create a new instance of F18

Serial Work.

Examples: Merging the periodicals entitled 'Animal research' (ISSN '1627-3583'), 'Animal science'

(ISSN '1357-7298'), and 'Reproduction nutrition development' (ISSN '0926-5287') into the periodical entitled 'Animal' (ISSN '1751-7311') (Z1) *Y7 merged* the periodical entitled

'Animal research' (ISSN '1627-3583') (F18)

Merging the periodicals entitled 'Animal research' (ISSN '1627-3583'), 'Animal science' (ISSN '1357-7298'), and 'Reproduction nutrition development' (ISSN '0926-5287') into the periodical entitled 'Animal' (ISSN '1751-7311') (Z1) *Y7 merged* the periodical entitled 'Animal science' (ISSN '1357-7298') (F18)

Merging the periodicals entitled 'Animal research' (ISSN '1627-3583'), 'Animal science' (ISSN '1357-7298'), and 'Reproduction nutrition development' (ISSN '0926-5287') into the periodical entitled 'Animal' (ISSN '1751-7311') (Z1) *Y7 merged* the periodical entitled 'Reproduction nutrition development' (ISSN '0926-5287') (F18)

Y8 merged into (resulted from merger)

Domain: Z1 Serial Transformation

Range: F18 Serial Work

Subproperty of: F27 Work Conception. R16 initiated (was initiated by): F1 Work

Quantification: (0,1:0,1)

Scope note: This property associates an instance of Z1 Serial Transformation with the instance of F18

Serial Work that resulted from merging other instances of F18 Serial Work.

Examples: Merging the periodicals entitled 'Animal research' (ISSN '1627-3583'), 'Animal science'

(ISSN '1357-7298'), and 'Reproduction nutrition development' (ISSN '0926-5287') into the periodical entitled 'Animal' (ISSN '1751-7311') (Z1) Y8 merged into the periodical entitled

'Animal' (ISSN '1751-7311') (F18)

Y9 absorbed (was absorbed through)

Domain: Z2 Absorption
Range: F18 Serial Work

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

Quantification: (1,n:0,1)

Scope note: This property associates an instance of Z2 Absorption with an instance of F18 Serial Work that

was absorbed in another instance of F18 Serial Work.

Examples: Absorbing the periodical entitled 'Archiv für mathematische Logik und Grundlagenforschung'

(ISSN '0003-9268') in the periodical entitled 'Archiv für Philosophie' (ISSN '0066-6467') (Z2) *Y9 absorbed* the periodical entitled 'Archiv für mathematische Logik und

Grundlagenforschung' (ISSN '0003-9268') (F18)

Absorbing the periodical entitled 'Recueil des travaux chimiques des Pays-Bas' (ISSN '0165-0513') in the periodicals entitled 'Liebigs Annalen' (ISSN '0947-3440') and 'Chemische Berichte' (ISSN '0009-2940') (Z2) *Y9 absorbed* the periodical entitled 'Recueil des travaux

chimiques des Pays-Bas' (ISSN '0165-0513') (F18)

Y10 enhanced (was enhanced through)

Domain: Z2 Absorption
Range: F18 Serial Work

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

Quantification: (1,n:0,n)

Scope note: This property associates an instance of Z2 Absorption with an instance of F18 Serial Work that

absorbed another instance of F18 Serial Work.

Examples: Absorbing the periodical entitled 'Archiv für mathematische Logik und Grundlagenforschung'

(ISSN '0003-9268') in the periodical entitled 'Archiv für Philosophie' (ISSN '0066-6467') (Z2) *Y10 enhanced* the periodical entitled 'Archiv für Philosophie' (ISSN '0066-6467') (F18)

Absorbing the periodical entitled 'Recueil des travaux chimiques des Pays-Bas' (ISSN '0165-0513') in the periodicals entitled 'Liebigs Annalen' (ISSN '0947-3440') and 'Chemische Berichte' (ISSN '0009-2940') (Z2) *Y10 enhanced* the periodical entitled 'Liebigs Annalen' (ISSN '0947-3440') (F18), and *Y10 enhanced* the periodical entitled 'Chemische Berichte'

(ISSN '0009-2940') (F18)

Y11 separated (was separated through)

Domain: Z3 Separation
Range: F18 Serial Work

Subproperty of: F27 Work Conception. R16 initiated (was initiated by): F1 Work

Ouantification: (1,n:0,n)

Scope note: This property associates an instance of Z3 Separation with an instance of F18 Serial Work that

resulted from the separation.

Examples: Separating, in 1992, the periodical entitled 'The Electrochemical society interface' (ISSN

'1064-8208') from the periodical entitled 'Journal of the Electrochemical society' (ISSN '0013-4651'), which was founded in 1948 and continued to exist after 1992 (Z3) *Y11 separated* the periodical entitled 'The Electrochemical society interface' (ISSN '1064-8208')

(F18)

Y12 separated from (was diminished through)

Domain: <u>Z3</u> Separation Range: F18 Serial Work

Subproperty of: E5 Event. P12 occurred in the presence of (was present at): E77 Persistent Item

Quantification: (1,n:0,n)

Scope note: This property associates an instance of Z3 Separation with the instance of F18 Serial Work that

was diminished through the separation.

Examples: Separating, in 1992, the periodical entitled 'The Electrochemical society interface' (ISSN

'1064-8208') from the periodical entitled 'Journal of the Electrochemical society' (ISSN '0013-4651'), which was founded in 1948 and continued to exist after 1992 (Z3) Y12 separated from the periodical entitled 'Journal of the Electrochemical society' (ISSN '0013-

4651') (F18)

Y13 provided surrogate to (had surrogate through)

Domain: Z4 Temporary Substitution

Range: <u>F18</u> Serial Work

Subproperty of: F30 Publication Event. R23 created a realisation of (was realised through): F19 Publication

Work

Quantification: (1,n:0,n)

Scope note: This property associates an instance of Z4 Temporary Substitution with an instance of F18

Serial Work the publication of which was interrupted and replaced with the publication of a

distinct instance of F18 Serial Work.

Examples: Temporarily substituting the periodical entitled 'Le Petit Ardennais' (ISSN '2019-2606') with

the periodical entitled 'Le Journal ardennais' (ISSN '2103-1622') during a strike of printers

and typographers from 23 December 1922 to 5 January 1923 (Z4) Y13 provided surrogate to the periodical entitled 'Le Petit Ardennais' (ISSN '2019-2606') (F18) [Comment: the periodical entitled 'Le Journal ardennais' was created specifically for the purpose of being substituted to 'Le Petit Ardennais' during the strike, and ceased to be published after the end of the strike]

Temporarily substituting the periodical entitled 'L'Annonce: journal universel d'annonces civiles, judiciaires, commerciales et d'avis divers du département de la Seine' with the periodical entitled 'Le Pont-Neuf' in April 1840 (Z4) Y13 provided surrogate to the periodical entitled 'L'Annonce: journal universel d'annonces civiles, judiciaires, commerciales et d'avis divers du département de la Seine' (ISSN '2019-2606') (F18) [Comment: the periodical entitled 'Le Pont-Neuf' already existed prior to April 1840, and continued to be published after the periodical entitled 'L'Annonce...' resumed being published]

Y14 substituted with (became surrogate through)

Domain: Z4 Temporary Substitution

Range: F18 Serial Work

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

Quantification: (1,n:0,n)

Scope note: This property associates an instance of Z4 Temporary Substitution with an instance of F18

Serial Work that temporarily replaced a distinct instance of F18 Serial Work the publication of

which was interrupted.

Examples: Temporarily substituting the periodical entitled 'Le Petit Ardennais' (ISSN '2019-2606') with

the periodical entitled 'Le Journal ardennais' (ISSN '2103-1622') during a strike of printers and typographers from 23 December 1922 to 5 January 1923 (Z4) Y14 substituted with the periodical entitled 'Le Journal ardennais' (ISSN '2103-1622') (F18) [Comment: the periodical entitled 'Le Journal ardennais' was created specifically for the purpose of being substituted to 'Le Journal ardennais' during the strike, and ceased to be published after the end of the strike]

Temporarily substituting the periodical entitled 'L'Annonce: journal universel d'annonces civiles, judiciaires, commerciales et d'avis divers du département de la Seine' with the periodical entitled 'Le Pont-Neuf' in April 1840 (Z4) Y14 substituted with the periodical entitled 'Le Pont-Neuf' (F18) [Comment: the periodical entitled 'Le Pont-Neuf' already existed prior to April 1840, and continued to be published after that date]

Y15 replaced (was replaced through)

Domain: Z5 Issuing Rule Change Range: Z12 Issuing Rule

Subproperty of: E5 Event. P12 occurred in the presence of (was present at): E77 Persistent Item

Quantification: (1,1:0,1)

Scope note: This property associates an instance of Z5 Issuing Rule Change with the instance of Z12

Issuing Rule that became obsolete through that process.

Examples: Transforming the bimonthly periodical entitled 'L'Avispa' (ISSN '1022-5870') into a quarterly

from issue No. 9 (1992, April-June) (Z5) Y15 replaced the policy of issuing the periodical

entitled 'L'Avispa' (ISSN '1022-5870') every two months (Z12)

Changing the title of the periodical identified by ISSN '1022-5870' from: 'L'Avispa, bimensual de teoría y debate' to: 'L'Avispa, revista trimestrial de teoría y debate' from issue No. 9 (1992, April-June) (Z5) Y15 replaced the policy of issuing the periodical identified by

ISSN '1022-5870' with the title: 'L'Avispa, bimensual de teoría y debate' (Z12)

Y16 replaced with (was introduced through)

Domain: Z5 Issuing Rule Change

Range: Z12 Issuing Rule

Subproperty of: <u>E7</u> Activity. <u>P16</u> used specific object (was used for): <u>E70</u> Thing

Quantification: (1,1:0,1)

Scope note: This property associates an instance of Z5 Issuing Rule Change with the instance of Z12

Issuing Rule that came into force through that process.

Examples: Transforming the bimonthly periodical entitled 'L'Avispa' (ISSN '1022-5870') into a quarterly

from issue No. 9 (1992, April-June) (Z5) Y16 replaced with the policy of issuing the periodical

entitled 'L'Avispa' (ISSN '1022-5870') every three months (Z12)

Changing the title of the periodical identified by ISSN '1022-5870' from: 'L'Avispa, bimensual de teoría y debate' to: 'L'Avispa, revista trimestrial de teoría y debate' from issue No. 9 (1992, April-June) (Z5) *Y16 replaced with* the policy of issuing the periodical identified by ISSN '1022-5870' with the title: 'L'Avispa, revista trimestrial de teoría y debate' (Z12)

Y17 launched (was launched through)

Domain: Z6 Starting of Publication

Range: <u>F18</u> Serial Work

Shortcut of: Z6 Starting of Publication. P116 starts (is started by): F30 Publication Event. R23 created a

realisation of (was realised through): F18 Serial Work

Quantification: (1,1:1,1)

Scope note: This property associates an instance of Z6 Starting of Publication with the serial the first issue

of which was published through that process.

Examples: The publication of Volume 1, Number 1, of the periodical entitled 'Animal' (ISSN '1751-

7311') in February 1997 (Z6) Y17 launched the periodical entitled 'Animal' (ISSN '1751-

7311') (F18)

Y18 ended (was ended through)

Domain: Z7 Ending of Publication

Range: <u>F18</u> Serial Work

Shortcut of: Z7 Ending of Publication. P115 finishes (is finished by): F30 Publication Event. R23 created a

realisation of (was realised through): F18 Serial Work

Quantification: (1,1:0,1)

Scope note: This property associates an instance of Z7 Ending of Publication with the serial the last issue of

which was published through that process.

Examples: The publication of Volume 15, Number 4, of the periodical entitled 'The Mask' in December

1929, which was not followed by the publication of any other issue of that periodical (Z7) Y18

ended the periodical entitled 'The Mask' (F18)

Y19 concerned (was the concern of)

Domain: Z8 Metadata Management

Range: F18 Serial Work

Shortcut of: Z8 Metadata Management. P16 used specific object (was used for): E32 Authority Document.

P71 lists (is listed in): F18 Serial Work

Quantification: (1,1:0,1)

Scope note: This property associates an instance of Z8 Metadata Management with the instance of F18

Serial Work that is described in the metadata over which the ISSN agency performing the

instance of Z8 Metadata Management has a responsibility.

Examples: The activities performed by U.S. ISSN Center with regard to the metadata relating to the

periodical entitled 'The Atlantic Monthly' (ISSN '1072-7825') (Z8) Y19 concerned the

periodical entitled 'The Atlantic Monthly' (ISSN '1072-7825') (F18)

Y20 foresees type (is type foreseen in)

Domain: Z12 Issuing Rule Range: E55 Type

Subproperty of: <u>E89</u> Propositional Object. <u>P67</u> refers to (is referred to by): <u>E1</u> CRM Entity

Superproperty of: Z12 Issuing Rule. Y21 foresees use of language (is language foreseen in): E56 Language

Z12 Issuing Rule. Y22 foresees sequencing pattern (is sequencing pattern foreseen in): Z10

Sequencing Pattern

Quantification: (0,n:0,n)

Scope note: This property associates an instance of Z12 Issuing Rule with an instance of E55 Type that the

issues of the continuing resource published while the instance of Z12 Issuing Rule obtained

should have.

The Y20.1 has type property of the property allows the nature of the association to be specified; examples of types of types foreseen in instances of Z12 Issuing Rule include: regularity, frequency, nature of the carrier, digital format, content type, media type, target audience, etc.

Examples: The policy followed in publishing the periodical entitled 'The Atlantic Monthly' (ISSN '1072-

7825') (Z12) Y20 foresees type regular (E55) Y20.1 has type regularity policy (E55)

The policy followed in publishing the periodical entitled 'The Atlantic Monthly' (ISSN '1072-7825') (Z12) Y20 foresees type monthly (E55) Y20.1 has type frequency (E55)

The policy followed in publishing the periodical entitled 'L'Avispa, bimensual de teoría y debate' (ISSN '1022-5870') before April 1992 (Z12) *Y20 foresees type* bimonthly (E55) *Y20.1 has type* frequency (E55)

The policy followed in publishing the periodical entitled 'L'Avispa, revista trimestrial de teoría y debate' (ISSN '1022-5870') from April 1992 on (Z12) *Y20 foresees type* quarterly (E55) *Y20.1 has type* frequency (E55)

The policy followed in publishing the periodical entitled 'Kid's again' (ISSN '1950-7534') (Z12) *Y20 foresees type* CDROM (E55) or DVD (E55) *Y20.1 has type* carrier type policy (E55)

The policy followed in publishing the periodical entitled 'Bibliodiversity: publishing & globalisation' (ISSN '1775-3759') (Z12) *Y20 foresees type* PDF (E55), and *Y20 foresees type* ePub (E55) *Y20.1 has type* digital format policy (E55)

The policy followed in publishing the periodical entitled 'The journal of interactive technology and pedagogy' (ISSN '2166-6245') (Z12) Y20 foresees type text (E55), Y20 foresees type three-dimensional moving image (E55), and Y20 foresees type spoken word (E55) Y20.1 has type content type policy (E55)

The policy followed in publishing the periodical entitled 'The journal of interactive technology and pedagogy' (ISSN '2166-6245') (Z12) *Y20 foresees type* computer (E55), *Y20 foresees type* video (E55), and *Y20 foresees type* audio (E55) *Y20.1 has type* media type policy (E55)

Properties: Y20.1 has type: <u>E55</u> Type

Y21 foresees use of language (is language foreseen in)

Domain: Z12 Issuing Rule Range: E56 Language

Subproperty of: Z12 Issuing Rule. Y20 foresees type (is type foreseen in): E55 Type

Quantification: (0,n:0,n)

Scope note: This property associates an instance of Z12 Issuing Rule with one or more than one language in

which the contents of the serial are planned to be expressed.

The Y21.1 mode of use property of the property makes it possible to specify whether the language pointed to is envisioned as the language of the main body of text or of the abstracts

only or as one of several parallel languages, etc.

Examples: The language policy followed in publishing the periodical entitled 'The Atlantic Monthly'

(ISSN '1072-7825') (Z12) Y21 foresees use of language English (E56) Y21.1 mode of use

language of main text (E55)

The language policy followed in publishing the periodical entitled 'Aber' (ISSN '1625-3787') (Z12) Y21 foresees use of language Breton (E56) Y21.1 mode of use language of main text (E55), and Y21 foresees use of language English (E56) Y21.1 mode of use language of abstracts (E55)

(E55)

Properties: Y21.1 mode of use: <u>E55</u> Type

Y22 foresees sequencing pattern (is sequencing pattern foreseen in)

Domain: Z12 Issuing Rule
Range: Z10 Sequencing Pattern

Subproperty of: Z12 Issuing Rule. Y20 foresees type (is type foreseen in): E55 Type

Quantification: (0,n:0,n)

Scope note: This property associates an instance of Z12 Issuing Rule with a sequencing pattern foreseen for

the issues of a serial that follows that policy.

Typically, a sequencing pattern is not recorded in its archetypical form, but through the transcription of a statement found on one or more than one issue of the serial. The complete semantics of the relation between the serial described and the statement transcribed is contained in the following circle: F18 Serial Work R10 has member F19 Publication Work [= the concepts of the individual issue from which the statement is transcribed] R3 is realised in F24 Publication Expression R15 has fragment F23 Expression Fragment Y43 is indicative of Z10 Sequencing Pattern Y22i is sequencing pattern foreseen in Z12 Issuing Rule Y37i is former or current issuing rule of F18 Serial Work.

FRBR_{ER} distinguishes between the archetypical *Sequencing Pattern*, an attribute of the Expression entity, and the actual *Numbering*, an attribute of the Manifestation entity. The FRBR_{ER} *Sequencing Pattern* notion corresponds to Z10 Sequencing Pattern in PRESS_{OO}, while the FRBR_{ER} *Numbering* corresponds to the instance of F23 Expression Fragment used to convey the archetypical sequencing pattern and does not call for a specific class in PRESS_{OO}.

Examples: The sequencing pattern policy followed in publishing the periodical entitled 'The Atlantic

Monthly' (ISSN '1072-7825') (Z12) Y22 foresees sequencing pattern the pattern consisting of a volume number in Arabic numerals, and an issue number in Arabic numerals, as exemplified by the statement 'Vol. 272, no. 5 (Nov. 1993)-' transcribed in the record found in the Library

of Congress's catalogue (Z10)

Y23 foresees dimension (is dimension foreseen in)

Domain: Z12 Issuing Rule
Range: E54 Dimension

Subproperty of: <u>E89</u> Propositional Object. <u>P67</u> refers to (is referred to by): <u>E1</u> CRM Entity

Quantification: (0,n:0,n)

Scope note: This property associates an instance of Z12 Issuing Rule with a dimension foreseen for

exemplars of the issues of a serial that follows that policy.

Typically, this property is observed on one exemplar of an issue of a serial, and extrapolated to all other exemplars of the issue and of other issues to come. This logical inference is an induction along the path that can be modelled as: F18 Serial Work *Y37 has former or current issuing rule Z*12 Issuing Rule, and F18 Serial Work *R10 has member* F19 Publication Work *R3 is realised in* F24 Publication Expression *R6i is carried by* F5 Item *P39i was measured by* E16 Measurement *P40 observed dimension* E54 Dimension. [adapted from scope note for CLP43

should have dimension in FRBR_{OO}]

Examples: The dimension policy followed in publishing the periodical entitled 'The Atlantic Monthly'

(ISSN '1072-7825') (Z12) Y23 foresees dimension the dimension observed on the copy of the issue of 'The Atlantic Monthly' that was used to create the ISSN Registry bibliographic record

for 'The Atlantic Monthly', namely: 27 cm (E54)

Y24 foresees use of title (is title foreseen in)

Domain: Z12 Issuing Rule Range: E35 Title

Subproperty of: <u>E89</u> Propositional Object. <u>P67</u> refers to (is referred to by): <u>E1</u> CRM Entity

Quantification: (0,n:0,n)

Scope note: This property associates an instance of Z12 Issuing Rule with the title that each individual

issue of a serial should display as long as that serial follows that policy.

The property Y24.1 has type allows for specifying a particular type of title, the same way as the CIDOC CRM property P102 has title (is title of) from E71 Man-Made Thing to E35 Title has a property, P102.1 has type, that makes it possible to clarify the relationship between a manmade thing and the title associated with it.

The key title and abridged key title used to identify a serial cannot be referred to through this property, as they are artificial constructs forged by cataloguers, even though they may happen to look identical with the title proper foreseen by the issuing policy. The relationship between an instance of F18 Serial Work and a key title or abridged key title is expressed by using the *P48 has preferred identifier* property from CIDOC CRM.

Examples: The title policy according to which the periodical entitled 'L'Avispa' (ISSN '1022-5870') was

to be issued every three months and each of its issues was to be entitled 'L'Avispa: revista trimestrial de teoría y debate' (Z12) Y24 foresees use of title 'revista trimestrial de teoría y

debate' (E35) Y24.1 has type other title information (E55)

The title policy according to which each issue of the yearbook entitled 'Canadian minerals yearbook' (ISSN '0068-9270') was to have spine title: 'CMY ... review and outlook' (Z12) Y24 foresees use of title 'CMY ... review and outlook' (E35) Y24.1 has type spine title (E55)

Properties: Y24.1 has type: E55 Type

Y25 foresees association with (foresees to be associated with)

Domain: Z12 Issuing Rule Range: Z12 Issuing Rule

Subproperty of: E29 Design or Procedure. P69 has association with (is associated with): E29 Design or

Procedure

Superproperty of: <u>Z12</u> Issuing Rule. <u>Y26</u> foresees other edition (foresees to be another edition of): <u>Z12</u> Issuing

Rule

Quantification: (0,n:0,n)

Scope note: This property associates an instance of Z12 Issuing Rule with an instance of Z12 Issuing Rule

associated with a continuing resource that the first instance of Z12 Issuing Rule regards as

related in some way with the continuing resource of which it is an issuing rule.

It can denote a dynamic, asymmetric relationship where the range expresses the dependant publication, if such a direction can be established. Otherwise, it denotes a symmetric relationship, where none of the two continuing resources is regarded as dependant on the other.

The Y25.1 has type property of the property allows the nature of the association to be specified; examples of types of association between instances of Z12 Issuing Rule include: supplement,

issued with, insert, etc.

Examples: The association policy followed in publishing the periodical entitled 'Applied economics

quarterly' (ISSN '1611-6607') (Z12) Y25 foresees association with the association policy followed in publishing the periodical entitled 'Applied economics quarterly. Supplement'

(ISSN '1612-2127') (Z12) Y25.1 has type supplement (E55)

The association policy followed in publishing the periodical entitled 'BMS. Bulletin de méthodologie sociologique' (ISSN '0759-1063') (Z12) Y25 foresees association with the association policy followed in publishing the periodical entitled 'RC 33 newsletter' (ISSN '1023-5833') (Z12) Y25.1 has type insert (E55)

The association policy followed in publishing the periodical entitled 'La Revue européenne' (ISSN '1147-6818') (Z12) Y25 foresees association with the association policy followed in

publishing the series entitled 'Collection de la Revue européenne' (ISSN '1245-5601') (Z12)

Properties: Y25.1 has type: <u>E55</u> Type

Y26 foresees other edition (foresees to be another edition of)

Domain: Z12 Issuing Rule Range: Z12 Issuing Rule

Subproperty of: Z12 Issuing Rule. Y25 foresees association with (foresees to be associated with): Z12 Issuing

Rule

Superproperty of: <u>Z12</u> Issuing Rule. <u>Y27</u> foresees translation in (foresees translation of): <u>Z12</u> Issuing Rule

Quantification: (0,n:0,n)

Scope note: This property associates an instance of Z12 Issuing Rule with an instance of Z12 Issuing Rule

associated with a continuing resource that the first instance of Z12 Issuing Rule regards as

another edition of the continuing resource of which it is an issuing rule.

It can denote a dynamic, asymmetric relationship where the range expresses the dependant publication, if such a direction can be established. Otherwise, it denotes a symmetric relationship, where none of the two continuing resources is regarded as dependant on the other.

In addition to being a subproperty of Y25 foresees association with (foresees to be associated with), it can also be analysed as a shortcut of the more developed path: Z12 Issuing Rule Y37i is former or current issuing rule of F18 Serial Work R10i is member of F15 Complex Work R10 has member F18 Serial Work Y37 has former or current issuing rule Z12 Issuing Rule.

The Y26.1 has type property of the property allows the nature of the association to be specified; examples of types of association between instances of Z12 Issuing Rule include: other edition, other format, local edition, other edition on a different type of carrier, abridged edition, edition in a different language, etc.

Examples:

The multi-edition policy followed in publishing the printed periodical entitled 'East European politics' (ISSN '2159-9165') (Z12) *Y26 foresees other edition* the multi-edition policy followed in publishing the online periodical entitled 'East European politics' (ISSN '2159-9173') (Z12) *Y26.1 has type* other edition on a different type of carrier (E55)

The multi-edition policy followed in publishing the periodical entitled 'The Garden Conservancy open days directory' ([national edition]) (ISSN '1087-7738') (Z12) Y26 foresees other edition the multi-edition policy followed in publishing the periodical entitled 'The Garden Conservancy open days directory. The guide to visiting private gardens in the Midwest' (ISSN '1546-8747') (Z12) Y26.1 has type local edition (E55)

The multi-edition policy followed in publishing the periodical entitled 'Чернобыль-индекс' (Z12) *Y26 foresees other edition* the multi-edition policy followed in publishing the periodical entitled 'Chernobyl digest of current relevant literature' (Z12) *Y26.1 has type* abridged edition (E55)

The multi-edition policy followed in publishing the periodical entitled 'Wall Street journal (Eastern ed.)' (ISSN '0099-9660') (Z12) *Y26 foresees other edition* the multi-edition policy followed in publishing the periodical entitled 'Wall Street journal (Central ed.)' (ISSN '1092-0935') (Z12) *Y26.1 has type* other edition (E55)

Propriétés: Y26.1 has type: E55 Type

Y27 foresees translation in (foresees translation of)

Domain: Z12 Issuing Rule Range: Z12 Issuing Rule

Subproperty of: Z12 Issuing Rule. Y26 foresees other edition (foresees to be another edition of): Z12 Issuing

Rule

Quantification: (0,n:0,n)

Scope note: This property associates an instance of Z12 Issuing Rule with an instance of Z12 Issuing Rule

associated with a continuing resource that, according to the respective issuing policies of the

two continuing resources, should contain a translation of the content of the first continuing resource.

This is not the same notion as the association of a continuing resource with one or more than one 'edition in a different language', which is expressed through property Y26 foresees other edition (foresees to be another edition of).

Examples: The translation policy followed in publishing the French-language periodical entitled 'Sud de

France: la lettre' (ISSN '1962-3305') (Z12) Y27 foresees translation in the translation policy followed in publishing the English-language periodical entitled 'Sud de France: newsletter'

(ISSN '1962-3313') (Z12)

Y28 foresees URL (is URL foreseen in)

Domain: Z12 Issuing Rule Range: Z11 URL

Subproperty of: <u>E89</u> Propositional Object. <u>P67</u> refers to (is referred to by): <u>E1</u> CRM Entity

Quantification: (0,n:0,n)

Scope note: This property associates an instance of Z12 Issuing Rule with an instance of Z11 URL that

identifies the server from which digital files containing the issues of the continuing resource

with which the instance of Z12 Issuing Rule is associated are available on the Web.

Examples: The URL policy followed in publishing the online periodical entitled 'Mechanics & industry:

an international journal on mechanical sciences and engineering applications' (ISSN '2257-7750') (Z12) *Y28 foresees URL* 'http://www.mechanics-industry.org/action/display

Journal?jid=MIN' (E51)

Y29 evolved into (continues)

Domain: F18 Serial Work
Range: F18 Serial Work

Shortcut of: F18 Serial Work. Y1i was continued through: Z1 Serial Transformation. Y2 initiated as

continuation: F18 Serial Work

Quantification: (0,1:0,1)

Scope note: This property associates an instance of F18 Serial Work with the instance of F18 Serial Work

into which it was transformed, due to a 'major' title change.

Examples: The periodical entitled 'Journal of the Chemical Society. Dalton transactions' (ISSN '0300-

9246') (F18) Y29 evolved into the periodical entitled 'Dalton: an international journal of

inorganic chemistry' (ISSN '1470-479X') (F18)

Y30 was partially continued by (was separated from)

Domain: F18 Serial Work
Range: F18 Serial Work

Shortcut of: F18 Serial Work. Y12i was diminished through (separated from): Z3 Separation. Y11

separated (was separated through): F18 Serial Work

Quantification: (0,n:0,n)

Scope note: This property associates an instance of F18 Serial Work with an instance of F18 Serial Work

that was separated from it through an instance of Z3 Separation.

Examples: The periodical entitled 'Journal of the Electrochemical society' (ISSN '0013-4651') (F18) Y30

was partially continued by the periodical entitled 'The Electrochemical society interface'

(ISSN '1064-8208') (F18)

Y31 was superseded by (superseded)

Domain: F18 Serial Work Range: F18 Serial Work

Shortcut of: F18 Serial Work. Y3i was replaced through: Z1 Serial Transformation. Y4 initiated as

replacement: F18 Serial Work

Quantification: (0,n:0,n)

Scope note: This property associates an instance of Z1 Serial Transformation with an instance of F18 Serial

Work that was created with the distinct intention of being published in lieu of another instance

of F18 Serial Work the publication of which had ceased.

Examples: The periodical entitled 'Le Patriote de Saône-et-Loire' (ISSN '1959-9935') (F18) Y31 was

superseded by the periodical entitled 'Le Démocrate de Saône-et-Loire' (ISSN '1959-9943')

Y32 was split into (resulted from splitting)

Domain: F18 Serial Work
Range: F18 Serial Work

Shortcut of: F18 Serial Work. Y5i was split through: Z1 Serial Transformation. Y6 initiated: F18 Serial

Work

Quantification: (0,n:0,1)

Scope note: This property associates an instance of F18 Serial Work with any one of the instances of F18

Serial Work that were created on the occasion of its split.

Examples: The periodical entitled 'Colloids and surfaces' (ISSN '0166-6622') (F18) Y32 was split into the

periodical entitled 'Colloids and surfaces. A, Physicochemical and engineering aspects' (ISSN

'0927-7757') (F18)

The periodical entitled 'Colloids and surfaces' (ISSN '0166-6622') (F18) *Y32 was split into* the periodical entitled 'Colloids and surfaces. B, Biointerfaces' (ISSN '0927-7765') (F18)

Y33 was merged with

Domain: F18 Serial Work
Range: F18 Serial Work

Shortcut of: F18 Serial Work. Y7i was merged through: Z1 Serial Transformation. Y7 merged: F18 Serial

Work

Quantification: (0,n:0,n)

Scope note: This symmetrical property associates an instance of F18 Serial Work with any one of the

instances of F18 Serial Work with which it was merged in order to create a new instance of

F18 Serial Work.

Examples: The periodical entitled 'Animal research' (ISSN '1627-3583') (F18) Y33 was merged with the

periodical entitled 'Animal science' (ISSN '1357-7298') (F18)

The periodical entitled 'Animal research' (ISSN '1627-3583') (F18) Y33 was merged with the

periodical entitled 'Reproduction nutrition development' (ISSN '0926-5287') (F18)

Y34 was merged to form (resulted from merging)

Domain: F18 Serial Work
Range: F18 Serial Work

Shortcut of: F18 Serial Work. Y7i was merged through: Z1 Serial Transformation. Y8 merged into: F18

Serial Work

Quantification: (0,1:0,n)

Scope note: This property associates instances of F18 Serial Work with an instance of F18 Serial Work that

was created by merging them.

Examples: The periodical entitled 'Animal research' (ISSN '1627-3583') (F18) Y34 was merged to form

the periodical entitled 'Animal' (ISSN '1751-7311') (F18)

The periodical entitled 'Animal science' (ISSN '1357-7298') (F18) *Y34 was merged to form* the periodical entitled 'Animal' (ISSN '1751-7311') (F18)

The periodical entitled 'Reproduction nutrition development' (ISSN '0926-5287') (F18) *Y34 was merged to form* the periodical entitled 'Animal' (ISSN '1751-7311') (F18)

Y35 was absorbed in (was enhanced by absorbing)

Domain: F18 Serial Work
Range: F18 Serial Work

Shortcut of: F18 Serial Work. Y9i was absorbed through: Z2 Absorption. Y10 enhanced: F18 Serial Work

Quantification: (0,n:0,n)

Scope note: This property associates instances of F18 Serial Work with the instances of F18 Serial Work

that absorbed them.

Examples: The periodical entitled 'Archiv für mathematische Logik und Grundlagenforschung' (ISSN

'0003-9268') (F18) Y35 was absorbed in the periodical entitled 'Archiv für Philosophie' (ISSN

'0066-6467') (F18)

The periodical entitled 'Recueil des travaux chimiques des Pays-Bas' (ISSN '0165-0513') *Y35 was absorbed in* the periodical entitled 'Liebigs Annalen' (ISSN '0947-3440') (F18), and *Y35 was absorbed in* the periodical entitled 'Chemische Berichte' (ISSN '0009-2940') (F18)

Y36 had surrogate (was surrogate for)

Domain: F18 Serial Work
Range: F18 Serial Work

Shortcut of: F18 Serial Work. Y13i had surrogate through: Z4 Temporary Substitution. Y14 substituted

with: F18 Serial Work

Quantification: (0,n:0,n)

Scope note: This property associates an instance of F18 Serial Work with an instance of F18 Serial Work

that temporarily replaced it.

Examples: The periodical entitled 'Le Petit Ardennais' (ISSN '2019-2606') (F18) Y36 had surrogate the

periodical entitled 'Le Journal ardennais' (ISSN '2103-1622') (F18)

The periodical entitled 'L'Annonce: journal universel d'annonces civiles, judiciaires, commerciales et d'avis divers du département de la Seine' (F18) Y36 had surrogate the

periodical entitled 'Le Pont-Neuf' (F18)

Y37 has former or current issuing rule (is former or current issuing rule of)

Domain: <u>F18</u> Serial Work Range: <u>Z12</u> Issuing Rule

Subproperty of: F18 Serial Work. R11 has issuing rule (is issuing rule of): E29 Design or Procedure Superproperty of: F18 Serial Work. Y38 has current issuing rule (is current issuing rule of): Z12 Issuing Rule

Quantification: (0,n:0,n)

Scope note: This property associates an instance of F18 Serial Work with instances of Z12 Issuing Rule

that specify aspects of the issuing policy planned at some time by this Work, such as sequencing pattern, expected frequency or expected regularity. This property does not specify whether these instances of Z12 Issuing Rule are still in force at the time of validity of the record or database containing the statement that uses this property, and it can point to obsolete

instances of Z12 Issuing Rule.

Examples: The periodical identified by ISSN '1022-5870' ('L'Avispa') (F18) Y37 has former or current

issuing rule the rule that obtained prior to 1992, according to which the periodical identified by

ISSN '1022-5870' ('L'Avispa') was to be issued every two months (Z12)

The periodical identified by ISSN '1022-5870' ('L'Avispa') (F18) Y37 has former or current

issuing rule the rule that obtained prior to 1992, according to which the periodical identified by ISSN '1022-5870' was to be issued with the complete title: 'L'Avispa, bimensual de teoría y debate' (Z12)

Y38 has current issuing rule (is current issuing rule of)

Domain: F18 Serial Work Range: **Z12** Issuing Rule

Subproperty of: F18 Serial Work. Y37 has former or current issuing rule (is former or current issuing rule of):

Z12 Issuing Rule

Quantification: (1,1:0,n)

Scope note: This property associates an instance of F18 Serial Work with instances of Z12 Issuing Rule

> that specify aspects of the issuing policy planned by this Work, such as sequencing pattern, expected frequency or expected regularity, at the time of validity of the record or database

containing the statement that uses this property.

If the publication has ceased, this property reflects the latest known issuing rules followed by the continuing resource when its last known issue was released (i.e., the issuing rules followed in the instance of Z7 Ending of Publication associated with the continuing resource), rather than the 'current' issuing rules (since in that case, strictly speaking, there are no 'current'

issuing rules).

Examples: The periodical identified by ISSN '1022-5870' ('L'Avispa') (F18) Y38 has current issuing rule

the rule that obtained after 1992, according to which the periodical identified by ISSN '1022-

5870' ('L'Avispa') is to be issued every three months (Z12)

The periodical identified by ISSN '1022-5870' ('L'Avispa') (F18) Y38 has current issuing rule the rule that obtained after 1992, according to which the periodical identified by ISSN '1022-5870' is to be issued with the complete title: 'L'Avispa, revista trimestrial de teoría y debate'

(Z12)

Y39 is enhanced by monograph (enhances serial)

Domain: F18 Serial Work Range: **Z13** Monograph

Shortcut of: F18 Serial Work. R23i was realised through (created a realisation of): F30 Publication Event.

P17i motivated (was motivated by): F30 Publication Event. R23 created a realisation of (was

realised through): Z13 Monograph

Quantification: (0,n:0,n)

Scope note: This property associates an instance of F18 Serial Work with an instance of Z13 Monograph

that constitutes an enhancement of its content.

[Note. The relationship between a series and a monograph published as a volume within that series, or between a periodical and one of its regular issues, is not expressed through this property, but by stating that the monograph or regular issue is a member of the series or periodical, i.e., F18 Serial Work R10 has member (is member of) F19 Publication Work. Special issues of a periodical that are included in that periodical's numbering are also modelled simply as members of the periodical, not as monographs that enhance it.]

The Y39.1 has type property of the property allows the nature of the association to be specified; examples of types of enhancement of an instance of F18 Serial Work by a monograph include:

supplementing monograph, special issue, etc.

Examples: The periodical entitled 'Viator: Medieval and Renaissance studies' (ISSN '0083-5897') (F18)

> Y39 is enhanced by monograph the sum of editorial concepts in the monograph entitled 'Medieval manuscripts, their makers and users: a special issue of Viator in honor of Richard and Mary Rouse', associated with the instance of F3 Manifestation Product Type identified by

ISBN '978-2-503-53894-5' (Z13) Y39.1 has type special issue (E55)

The periodical entitled 'Cerebrovascular diseases' (ISSN '1015-9770') (F18) Y39 is enhanced by monograph the sum of editorial concepts in the monograph entitled 'Ischemic stroke: knowledge and research, challenges and goals', associated with the instance of F3 Manifestation Product Type identified by ISBN '978-3-8055-9051-8' (Z13) *Y39.1 has type*

supplementing monograph (E55)

Properties: Y39.1 has type: E55 Type

Y40 enhances monograph (is enhanced by serial)

Domain: F18 Serial Work Range: Z13 Monograph

Shortcut of: F18 Serial Work. R23i was realised through (created a realisation of): F30 Publication Event.

P17 was motivated by (motivated): F30 Publication Event. R23 created a realisation of (was

realised through): Z13 Monograph

Quantification: (0,n:0,n)

Scope note: This property associates an instance of F18 Serial Work with an instance of Z13 Monograph

the content of which is enhanced by the instance of F18 Serial Work.

The Y40.1 has type property of the property allows the nature of the association to be specified; examples of types of enhancement of a monograph by an instance of F18 Serial Work include:

supplemented monograph, base volume for an updating loose-leaf, etc.

Examples: The updating loose-leaf entitled 'Surgical techniques in orthopaedics and traumatology' (ISSN

'1632-3386') (F18) *Y40 enhances monograph* the sum of editorial concepts in the monograph entitled 'Surgical techniques in orthopaedics and traumatology', associated with the instance of F3 Manifestation Product Type identified by ISBN '2-84299-168-0' (Z13) *Y40.1 has type* base

volume (E55)

The periodical entitled 'The international lily register and checklist 2007. Supplement' (F18) *Y40 enhances monograph* the sum of editorial concepts in the monograph entitled 'The international lily register and checklist 2007', associated with the instance of F3 Manifestation Product Type identified by ISBN '978-1-902896-80-9' (Z13) *Y40.1 has type* supplemented

monograph (E55)

Properties: Y40.1 has type: <u>E55</u> Type

Y41 has former or current area of publication (is former or current area of publication of)

Domain: F18 Serial Work Range: E53 Place

Shortcut of: F18 Serial Work R23i was realised through (created a realisation of): F30 Publication Event.

<u>P14</u> carried out by (performed): <u>E39</u> Actor. <u>P74</u> has current or former residence (is current or former residence of): <u>E53</u> Place [a city]. <u>P89</u> falls within (contains): <u>E53</u> Place [a country]

Superproperty of: F18 Serial Work. Y42 has current area of publication (is current area of publication of): E53

Place

Quantification: (0,n:0,n)

Scope note: This property associates an instance of F18 Serial Work with an instance of E53 Place that

corresponds to the country (in the sense of ISO standard ISO 3166) in which the publisher (or

one of the publishers) of the serial work is established.

It makes no statement as to whether the publisher whose headquarters is located within the country referred to is still the publisher of the serial work at the time of validity of the record or database containing the statement that uses this property, nor does it make any statement as to

whether the publisher is still located within that country.

Examples: The periodical entitled 'Aschkenas: Zeitschrift für Geschichte und Kultur der Juden' (ISSN

'1016-4987'), published first in Vienna, Austria, from 1991 to 2003, then in Tübingen, Germany, from 2003 on (F18) *Y41 has former or current area of publication* Austria (E53)

Y42 has current area of publication (is current area of publication of)

Domain: F18 Serial Work Range: E53 Place

Subproperty of: F18 Serial Work. Y41 has former or current area of publication (is former or current area of

publication of): E53 Place

Quantification: (0,n:0,n)

Scope note: This property associates an instance of F18 Serial Work with an instance of E53 Place that

corresponds to the country (in the sense of ISO standard ISO 3166) in which the publisher (or one of the publishers) of the serial work is established, at the time of validity of the record or

database containing the statement that uses this property.

[Comment: The choice of the ISSN agency that performs an instance of Z8 Metadata Management on a given instance of F18 Serial Work is determined by the current area(s) of

publication of that instance of F18 Serial Work.]

Examples: The periodical entitled 'Aschkenas: Zeitschrift für Geschichte und Kultur der Juden' (ISSN

'1016-4987'), published first in Vienna, Austria, from 1991 to 2003, then in Tübingen,

Germany, from 2003 on (F18) Y42 has current area of publication Germany (E53)

The periodical entitled 'St-Barth weekly' (ISSN '1766-9278') (F18) Y43 has current area of

publication Guadeloupe (E53)

The periodical entitled 'International music & opera guide' (ISSN '0955-7121'), published jointly in London by Tantivy Press and in New York by New York Zoetrope (F18) *Y43 has current area of publication* United-Kingdom (E53), and *Y43 has current area of publication*

United States of America (E53)

The periodical entitled 'SPARC newsletter, a project of the World climate research programme' (ISSN '1245-4680'), published in Paris by Météo-France from 1993 to 2004, in Toronto by the University of Toronto from 2004 to 2012, and in Zurich by ETH Zurich from 2012 on (F18) *Y43 has current area of publication* Switzerland (E53)

Y43 is indicative of (is exemplified by)

Domain: F23 Expression Fragment Range: Z10 Sequencing Pattern

Subproperty of: E1 CRM Entity. P2 has type (is type of): E55 Type

Quantification: (0,1:0,n)

Scope note: This property associates an instance of F23 Expression Fragment with the instance of Z10

Sequencing Pattern of which it provides an example.

Examples: 'Vol. 272, No. 5 (1993, Nov.)' (F23) Y43 is indicative of the pattern consisting of a volume

number in Arabic numerals, corresponding to the year of publication, and an issue number in

Arabic numerals, corresponding to the month of publication (Z10)

Y44 foresees topic (is topic foreseen in)

Domain: Z12 Issuing Rule
Range: E1 CRM Entity

Subproperty of: <u>E89</u> Propositional Object. <u>P67</u> refers to (is referred to by): <u>E1</u> CRM Entity

Quantification: (0,n:0,n)

Scope note: This property associates an instance of Z12 Issuing Rule with an instance of E1 CRM Entity

that is the main subject that all articles aggregated in each single issue of the serial should be

about, even more or less loosely.

Examples: The editorial policy followed in publishing the periodical entitled 'FBI. Fishing boat

international' (ISSN '0998-3201') (Z12) Y44 foresees topic fishing (E55, a type of activity)

Y45 created (was created by)

Domain: Z14 Storage Unit Creation

Range: <u>Z9</u> Storage Unit

Subproperty of: F28 Expression Creation. R18 created (was created by): F4 Manifestation Singleton

Quantification: (1,n:0,1)

Scope note: This property associates an instance of Z14 Storage Unit Creation with the instances of Z9

Storage Unit in which it resulted.

Examples: The activity (performed by bookbinder and craftsman Renaud Vernier in 2006) of producing

the individual bindings and the box for the physical storage unit held by the BnF and containing printed exemplars of volumes 1 to 6 (1930-33) of the periodical entitled 'Le Surréalisme au service de la révolution', together with holographs by André Breton, Louis Aragon, Salvador Dalí, René Char, Max Ernst, and others (Z14) *created* the physical storage

unit held by the BnF and identified through shelf mark 'RES FOL- NFZ- 11' (Z9)

Y46 aggregated in a single storage unit (was aggregated in a single storage unit through)

Domain: Z14 Storage Unit Creation
Range: E18 Physical Thing

Subproperty of: <u>E7</u> Activity. <u>P16</u> used specific object (was used for): <u>E70</u> Thing

Quantification: (1,n:0,1)

Scope note: This property associates an instance of Z14 Storage Unit Creation with the instances of E18

Physical Thing that were aggregated in a single storage unit through that process.

Examples: The activity (performed by bookbinder and craftsman Renaud Vernier in 2006) of producing

the individual bindings and the box for the physical storage unit held by the BnF and containing printed exemplars of volumes 1 to 6 (1930-33) of the periodical entitled 'Le Surréalisme au service de la révolution', together with holograph manuscripts by André Breton, Louis Aragon, Salvador Dalí, René Char, Max Ernst, and others (Z14) aggregated in a single storage unit volume 4 of the periodical entitled 'Le Surréalisme au service de la

révolution' (F5)

The activity (performed by bookbinder and craftsman Renaud Vernier in 2006) of producing the individual bindings and the box for the physical storage unit held by the BnF and containing printed exemplars of volumes 1 to 6 (1930-33) of the periodical entitled 'Le Surréalisme au service de la révolution', together with holograph manuscripts by André Breton, Louis Aragon, Salvador Dalí, René Char, Max Ernst, and others (Z14) aggregated in a

single storage unit one holograph manuscript by Max Ernst (F4)

Mapping from the data elements listed in the \emph{ISSN Manual} to PRESS_{OO}

ISSN Manual data element	Condition/Comments	Mapping	
Date of the	(out of scope of PRESS _{OO})		
record creation	(out of scope of 1 RESS(0))		
Publication status		F18 Serial Work <i>P2 has type (is type of)</i> E55 Type	
Start date		F18 Serial Work <i>F2 nus type</i> (<i>ts type of</i>) E33 Type F18 Serial Work <i>R23i was realised through (created a</i>	
Start date		realisation of) F30 Publication Event P116i is started by	
		(starts) Z6 Beginning of Publication P82 at some time within	
		E61 Time Primitive	
End date		F18 Serial Work R23i was realised through (created a	
		realisation of) F30 Publication Event P115i is finished by	
		(finishes) Z7 Ending of Publication P82 at some time within	
		E61 Time Primitive	
Country of	Current country of	F18 Serial Work Y42 has current area of publication (is	
publication	publication	current area of publication) E53 Place	
Country of	Former country of	F18 Serial Work Y41 has former or current area of	
publication	publication	publication (is former or current area of publication) E53	
		Place	
Frequency		F18 Serial Work Y37 has former or current issuing rule (is	
		former or current issuing rule of) Z12 Issuing Rule Y20	
		foresees type (is type foreseen in) (Y20.1 has type E55 Type	
		{frequency}) E55 Type P149 is identified by (identifies) E75	
		Conceptual Object Appellation	
ISSN Centre code		F18 Serial Work Y19i was the concern of (concerned) Z8	
		Metadata Management P14 carried out by (performed) E40	
		Legal Body P131 is identified by (identifies) E82 Actor	
		Appellation	
Type of		F18 Serial Work P2 has type (is type of) E55 Type P149 is	
publication	(1 1 .)	identified by (identifies) E75 Conceptual Object Appellation	
Form of original	(obsolete)		
item Form of item	(obsolete)		
Alphabet of	(obsolete)	F18 Serial Work Y38 has current issuing rule Z12 Issuing	
original title		Rule Y24 foresees use of title (is title foreseen in) (Y24.1 has	
original title		type E55 Type {title proper}) E35 Title <i>P2 has type</i> E55 Type	
		{[alphabet of title proper]} P149 is identified by (identifies)	
		E75 Conceptual Object Appellation	
Language of		F18 Serial Work Y37 has former or current issuing rule (is	
publication		former or current issuing rule of) Z12 Issuing Rule Y21	
r		foresees use of language (is language foreseen in) E56	
		Language P149 is identified by (identifies) E75 Conceptual	
		Object Appellation	
Physical medium		F18 Serial Work Y37 has former or current issuing rule (is	
		former or current issuing rule of) Z12 Issuing Rule Y20	
		foresees type (is type foreseen in) (Y20.1 has type E55 Type	
		{type of carrier}) E55 Type P149 is identified by (identifies)	
		E75 Conceptual Object Appellation	
ISSN		F18 Serial Work P1 is identified by (identifies) F13 Identifier	
		P2 has type (is type of) E55 Type {instance: ISSN}	
ISSN-L		F18 Serial Work R10i is member of (has member) F15	
		Complex Work P1 is identified by (identifies) F13 Identifier	
CODEN		P2 has type (is type of) E55 Type {instance: ISSN-L}	
CODEN or other		F18 Serial Work P149 is identified by (identifies) E75	
codes		Conceptual Object Appellation {P2 has type (is type of) E55	

ISSN Manual data element	Condition/Comments	Mapping
		Type {instance: CODEN}
Universal		F18 Serial Work P129 is about (is subject of) E1 CRM Entity
Decimal		
Classification		nomen in (states as nomen) F35 Nomen Use Statement R35 is
Classification		specified by (specifies) F34 KOS (instance: UDC version
		N}
Dewey Decimal		F18 Serial Work <i>P129 is about (is subject of)</i> E1 CRM Entity
Classification		P1 is identified by (identifies) F12 Nomen R37i is stated as
Classification		nomen in (states as nomen) F35 Nomen Use Statement R35 is
		specified by (specifies) F34 KOS (instance: DDC version
		N}
Abbreviated key		F18 Serial Work P1 is identified by (identifies) F50
title		Controlled Access Point <i>P2 has type (is type of</i> E55 Type
		{instance: abbreviated key title}
Key title		F18 Serial Work P1 is identified by (identifies) F50
Key title		Controlled Access Point <i>P2 has type (is type of</i> E55 Type
		{instance: key title}
Title proper	<u> </u>	F18 Serial Work <i>Y37 has former or current issuing rule</i> (is
The proper		former or current issuing rule of) Z12 Issuing Rule Y24
		foresees use of title (is title foreseen in) (Y24.1 has type: E55
		Type {instance: title proper}) E35 Title
Variant title		F18 Serial Work Y37 has former or current issuing rule (is
variant title		former or current issuing rule of) Z12 Issuing Rule Y24
		foresees use of title (is title foreseen in) (Y24.1 has type: E55
		Type {instance: running title, historical variant, spine title,
		etc.}) E35 Title
Publishing	Various publishers over	F18 Serial Work R23i was realised through (created a
information	time; statement dealt with	
Illiormation	as a mere literal	realisation of) F30 Publication Event, P9 consists of (forms
	as a mere merai	part of) F30 Publication Event ₂ P3 has note E62 String P3.1
Dublishing	Verious publishers over	has type E55 Type {instance: publishing information} F18 Serial Work R23i was realised through (created a
Publishing information	Various publishers over time; statements dealt with	realisation of) F30 Publication Event ₁ P9 consists of (forms
IIIIOIIIIauoii	as names in their own right	part of) F30 Publication Event ₁ F9 Consists of (Jorms part of) F30 Publication Event ₂ P14 carried out by
	as hames in their own right	(performed) (P14.1 in the role of E55 Type {instance:
		publisher}) E39 Actor:
		- P1 is identified by (identifies) F12 Nomen R33 has content
		(R33.1 has encoding E55 Type) E62 String - P74 has current or former residence (is current or former
		residence of) E53 Place P1 is identified by (identifies) F12
		Nomen <i>R33 has content</i> (<i>R33.1 has encoding</i> E55 Type) E62
		String
		and
		F30 Publication Event ₂ <i>P4 has time-span (is time-span of)</i>
		E52 Time-Span <i>P78</i> is identified by (identifies) E50 Date <i>P3</i>
		has note (P3.1 has type E55 Type) E62 String
Publishing	Various distributors over	F18 Serial Work R23i was realised through (created a
information	time; statements dealt with	realisation of) F30 Publication Event ₁ P9 consists of (forms
miormanon	as names in their own right	part of) F30 Publication Event ₁ P9 consists of (forms)
	as names in their Own right	through) F24 Publication Expression P104 is subject to
		(applies to) E30 Right (P2 has type (is type of) E55 Type
		{instance: right to distribute}) P75i is possessed by
		(possesses) E39 Actor:
		- P1 is identified by (identifies) F12 Nomen R33 has content
		(R33.1 has encoding E55 Type) E62 String
		- P74 has current or former residence (is current or former
		residence of) E53 Place P1 is identified by (identifies) F12
		Nomen R33 has content (R33.1 has encoding E55 Type) E62
		String

ISSN Manual data element	Condition/Comments	Mapping	
Publishing information	Various printers over time; statements dealt with as names in their own right	F18 Serial Work R23i was realised through (created a realisation of) F30 Publication Event ₁ P9 consists of (forms part of) F30 Publication Event ₂ R24 created (was created through) F24 Publication Expression R27i was used by (used as source material) F32 Carrier Production Event P14 carried out by (performed) (P14.1 in the role of E55 Type {instance: printer, manufacturer, etc.}) E39 Actor: - P1 is identified by (identifies) F12 Nomen R33 has content (R33.1 has encoding E55 Type) E62 String - P74 has current or former residence (is current or former residence of) E53 Place P1 is identified by (identifies) F12 Nomen R33 has content (R33.1 has encoding E55 Type) E62 String and F30 Publication Event ₂ P4 has time-span (is time-span of) E52 Time-Span P78 is identified by (identifies) E50 Date P3 has note (P3.1 has type E55 Type) E62 String	
Dates of publication and/or sequential designation	Understood as an indication of the numbering pattern	F18 Serial Work Y37 has former or current issuing rule (is former or current issuing rule of) Z12 Issuing Rule Y22 foresees sequencing pattern (is sequencing pattern foreseen in) Z10 Sequencing Pattern Y43i is exemplified by (is indicative of) F23 Expression Fragment P3 has note (P3.1 has type E55 Type {instance: transcription}) E62 String	
Dates of publication and/or sequential designation	Understood as number of first issue	F18 Serial Work Y37 has former or current issuing rule (is former or current issuing rule of) Z12 Issuing Rule Y22 foresees sequencing pattern (is sequencing pattern foreseen in) Z10 Sequencing Pattern Y43i is exemplified by (is indicative of) F23 Expression Fragment R24i was created through (created) Z6 Starting of Publication	
Dates of publication and/or sequential designation	Understood as number of latest known issue	F18 Serial Work Y37 has former or current issuing rule (is former or current issuing rule of) Z12 Issuing Rule Y22 foresees sequencing pattern (is sequencing pattern foreseen in) Z10 Sequencing Pattern Y43i is exemplified by (is indicative of) F23 Expression Fragment R24i was created through (created) Z7 Ending of Publication	
Coverage by abstracting and indexing services	If the serial described is indexed by another serial	F18 Serial Work <i>P67i</i> is referred to by (refers to) (P67.1 has type E55 Type {instance: abstracting, indexing, etc.}) F18 Serial Work <i>P48</i> has preferred identifier (is preferred identifier of) F13 Identifier <i>P2</i> has type (is type of) E55 Type {instance: ISSN}	
Coverage by abstracting and indexing services Reproduction	If the serial described is indexed by a monograph (See Figures 8 and 9)	F18 Serial Work <i>P67i</i> is referred to by (refers to) (<i>P67.1</i> has type E55 Type {instance: abstracting, indexing, etc.}) F1 Work	
Name of issuing body as on piece		F18 Serial Work <i>R23i</i> was realised through (created a realisation of) F30 Publication Event ₁ <i>P9</i> consists of (forms part of) F30 Publication Event ₂ <i>P3</i> has note E62 String <i>P3.1</i> has type E55 Type {instance: name of issuing body as on piece}	
Name of issuing body or conference as established by national cataloguing		F18 Serial Work <i>R16i was initiated by (initiated)</i> F27 Work Conception <i>P14 carried out by (performed)</i> (<i>P14.1 in the role of</i> E55 Type {instance: issuing body}) F11 Corporate Body <i>P131 is identified by (identifies)</i> E82 Actor Appellation	
practice Original language		F18 Serial Work Y37 has former or current issuing rule (is	

ISSN Manual data element	Condition/Comments	Mapping	
entry		former or current issuing rule of) Z12 Issuing Rule Y21 foresees use of language (is language foreseen in) E56 Language	
Translation entry		F18 Serial Work Y37 has former or current issuing rule (is former or current issuing rule of) Z12 Issuing Rule Y27 foresees translation in (foresees translation of) Z12 Issuing Rule Y37i is former or current issuing rule of (has former or current issuing rule) F18 Serial Work	
Main series entry		F18 Serial Work (<i>P2 has type (is type of)</i> E55 Type {instance: series}) <i>P148i is component of (has component)</i> F18 Serial Work (<i>P2 has type (is type of)</i> E55 Type {instance: series})	
Sub-series entry		F18 Serial Work (P2 has type (is type of) E55 Type {instance: series}) P148 has component (is component of) F18 Serial Work (P2 has type (is type of) E55 Type {instance: series})	
Other edition (language) entry		F18 Serial Work Y37 has former or current issuing rule (is former or current issuing rule of) Z12 Issuing Rule Y26 foresees other edition (foresees to be another edition of) (Y26.1 has type: E55 Type {instance: other edition in a different language}) Z12 Issuing Rule Y37i is former or current issuing rule of (has former or current issuing rule) F18 Serial Work	
Additional physical form entry		F18 Serial Work Y37 has former or current issuing rule (is former or current issuing rule of) Z12 Issuing Rule Y26 foresees other edition (foresees to be another edition of) (Y26.1 has type: E55 Type {instance: other edition on a different type of carrier}) Z12 Issuing Rule Y37i is former or current issuing rule of (has former or current issuing rule) F18 Serial Work	
Supplement parent entry		F18 Serial Work Y37 has former or current issuing rule (is former or current issuing rule of) Z12 Issuing Rule Y25i foresees to be associated with (foresees association with) (Y25.1 has type E55 Type {instance: supplement, or instance: insert}) Z12 Issuing Rule Y37i is former or current issuing rule of (has former or current issuing rule) F18 Serial Work	
Issued with entry		F18 Serial Work Y37 has former or current issuing rule (is former or current issuing rule of) Z12 Issuing Rule Y25 foresees association with (foresees to be associated with) (Y25.1 has type E55 Type {instance: issued with, etc.}) Z12 Issuing Rule Y37i is former or current issuing rule of (has former or current issuing rule) F18 Serial Work	
Former title	6 possibilities (continuation, replacement, split, merger, separation, temporary substitution)	Continuation: F18 Serial Work ₁ Y2i resulted from continuation (initiated) Z1 Serial Transformation Y1 provided a continuation to (was continued through) F18 Serial Work ₂ (shortcut: F18 Serial Work ₁ Y29i continues (evolved into) F18 Serial Work ₂) Replacement: F18 Serial Work ₁ Y4i was initiated as replacement through (initiated as replacement) Z1 Serial Transformation Y3 provided a replacement to (was replaced through) F18 Serial Work ₂ (shortcut: F18 Serial Work ₁ Y31i superseded (was superseded by) F18 Serial Work ₂) Split: F18 Serial Work ₁ Y6i resulted from split (initiated) Z1 Serial Transformation Y5 split (was split through) F18 Serial Work ₂ (shortcut: F18 Serial Work ₁ Y32i resulted from splitting (was split into) F18 Serial Work ₂) Merger: F18 Serial Work ₁ Y8i resulted from merger (merged into) Z1	

ISSN Manual data element	Condition/Comments	Mapping	
		Serial Transformation Y7 merged (was merged through) F18 Serial Work ₂ (shortcut: F18 Serial Work ₁ Y34i resulted from merging (was merged to form) F18 Serial Work ₂) Separation: F18 Serial Work ₁ Y11i was separated through (separated) Z3 Separation Y12 separated from (was diminished through) F18 Serial Work ₂ (shortcut: F18 Serial Work ₁ Y30i was separated from (was partially continued by) F18 Serial Work ₂) Temporary substitution: F18 Serial Work ₁ Y14i became surrogate through (substituted with) Z4 Temporary Substitution Y13 provided surrogate to (had surrogate through) F18 Serial Work ₂ (shortcut: F18 Serial Work ₁ Y36i was surrogate for (had surrogate) F18 Serial Work ₂)	
Successor title	6 possibilities (continuation, replacement, split, merger, separation, temporary substitution)	(had surrogate through) F18 Serial Work ₂ (shortcut: F18	
Is related title		Serial Work ₂) F18 Serial Work Y37 has former or current issuing rule (is former or current issuing rule of) Z12 Issuing Rule Y25 foresees association with (foresees to be associated with) (Y25.1 has type: E55 Type) Z12 Issuing Rule Y37i is former or current issuing rule of (has former or current issuing rule) F18 Serial Work	
Supplement / special issue entry	Supplement	F18 Serial Work Y37 has former or current issuing rule (is former or current issuing rule of) Z12 Issuing Rule Y25 foresees association with (foresees to be associated with) (Y25.1 has type: E55 Type {supplement, or insert}) Z12	

ISSN Manual data element	Condition/Comments	Mapping
		Issuing Rule Y37i is former or current issuing rule of (has former or current issuing rule) F18 Serial Work
Supplement / special issue entry	Special issue entry	F18 Serial Work <i>Y39 is enhanced by monograph (enhances serial) (Y39.1 has type:</i> E55 Type {instance: special issue}) F19 Publication Work
Electronic location		F18 Serial Work Y37 has former or current issuing rule (is former or current issuing rule of) Z12 Issuing Rule Y28 foresees URL (is URL foreseen in) Z11 URL

Referred to FRBR₀₀ Classes and Properties

Since $PRESS_{OO}$ refers to and reuses, wherever appropriate, large parts of $FRBR_{OO}$, this section provides a comprehensive list of all constructs used from that model, together with their definitions following the May 2013 draft of version 2.0. Use in this context includes: reference as immediate superclass, superproperty or element of a path expression in a mapping statement.

Some of these constructs appear only in the mapping between the *ISSN Manual* and PRESS_{OO}, and not in the declaration of PRESS_{OO} classes and properties, because they are generic in nature. It was deemed preferable not to overload the description of PRESS_{OO} with generic notions that were already developed in either FRBR_{OO} or CIDOC CRM.

List of Referred to FRBR₀₀ Classes

In this section we present the classes of the $FRBR_{OO}$ model version 2.0 (draft) referred to by $PRESS_{OO}$ as a list. The classes that appear indirectly in the $PRESS_{OO}$ model, i.e., either as superclasses of classes defined in the model, or as the domain or range of referred to $FRBR_{OO}$ properties, are marked in bold.

- F1 Work
- F2 Expression
- **F4** Manifestation Singleton
- F11 Corporate Body
- F12 Nomen
- F13 Identifier
- F15 Complex Work
- F16 Container Work
- F18 Serial Work
- F19 Publication Work
- **F22** Self-Contained Expression
- **F23** Expression Fragment
- F24 Publication Expression
- **F27** Work Conception
- **F28** Expression Creation
- **F30** Publication Event
- F32 Carrier Production Event
- F34 KOS
- F35 Nomen Use Statement
- F50 Controlled Access Point

List of Referred to FRBR₀₀ Properties

In this section we present the properties of the $FRBR_{OO}$ model version 2.0 (draft) referred to by $PRESS_{OO}$ as a list. The properties that appear indirectly in the $PRESS_{OO}$ model, i.e., as superproperties of properties defined in the model, are marked in bold.

Property id	Property name	Domain	Range
R10	has member (is member of)	F15 Complex Work	F1 Work
R11	has issuing rule (is issuing rule of)	F18 Serial Work	E29 Design or Procedure
R16	initiated (was initiated by)	F27 Work Conception	F1 Work
R18	created (was created by)	F28 Expression Creation	F4 Manifestation Singleton
R19	created a realisation of (was realised through)	F28 Expression Creation	F1 Work
R23	created a realisation of (was realised through)	F30 Publication Event	F19 Publication Work
R24	created (was created through)	F30 Publication Event	F24 Publication Expression
R27	used as source material (was used by)	F32 Carrier Production Event	F24 Publication Expression
R33	has content	F12 Nomen	E62 String
R35	is specified by (specifies)	F35 Nomen Use Statement	F34 KOS
R37	states as nomen (is stated as nomen in)	F35 Nomen Use Statement	F12 Nomen

Referred to FRBR₀₀ Classes

This section contains the complete definitions of the classes of the $FRBR_{OO}$ model version 2.0 (draft) referred to by $PRESS_{OO}$. The properties within these class definitions which are referred to in $PRESS_{OO}$ are presented in bold face.

For the sake of clarity, the $PRESS_{OO}$ classes of which these $FRBR_{OO}$ classes are superclasses are repeated here, in italics, although this information is absent from the original definition of the $FRBR_{OO}$ model. Also, the $PRESS_{OO}$ properties for which these $FRBR_{OO}$ classes are declared as domain are repeated here, in italics as well, although this information is naturally absent from the original definition of the $FRBR_{OO}$ model.

F1 Work

Subclass of: <u>E89</u> Propositional Object

Superclass of: F14 Individual Work

F15 Complex Work F16 Container Work F21 Recording Work

Scope note:

This class comprises the sums of concepts which appear in the course of the coherent evolution of an original idea into one or more expressions that are dominated by the original idea. The substance of Work is concepts. A Work may be elaborated by one or more Actors simultaneously or over time. A Work may have members that constitute components of the overall concept or that are alternatives to other members of the work. Members of a work may or may not represent the concept of the Work as a whole; for instance a translation reinterprets the whole, a volume of a trilogy represents a part of the concept.

A Work can be either *individual* or *complex*. If it is individual its concept is completely realised in a single F22 Self-Contained Expression. If it is complex its concept is embedded in an F15 Complex Work. An F15 Complex Work consists of members that are either F15 Complex Works themselves or F14 Individual Works. The member relationship of Work is based on the members respecting the same concept, and should not be confused with the structural parts of an expression, that might be taken from other work(s).

A Work is the product of an intellectual process of one or more persons, yet only indirect evidence about it is at our hands. This can be contextual information such as the existence of an order for a work, reflections of the creators themselves that are documented somewhere, and finally the expressions of the work created. As ideas normally take shape during discussion, elaboration and implementation, it is not reasonable to assume that a work starts with a complete concept. Moreover, it can be very difficult or impossible to define the whole of the concept of a work at some given time. The only objective evidence for such a notion can be based on a stage of expressions at a given time. In this sense, self-contained expressions serve as a kind of "snap-shots" of a work.

A Work may aggregate expressions of other works into a new expression. For instance, an anthology of poems is regarded as a work in its own right that makes use of expressions of the individual poems that have been selected and ordered as part of an intellectual process. This does not make the contents of the aggregated expressions part of this work, but only parts of the resulting expression.

Examples: Abstract content of Giovanni Battista Piranesi's 'Carcere XVI: the pier with chains: 1st state' (F14)

'La Porte de l'Enfer' by Auguste Rodin conceived between 1880 and 1917 (F15)

'Hamlet' by William Shakespeare (F15)

Properties: R1 is logical successor of (has successor): F1 Work

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R2 is derivative of (has derivative): F1 Work

(R2.1 has type: E55 Type)

R3 is realised in (realises): F22 Self-Contained Expression

R40 has representative expression (is representative expression for): F22 Self-Contained

Expression

F2 Expression

Subclass of: E73 Information Object

Superclass of: F22 Self-Contained Expression

F23 Expression Fragment

Scope note:

This class comprises the intellectual or artistic realisations of *works* in the form of identifiable immaterial objects, such as texts, poems, jokes, musical or choreographic notations, movement pattern, sound pattern, images, multimedia objects, or any combination of such forms that have objectively recognisable structures. The substance of F2 Expression is signs.

Expressions cannot exist without a physical carrier, but do not depend on a specific physical carrier and can exist on one or more carriers simultaneously. Carriers may include human memory.

Inasmuch as the form of F2 Expression is an inherent characteristic of the F2 Expression, any change in form (e.g., from alpha-numeric notation to spoken word, a poem created in capitals and rendered in lower case) is a new F2 Expression. Similarly, changes in the intellectual conventions or instruments that are employed to express a *work* (e.g., translation from one language to another) result in the creation of a new F2 Expression. Thus, if a text is revised or modified, the resulting F2 Expression is considered to be a new F2 Expression. Minor changes, such as corrections of spelling and punctuation, etc., are normally considered variations within the same F2 Expression. On a practical level, the degree to which distinctions are made between variant *expressions* of a *work* will depend to some extent on the nature of the F1 Work itself, and on the anticipated needs of users.

The genre of the work may provide an indication of which features are essential to the expression. In some cases, aspects of physical form, such as typeface and page layout, are not integral to the intellectual or artistic realisation of the *work* as such, and therefore are not distinctive criteria for the respective expressions. For another work features such as layout may be essential. For instance, the author or a graphic designer may wrap a poem around an image.

An expression of a work may include expressions of other works within it. For instance, an anthology of poems is regarded as a work in its own right that makes use of expressions of the individual poems that have been selected and ordered as part of an intellectual process. This does not make the contents of the aggregated expressions part of this work, but only parts of the resulting expression.

If an instance of F2 Expression is of a specific form, such as text, image, etc., it may be simultaneously instantiated in the specific classes representing these forms in CIDOC CRM. Thereby one can make use of the more specific properties of these classes, such as language (which is applicable to linguistic objects only).

Examples:

The Italian text of Dante's 'Divina Commedia' as found in the authoritative critical edition 'La Commedia secondo l'antica vulgata a cura di Giorgio Petrocchi', Milano: Mondadori, 1966-67 (= Le Opere di Dante Alighieri, Edizione Nazionale a cura della Società Dantesca Italiana, VII, 1-4) (F22)

The Italian text of Dante's 'Inferno' as found in the same edition (F22)

'Nel mezzo del cammin di nostra vita

mi ritrovai per una selva oscura

ché la diritta via era smarrita' [the Italian text of the first stanza of Dante's 'Inferno' and 'Divina Commedia'] (F23)

The signs which make up Christian Morgenstern's 'Fisches Nachtgesang' [a poem consisting simply of '—' and ''' signs, arranged in a determined combination] (F22)

Properties: R4 carriers provided by (comprises carriers of): F3 Manifestation Product Type

R5 has component (is component of): F22 Self-Contained Expression

R15 has fragment (is fragment of): F23 Expression Fragment

R41 has representative manifestation product type (is representative manifestation product type

for): F3 Manifestation Product Type

F4 Manifestation Singleton

Subclass of: **E24** Physical Man-Made Thing

Superclass of: **Z9** Storage Unit

Scope note: This class comprises physical objects that each carry an instance of F2 Expression, and that

> were produced as unique objects, with no siblings intended in the course of their production. It should be noted that if all but one copy of a given publication are destroyed, then that copy does not become an instance of F4 Manifestation Singleton, because it was produced together with sibling copies, even though it now happens to be unique. Examples of instances of F4 Manifestation Singleton include manuscripts, preparatory sketches and the final clean draft sent

by an author or a composer to a publisher.

Examples: The manuscript known as 'The Book of Kells'

> The manuscript score of Charles Racquet's 'Organ fantasy', included in Marin Mersenne's personal copy of his own 'Harmonie universelle' [Marin Mersenne planned a second edition of his 'Harmonie universelle' after it had been first published in 1636, and he asked the composer Charles Racquet to compose his organ fantasy especially for that planned second edition; but Mersenne died before he could finish and publish the second edition and Racquet's score remained until the 20th century as a manuscript addition to Mersenne's copy, held in Paris by the Library of the Conservatoire national des arts et métiers]

> Marin Mersenne's personal copy, held in Paris by the Library of the Conservatoire national des arts et métiers, of his own 'Harmonie universelle', containing all of his manuscript additions for a planned second edition that never took place before his death, but that served as a basis

for the modern reprint published in 1986

Properties: R42 is representative manifestation singleton for (has representative manifestation singleton):

F2 Expression

F11 Corporate Body

Subclass of: E74 Group Superclass of: E40 Legal Body

Scope note: This class comprises organisations and groups of two or more people and/or organisations

acting as a unit.

To be considered an F11 Corporate Body a gathering of people needs to bear a name and exhibit organisational characteristics sufficient to allow the body as a whole to participate in the creation, modification or production of an E73 Information Object. Groups such as conferences, congresses, expeditions, exhibitions, festivals, fairs, etc. are modelled as F11 Corporate Bodies when they are named and can take collective action, such as approving a

report or publishing their proceedings.

Examples: The International Machaut Society

> The British Library The Jackson Five

The Regional Municipality of Ottawa-Carleton

Symposium on Glaucoma

F12 Nomen

Subclass of: <u>E41</u> Appellation Superclass of: <u>F13</u> Identifier

Scope note: This class comprises any sign or arrangements of signs following a specific syntax (sequences

of alphanumeric characters, chemical structure symbols, sound symbols, ideograms etc.) that are used or can be used to refer to and identify a specific instance of some class or category within a certain context. The scripts or type sets for the types of symbols used to compose an instance of F12 Nomen have to be explicitly specified. The identity of an instance of F12 Nomen is given by the order of its symbols and their individual role with respect to their scripts, regardless of the semantics of the larger structural components it may be built from. Structural tags occurring in the nomen string are regarded as symbols constituting the nomen. Spelling variants are regarded as different nomina, whereas the use of different fonts (visual

representation variants) or different digital encodings do not change the identity.

Examples: '杜甫' (E82) [the name of a Chinese poet of the 8th century, in simplified Chinese characters]

'Du Fu' (E82) [Pinyin romanised form of the name of a Chinese poet of the 8th century]

'Tu Fu' (E82) [another romanised form of the name of a Chinese poet of the 8^{th} century]

'Thơ Đô Phủ' (E82) [Vietnamese form of the name of a Chinese poet of the 8th century]

'جامعة صفاقس' (E82) [Arabic name of the Sfax University (Tunisia), in Arabic script]

'Ğāmi'at Ṣafāqis' (E82) [Arabic name of the Sfax University (Tunisia), transliterated]

'Université de Sfax' (E82) [French name of the Sfax University (Tunisia)]

'3-[(2S)-1-methylpyrrolidin-2-yl]pyridine' [the IUPAC systematic name for nicotine]

'Murders in the rue Morgue' (E35) [English title of a textual work]

'Poe, Edgar Allan, 1809-1849. Murders in the rue Morgue' (F13) [controlled author/title access point for a textual work]

'modelling' [not the activity, just the written signs that represent its English name in British spelling]

'modeling' [not the activity, just the written signs that represent its English name in American spelling]

Properties: R33 has content: E62 String

(R33.1 has encoding: E55 Type)

F13 Identifier

Subclass of: F12 Nomen

Superclass of: <u>F50</u> Controlled Access Point

Equal to: <u>E42</u> Identifier

Scope note: This class comprises strings or codes assigned to instances of E1 CRM Entity in order to

identify them uniquely and permanently within the context of one or more organisations. Such codes are often known as inventory numbers, registration codes, etc. and are typically composed of alphanumeric sequences. The class E42 Identifier is not normally used for machine-generated identifiers used for automated processing unless these are also used by

human agents. [Adapted from the Scope Note of CIDOC CRM E42 Identifier ver. 5.0.1]

Examples: ISSN '0041-5278'

ISRC 'FIFIN8900116' Shelf mark 'Res 8 P 10' 'Guillaume de Machaut (1300?-1377)' (F50) [a controlled personal name access point that follows the French rules]

'Guillaume, de Machaut, ca. 1300-1377' (F50) [a controlled personal name access point that follows the AACR rules]

'Rite of spring (Choreographic work: Bausch)' (F50)

Properties: R8 consists of (forms part of): E90 Symbolic Object

F15 Complex Work

Subclass of: F1 Work

Superclass of: F18 Serial Work

Scope note: This class comprises works that have more than one work as members.

The members of a Complex Work may constitute components of the overall concept or be alternatives to other members of the work. In practice, no clear line can be drawn between parallel and subsequent processes in the evolution of a work. One part may not be finished when another is already revised. An initially monolithic work may be taken up and evolve in pieces. The member relationship of Work is based on the conceptual relationship, and should not be confused with the internal structural parts of an individual expression. The fact that an expression may contain parts from other work(s) does not make the expressed work complex. For instance, an anthology for which only one version exists is not a complex work.

The boundaries of a Complex Work have nothing to do with the value of the intellectual achievement but only with the dominance of a concept. Thus, derivations such as translations are regarded as belonging to the same Complex Work, even though in addition they constitute an Individual Work themselves. In contrast, a Work that significantly takes up and merges concepts of other works so that it is no longer dominated by the initial concept is regarded as a new work. In cataloguing practice, detailed rules are established prescribing which kinds of derivation should be regarded as crossing the boundaries of a complex work. Adaptation and derivation graphs allow the recognition of distinct sub-units, i.e. a complex work contained in a larger complex work.

As a Complex Work can be taken up by any creator who acquires the spirit of its concept, it is never finished in an absolute sense.

Examples: Work entitled 'La Porte de l'Enfer' by Auguste Rodin

Work entitled 'Hamlet' by William Shakespeare

Work entitled 'Der Ring der Nibelungen' by Richard Wagner

Work entitled 'Carceri d'invenzione' by Giovanni Battista Piranesi

Work entitled 'Mass in B minor BWV 232' by Johann Sebastian Bach

Properties: R10 has member (is member of): F1 Work

F16 Container Work

Subclass of: F1 Work

Superclass of: F17 Aggregation Work

F19 Publication Work F20 Performance Work

Scope note: This class comprises works whose essence is to enhance or add value to expressions from one

or more other works without altering them, by the selection, arrangement and/or addition of features of different form, such as layout to words, recitation and movement to texts, instrumentation to musical scores etc. This does not make the contents of the incorporated expressions part of the Container Work, but only part of the resulting expression. Container

Work may include the addition of new, original parts to the incorporated expressions, such as introductions, graphics, etc.

A new version of a container work does not make the resulting complex work a Container Work as well. The inclusion of expressions from a complex work in a Container Work does not make the Container Work itself complex.

Examples:

The aggregation and arrangement concept of the anthology entitled 'American Women Poets of the Nineteenth Century: An Anthology', edited by Cheryl Walker and published by Rutgers University Press in July 1992 (F17)

The concept for the layout created by printer Guido Morris for the text of Michael Hamburger's English translation of 12 poems by Georg Trakl for publication in 1952 (F19)

The concept by the publisher named 'Dell' of issuing together, in 2002, three novels entitled 'The Partner', 'The Street Lawyer', and 'A time to kill', by the author named 'John Grisham', with just the statement 'Three #1 bestsellers by John Grisham' as a collective title (F19)

The concept of Sergei Radlov's mise-en-scène of a Yiddish translation of the textual work entitled 'King Lear' in Moscow in 1935 (F20)

The concept of putting together the English text of 'King Lear' and a Spanish translation thereof in a bilingual edition of 'King Lear' (F17)

F18 Serial Work

Subclass of: F15 Complex Work

F19 Publication Work

Scope note:

This class comprises works that are, or have been, planned to result in sequences of Expressions or Manifestations with common features. Whereas a work can acquire new members during the time it evolves, Expressions and Manifestations are identified with a certain state achieved at a particular point in time. Therefore there is in general no single Expression or Manifestation representing a complete serial work, unless the serial work has ended.

Serial Works may or may not have a plan for an overall expression.

The retrospective reprinting of all issues of a Serial Work at once, in the form of a monograph, is regarded to be another member of a Complex Work, which contains the Serial Work and the Individual Work realised in the monograph. This does not make the monograph part of the Serial Work.

Examples:

The periodical entitled 'The UNESCO Courier', ISSN '0041-5278'

The periodical entitled 'Courrier de l'UNESCO', ISSN '0304-3118' [French edition of the periodical titled 'The UNESCO Courier', ISSN '0041-5278']

The series entitled 'L'évolution de l'humanité', ISSN '0755-1843' [a monograph series comprising volumes that were published from 1920 on, and some of which were reprinted, with different physical features and rearranged in a different order, from 1968 on, in a distinct series also entitled 'L'évolution de l'humanité', ISSN '0755-1770']

Properties:

R11 has issuing rule (is issuing rule of): E29 Design or Procedure

Y29 evolved into (continues): F18 Serial Work

<u>Y30</u> was partially continued by (was separated from): <u>F18</u> Serial Work

<u>Y31</u> was superseded by (superseded): <u>F18</u> Serial Work

<u>Y32</u> was split into (resulted from splitting): <u>F18</u> Serial Work

Y33 was merged with: F18 Serial Work

<u>Y34</u> was merged to form (resulted from merging): <u>F18</u> Serial Work

Y35 was absorbed in (was enhanced by absorbing): F18 Serial Work

Y36 had surrogate (was surrogate for): F18 Serial Work

Y37 has former or current issuing rule (is former or current issuing rule of): Z12 Issuing Rule

Y38 has current issuing rule (is current issuing rule of): Z12 Issuing Rule

<u>Y39</u> is enhanced by monograph (enhances serial): <u>Z13</u> Monograph

<u>Y40</u> enhances monograph (is enhanced by serial): <u>Z13</u> Monograph

<u>Y41</u> has former or current area of publication (is former or current area of publication of):

E53 Place

Y42 has current area of publication (is current area of publication of): E53 Place

F19 Publication Work

Subclass of: F16 Container Work

Superclass of: F18 Serial Work

Z13 Monograph

Scope note: This class comprises works that have been planned to result in a manifestation product type or

an electronic publishing service and that pertain to the rendering of expressions from other

works.

Examples: The concept of publishing Stephen Crane's complete poems (as edited by Joseph Katz), which

includes the idea that every time a stanza jumps over a page change, the statement '[NO STANZA BREAK]' should be printed as a warning for readers that the new page continues the

same stanza

The concept, on behalf of publisher named 'Verlag Neue Kunsthandlung', of issuing together, around 1925, three formerly independent publications ('Emil Orlik' by Max Osborn – vol. 2 within the series named 'Graphiker der Gegenwart', published in 1920; 'Anders Zorn' by Paul Friedrich – vol. 10 within the series named 'Graphiker der Gegenwart', published in 1924; and 'Max Slevogt' by Julius Elias – vol. 11 within the series named 'Graphiker der Gegenwart', published in 1923) as one, new publication, entitled '102 Bilder aus der Sammlung *Graphiker*

der Gegenwart'

The concept, on behalf of publisher named 'Dell', of issuing together in 2002 three novels, titled 'The partner', 'The street lawyer', and 'A time to kill', by author named 'John Grisham', with just the statement 'Three #1 bestsellers by John Grisham' as a collective title

F22 Self-Contained Expression

Subclass of: <u>F2</u> Expression

Superclass of: <u>F24</u> Publication Expression

F25 Performance Plan

F26 Recording

Scope note: This class comprises the immaterial realisations of individual works at a particular time that are

regarded as a complete whole. The quality of wholeness reflects the intention of its creator that this expression should convey the concept of the work. Such a whole can in turn be part of a

larger whole.

Inherent to the notion of work is the completion of recognisable outcomes of the work. These outcomes, i.e. the Self-Contained Expressions, are regarded as the symbolic equivalents of Individual Works, which form the atoms of a complex work. A Self-Contained Expression may contain expressions or parts of expressions from other work, such as citations or items collected in anthologies. Even though they are incorporated in the Self-Contained Expression, they are not regarded as becoming members of the expressed container work by their inclusion in the expression, but are rather regarded as foreign or referred to elements.

F22 Self-Contained Expression can be distinguished from F23 Expression Fragment in that an F23 Expression Fragment was not intended by its creator to make sense by itself. Normally creators would characterise an outcome of a work as finished. In other cases, one could recognise an outcome of a work as complete from the elaboration or logical coherence of its content, or if there is any historical knowledge about the creator deliberately or accidentally never finishing (completing) that particular expression. In all those cases, one would regard an expression as self-contained.

Examples: The Italian text of Dante's 'Inferno' as found in the authoritative critical edition La Commedia

secondo l'antica vulgata a cura di Giorgio Petrocchi, Milano: Mondadori, 1966-67 (= Le Opere di Dante Alighieri, Edizione Nazionale a cura della Società Dantesca Italiana, VII, 1-4)

The musical notation of Franz Schubert's lied known as 'Ave Maria'

The musical notation of Franz Schubert's lieder cycle entitled 'Seven Songs after Walter Scott's The Lady of the Lake', of which 'Ave Maria' is a distinct part

The musical notation of Franz Liszt's piano transcription of Franz Schubert's lied known as

'Ave Maria'

Properties: R14 incorporates (is incorporated in): F2 Expression

F23 Expression Fragment

Subclass of: F2 Expression

Scope note: This class comprises parts of Expressions and these parts are not Self-Contained Expressions

themselves.

The existence of an instance of F23 Expression Fragment can be due to accident, such as loss of material over time, e.g. the only remaining manuscript of an antique text being partially eaten by worms, or due to deliberate isolation, such as excerpts taken from a text by the

compiler of a collection of excerpts.

An F23 Expression Fragment is only identified with respect to its occurrence in a known or assumed whole. The size of an instance of F23 Expression Fragment ranges from more than 99% of an instance of F22 Self-Contained Expression to tiny bits (a few words from a text, one bar from a musical composition, one detail from a still image, a two-second clip from a movie,

etc.).

Examples: The only remnants of Sappho's poems

The words 'Beati pauperes spiritu' (excerpted from Matthew's Gospel 5,3 in Latin translation)

Properties: Y43 is indicative of (is exemplified by): Z10 Sequencing Pattern

F24 Publication Expression

Subclass of: <u>F22</u> Self-Contained Expression

Scope note: This class comprises complete sets of signs present in publications, reflecting publishers' final

decisions as to both selection of content and layout of the publications. Frequently the creation of a Publication Expression includes both adding graphical form and fonts to Expressions consisting of words alone and selecting illustrations and other content. As such, an instance of Publication Expression incorporates all Expressions combined for the resulting final form of rendering, whether visual, audio or tactile. An instance of Publication Expression is one entity regardless of the number of independent Expressions published within it, as long as it represents one unit of release. The published third party content can be associated via the

property R14 incorporates (is incorporated in).

Examples: The text, its layout and the textual and graphic (Saur's logo on p. [i]) content of front and back

cover, spine (spine title), and p. [i-iv] of the publication entitled 'Functional Requirements for Bibliographic Records: final report', published by K. G. Saur in 1998, identified by ISBN '3-

598-11382-X'

The overall content of the book identified by ISBN '0-8014-9130-4': the text of Stephen Crane's complete poems as edited by Joseph Katz, the numbering system introduced by Joseph Katz in order to identify each individual poem by Stephen Crane, page numbers, the text of Joseph Katz's dedication, preface, acknowledgements, and introduction, the table of contents, the index of first lines, the statements found on title page, back of title page (including CIP bibliographic record), cover front, back front, and spine, and the layout of the publication; for

one of Stephen Crane's longer poems, printed on p. 142-143, a statement reads at bottom of p. 142: '[NO STANZA BREAK]': obviously, this statement does not belong to the Self-Contained Expression intended by Stephen Crane, and presumably not to the one intended by editor Joseph Katz either, but was more probably added by the publishing team, due to characteristics of the layout of the publication: a cautious reader can easily interpret '[NO STANZA BREAK]' as non-belonging to the poem itself, but an OCR process would not make the distinction between the text of the poem and the statement made by the publisher; '[NO STANZA BREAK]' belongs to the Publication Expression, although it does not belong to the Self-Contained Expression intended by Stephen Crane and Joseph Katz

The overall content of the LP sound recording identified by label and label number 'CBS 34-61237': a recorded performance of Terry Riley's musical work 'In C', the text of liner notes by Paul Williams translated into French by Bernard Weinberg, technical statements such as 'Stereo,' publisher's logo, series logo, title and statement of responsibility on front, back, and spine of the cover and on the recording itself, duration statement, cover art by G. Joly, overall layout, etc.; a special, shunting sound was added at the end of side one and beginning of side two, as Terry Riley's work is in the form of a continuous musical flow without any interruption and the technical possibilities of vinyl LPs did not allow the complete performance to be contained on just one side: that special, shunting sound was not intended in Riley's score nor in the performance but was added by the publisher (with or without Riley's consent, this detail is not documented), and as such it is part of the Publication Expression although it is not part of the composer's and the performers' Self-Contained Expression (this shunting sound was no longer needed in subsequent releases on CD)

The overall content of the DVD entitled 'The Aviator (2-Disc Full Screen Edition)', released in 2004: Martin Scorsese's movie itself; layout of the box and the two DVDs contained in the box; pictures on the DVDs themselves; English, Spanish, and French subtitles; English and French audio tracks; and bonuses: commentaries by director Martin Scorsese, editor Thelma Schoonmaker, and producer Michael Mann; a deleted scene ('Howard Tells Ava About His Car Accident'); and featurettes 'A Life Without Limits: The Making of The Aviator'; 'The Role of Howard Hughes in Aviation History'; 'Modern Marvels: Howard Hughes, A Documentary by the History Channel'; 'The Visual Effects of The Aviator'; 'The Affliction of Howard Hughes: Obsessive Compulsive Disorder'; 'The Age of Glamour: The Hair And Makeup of The Aviator'; 'Costuming The Aviator: The Work of Sandy Powell'; 'Constructing The Aviator: The Work of Dante Ferretti'; 'An evening with Leonardo DiCaprio and Alan Alda'; 'OCD Panel Discussion With Leonardo DiCaprio, Martin Scorsese, and Howard Hughes' Widow Terry Moore'; 'Still Gallery'; 'Scoring The Aviator: The Work Of Howard Shore'; and 'The Wainwright Family – Loudon, Rufus and Martha'

F27 Work Conception

Subclass of: <u>E65</u> Creation

Superclass of: Z1 Serial Transformation

Z3 Separation

Scope note: This class comprises the births of original ideas. It marks the initiation of the creation of a

work. This class should be used where there is historical evidence of the initiation before the appearance of physical evidence for the F1 Work. This does not always correlate with the date

assigned in common library practice to the work; which is usually a later event.

Examples: Richard Wagner's having the initial idea of composing the opera entitled 'Der fliegende

Holländer' during a stormy sea crossing in July/August 1839

Oscar Wilde's having by May 1897 the initial idea of writing his poem entitled 'The ballad of the Reading gaol', inspired by his stay in the Reading prison from November 20, 1895 to May

18, 1897, and the execution of Charles Thomas Woolridge on July 7, 1896

Properties: R16 initiated (was initiated by): F1 Work

F28 Expression Creation

Subclass of: E12 Production

E65 Creation

Superclass of: F29 Recording Event

> F30 Publication Event **Z14** Storage Unit Creation

Scope note: This class comprises activities that result in instances of F2 Expression coming into existence.

This class characterises the externalisation of an Individual Work.

Although F2 Expression is an abstract entity, a conceptual object, the creation of an expression inevitably also affects the physical world: when you scribble the first draft of a poem on a sheet of paper, you produce an F4 Manifestation Singleton; F28 Expression Creation is a subclass of E12 Production because the recording of the expression causes a physical modification of the carrying E18 Physical Thing. The work becomes manifest by being expressed on a physical carrier different from the creator's brain. The spatio-temporal circumstances under which the expression is created are necessarily the same spatio-temporal circumstances under which the first F4 Manifestation Singleton is produced. The mechanisms through which oral tradition (of myths, tales, music, etc.) operates are not further investigated in this model. As far as bibliographic practice is concerned, only those instances of F2 Expression that are externalised on physical carriers other than both the creator's brain and the auditor's brain are taken into account (for a discussion of the modelling of oral traditions, see: Nicolas, Yann. 'Folklore Requirements for Bibliographic Records: oral traditions and FRBR.' In: Cataloging & Classification Quarterly (2005). Vol. 39, No. 3-4. P. 179-195).

Examples: The creation of the original manuscript score of 'Uwertura tragiczna' by Andrzej Panufnik in

1942 in Warsaw

The reconstruction from memory of the manuscript score of 'Uwertura tragiczna' by Andrzej

Panufnik in 1945 after the original score was destroyed during the war

The recording of the third alternate take of 'Blue Hawaii' performed by Elvis Presley in Hollywood, Calif., Radio Recorders, on March 22nd, 1961 [each individual take is a distinct

instance of F2 Expression]

Properties: R17 created (was created by): F2 Expression

R18 created (was created by): F4 Manifestation Singleton

R19 created a realisation of (was realised through): F1 Work

F30 Publication Event

Subclass of: F28 Expression Creation

Superclass of: **Z4** Temporary Substitution

> **Z6** Starting of Publication **Z7** Ending of Publication

This class comprises the activities of publishing. Such an event includes the creation of an F24 Scope note:

> Publication Expression and setting up the means of production. The end of this event is regarded as the date of publication, regardless of whether the carrier production is started. Publishing can be either physical or electronic. Electronic publishing is regarded as making an instance of F24 Publication Expression available in electronic form on a public network. Electronic Publishing does not mean producing a physical F5 Item by partially electronic means. Making an electronic file available on a physical carrier can be regarded as equivalent to setting up the means of production; downloading the file is regarded as the electronic

equivalent of F32 Carrier Production Event.

Examples: Publishing Amerigo Vespucci's 'Mundus novus' in Paris ca. 1503-1504 Establishing in 1972 the layout, features, and prototype for the publication of 'The complete poems of Stephen Crane, edited with an introduction by Joseph Katz' (ISBN '0-8014-9130-4'), which served for a second print run in 1978

Making available online the article by Allen Renear, Christopher Phillippe, Pat Lawton, and David Dubin, entitled 'An XML document corresponds to which FRBR Group 1 entity?' http://conferences.idealliance.org/extreme/html/2003/Lawton01/EML2003Lawton01.html

Properties:

R23 created a realisation of (was realised through): F19 Publication Work

R24 created (was created through): F24 Publication Expression

F32 Carrier Production Event

Subclass of: <u>E12</u> Production

Scope note: This class comprises activities that result in instances of F5 Item coming into existence. The

creation of a new copy of a file on an electronic carrier is also regarded as a Carrier Production

Event.

Typically, the production of copies of a publication (no matter whether it is a book, a sound recording, a DVD, a cartographic resource, etc.) strives to produce items all as similar as possible to a prototype that displays all the features that all the copies of the publication should also display, which is reflected in property R27 used as source material F24 Publication

Expression.

Examples: The printing of copies of the 3rd edition of 'Codex Manesse: die Miniaturen der großen

Heidelberger Liederhandschrift, herausgegeben und erläutert von Ingo F. Walther unter Mitarbeit von Gisela Siebert', Insel-Verlag, 1988 [a fac-simile edition of an illuminated

mediaeval manuscript]

The printing of copies of the 'Ordnance Survey Explorer Map 213, Aberystwyth & Cwm Rheidol', ISBN 0-319-23640-4 (folded), 1:25,000 scale, released in May 2005 [a cartographic

resource]

The production of copies of the sound recording titled 'The Glory (????) of the human voice', RCA Victor Gold Seal GD61175, containing recordings of musical works performed by Florence Foster Jenkins [a sound recording; the question marks in parentheses belong to the

original title]

My clicking now on the link < http://cidoc.ics.forth.gr/docs/cidoc crm version 4.0.pdf>, and thus downloading on my PC a reproduction of the electronic file titled 'Definition of the CIDOC Conceptual Reference Model... version 4.0' that is stored on the ICS FORTH's

servers in Heraklion, Crete

The second print run, in 1978, of 'The complete poems of Stephen Crane, edited with an introduction by Joseph Katz' (ISBN '0-8014-9130-4'), a publication dated 1972 [publication of

a printed text]

Properties: R26 produced things of type (was produced by): F3 Manifestation Product Type

R27 used as source material (was used by): F24 Publication Expression

R28 produced (was produced by): F5 Item

F34 KOS

Subclass of: E32 Authority Document

E29 Design or Procedure

F2 Expression

Scope note: This class comprises documents that establish controlled terminology (nomina) for consistent

use. They may also describe relationships between entities and controlled terminology and relationships between entities. Note that any meaningful change in a Knowledge Organisation System (KOS) that affects the validity status of its elements defines a new release (Expression)

of the KOS. Note that identifiers created following a rule in a KOS are to be regarded as being taken from this KOS, even though not explicitly spelled out. This definition of KOS reflects

current library practice and not the use of the term in general.

Examples: LCSH February 20 to March 19 2012

DDC 19 [19th English edition, published only in print by Forest Press in 1979]

R34 has validity period (is validity period of): E52 Time-Span Properties:

F35 Nomen Use Statement

Subclass of: F2 Expression

E29 Design or Procedure

This class comprises statements relating a Thema with a particular Nomen and its usage in the Scope note:

context of a common Complex Work realized by one or more KOS.

Examples: '010 __ |a sh 85082387'...'150 __ |a Maxwell equations' [MARC21 encoding of the preferred subject access point from LCSH, http://lccn.loc.gov/sh85082387, as of 19 November 2012]

'010 __ |a sh 85082387'...'450 __ |a Equations, Maxwell' [MARC21 encoding of a variant

subject access point, from the same source]

'001 FRBNF119547493'...'100 w.0..barus.\$aGončarova\$mNatal'â Sergeevna\$d1881-1962' [INTERMARC encoding of the preferred access point for a personal name, from the authority file of the National Library of France, http://catalogue.bnf.fr/ark:/12148/cb119547494/

INTERMARC, as of 15 June 2012]

'001 FRBNF119547493'...'100 w.0..с.rus.\$аГончарова\$mНаталья Сергеевна\$d1881-1962'

[INTERMARC encoding of a parallel access point from the same source]

'001 FRBNF119547493'...'400 \$w....b.eng.\$aGoncharova\$mNatalia\$d1881-1962'

[INTERMARC encoding of a variant access point from the same source]

Properties: R32 is warranted by (warrants): F52 Name Use Activity

R35 is specified by (specifies): F34 KOS

(R35.1 has status: E55 Type)

R36 uses script conversion (is script conversion used in): F36 Script Conversion

R37 states as nomen (is stated as nomen in): F12 Nomen

R38 refers to thema (is thema of): E1 CRM Entity

R39 is intended for (is target audience in): E74 Group

R54 has nomen language (is language of nomen in): E56 Language

R55 has nomen form (is nomen form in): E55 Type

R56 has related use (is related use for): F35 Nomen Use Statement

(R56.1 has type: E55 Type)

F50 Controlled Access Point

Subclass of: F13 Identifier

Scope note: This class comprises identifiers that are not only designed to be unique for the thing they

> identify, but also to ensure, by following adequate rules based on widely known and accepted properties for their generation, that an independent agency using the same rule would create

the same identifier for the same thing.

F50 Controlled Access Point covers the notion of both "preferred" and "variant" forms. It does not cover the notion of "cross references". A cross reference may not uniquely identify one entity, but can be shared by two or more entities, regardless of whether it displays the same structural characteristics as preferred controlled access points.

Examples: 'Maxwell equations' [preferred subject access point from LCSH, http://lccn.loc.gov/sh85082387, as of 19 November 2012]

'Equations, Maxwell' [variant subject access point, from the same source]

'Gončarova, Natal'â Sergeevna (1881-1962)' [preferred access point for a personal name, from the authority file of the National Library of France, http://catalogue.bnf.fr/ark:/12148/cb119547494/PUBLIC, as of 15 June 2012]

'Гончарова, Наталья Сергеевна (1881-1962)' [parallel access point from the same source]

'Goncharova, Natalia (1881-1962)' [variant access point from the same source]

Referred to FRBR₀₀ Properties

This section contains the complete definitions of the properties of the FRBR_{OO} model version 2.0 (draft) referred to by PRESS_{OO}.

For the sake of clarity, the $PRESS_{OO}$ properties of which these $FRBR_{OO}$ properties are superproperties are repeated here, in italics, although this information is absent from the original definition of the $FRBR_{OO}$ model.

R10 has member (is member of)

Domain: F15 Complex Work

Range: F1 Work

Subproperty of: E89 Propositional Object. P148 has component (is component of): E89 Propositional Object

Quantification: (2,n:0,n)

Scope note: This property associates an instance of F15 Complex Work with an instance of F1 Work that

forms part of it. The Work becomes complex by the fact that it has other instances of Work

as members.

Examples: Dante's textual work entitled 'Divina Commedia' (F15) R10 has member Dante's textual

work entitled 'Inferno' (F15)

Dante's textual work entitled 'Inferno' (F15) *R10 has member* the abstract content of the pseudo-old French text of Émile Littré's translation entitled 'L'Enfer mis en vieux langage françois et en vers' [a 19th century translation of Dante's 'Inferno' into old French] published

in Paris in 1879 (F14)

Giovanni Battista Piranesi's graphic work entitled 'Carceri' (F15) R10 has member Giovanni

Battista Piranesi's graphic work entitled 'Carcere XVI: the pier with chains' (F15)

Giovanni Battista Piranesi's graphic work entitled 'Carcere XVI: the pier with chains' (F15) *R10 has member* the abstract content of Giovanni Battista Piranesi's graphic work entitled

'Carcere XVI: the pier with chains: 2nd state' (F14)

R11 has issuing rule (is issuing rule of)

Domain: F18 Serial Work

Range: <u>E29</u> Design or Procedure

Superproperty of: F18 Serial Work. Y37 has former or current issuing rule (is former or current issuing rule

of): Z12 Issuing Rule

Quantification: (0,n:0,n)

Scope note: This property associates an instance of F18 Serial Work with the instance of E29 Design or

Procedure that specifies the issuing policy planned by this Work, such as sequencing pattern,

expected frequency and expected regularity.

This property is a shortcut of the full path: F18 Serial Work R23B was realised through F30

Publication Event P16 used specific object E29 Design or Procedure.

Examples: The serial entitled 'Quarterly journal of pure and applied mathematics', identified by ISSN

'1549-6724' (F18) R11 has issuing rule to be issued every three months, on a regular basis,

with each issue being numbered according to the pattern 'Vol. 1, no. 1 (2005)' that was observed by the Library of Congress's cataloguers on an exemplar of the first issue (E29)

R16 initiated (was initiated by)

Domain: <u>F27</u> Work Conception

Range: <u>F1</u> Work

Subproperty of: <u>E65</u> Creation. <u>P94</u> has created (was created by): <u>E28</u> Conceptual Object

Superproperty of: Z1 Serial Transformation. Y2 initiated as continuation (was initiated as continuation

through): F18 Serial Work

Z1 Serial Transformation. Y4 initiated as replacement (was initiated as replacement

through): <u>F18</u> Serial Work

<u>Z1</u> Serial Transformation. <u>Y6</u> initiated (resulted from split): <u>F18</u> Serial Work <u>Z1</u> Serial Transformation. <u>Y8</u> merged into (resulted from merger): <u>F18</u> Serial Work <u>Z1</u> Serial Transformation. <u>Y11</u> separated (was separated through): <u>F18</u> Serial Work

Quantification: (1,n:1,1)

Scope note: This property associates the first conception of a work and the work itself that ensued from a

given initial idea.

It is usually not recorded in cataloguing practice as it is only exceptionally documented in real life but is required in this semantic model as it marks the origin of the causality chain

that results in a work's coming into existence.

Examples: The creative spark that motivated Richard Wagner, during a stormy sea crossing in

July/August 1839, to compose an opera (F27) R16 initiated Richard Wagner's opera entitled

'Der fliegende Holländer' (F15)

The creative spark that motivated Oscar Wilde, by May 1897, to write a poem inspired by his stay in the Reading prison in 1895-1897 (F27) *R16 initiated* Oscar Wilde's poem entitled

'The ballad of the Reading gaol' (F15)

R18 created (was created by)

Domain: F28 Expression Creation

Range: F4 Manifestation Singleton

Subproperty of: <u>E12</u> Production. <u>P108</u> has produced (was produced by): <u>E24</u> Physical Man-Made Thing

Superproperty of: Z14 Storage Unit Creation. Y45 created (was created by): Z9 Storage Unit

Quantification: (1,n:0,1)

Scope note: This property associates an instance of F28 Expression Creation with the first physical

objects in which the resulting instance of F2 Expression was embodied.

Examples: Emily Dickinson's creating the text of one of the several extant versions of her poem known

as 'Safe in their alabaster chambers' (F28) R18 created the manuscript now identified as 'Massachusetts Cambridge Harvard University Houghton Library bMS Am 1118.3 (203c,

203d)' (F4)

Emily Dickinson's creating the text of another one of the several extant versions of her poem known as 'Safe in their alabaster chambers' (F28) *R18 created* the manuscript now identified as 'Massachusetts Cambridge Harvard University Houghton Library bMS Am 1118.5 (74c)'

(F4)

The recording of the third alternate take of the musical work entitled 'Blue Hawaii' performed by Elvis Presley in Hollywood, Calif., Radio Recorders, on March 22nd, 1961 (F28) *R18 created* the master tape of the 3rd alternate take of the musical work entitled 'Blue

Hawaii' performed by Elvis Presley in Hollywood, Calif., Radio Recorders, on March 22nd, 1961 (F4) (each individual take is a distinct expression)

The resource (a drawing) held by the New York Public Library and identified by call number '*MGZGB Far P Cop 1' (F4) *R18B was created by* the creation, by the artist named 'Peter Farmer', of a costume design for the character named 'War' in the Act III Masque of the seasons, in the Festival Ballet of London production of the choreographic work entitled 'Coppélia', with choreography by Jack Carter after Petipa (F28)

R19 created a realisation of (was realised through)

Domain: F28 Expression Creation

Range: F1 Work

Subproperty of: <u>E7</u> Activity. <u>P16</u> used specific object (was used for): <u>E70</u> Thing

Superproperty of: F29 Recording Event. R22 created a realisation of (was realised through): F21 Recording

Work

F30 Publication Event. R23 created a realisation of (was realised through): F19 Publication

Work

Quantification: (1,n:1,1)

Scope note: This property associates an instance of F28 Expression Creation with the corresponding

instance of F14 Individual Work or an instance of F15 Complex Work of which the

corresponding instance of F14 Individual Work is a member.

Examples: Giovanni Battista Piranesi's creating the image identified as 'Carcere XVI: the pier with

chains: 2nd state' (F28) R19 created a realisation of the concept of Giovanni Battista

Piranesi's graphic work entitled 'Carcere XVI: the pier with chains: 2nd state' (F14)

Recording Glenn Gould's performance of Johann Sebastian Bach's musical work entitled 'Toccata in C minor BWV 911' on May 15 & 16, 1979, in Toronto, Eaton's Auditorium (F29) *R19 created a realisation of* the concept of the recorded performance of Johann Sebastian Bach's musical work entitled 'Toccata in C minor BWV 911' by Glenn Gould on May 15 &

16, 1979, in Toronto, Eaton's Auditorium (F21)

R23 created a realisation of (was realised through)

Domain: F30 Publication Event
Range: F19 Publication Work

Subproperty of: F28 Expression Creation. R19 created a realisation of (was realised through): F1 Work

Superproperty of: Z4 Temporary Substitution. Y13 provided surrogate to (had surrogate through): F18 Serial

Work

Quantification: (0,1:0,n)

Scope note: This property associates an instance of F30 Publication Event with the instance of F19

Publication Work it realised.

Examples: Establishing in 1972 the layout, features, and prototype for the publication of Stephen

Crane's complete poems (F30) R23 created a realisation of Cornell University Press's

concepts for an edition of Stephen Crane's complete poems (F19)

R24 created (was created through)

Domain: F30 Publication Event

Range: <u>F24</u> Publication Expression

Subproperty of: F28 Expression Creation. R17 created (was created by): F2 Expression

Quantification: (1,n:1,n)

Scope note: This property associates the instance of F24 Publication Expression that was created during a

particular F30 Publication Event with that F30 Publication Event.

Examples: Establishing in 1972 the layout, features, and prototype for the publication of Stephen

Crane's complete poems (F30) R24 created the set of signs and instructions as to manufacturing established by Cornell University Press for a publication of Stephen Crane's

complete poems (F24)

R27 used as source material (was used by)

Domain: <u>F32</u> Carrier Production Event Range: F24 Publication Expression

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

Quantification: (0,n:0,n)

Scope note: This property associates an instance of F32 Carrier Production Event with the set of signs

provided by the publisher to be carried by all of the produced items.

Examples: The production of copies of the publication identified by ISBN '1-86197-612-7' (F32) R27

used as source material the final set of signs sent by the publisher named 'Profile Books' to their printer for the production of copies of the publication identified by ISBN '1-86197-612-

7' (F24)

R33 has content

Domain: F12 Nomen
Range: E62 String

Subproperty of: <u>E1</u> CRM Entity. <u>P3</u> has note: <u>E62</u> String

Quantification: (1,n:0,n)

Scope note: This property associates an instance of F12 Nomen with one or more equivalent serialized

content models for it. In digital form the symbol arrangement constituting an instance of F12 Nomen can only be represented through a particular encoding, for example ASCII or Latin1 for the Latin script. We call such a representation a content model. The property *R33.1 has encoding:* E55 Type allows for specifying the encoding of a particular associated content model. Together with this specification, a content model allows for unambiguously defining a

nomen independently from the encoding used for representing the content.

Examples: '0x65 0x61 0x72 0x74 0x68' [R33.1 has encoding ASCII]

'0x0065 0x0061 0x0072 0x0074 0x0068' [R33.1 has encoding UNICODE UTF16]

'earth' [R33.1 has encoding printed Latin Arial]

Properties: R33.1 has encoding: <u>E55</u> Type

R35 is specified by (specifies)

Domain: F35 Nomen Use Statement

Range: <u>F34</u> KOS

Subproperty of: <u>E89</u> Propositional Object. <u>P148</u> has component (is component of): <u>E89</u> Propositional Object

Quantification: (1,1:1,n)

Scope note: This property associates an instance of F35 Nomen Use Statement with an instance of F34

KOS in which the Nomen Use Statement has a given status. The property R35.1 allows for specifying the particular status of the nomen use statement within the KOS. An instance of

R35 is specified by should have only one status.

Examples: 'acoustic surface wave device' (F35) R35 is specified by INSPEC Thesaurus version January

1973 (F34) R35.1 has status valid (E55)

'acoustic surface wave device' (F35) R35 is specified by INSPEC Thesaurus version June

1978 (F34) R35.1 has status obsolete (E55)

Properties: R35.1 has status: <u>E55</u> Type

R37 states as nomen (is stated as nomen in)

Domain: F35 Nomen Use Statement

Range: F12 Nomen

Subproperty of: <u>E89</u> Propositional Object. <u>P67</u> refers to (is referred to by): <u>E1</u> CRM Entity

Quantification: (1,1:0,n)

Scope note: This property associates an instance of F35 Nomen Use Statement with the instance of F12

Nomen for which it declares usage.

Examples: '001 FRBNF120864715'...'100 \$w.0..ba....\$aDu\$mFu\$d0712-0770' (F35) R37 states as

nomen 'Du, Fu (0712-0770)' (F50)

'001 FRBNF119547493'...'100 w.0..barus.\$aGončarova\$mNatal'â Sergeevna\$d1881-1962'

(F35) R37 states as nomen 'Gončarova, Natal'â Sergeevna (1881-1962)' (F50)

'010 __ |a n 79021736'...'400 1_ |a Пруст, Марсель, |d 1871-1922' (F35) R37 states as

nomen 'Пруст, Марсель, 1871-1922' (F50)

'010 __ |a sh 85074230'...'150__ |a Lamniformes' (F35) R37 states as nomen 'Lamniformes'

(F12)

'010 __ |a sh 85074230'...'053 _0 |a QL638.94.L36 |c Zoology' (F35) R37 states as nomen

the Library of Congress classification number QL638.94.L36 (F12)

'ID: 300024668'...'navaja (C,U,Spanish,UF,U,SN)' R37 states as nomen 'navaja'(F12)

("used for" term, Getty Art & Architecture Thesaurus Online, retrieved 19/11/2012)

'ID: 7010879'... 'Candia (H,V,Greek (transliterated),U) Venetian corruption of Arabic name, used from 13th cen.' R37 states as nomen 'Candia' (F12) ("historical term", Getty

Thesaurus of Geographic Names Online, retrieved 19/11/2012)

'ID: 7010879'...'Ērakleion (NA,V,Greek (transliterated),U)' R37 states as nomen 'Ērakleion' (F12) ("not-applicable term", Getty Thesaurus of Geographic Names Online, retrieved

19/11/2012)

Referred to CIDOC CRM Classes and Properties

Since PRESS_{OO} refers to and reuses, wherever appropriate, large parts of the CIDOC Conceptual Reference Model, this section provides a comprehensive list of all constructs used from CIDOC CRM, together with their definitions following the May 2013 draft of version 5.1 maintained by CIDOC. Use in this context includes: reference as immediate superclass, superproperty or element of a path expression in a mapping statement.

Some of these constructs appear only in the mapping between the *ISSN Manual* and PRESS_{OO}, and not in the declaration of PRESS_{OO} classes and properties, because they are generic in nature. It was deemed preferable not to overload the description of PRESS_{OO} with generic notions that were already developed in either FRBR_{OO} or CIDOC CRM.

List of Referred to CIDOC CRM Classes

In this section we present the classes of the CIDOC CRM Conceptual Reference Model version 5.1 referred to by $PRESS_{OO}$ as a list. The classes that appear indirectly in the $PRESS_{OO}$ model, i.e., either as superclasses of classes defined in the model, or as the domain or range of referred to CRM properties, are marked in bold.

- E1 CRM Entity
- **E2** Temporal Entity
- E4 Period
- E5 Event
- E7 Activity
- **E11 Modification**
- E12 Production
- E18 Physical Thing
- **E24** Physical Man-Made Thing
- E28 Conceptual Object
- **E29** Design or Procedure
- E30 Right
- E31 Document
- **E32** Authority Document
- E33 Linguistic Object
- E35 Title
- E39 Actor
- E40 Legal Body
- E41 Appellation
- E42 Identifier
- E49 Time Appellation
- E50 Date
- **E51** Contact Point
- E52 Time-Span
- E53 Place
- E54 Dimension
- E55 Type
- E56 Language
- E59 Primitive Value

- E61 Time Primitive
- E62 String
- **E63** Beginning of Existence
- **E64** End of Existence
- **E65** Creation
- E70 Thing
- E71 Man-Made Thing
- E72 Legal Object
- E73 Information Object
- E74 Group
- E75 Conceptual Object Appellation
- **E77** Persistent Item
- E82 Actor Appellation
- E89 Propositional Object
- E90 Symbolic Object

List of Referred to CIDOC CRM Properties

In this section we present the properties of the CIDOC CRM 5.1 referred to by PRESS $_{OO}$ as a list. The properties that appear indirectly in the PRESS $_{OO}$ model, i.e., as superproperties of properties defined in the model, are marked in bold.

Property id	Property name	Domain	Range
P1	is identified by (identifies)	E1 CRM Entity	E41 Appellation
P2	has type (is type of)	E1 CRM Entity	E55 Type
P3	has note	E1 CRM Entity	E62 String
P4	has time-span (is time-span of)	E2 Temporal Entity	E52 Time-Span
P9	consists of (forms part of)	E4 Period	E4 Period
P11	had participant (participated in)	E5 Event	E39 Actor
P12	occurred in the presence of (was present at)	E5 Event	E77 Persistent Item
P14	carried out by (performed)	E7 Activity	E39 Actor
P15	was influenced by (influenced)	E7 Activity	E1 CRM Entity
P16	used specific objet (was used for)	E7 Activity	E70 Thing
P17	was motivated by (motivated)	E7 Activity	E71 Man-Made Thing
P31	has modified (was modified by)	E11 Modification	E24 Physical Man-Made Thing
P48	has preferred identifier (is preferred identifier of)	E1 CRM Entity	E42 Identifier
P67	refers to (is referred to by)	E89 Propositional Object	E1 CRM Entity
P69	has association with (is associated with)	E29 Design or Procedure	E29 Design or Procedure
P71	lists (is listed in)	E32 Authority Document	E1 CRM Entity
P74	has current or former residence (is current or former residence of)	E39 Actor	E53 Place
P75	possess (is possessed by)	E39 Actor	E30 Right
P78	is identified by (identifies)	E52 Time-Span	E49 Time Appellation
P82	at some time within	E52 Time-Span	E61 Time Primitive
P89	falls within (contains)	E53 Place	E53 Place
P92	brought into existence (was brought into existence by)	E63 Beginning of Existence	E77 Persistent Item
P93	took out of existence (was taken out of existence by)	E64 End of Existence	E77 Persistent Item
P94	has created (was created by)	E65 Creation	E28 Conceptual Object
P104	is subject to (applies to)	E72 Legal Object	E30 Right
P108	has produced (was produced by)	E12 Production	E24 Physical Man-Made Thing
P115 P116 P131 P134 P148	finishes (is finished by) starts (is started by) is identified by (identifies) continued (was continued by) has component (is component of) is identified by (identifies)	E2 Temporal Entity E2 Temporal Entity E39 Actor E7 Activity E89 Propositional Object	E2 Temporal Entity E2 Temporal Entity E82 Actor Appellation E7 Activity E89 Propositional Object E75 Conceptual Object
P149	is identified by (identifies)	E28 Conceptual Object	Appellation

Referred to CIDOC CRM Classes

This section contains the complete definitions of the classes of the CIDOC CRM Conceptual Reference Model version 5.1 referred to by PRESS_{OO}. The properties within these class definitions which are referred to in PRESS_{OO} are presented in bold face.

For the sake of clarity, the $PRESS_{OO}$ and $FRBR_{OO}$ classes of which these CIDOC CRM classes are superclasses are repeated here, in italics, although this information is absent from the original definition of the CIDOC CRM model. Also, the $PRESS_{OO}$ properties for which these CIDOC CRM classes are declared as domain are repeated here, in italics as well, although this information is naturally absent from the original definition of the CIDOC CRM model.

E1 CRM Entity

Superclass of: <u>E2</u> Temporal Entity

E52 Time-Span

E53 Place

E54 Dimension

E77 Persistent Item

Scope note: This class comprises all things in the universe of discourse of the CIDOC Conceptual

Reference Model.

It is an abstract concept providing for three general properties:

1. Identification by name or appellation, and in particular by a preferred identifier

2. Classification by type, allowing further refinement of the specific subclass an instance belongs to

3. Attachment of free text for the expression of anything not captured by formal properties

With the exception of E59 Primitive Value, all other classes within the CRM are directly or indirectly specialisations of E1 CRM Entity.

Examples: the earthquake in Lisbon 1755 (E5)

Properties: P1 is identified by (identifies): E41 Appellation

P2 has type (is type of): E55 Type

P3 has note: E62 String

(P3.1 has type: <u>E55</u> Type)

P48 has preferred identifier (is preferred identifier of): E42 Identifier

P137 exemplifies (is exemplified by): E55 Type (P137.1 in the taxonomic role: E55 Type)

E2 Temporal Entity

Subclass of: <u>E1</u> CRM Entity Superclass of: E3 Condition State

E4 Period

Scope note: This class comprises all phenomena, such as the instances of E4 Periods, E5 Events and states,

which happen over a limited extent in time.

In some contexts, these are also called perdurants. This class is disjoint from E77 Persistent Item. This is an abstract class and has no direct instances. E2 Temporal Entity is specialized

into E4 Period, which applies to a particular geographic area (defined with a greater or lesser degree of precision), and E3 Condition State, which applies to instances of E18 Physical Thing.

Examples: Bronze Age (E4)

the earthquake in Lisbon 1755 (E5)

the Peterhof Palace near Saint Petersburg being in ruins from 1944 – 1946 (E3)

Properties: P4 has time-span (is time-span of): E52 Time-Span

P114 is equal in time to: E2 Temporal Entity
P115 finishes (is finished by): E2 Temporal Entity
P116 starts (is started by): E2 Temporal Entity
P117 occurs during (includes): E2 Temporal Entity

P118 overlaps in time with (is overlapped in time by): E2 Temporal Entity

P119 meets in time with (is met in time by): E2 Temporal Entity

P120 occurs before (occurs after): E2 Temporal Entity

E4 Period

Subclass of: <u>E2</u> Temporal Entity

Superclass of: <u>E5</u> Event

Scope note: This class comprises sets of coherent phenomena or cultural manifestations bounded in time

and space.

It is the social or physical coherence of these phenomena that identify an E4 Period and not the associated spatio-temporal bounds. These bounds are a mere approximation of the actual process of growth, spread and retreat. Consequently, different periods can overlap and coexist in time and space, such as when a nomadic culture exists in the same area as a sedentary culture.

Typically this class is used to describe prehistoric or historic periods such as the "Neolithic Period", the "Ming Dynasty" or the "McCarthy Era". There are however no assumptions about the scale of the associated phenomena. In particular all events are seen as synthetic processes consisting of coherent phenomena. Therefore E4 Period is a superclass of E5 Event. For example, a modern clinical E67 Birth can be seen as both an atomic E5 Event and as an E4 Period that consists of multiple activities performed by multiple instances of E39 Actor.

There are two different conceptualisations of 'artistic style', defined either by physical features or by historical context. For example, "Impressionism" can be viewed as a period lasting from approximately 1870 to 1905 during which paintings with particular characteristics were produced by a group of artists that included (among others) Monet, Renoir, Pissarro, Sisley and Degas. Alternatively, it can be regarded as a style applicable to all paintings sharing the characteristics of the works produced by the Impressionist painters, regardless of historical context. The first interpretation is an E4 Period, and the second defines morphological object types that fall under E55 Type.

Another specific case of an E4 Period is the set of activities and phenomena associated with a settlement, such as the populated period of Nineveh.

Examples: Jurassic

European Bronze Age Italian Renaissance Thirty Years War Sturm und Drang

Cubism

Properties: P7 took place at (witnessed): E53 Place

P8 took place on or within (witnessed): E18 Physical Thing

P9 consists of (forms part of): E4 Period P10 falls within (contains): E4 Period P132 overlaps with: E4 Period P133 is separated from: E4 Period

E5 Event

Subclass of: <u>E4</u> Period Superclass of: <u>E7</u> Activity

> <u>E63</u> Beginning of Existence <u>E64</u> End of Existence

Scope note: This class comprises changes of states in cultural, social or physical systems, regardless of

scale, brought about by a series or group of coherent physical, cultural, technological or legal phenomena. Such changes of state will affect instances of E77 Persistent Item or its subclasses.

The distinction between an E5 Event and an E4 Period is partly a question of the scale of observation. Viewed at a coarse level of detail, an E5 Event is an 'instantaneous' change of state. At a fine level, the E5 Event can be analysed into its component phenomena within a space and time frame, and as such can be seen as an E4 Period. The reverse is not necessarily

the case: not all instances of E4 Period give rise to a noteworthy change of state.

Examples: the birth of Cleopatra (E67)

the destruction of Herculaneum by volcanic eruption in 79 AD (E6)

World War II (E7)

the Battle of Stalingrad (E7) the Yalta Conference (E7)

my birthday celebration 28-6-1995 (E7) the falling of a tile from my roof last Sunday

the CIDOC Conference 2003 (E7)

Properties: P11 had participant (participated in): E39 Actor

P12 occurred in the presence of (was present at): **E77** Persistent Item

E7 Activity

Subclass of: <u>E5</u> Event Superclass of: E8 Acquisition

E9 Move

E10 Transfer of Custody E11 Modification

E13 Attribute Assignment

E65 Creation E66 Formation E85 Joining E86 Leaving

E87 Curation Activity

Z2 Absorption

Z5 Issuing Rule ChangeZ8 Metadata Management

Scope note: This class comprises actions intentionally carried out by instances of E39 Actor that result in

changes of state in the cultural, social, or physical systems documented.

This notion includes complex, composite and long-lasting actions such as the building of a settlement or a war, as well as simple, short-lived actions such as the opening of a door.

Examples: the Battle of Stalingrad

the Yalta Conference

my birthday celebration 28-6-1995 the writing of "Faust" by Goethe (E65) the formation of the Bauhaus 1919 (E66)

calling the place identified by TGN '7017998' 'Quyunjig' by the people of Iraq

Kira Weber working in glass art from 1984 to 1993 Kira Weber working in oil and pastel painting from 1993

Properties: P14 carried out by (performed): E39 Actor

(P14.1 in the role of: <u>E55</u> Type)

P15 was influenced by (influenced): E1 CRM Entity

P16 used specific object (was used for): **E70** Thing

(P16.1 mode of use: <u>E55</u> Type)

P17 was motivated by (motivated): E1 CRM Entity

P19 was intended use of (was made for): E71 Man-Made Thing

(P19.1 mode of use: E55 Type)

P20 had specific purpose (was purpose of): E5 Event

P21 had general purpose (was purpose of): E55 Type

P32 used general technique (was technique of): E55 Type

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

P125 used object of type (was type of object used in): E55 Type

P134 continued (was continued by): E7 Activity

E11 Modification

Subclass of: <u>E7</u> Activity Superclass of: <u>E12</u> Production

E79 Part Addition E80 Part Removal

Scope note: This class comprises all instances of E7 Activity that create, alter or change E24 Physical Man-

Made Thing.

This class includes the production of an item from raw materials, and other so far undocumented objects, and the preventive treatment or restoration of an object for

conservation.

Since the distinction between modification and production is not always clear, modification is regarded as the more generally applicable concept. This implies that some items may be consumed or destroyed in a Modification, and that others may be produced as a result of it. An event should also be documented using E81 Transformation if it results in the destruction of one or more objects and the simultaneous production of others using parts or material from the originals. In this case, the new items have separate identities.

If the instance of the E29 Design or Procedure utilized for the modification prescribes the use of specific materials, they should be documented using property *P68 foresees use of (use foreseen by):* E57 Material of E29 Design or Procedure, rather than via *P126 employed (was*

employed in): E57 Material.

Examples: the construction of the SS Great Britain (E12)

the impregnation of the Vasa warship in Stockholm for preservation after 1956

the transformation of the Enola Gay into a museum exhibit by the National Air and Space

Museum in Washington DC between 1993 and 1995 (E12, E81)

the last renewal of the gold coating of the Toshogu shrine in Nikko, Japan

Properties: P31 has modified (was modified by): E24 Physical Man-Made Thing

P126 employed (was employed in): E57 Material

E12 Production

Subclass of: E11 Modification

E63 Beginning of Existence

Superclass of: F28 Expression Creation

F32 Carrier Production Event

Scope note: This class comprises activities that are designed to, and succeed in, creating one or more new

items.

It specializes the notion of modification into production. The decision as to whether or not an object is regarded as new is context sensitive. Normally, items are considered "new" if there is no obvious overall similarity between them and the consumed items and material used in their production. In other cases, an item is considered "new" because it becomes relevant to documentation by a modification. For example, the scribbling of a name on a potsherd may make it a voting token. The original potsherd may not be worth documenting, in contrast to the inscribed one.

This entity can be collective: the printing of a thousand books, for example, would normally be considered a single event.

An event should also be documented using E81 Transformation if it results in the destruction of one or more objects and the simultaneous production of others using parts or material from the originals. In this case, the new items have separate identities and matter is preserved, but identity is not.

Examples: the construction of the SS Great Britain

the first casting of the Little Mermaid from the harbour of Copenhagen

Rembrandt's creating of the seventh state of his etching "Woman sitting half dressed beside a

stove", 1658, identified by Bartsch Number 197 (E12,E65,E81)

Properties: P108 has produced (was produced by): E24 Physical Man-Made Thing

E18 Physical Thing

Subclass of: <u>E72</u> Legal Object Superclass of: E19 Physical Object

E24 Physical Man-Made Thing

E26 Physical Feature

Scope Note: This class comprises all persistent physical items with a relatively stable form, man-made or

natural.

Depending on the existence of natural boundaries of such things, the CRM distinguishes the instances of E19 Physical Object from instances of E26 Physical Feature, such as holes, rivers, pieces of land etc. Most instances of E19 Physical Object can be moved (if not too heavy),

whereas features are integral to the surrounding matter.

The CRM is generally not concerned with amounts of matter in fluid or gaseous states.

Examples: the Cullinan Diamond (E19)

the cave "Ideon Andron" in Crete (E26)

the Mona Lisa (E22)

Properties: P44 has condition (is condition of): E3 Condition State

P45 consists of (is incorporated in): E57 Material P46 is composed of (forms part of): E18 Physical Thing

P49 has former or current keeper (is former or current keeper of): E39 Actor

P50 has current keeper (is current keeper of): E39 Actor

P51 has former or current owner (is former or current owner of): E39 Actor

P52 has current owner (is current owner of): E39 Actor

P53 has former or current location (is former or current location of): E53 Place

P58 has section definition (defines section): E46 Section Definition

P59 has section (is located on or within): E53 Place

E24 Physical Man-Made Thing

Subclass of: <u>E18</u> Physical Thing

E71 Man-Made Thing

Superclass of: E22 Man-Made Object

E25 Man-Made Feature

E78 Collection

<u>F4</u> Manifestation Singleton

Scope Note: This class comprises all persistent physical items that are purposely created by human activity.

This class comprises man-made objects, such as a swords, and man-made features, such as rock art. No assumptions are made as to the extent of modification required to justify regarding an object as man-made. For example, a "cup and ring" carving on bedrock is regarded as

instance of E24 Physical Man-Made Thing.

Examples: the Forth Railway Bridge (E22)

the Channel Tunnel (E25)

the Historical Collection of the Museum Benaki in Athens (E78)

Properties: P62 depicts (is depicted by): E1 CRM Entity

(P62.1 mode of depiction: E55 Type)

P65 shows visual item (is shown by): E36 Visual Item P128 carries (is carried by): E90 Symbolic Object

E28 Conceptual Object

Subclass of: E71 Man-Made Thing

Superclass of: <u>E55</u> Type

E89 Propositional Object E90 Symbolic Object

Scope note: This class comprises non-material products of our minds and other human produced data that

have become objects of a discourse about their identity, circumstances of creation or historical implication. The production of such information may have been supported by the use of

technical devices such as cameras or computers.

Characteristically, instances of this class are created, invented or thought by someone, and then may be documented or communicated between persons. Instances of E28 Conceptual Object have the ability to exist on more than one particular carrier at the same time, such as paper, electronic signals, marks, audio media, paintings, photos, human memories, etc.

They cannot be destroyed. They exist as long as they can be found on at least one carrier or in at least one human memory. Their existence ends when the last carrier and the last memory are

lost.

Examples: Beethoven's "Ode an die Freude" (Ode to Joy) (E73)

the definition of "ontology" in the Oxford English Dictionary

the knowledge about the victory at Marathon carried by the famous runner

Properties: P149 is identified by (identifies): E75 Conceptual Object Appellation

E29 Design or Procedure

Subclass of: <u>E73</u> Information Object

Superclass of: F34 KOS

F35 Nomen Use Statement

Z12 Issuing Rule

Scope note: This class comprises documented plans for the execution of actions in order to achieve a result

of a specific quality, form or contents. In particular it comprises plans for deliberate human activities that may result in the modification or production of instances of E24 Physical Thing.

Instances of E29 Design or Procedure can be structured in parts and sequences or depend on others. This is modelled using *P69* has association with (is associated with).

Designs or procedures can be seen as one of the following:

1. A schema for the activities it describes

2. A schema of the products that result from their application.

3. An independent intellectual product that may have never been applied, such as Leonardo da Vinci's famous plans for flying machines.

Because designs or procedures may never be applied or only partially executed, the CRM models a loose relationship between the plan and the respective product.

Examples: the ISO standardisation procedure

the musical notation for Beethoven's "Ode to Joy"

the architectural drawings for the Kölner Dom in Cologne, Germany

The drawing on the folio 860 of the Codex Atlanticus from Leonardo da Vinci, 1486-1490,

kept in the Biblioteca Ambrosiana in Milan

Properties: P68 foresees use of (use foreseen by): E57 Material

P69 has association with (is associated with): **E29** Design or Procedure

(P69.1 has type: <u>E55</u> Type)

E30 Right

Subclass of: <u>E89</u> Propositional Object

Scope Note: This class comprises legal privileges concerning material and immaterial things or their

derivatives.

These include reproduction and property rights.

Examples: copyright held by ISO on ISO/CD 21127

ownership of the "Mona Lisa" by the Louvre

E31 Document

Subclass of: <u>E73</u> Information Object Superclass of: <u>E32</u> Authority Document

Scope note: This class comprises identifiable immaterial items that make propositions about reality.

These propositions may be expressed in text, graphics, images, audiograms, videograms or by other similar means. Documentation databases are regarded as a special case of E31 Document. This class should not be confused with the term "document" in Information

Technology, which is compatible with E73 Information Object.

Examples: the Encyclopaedia Britannica (E32)

the photo of the Allied Leaders at Yalta published by UPI, 1945

the Doomsday Book

Properties: P70 documents (is documented in): E1 CRM Entity

E32 Authority Document

Subclass of: E31 Document
Superclass of: F34 KOS

Scope note: This class comprises encyclopaedia, thesauri, authority lists and other documents that define

terminology or conceptual systems for consistent use.

Examples: Webster's Dictionary

Getty Art and Architecture Thesaurus the CIDOC Conceptual Reference Model

Properties: P71 lists (is listed in): E1 CRM Entity

E33 Linguistic Object

Subclass of: <u>E73</u> Information Object

Superclass of: E34 Inscription

E35 Title

Scope note: This class comprises identifiable expressions in natural language or languages.

Instances of E33 Linguistic Object can be expressed in many ways: e.g. as written texts, recorded speech or sign language. However, the CRM treats instances of E33 Linguistic Object independently from the medium or method by which they are expressed. Expressions in formal languages, such as computer code or mathematical formulae, are not treated as instances of E33 Linguistic Object by the CRM. These should be modelled as instances of E73 Information

bject.

The text of an instance of E33 Linguistic Object can be documented in a note by P3 has note:

E62 String

Examples: the text of the Ellesmere Chaucer manuscript

the lyrics of the song "Blue Suede Shoes" the text of the Jabberwocky by Lewis Carroll

the text of "Doktoro Jekyll kaj Sinjoro Hyde" (an Esperanto translation of Dr Jekyll and Mr

Hyde)

Properties: P72 has language (is language of): E56 Language

P73 has translation (is translation of): E33 Linguistic Object

E35 Title

Subclass of: <u>E33</u> Linguistic Object

E41 Appellation

Scope note: This class comprises the names assigned to works, such as texts, artworks or pieces of music.

Titles are proper noun phrases or verbal phrases, and should not be confused with generic object names such as "chair", "painting" or "book" (the latter are common nouns that stand for instances of E55 Type). Titles may be assigned by the creator of the work itself, or by a social

group.

This class also comprises the translations of titles that are used as surrogates for the original

titles in different social contexts.

Examples: "The Merchant of Venice"

"Mona Lisa"

"La Pie or The Magpie"

"Lucy in the Sky with Diamonds"

E39 Actor

Subclass of: E77 Persistent Item

Superclass of: E21 Person

E74 Group

Scope note: This class comprises people, either individually or in groups, who have the potential to perform

intentional actions for which they can be held responsible.

The CRM does not attempt to model the inadvertent actions of such actors. Individual people should be documented as instances of E21 Person, whereas groups should be documented as

instances of either E74 Group or its subclass E40 Legal Body.

Examples: London and Continental Railways (E40)

the Governor of the Bank of England in 1975 (E21)

Sir Ian McKellan (E21)

Properties: P74 has current or former residence (is current or former residence of): E53 Place

P75 possesses (is possessed by): E30 Right

P76 has contact point (provides access to): E51 Contact Point P131 is identified by (identifies): E82 Actor Appellation

E40 Legal Body

Subclass of: <u>E74</u> Group

F11 Corporate Body

Scope Note: This class comprises institutions or groups of people that have obtained a legal recognition as a

group and can act collectively as agents.

This means that they can perform actions, own property, create or destroy things and can be held collectively responsible for their actions like individual people. The term 'personne

morale' is often used for this in French.

Examples: Greenpeace

Paveprime Ltd

the National Museum of Denmark

E41 Appellation

Subclass of: <u>E90</u> Symbolic Object

Superclass of: <u>E35</u> Title

E42 Identifier

E44 Place Appellation
E49 Time Appellation
E51 Contact Point

E75 Conceptual Object Appellation

E82 Actor Appellation

F12 Nomen

Scope note: This class comprises signs, either meaningful or not, or arrangements of signs following a

specific syntax, that are used or can be used to refer to and identify a specific instance of some

class or category within a certain context.

Instances of E41 Appellation do not identify things by their meaning, even if they happen to have one, but instead by convention, tradition, or agreement. Instances of E41 Appellation are cultural constructs; as such, they have a context, a history, and a use in time and space by some group of users. A given instance of E41 Appellation can have alternative forms, i.e., other instances of E41 Appellation that are always regarded as equivalent independent from the thing it denotes.

Specific subclasses of E41 Appellation should be used when instances of E41 Appellation of a characteristic form are used for particular objects. Instances of E49 Time Appellation, for example, which take the form of instances of E50 Date, can be easily recognised.

E41 Appellation should not be confused with the act of naming something. *Cf.* E15 Identifier Assignment

Examples: "Martin"

"the Forth Bridge"

"the Merchant of Venice" (E35)

"Spigelia marilandica (L.) L." [not the species, just the name]

"information science" [not the science itself, but the name through which we refer to it in an English-speaking context]

"妄" [Chinese "an", meaning "peace"]

Properties: P139 has alternative form: E41 Appellation

(P139.1 has type: E55 Type)

E42 Identifier

Subclass of: <u>E41</u> Appellation Equal to: <u>F13</u> Identifier

Scope note: This class comprises strings or codes assigned to instances of E1 CRM Entity in order to

identify them uniquely and permanently within the context of one or more organisations. Such codes are often known as inventory numbers, registration codes, etc. and are typically composed of alphanumeric sequences. The class E42 Identifier is not normally used for machine-generated identifiers used for automated processing unless these are also used by

human agents.

Examples: "MM.GE.195"

"13.45.1976"

"OXCMS: 1997.4.1" ISSN "0041-5278" ISRC "FIFIN8900116" Shelf mark "Res 8 P 10"

"Guillaume de Machaut (1300?-1377)" [a controlled personal name heading that follows the

French rules]

E49 Time Appellation

Subclass of: <u>E41</u> Appellation Superclass of <u>E50</u> Date

Scope Note: This class comprises all forms of names or codes, such as historical periods, and dates, which

are characteristically used to refer to a specific E52 Time-Span.

The instances of E49 Time Appellation may vary in their degree of precision, and they may be relative to other time frames, "Before Christ" for example. Instances of E52 Time-Span are often defined by reference to a cultural period or an event e.g. 'the duration of the Ming

Dynasty'.

Examples: "Meiji" [Japanese term for a specific time-span]

"1st half of the XX century"

"Quaternary"

"1215 Hegira" [a date in the Islamic calendar]

"Last century"

E50 Date

Subclass of: <u>E49</u> Time Appellation

Scope Note: This class comprises specific forms of E49 Time Appellation.

Dates may vary in their degree of precision.

Examples: "1900"

"4-4-1959" "19-MAR-1922" "19640604"

E51 Contact Point

Subclass of: <u>E41</u> Appellation Superclass of: E45 Address

Z11 URL

Scope Note: This class comprises identifiers employed, or understood, by communication services to direct

communications to an instance of E39 Actor. These include E-mail addresses, telephone numbers, post office boxes, Fax numbers, URLs etc. Most postal addresses can be considered both as instances of E44 Place Appellation and E51 Contact Point. In such cases the subclass

E45 Address should be used.

URLs are addresses used by machines to access another machine through an http request. Since the accessed machine acts on behalf of the E39 Actor providing the machine, URLs are

considered as instances of E51 Contact Point to that E39 Actor.

Examples: "+41 22 418 5571"

"weasel@paveprime.com"

E52 Time-Span

Subclass of: <u>E1</u> CRM Entity

Scope note: This class comprises abstract temporal extents, in the sense of Galilean physics, having a

beginning, an end and a duration.

Time Span has no other semantic connotations. Time-Spans are used to define the temporal extent of instances of E4 Period, E5 Event and any other phenomena valid for a certain time. An E52 Time-Span may be identified by one or more instances of E49 Time Appellation.

Since our knowledge of history is imperfect, instances of E52 Time-Span can best be considered as approximations of the actual Time-Spans of temporal entities. The properties of E52 Time-Span are intended to allow these approximations to be expressed precisely. An extreme case of approximation, might, for example, define an E52 Time-Span having unknown beginning, end and duration. Used as a common E52 Time-Span for two events, it would nevertheless define them as being simultaneous, even if nothing else was known.

Automatic processing and querying of instances of E52 Time-Span is facilitated if data can be parsed into an E61 Time Primitive.

Examples: 1961

From 12-17-1993 to 12-8-1996 14h30 – 16h22 4th July 1945

9.30 am 1.1.1999 to 2.00 pm 1.1.1999

duration of the Ming Dynasty

Properties: **P78** is identified by (identifies): **E49** Time Appellation

P79 beginning is qualified by: E62 String P80 end is qualified by: E62 String

P81 ongoing throughout: E61 Time Primitive
P82 at some time within: E61 Time Primitive

P83 had at least duration (was minimum duration of): E54 Dimension P84 had at most duration (was maximum duration of): E54 Dimension

P86 falls within (contains): E52 Time-Span

E53 Place

Subclass of: E1 CRM Entity

Scope note: This class comprises extents in space, in particular on the surface of the earth, in the pure sense

of physics: independent from temporal phenomena and matter.

The instances of E53 Place are usually determined by reference to the position of "immobile" objects such as buildings, cities, mountains, rivers, or dedicated geodetic marks. A Place can be determined by combining a frame of reference and a location with respect to this frame. It may be identified by one or more instances of E44 Place Appellation.

It is sometimes argued that instances of E53 Place are best identified by global coordinates or absolute reference systems. However, relative references are often more relevant in the context of cultural documentation and tend to be more precise. In particular, we are often interested in position in relation to large, mobile objects, such as ships. For example, the Place at which Nelson died is known with reference to a large mobile object – H.M.S Victory. A resolution of this Place in terms of absolute coordinates would require knowledge of the movements of the vessel and the precise time of death, either of which may be revised, and the result would lack historical and cultural relevance.

Any object can serve as a frame of reference for E53 Place determination. The model foresees the notion of a "section" of an E19 Physical Object as a valid E53 Place determination.

Examples: the extent of the UK in the year 2003

the position of the hallmark on the inside of my wedding ring

the place referred to in the phrase: "Fish collected at three miles north of the confluence of the

Arve and the Rhone"

here -> <-

Properties: P87 is identified by (identifies): E44 Place Appellation

P89 falls within (contains): E53 Place

P121 overlaps with: E53 Place P122 borders with: E53 Place

E54 Dimension

Subclass of: <u>E1</u> CRM Entity

Scope note: This class comprises quantifiable properties that can be measured by some calibrated means and can be approximated by values, i.e. points or regions in a mathematical or conceptual

space, such as natural or real numbers, RGB values etc.

An instance of E54 Dimension represents the true quantity, independent from its numerical approximation, e.g. in inches or in cm. The properties of the class E54 Dimension allow for expressing the numerical approximation of the values of an instance of E54 Dimension. If the true values belong to a non-discrete space, such as spatial distances, it is recommended to record them as approximations by intervals or regions of indeterminacy enclosing the assumed true values. For instance, a length of 5 cm may be recorded as 4.5-5.5 cm, according to the precision of the respective observation. Note, that interoperability of values described in different units depends critically on the representation as value regions.

Numerical approximations in archaic instances of E58 Measurement Unit used in historical records should be preserved. Equivalents corresponding to current knowledge should be recorded as additional instances of E54 Dimension as appropriate.

Examples: currency: £26.00

length: 3.9-4.1 cm diameter 26 mm weight 150 lbs density: 0.85 gm/cc

luminescence: 56 ISO lumens

tin content: 0.46 % taille au garot: 5 hands

calibrated C14 date: 2460-2720 years, etc.

Properties: P90 has value: E60 Number

P91 has unit (is unit of): E58 Measurement Unit

E55 Type

Subclass of: <u>E28</u> Conceptual Object

Superclass of: E56 Language

E57 Material

E58 Measurement Unit Z10 Sequencing Pattern

Scope note: This class comprises concepts denoted by terms from thesauri and controlled vocabularies used

to characterize and classify instances of CRM classes. Instances of E55 Type represent concepts in contrast to instances of E41 Appellation which are used to name instances of CRM

classes.

E55 Type is the CRM's interface to domain specific ontologies and thesauri. These can be represented in the CRM as subclasses of E55 Type, forming hierarchies of terms, i.e. instances of E55 Type linked via P127 has broader term (has narrower term). Such hierarchies may be

extended with additional properties.

Examples: weight, length, depth [types of E54]

portrait, sketch, animation [types of E38]

French, English, German [E56] excellent, good, poor [types of E3] Ford Model T, chop stick [types of E22] cave, doline, scratch [types of E26] poem, short story [types of E33]

wedding, earthquake, skirmish [types of E5]

Properties: P127 has broader term (has narrower term): E55 Type

P150 defines typical parts of(define typical wholes for): E55 Type

E56 Language

Subclass of: <u>E55</u> Type

Scope note: This class is a specialization of E55 Type and comprises the natural languages in the sense of

concepts.

This type is used categorically in the model without reference to instances of it, i.e. the Model does not foresee the description of instances of instances of E56 Language, e.g.: "instances of

Mandarin Chinese".

It is recommended that internationally or nationally agreed codes and terminology are used to

denote instances of E56 Language, such as those defined in ISO 639:1988.

Examples: el [Greek]

en [English]
eo [Esperanto]
es [Spanish]
fr [French]

E59 Primitive Value

Superclass of: E60 Number

E61 Time Primitive

E62 String

Scope Note: This class comprises primitive values used as documentation elements, which are not further

elaborated upon within the model.

As such they are not considered as elements within our universe of discourse. No specific implementation recommendations are made. It is recommended that the primitive value system from the implementation platform be used to substitute for this class and its subclasses.

Examples: ABCDEFG (E62)

3.14 (E60)

0

1921-01-01 (E61)

E61 Time Primitive

Subclass of: <u>E59</u> Primitive Value

Scope Note: This class comprises instances of E59 Primitive Value for time that should be implemented

with appropriate validation, precision and interval logic to express date ranges relevant to

cultural documentation.

E61 Time Primitive is not further elaborated upon within the model.

Examples: 1994 – 1997

13 May 1768

2000/01/01 00:00:59.7 85th century BC

E62 String

Subclass of: <u>E59</u> Primitive Value

Scope Note: This class comprises the instances of E59 Primitive Values used for documentation such as free

text strings, bitmaps, vector graphics, etc.

E62 String is not further elaborated upon within the model.

Examples: the Quick Brown Fox Jumps Over the Lazy Dog

6F 6E 54 79 70 31 0D 9E

E63 Beginning of Existence

Subclass of: E5 Event

Superclass of: <u>E12</u> Production

E65 Creation E66 Formation E67 Birth

E81 Transformation

Scope Note: This class comprises events that bring into existence any E77 Persistent Item.

It may be used for temporal reasoning about things (intellectual products, physical items, groups of people, living beings) beginning to exist; it serves as a hook for determination of a

terminus post quem and ante quem.

Examples: the birth of my child

the birth of Snoopy, my dog

the calving of the iceberg that sank the Titanic

the construction of the Eiffel Tower

Properties: P92 brought into existence (was brought into existence by): E77 Persistent Item

E64 End of Existence

Subclass of: <u>E5</u> Event

Superclass of: E6 Destruction

E68 Dissolution E69 Death

E81 Transformation

Scope note: This class comprises events that end the existence of any E77 Persistent Item.

It may be used for temporal reasoning about things (physical items, groups of people, living beings) ceasing to exist; it serves as a hook for determination of a *terminus post quem* and *ante quem*. In cases where substance from a Persistent Item continues to exist in a new form, the

process would be documented by E81 Transformation.

Examples: the death of Snoopy, my dog

the melting of the snowman

the burning of the Temple of Artemis in Ephesos by Herostratos in 356BC

Properties: Proper

E65 Creation

Subclass of: <u>E7</u> Activity

E63 Beginning of Existence

Superclass of: E83 Type Creation

F27 Work Conception
F28 Expression Creation

Scope Note: This class comprises events that result in the creation of conceptual items or immaterial

products, such as legends, poems, texts, music, images, movies, laws, types etc.

Examples: the framing of the U.S. Constitution

the drafting of U.N. resolution 1441

Properties: P94 has created (was created by): E28 Conceptual Object

E70 Thing

Subclass of: <u>E77</u> Persistent Item Superclass of: <u>E71</u> Man-Made Thing

E72 Legal Object

Scope Note: This general class comprises usable discrete, identifiable, instances of E77 Persistent Item that

are documented as single units.

They can be either intellectual products or physical things, and are characterized by relative stability. They may for instance either have a solid physical form, an electronic encoding, or

they may be logical concept or structure.

Examples: my photograph collection (E78)

the bottle of milk in my refrigerator (E22) the plan of the Strassburger Muenster (E29) the thing on the top of Otto Hahn's desk (E19) the form of the no-smoking sign (E36)

the form of the no-smoking sign (E36) the cave of Dirou, Mani, Greece (E27)

Properties: P43 has dimension (is dimension of): E54 Dimension

P101 had as general use (was use of): E55 Type

P130 shows features of (features are also found on): E70 Thing

(P130.1 kind of similarity: E55 Type)

E71 Man-Made Thing

Subclass of: <u>E70</u> Thing

Superclass of: <u>E24</u> Physical Man-Made Thing

E28 Conceptual Object

Scope Note: This class comprises discrete, identifiable man-made items that are documented as single units.

These items are either intellectual products or man-made physical things, and are characterized by relative stability. They may for instance have a solid physical form, an electronic encoding,

or they may be logical concepts or structures.

Examples: Beethoven's 5th Symphony (E73)

Michelangelo's David

Einstein's Theory of General Relativity (E73) the taxon 'Fringilla coelebs Linnaeus, 1758' (E55)

Properties: P102 has title (is title of): E35 Title

(P102.1 has type: E55 Type)

P103 was intended for (was intention of): E55 Type

E72 Legal Object

Subclass of: <u>E70</u> Thing

Superclass of: <u>E18</u> Physical Thing

E90 Symbolic Object

Scope Note: This class comprises those material or immaterial items to which instances of E30 Right, such

as the right of ownership or use, can be applied.

This is true for all E18 Physical Thing. In the case of instances of E28 Conceptual Object, however, the identity of the E28 Conceptual Object or the method of its use may be too ambiguous to reliably establish instances of E30 Right, as in the case of taxa and inspirations.

Ownership of corporations is currently regarded as out of scope of the CRM.

Examples: the Cullinan diamond (E19)

definition of the CIDOC Conceptual Reference Model Version 2.1 (E73)

Properties: P104 is subject to (applies to): E30 Right

P105 right held by (has right on): E39 Actor

E73 Information Object

Subclass of: <u>E89</u> Propositional Object

E90 Symbolic Object

Superclass of: <u>E29</u> Design or Procedure

E31 Document
E33 Linguistic Object
E36 Visual Item
F2 Expression

Scope Note: This class comprises identifiable immaterial items, such as a poems, jokes, data sets, images,

texts, multimedia objects, procedural prescriptions, computer program code, algorithm or mathematical formulae, that have an objectively recognizable structure and are documented as

single units.

An E73 Information Object does not depend on a specific physical carrier, which can include

human memory, and it can exist on one or more carriers simultaneously.

Instances of E73 Information Object of a linguistic nature should be declared as instances of the E33 Linguistic Object subclass. Instances of E73 Information Object of a documentary

nature should be declared as instances of the E31 Document subclass. Conceptual items such as types and classes are not instances of E73 Information Object, nor are ideas without a

reproducible expression.

Examples: image BM000038850.JPG from the Clayton Herbarium in London

E. A. Poe's "The Raven"

the movie "The Seven Samurai" by Akira Kurosawa

the Maxwell Equations

E74 Group

Subclass of: <u>E39</u> Actor Superclass of: <u>E40</u> Legal Body

F11 Corporate Body

Scope note: This class comprises any gatherings or organizations of two or more people that act

collectively or in a similar way due to any form of unifying relationship. In the wider sense this class also comprises official positions which used to be regarded in certain contexts as one actor, independent of the current holder of the office, such as the president of a country.

A gathering of people becomes an E74 Group when it exhibits organizational characteristics

usually typified by a set of ideas or beliefs held in common, or actions performed together. These might be communication, creating some common artefact, a common purpose such as study, worship, business, sports, etc. Nationality can be modelled as membership in an E74 Group (cf. HumanML markup). Married couples and other concepts of family are regarded as

particular examples of E74 Group.

Examples: the impressionists

the Navajo the Greeks

the peace protestors in New York City on February 15 2003

Exxon-Mobil

King Solomon and his wives

The President of the Swiss Confederation

Properties: P107 has current or former member (is current or former member of): E39 Actor

(P107.1 kind of member: E55 Type)

E75 Conceptual Object Appellation

Subclass of: <u>E41</u> Appellation

Scope note: This class comprises all appellations specific to intellectual products or standardized patterns.

Examples: "ISBN 3-7913-1418-1"

"ISO 2788-1986 (F)"

E77 Persistent Item

Subclass of: E1 CRM Entity
Superclass of: E39 Actor

E70 Thing

Scope Note: This class comprises items that have a persistent identity, sometimes known as "endurants" in

philosophy.

They can be repeatedly recognized within the duration of their existence by identity criteria rather than by continuity or observation. Persistent Items can be either physical entities, such as

people, animals or things, or conceptual entities such as ideas, concepts, products of the imagination or common names.

The criteria that determine the identity of an item are often difficult to establish -; the decision depends largely on the judgement of the observer. For example, a building is regarded as no longer existing if it is dismantled and the materials reused in a different configuration. On the other hand, human beings go through radical and profound changes during their life-span, affecting both material composition and form, yet preserve their identity by other criteria. Similarly, inanimate objects may be subject to exchange of parts and matter. The class E77 Persistent Item does not take any position about the nature of the applicable identity criteria and if actual knowledge about identity of an instance of this class exists. There may be cases, where the identity of an E77 Persistent Item is not decidable by a certain state of knowledge.

The main classes of objects that fall outside the scope the E77 Persistent Item class are temporal objects such as periods, events and acts, and descriptive properties.

Examples: Leonard da Vinci

Stonehenge

the hole in the ozone layer

the First Law of Thermodynamics

the Bermuda Triangle

E82 Actor Appellation

Subclass of: <u>E41</u> Appellation

Scope note: This class comprises any sort of name, number, code or symbol characteristically used to

identify an E39 Actor.

An E39 Actor will typically have more than one E82 Actor Appellation, and instances of E82 Actor Appellation in turn may have alternative representations. The distinction between corporate and personal names, which is particularly important in library applications, should be made by explicitly linking the E82 Actor Appellation to an instance of either E21 Person or E74 Group/E40 Legal Body. If this is not possible, the distinction can be made through the use

of the P2 has type mechanism.

Examples: "John Doe"

"Doe, J"

"the U.S. Social Security Number 246-14-2304"

"the Artist Formerly Known as Prince" the Master of the Flemish Madonna"

"Raphael's Workshop" "the Brontë Sisters"

"ICOM"

"International Council of Museums"

E89 Propositional Object

Subclass of: <u>E28</u> Conceptual Object Superclass of: <u>E73</u> Information Object

E30 Right F1 Work

Scope Note: This class comprises immaterial items, including but not limited to stories, plots, procedural

prescriptions, algorithms, laws of physics or images that are, or represent in some sense, sets of propositions about real or imaginary things and that are documented as single units or serve as

topic of discourse.

This class also comprises items that are "about" something in the sense of a subject. In the wider sense, this class includes expressions of psychological value such as non-figural art and musical themes. However, conceptual items such as types and classes are not instances of E89

Propositional Object. This should not be confused with the definition of a type, which is indeed an instance of E89 Propositional Object.

Examples: Maxwell's Equations

The ideational contents of Aristotle's book entitled 'Metaphysics' as rendered in the Greek

texts translated in ... Oxford edition...

The underlying prototype of any "no-smoking" sign (E36)

The common ideas of the plots of the movie "The Seven Samurai" by Akira Kurosawa and the

movie "The Magnificent Seven" by John Sturges

The image content of the photo of the Allied Leaders at Yalta 1945 (E38)

Properties: P148 has component (is component of): E89 Propositional Object

P67 refers to (is referred to by): **E1** CRM Entity

(P67.1 has type: <u>E55</u> Type)

P129 is about (is subject of): E1 CRM Entity

E90 Symbolic Object

Subclass of: <u>E28</u> Conceptual Object

E72 Legal Object

Superclass of: E73 Information Object

E41 Appellation

Scope note: This class comprises identifiable symbols and any aggregation of symbols, such as characters,

identifiers, traffic signs, emblems, texts, data sets, images, musical scores, multimedia objects, computer program code or mathematical formulae that have an objectively recognizable

structure and that are documented as single units.

It includes sets of signs of any nature, which may serve to designate something, or to

communicate some propositional content.

An instance of E90 Symbolic Object does not depend on a specific physical carrier, which can include human memory, and it can exist on one or more carriers simultaneously. An instance of E90 Symbolic Object may or may not have a specific meaning, for example an arbitrary

character string.

In some cases, the content of an instance of E90 Symbolic Object may completely be represented by a serialized digital content model, such as a sequence of ASCII-encoded characters, an XML or HTML document, or a TIFF image. The property *P3 has note* allows for the description of this content model. In order to disambiguate which symbolic level is the carrier of the meaning, the property *P3.1 has type* can be used to specify the encoding (e.g.

"bit", "Latin character", RGB pixel).

Examples: 'ecognizabl'

The "no-smoking" sign (E36) "BM000038850.JPG" (E75)

image BM000038850.JPG from the Clayton Herbarium in London (E38)

The distribution of form, tone and colour found on Leonardo da Vinci's painting named "Mona

Lisa" in daylight (E38)

The Italian text of Dante's "Divina Commedia" as found in the authoritative critical edition *La Commedia secondo l'antica vulgata a cura di Giorgio Petrocchi*, Milano: Mondadori, 1966-67 (= Le Opere di Dante Alighieri, Edizione Nazionale a cura della Società Dantesca Italiana, VII,

1-4) (E33)

Properties: P106 is composed of (forms part of): E90 Symbolic Object

Referred to CIDOC CRM Properties

This section contains the complete definitions of the properties of the CIDOC CRM Conceptual Reference Model version 5.1 referred to by PRESS_{OO}.

For the sake of clarity, the $PRESS_{OO}$ and $FRBR_{OO}$ properties of which these CIDOC CRM properties are superproperties are repeated here, in italics, although this information is absent from the original definition of the CIDOC CRM model.

P1 is identified by (identifies)

Domain: <u>E1</u> CRM Entity
Range: <u>E41</u> Appellation

Superproperty of: E1 CRM Entity. P48 has preferred identifier (is preferred identifier of): E42 Identifier

E52 Time-Span. P78 is identified by (identifies): E49 Time Appellation E53 Place. P87 is identified by (identifies): E44 Place Appellation E71 Man-Made Thing. P102 has title (is title of): E35 Title

E39 Actor. P131 is identified by (identifies): E82 Actor Appellation

E28 Conceptual Object. P149 is identified by (identifies): E75 Conceptual Object Appellation

Quantification: many to many (0,n:0,n)

Scope note: This property describes the naming or identification of any real world item by a name or any

other identifier.

This property is intended for identifiers in general use, which form part of the world the model intends to describe, and not merely for internal database identifiers which are specific to a technical system, unless these latter also have a more general use outside the technical context. This property includes in particular identification by mathematical expressions such as coordinate systems used for the identification of instances of E53 Place. The property does not reveal anything about when, where and by whom this identifier was used. A more detailed representation can be made using the fully developed (i.e. indirect) path through E15 Identifier

Assignment.

Examples: the capital of Italy (E53) is identified by "Rome" (E48)

text 25014-32 (E33) is identified by "The Decline and Fall of the Roman Empire" (E35)

P2 has type (is type of)

Domain: <u>E1</u> CRM Entity

Range: <u>E55</u> Type

Superproperty of:E1 CRM Entity. P137 exemplifies (is exemplified by):E55 Type

<u>F23</u> Expression Fragment. <u>Y43</u> is indicative of (is exemplified by): <u>Z10</u> Sequencing Pattern

Quantification: many to many (0,n:0,n)

Scope note: This property allows sub typing of CRM entities – a form of specialisation – through the use of

a terminological hierarchy, or thesaurus.

The CRM is intended to focus on the high-level entities and relationships needed to describe data structures. Consequently, it does not specialise entities any further than is required for this immediate purpose. However, entities in the isA hierarchy of the CRM may by specialised into any number of sub entities, which can be defined in the E55 Type hierarchy. E51 Contact Point, for example, may be specialised into "e-mail address", "telephone number", "post office box", "URL" etc. none of which figures explicitly in the CRM hierarchy. Sub typing obviously

requires consistency between the meaning of the terms assigned and the more general intent of the CRM entity in question.

Examples: "enquiries@cidoc-crm.org" (E51) has type e-mail address (E55)

P3 has note

Domain: <u>E1</u> CRM Entity
Range: <u>E62</u> String

Superproperty of:E52 Time-Span. P79 beginning is qualified by: E62 String

E52 Time-Span. P80 end is qualified by: E62 String

F12 Nomen. R33 has note: E62 String

Quantification: one to many (0,n:0,1)

Scope note: This property is a container for all informal descriptions about an object that have not been

expressed in terms of CRM constructs.

In particular it captures the characterisation of the item itself, its internal structures, appearance

etc.

Like property P2 has type (is type of), this property is a consequence of the restricted focus of the CRM. The aim is not to capture, in a structured form, everything that can be said about an item; indeed, the CRM formalism is not regarded as sufficient to express everything that can be said. Good practice requires use of distinct note fields for different aspects of a characterisation. The P3.1 has type property of P3 has note allows differentiation of specific notes, e.g.

"construction", "decoration" etc.

An item may have many notes, but a note is attached to a specific item.

Examples: coffee mug – OXCMS:1983.1.1 (E19) has note "chipped at edge of handle" (E62) has type

Condition (E55)

Properties: P3.1 has type: <u>E55</u> Type

P4 has time-span (is time-span of)

Domain: <u>E2</u> Temporal Entity
Range: <u>E52</u> Time-Span

Quantification: many to one, necessary, dependent (1,1:1,n)

Scope note: This property describes the temporal confinement of an instance of an E2 Temporal Entity.

The related E52 Time-Span is understood as the real Time-Span during which the phenomena were active, which make up the temporal entity instance. It does not convey any other meaning than a positioning on the "time-line" of chronology. The Time-Span in turn is approximated by a set of dates (E61 Time Primitive). A temporal entity can have in reality only one Time-Span, but there may exist alternative opinions about it, which we would express by assigning multiple Time-Spans. Related temporal entities may share a Time-Span. Time-Spans may have

completely unknown dates but other descriptions by which we can infer knowledge.

Examples: the Yalta Conference (E7) has time-span Yalta Conference time-span (E52)

P9 consists of (forms part of)

Domain: <u>E4</u> Period Range: E4 Period

Quantification: one to many, (0,n:0,1)

Scope note: This property describes the decomposition of an instance of E4 Period into discrete, subsidiary

periods.

The sub-periods into which the period is decomposed form a logical whole – although the entire picture may not be completely known – and the sub-periods are constitutive of the

general period.

Examples: Cretan Bronze Age (E4) consists of Middle Minoan (E4)

P11 had participant (participated in)

Domain: <u>E5</u> Event Range: E39 Actor

Subproperty of: E5 Event. P12 occurred in the presence of (was present at): E77 Persistent Item

Superproperty of: $\underline{E7}$ Activity. $\underline{P14}$ carried out by (performed): $\underline{E39}$ Actor

E67 Birth. P96 by mother (gave birth): E21 Person

E68 Dissolution. P99 dissolved (was dissolved by): E74 Group

E85 Joining. P143 joined (was joined by): E39 Actor

E85 Joining. P144 joined with (gained member by): E74 Group

E86 Leaving. P145 separated (left by):E39 Actor

E86 Leaving. P146 separated from (lost member by):E74 Group

E66 Formation. P151 was formed from: E74 Group

Quantification: many to many (0,n:0,n)

Scope note: This property describes the active or passive participation of instances of E39 Actors in an E5

Event.

It connects the life-line of the related E39 Actor with the E53 Place and E50 Date of the event. The property implies that the Actor was involved in the event but does not imply any causal relationship. The subject of a portrait can be said to have participated in the creation of the

portrait.

Examples: Napoleon (E21) participated in The Battle of Waterloo (E7)

Maria (E21) participated in Photographing of Maria (E7)

P12 occurred in the presence of (was present at)

Domain: <u>E5</u> Event

Range: E77 Persistent Item

Superproperty of: E5 Event. P11 had participant (participated in): E39 Actor

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

E9 Move. P25 moved (moved by): E19 Physical Object

E11 Modification. P31 has modified (was modified by): E24 Physical Man-Made Thing

<u>E63</u> Beginning of Existence. <u>P92</u> brought into existence (was brought into existence by): <u>E77</u>

Persistent Item

E64 End of Existence. P93 took out of existence (was taken out of existence by): E77

Persistent Item

E79 Part Addition. P111 added (was added by): E18 Physical Thing

E80 Part Removal. P113 removed (was removed by): E18 Physical Thing

Z3 Separation. <u>Y12</u> separated from (was diminished through): <u>F18</u> Serial Work

Z5 Issuing Rule Change. <u>Y15</u> replaced (was replaced through): <u>Z12</u> Issuing Rule

Quantification: many to many, necessary (1,n:0,n)

Scope note: This property describes the active or passive presence of an E77 Persistent Item in an E5 Event

without implying any specific role.

It connects the history of a thing with the E53 Place and E50 Date of an event. For example, an object may be the desk, now in a museum on which a treaty was signed. The presence of an

immaterial thing implies the presence of at least one of its carriers.

Examples: Deckchair 42 (E19) was present at The sinking of the Titanic (E5)

P14 carried out by (performed)

Domain: <u>E7</u> Activity
Range: <u>E39</u> Actor

Subproperty of: E5 Event. P11 had participant (participated in): E39 Actor

Superproperty of:E8 Acquisition. P22 transferred title to (acquired title through): E39 Actor

E8 Acquisition. P23 transferred title from (surrendered title through): E39 Actor

E10 Transfer of Custody. P28 custody surrendered by (surrendered custody through): E39

Actor

E10 Transfer of Custody. P29 custody received by (received custody through): E39 Actor

Quantification: many to many, necessary (1,n:0,n)

Scope note: This property describes the active participation of an E39 Actor in an E7 Activity.

It implies causal or legal responsibility. The P14.1 in the role of property of the property allows

the nature of an Actor's participation to be specified.

Examples: the painting of the Sistine Chapel (E7) carried out by Michaelangelo Buonaroti (E21) in the

role of master craftsman (E55)

Properties: P14.1 in the role of: <u>E55</u> Type

P15 was influenced by (influenced)

Domain: <u>E7</u> Activity

Range: <u>E1</u> CRM Entity

Superproperty of: <u>E7</u> Activity. <u>P16</u> used specific object (was used for): <u>E70</u> Thing

<u>E7</u> Activity. <u>P17</u> was motivated by (motivated): <u>E1</u> CRM Entity <u>E7</u> Activity. <u>P134</u> continued (was continued by): <u>E7</u> Activity

E83 Type Creation. P136 was based on (supported type creation): E1 CRM Entity

Quantification: many to many (0,n:0,n)

Scope note: This is a high level property, which captures the relationship between an E7 Activity and

anything that may have had some bearing upon it.

The property has more specific sub properties.

Examples: the designing of the Sydney Harbour Bridge (E7) was influenced by the Tyne bridge (E22)

P16 used specific object (was used for)

Domain: <u>E7</u> Activity
Range: <u>E70</u> Thing

Subproperty of: <u>E5</u> Event. <u>P12</u> occurred in the presence of (was present at): <u>E77</u> Persistent Item

E7 Activity. P15 was influenced by (influenced): E1 CRM Entity

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

E15 Identifier Assignment. P142 used constituent (was used in): E90 Symbolic Object

E79 Part Addition. P111 added (was added by):E18 Physical Thing

F28 Expression Creation. R19 created a realisation of (was realised through): F1 Work

 $\underline{F32}$ Carrier Production Event. $\underline{R27}$ used as source material (was used by): $\underline{F24}$ Publication

Expression

<u>Z2</u> Absorption. <u>Y9</u> absorbed (was absorbed through): <u>F18</u> Serial Work

Z2 Absorption. Y10 enhanced (was enhanced through): F18 Serial Work

<u>Z4</u> Temporary Substitution. <u>Y14</u> substituted with (became surrogate through): <u>F18</u> Serial Work

Z5 Issuing Rule Change. <u>Y16</u> replaced with (was introduced through): <u>Z12</u> Issuing Rule

Z14 Storage Unit Creation. Y46 aggregated in a single storage unit (was aggregated in a

single storage unit through): <u>E18</u> Physical Thing

Quantification: many to many (0,n:0,n)

Scope note: This property describes the use of material or immaterial things in a way essential to the

performance or the outcome of an E7 Activity.

This property typically applies to tools, instruments, moulds, raw materials and items embedded in a product. It implies that the presence of the object in question was a necessary condition for the action. For example, the activity of writing this text required the use of a computer. An immaterial thing can be used if at least one of its carriers is present. For example,

the software tools on a computer.

Another example is the use of a particular name by a particular group of people over some span to identify a thing, such as a settlement. In this case, the physical carriers of this name are at

least the people understanding its use.

Examples: the writing of this scope note (E7) used specific object Nicholas Crofts' computer (E22) mode

of use Typing Tool; Storage Medium (E55)

the people of Iraq calling the place identified by TGN '7017998' (E7) used specific object

"Quyunjig" (E44) mode of use Current; Vernacular (E55)

Properties: P16.1 mode of use: <u>E55</u> Type

P17 was motivated by (motivated)

Domain: <u>E7</u> Activity

Range: E1 CRM Entity

Subproperty of: E7 Activity. P15 was influenced by (influenced): E1 CRM Entity

Quantification: many to many (0,n:0,n)

Scope note: This property describes an item or items that are regarded as a reason for carrying out the E7

Activity.

For example, the discovery of a large hoard of treasure may call for a celebration, an order

from head quarters can start a military manoeuvre.

Examples: the resignation of the chief executive (E7) was motivated by the collapse of SwissAir (E68)

the coronation of Elizabeth II (E7) was motivated by the death of George VI (E69)

P31 has modified (was modified by)

Domain: <u>E11</u> Modification

Range: E24 Physical Man-Made Thing

Subproperty of: <u>E5</u> Event. <u>P12</u> occurred in the presence of (was present at): <u>E77</u> Persistent Item

Superproperty of: E12 Production. P108 has produced (was produced by): E24 Physical Man-Made Thing

E79 Part Addition. P110 augmented (was augmented by): E24 Physical Man-Made Thing

E80 Part Removal. P112 diminished (was diminished by): E24 Physical Man-Made Thing

Quantification: many to many, necessary (1,n:0,n)

Scope note: This property identifies the E24 Physical Man-Made Thing modified in an E11 Modification.

If a modification is applied to a non-man-made object, it is regarded as an E22 Man-Made

Object from that time onwards.

Examples: rebuilding of the Reichstag (E11) has modified the Reichstag in Berlin (E24)

P48 has preferred identifier (is preferred identifier of)

Domain: <u>E1</u> CRM Entity
Range: <u>E42</u> Identifier

Subproperty of: E1 CRM Entity. P1 is identified by (identifies): E41 Appellation

Quantification: many to one (0,1:0,n)

Scope note: This property records the preferred E42 Identifier that was used to identify an instance of E1

CRM Entity at the time this property was recorded.

More than one preferred identifier may have been assigned to an item over time.

Use of this property requires an external mechanism for assigning temporal validity to the

respective CRM instance.

P48 has preferred identifier (is preferred identifier of), is a shortcut for the path from E1 CRM Entity through P140 assigned attribute to (was attributed by), E15 Identifier Assignment, P37 assigned (was assigned by) to E42 Identifier. The fact that an identifier is a preferred one for an organisation can be better expressed in a context independent form by assigning a suitable E55 Type to the respective instance of E15 Identifier Assignment using the P2 has type property.

Examples: the pair of Lederhosen donated by Dr Martin Doerr (E22) has preferred identifier

"OXCMS:2001.1.32" (E42)

P67 refers to (is referred to by)

Domain: E89 Propositional Object

Range: <u>E1</u> CRM Entity

Superproperty of: E31 Document. P70 documents (is documented in): E1 CRM Entity

E32 Authority Document. P71 lists (is listed in): E1 CRM Entity E89 Propositional Object. P129 is about (is subject of): E1 CRM Entity E36 Visual Item. P138 represents (has representation): E1 CRM Entity

E29 Design or Procedure. P68 foresees use of (use foreseen by): E57 Material F35 Nomen Use Statement. R37 states as nomen (is stated as nomen in): F12 Nomen

<u>Z12</u> Issuing Rule. <u>Y20</u> foresees type (is type foreseen in): <u>E55</u> Type

Z12 Issuing Rule. Y23 foresees dimension (is dimension foreseen in): E54 Dimension

<u>Z12</u> Issuing Rule. <u>Y24</u> foresees use of title (is title foreseen in): <u>E35</u> Title <u>Z12</u> Issuing Rule. <u>Y28</u> foresees URL (is URL foreseen in): <u>Z11</u> URL <u>Z12</u> Issuing Rule. <u>Y44</u> foresees topic (is topic foreseen in): <u>E1</u> CRM Entity

Quantification: many to many (0,n:0,n)

Scope note: This property documents that an E89 Propositional Object makes a statement about an instance

of E1 CRM Entity. P67 refers to (is referred to by) has the P67.1 has type link to an instance of E55 Type. This is intended to allow a more detailed description of the type of reference. This differs from P129 is about (is subject of), which describes the primary subject or subjects of the

E89 Propositional Object.

Examples: the eBay auction listing of 4 July 2002 (E73) refers to silver cup 232 (E22) has type item for

sale (E55)

Properties: P67.1 has type: <u>E55</u> Type

P69 has association with (is associated with)

Domain: <u>E29</u> Design or Procedure

Range: <u>E29</u> Design or Procedure

Superproperty of: <u>Z12</u> Issuing Rule. <u>Y25</u> foresees association with (foresees to be associated with): <u>Z12</u> Issuing

Rule

Quantification: many to many (0,n:0,n)

Scope note: This symmetric property describes the association of an E29 Design or Procedure with other

Designs or Procedures.

Any instance of E29 Design or Procedure may be associated with other designs or procedures.

The P69.1 has type property of P69 has association with allows the nature of the association to be specified; examples of types of association between instances of E29 Design or Procedure

include: whole-part, sequence, prerequisite, etc.

Examples: procedure for glass blowing (E29) has association with procedure for glass heating (E29)

Properties: P69.1 has type: <u>E55</u> Type

P71 lists (is listed in)

Domain: <u>E32</u> Authority Document

Range: <u>E1</u> CRM Entity

Subproperty of: <u>E89</u> Propositional Object. <u>P67</u> refers to (is referred to by): <u>E1</u> CRM Entity

Quantification: many to many (0,n:0,n)

Scope note: This property documents a source E32 Authority Document for an instance of an E1 CRM

Entity.

Examples: the Art & Architecture Thesaurus (E32) *lists* alcazars (E55)

P74 has current or former residence (is current or former residence of)

Domain: <u>E39</u> Actor Range: E53 Place

Quantification: many to many (0,n:0,n)

Scope note: This property describes the current or former E53 Place of residence of an E39 Actor.

The residence may be either the Place where the Actor resides, or a legally registered address

of any kind.

Examples: Queen Elizabeth II (E39) has current or former residence Buckingham Palace (E53)

P75 possesses (is possessed by)

Domain: <u>E39</u> Actor

Range: <u>E30</u> Right

Quantification: many to many (0,n:0,n)

Scope note: This property identifies former or current instances of E30 Rights held by an E39 Actor.

Examples: Michael Jackson (E21) possesses Intellectual property rights on the Beatles' back catalogue

(E30)

P78 is identified by (identifies)

Domain: E52 Time-Span

Range: <u>E49</u> Time Appellation

Subproperty of: <u>E1</u> CRM Entity. <u>P1</u> is identified by (identifies): <u>E41</u> Appellation

Quantification: many to many (0,n:0,n)

Scope note: This property identifies an E52 Time-Span using an E49Time Appellation.

Examples: the time span 1926 to 1988 (E52) is identified by "Showa" (Japanese time appellation) (E49)

P82 at some time within

Domain: <u>E52</u> Time-Span

Range: <u>E61</u> Time Primitive

Quantification: many to one, necessary (1,1:0,n)

Scope note: This property describes the maximum period of time within which an E52 Time-Span falls.

Since Time-Spans may not have precisely known temporal extents, the CRM supports statements about the minimum and maximum temporal extents of Time-Spans. This property allows a Time-Span's maximum temporal extent (i.e. its outer boundary) to be assigned an E61 Time Primitive value. Time Primitives are treated by the CRM as application or system

specific date intervals, and are not further analysed.

Examples: the time-span of the development of the CIDOC CRM (E52) at some time within 1992-infinity

(E61)

P89 falls within (contains)

Domain: <u>E53</u> Place Range: <u>E53</u> Place

Quantification: many to many (0,n:0,n)

Scope note: This property identifies the instances of E53 Places that fall within the area covered by another

Place.

It addresses spatial containment only, and no 'whole-part' relationship between the two places

is implied.

Examples: the area covered by the World Heritage Site of Stonehenge (E53) falls within the area of

Salisbury Plain (E53)

P92 brought into existence (was brought into existence by)

Domain: E63 Beginning of Existence

Range: <u>E77</u> Persistent Item

Subproperty of: E5 Event. P12 occurred in the presence of (was present at): E77 Persistent Item

Superproperty of: E65 Creation. P94 has created (was created by): E28 Conceptual Object

E66 Formation. P95 has formed (was formed by): E74 Group E67 Birth. P98 brought into life (was born): E21 Person

E12 Production. P108 has produced (was produced by): E24 Physical Man-Made Thing

E81 Transformation. P123 resulted in (resulted from): E77 Persistent Item

Quantification: one to many, necessary, dependent (1,n:1,1)

Scope note: This property allows an E63 Beginning of Existence event to be linked to the E77 Persistent

Item brought into existence by it.

It allows a "start" to be attached to any Persistent Item being documented i.e. E70 Thing, E72

Legal Object, E39 Actor, E41 Appellation, E51 Contact Point and E55 Type.

Examples: the birth of Mozart (E67) brought into existence Mozart (E21)

P93 took out of existence (was taken out of existence by)

Domain: <u>E64</u> End of Existence

Range: <u>E77</u> Persistent Item

Subproperty of: E5 Event. P12 occurred in the presence of (was present at): E77 Persistent Item

Superproperty of: E6 Destruction. P13 destroyed (was destroyed by): E18 Physical Thing

E68 Dissolution. P99 dissolved (was dissolved by): E74 Group

E69 Death. P100 was death of (died in): E21 Person

E81 Transformation. P124 transformed (was transformed by): E77 Persistent Item

Quantification: one to many, necessary (1,n:0,1)

Scope note: This property allows an E64 End of Existence event to be linked to the E77 Persistent Item

taken out of existence by it.

In the case of immaterial things, the E64 End of Existence is considered to take place with the

destruction of the last physical carrier.

This allows an "end" to be attached to any Persistent Item being documented i.e. E70 Thing, E72 Legal Object, E39 Actor, E41 Appellation, E51 Contact Point and E55 Type. For many Persistent Items we know the maximum life-span and can infer, that they must have ended to exist. We assume in that case an End of Existence, which may be as unnoticeable as forgetting

the secret knowledge by the last representative of some indigenous nation.

Examples: the death of Mozart (E69) took out of existence Mozart (E21)

P94 has created (was created by)

Domain: E65 Creation

Range: <u>E28</u> Conceptual Object

Subproperty of: E63 Beginning of Existence. P92 brought into existence (was brought into existence by): E77

Persistent Item

Superproperty of: E83 Type Creation. P135 created type (was created by): E55 Type

<u>F27</u> Work Conception. <u>R16</u> initiated (was initiated by): <u>F1</u> Work

Quantification: one to many, necessary, dependent (1,n:1,1)

Scope note: This property allows a conceptual E65 Creation to be linked to the E28 Conceptual Object

created by it.

It represents the act of conceiving the intellectual content of the E28 Conceptual Object. It does not represent the act of creating the first physical carrier of the E28 Conceptual Object. As an example, this is the composition of a poem, not its commitment to paper.

Examples: the composition of "The Four Friends" by A. A. Milne (E65) has created "The Four Friends"

by A. A. Milne (E28)

P104 is subject to (applies to)

Domain: <u>E72</u> Legal Object

Range: <u>E30</u> Right

Quantification: many to many (0,n:0,n)

Scope note: This property links a particular E72 Legal Object to the instances of E30 Right to which it is

subject.

The Right is held by an E39 Actor as described by P75 possesses (is possessed by).

Examples: Beatles back catalogue (E72) is subject to reproduction right on Beatles back catalogue (E30)

P108 has produced (was produced by)

Domain: <u>E12</u> Production

Range: <u>E24</u> Physical Man-Made Thing

Subproperty of: E11 Modification. P31 has modified (was modified by): E24 Physical Man-Made Thing

E63 Beginning of Existence. P92 brought into existence (was brought into existence by): E77

Persistent Item

Superproperty of: F28 Expression Creation. R18 created (was created by): F4 Manifestation Singleton

Quantification: one to many, necessary, dependent (1,n:1,1)

Scope note: This property identifies the E24 Physical Man-Made Thing that came into existence as a result

of an E12 Production.

The identity of an instance of E24 Physical Man-Made Thing is not defined by its matter, but by its existence as a subject of documentation. An E12 Production can result in the creation of

multiple instances of E24 Physical Man-Made Thing.

Examples: The building of Rome (E12) has produced The Colosseum (E22)

P115 finishes (is finished by)

Domain: <u>E2</u> Temporal Entity

Range: <u>E2</u> Temporal Entity

Quantification: many to many (0,n:0,n)

Scope note: This property allows the ending point for a E2 Temporal Entity to be situated by reference to

the ending point of another temporal entity of longer duration.

This property is only necessary if the time span is unknown (otherwise the relationship can be calculated). This property is the same as the "finishes / finished-by" relationships of Allen's

temporal logic (Allen, 1983, pp. 832-843).

Examples: Late Bronze Age (E4) finishes Bronze Age (E4)

P116 starts (is started by)

Domain: <u>E2</u> Temporal Entity

Range: <u>E2</u> Temporal Entity

Quantification: many to many (0,n:0,n)

Scope note: This property allows the starting point for a E2 Temporal Entity to be situated by reference to

the starting point of another temporal entity of longer duration.

This property is only necessary if the time span is unknown (otherwise the relationship can be calculated). This property is the same as the "starts / started-by" relationships of Allen's

temporal logic (Allen, 1983, pp. 832-843).

Examples: Early Bronze Age (E4) starts Bronze Age (E4)

P131 is identified by (identifies)

Domain: <u>E39</u> Actor

Range: <u>E82</u> Actor Appellation

Subproperty of: <u>E1</u> CRM Entity. <u>P1</u> is identified by (identifies): <u>E41</u> Appellation

Quantification: many to many (0,n:0,n)

Scope note: This property identifies a name used specifically to identify an E39 Actor.

This property is a specialisation of P1 is identified by (identifies) is identified by.

Examples: Tyler Withersopp IV (E39) is identified by "US social security number 619-17-4204" (E82)

P134 continued (was continued by)

Domain: <u>E7</u> Activity
Range: <u>E7</u> Activity

Subproperty of: <u>E7</u> Activity. <u>P15</u> was influenced by (influenced): <u>E1</u> CRM Entity

Quantification: many to many (0,n:0,n)

Scope note: This property allows two activities to be related where the domain is considered as an

intentional continuation of the range.

Used multiple times, this allows a chain of related activities to be created which follow each

other in sequence.

Examples: the construction of the Kölner Dom (Cologne Cathedral) (E7), abandoned in the 15th century,

was continued by construction in the 19th century adapting the initial plans so as to preserve

the intended appearance (E7)

P148 has component (is component of)

Domain: <u>E89</u> Propositional Object Range: <u>E89</u> Propositional Object

Superproperty of: <u>F15</u> Complex Work. <u>R10</u> has member (is member of): <u>F1</u> Work

<u>F35</u> Nomen Use Statement. <u>R35</u> is specified by (specifies): <u>F34</u> KOS

Quantification: (0,n:0,n)

Scope note: This property associates an instance of E89 Propositional Object with a structural part of it that

is by itself an instance of E89 Propositional Object.

Examples: Dante's "Divine Comedy" (E89) has component Dante's "Hell" (E89)

P149 is identified by (identifies)

Domain: <u>E28</u> Conceptual Object

Range: <u>E75</u> Conceptual Object Appellation

Subproperty of: E1 CRM Entity. P1 is identified by (identifies): E41 Appellation

Quantification: many to many (0,n:0,n)

Scope note: This property identifies an instance of E28 Conceptual Object using an instance of E75

Conceptual Object Appellation.

Examples: The German edition of the CIDOC CRM (E73) is identified by ISBN 978-3-00-030907-6 (E75)