

Issue 627 - Explicitly document cross-references btw family models

Session 3.2

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Issue 627 – Explicitly document cross-references btw family models

Issue 627 initial goals (18/01/2023):

- Document dependencies among CRM extensions
- Parse all FM documents (11) and maintain a repository for each with:
 - RDFs main module, pc module (*under construction*), supplement module
 - documentation of references to other models
 - documentation of the results of the RDFs generation policies appliance

Additional goals, set during implementation:

- Try to adapt older FMs to the most recent stable version of base and other FM
- Detect documentation issues
- Generate owl encoding
- URI resolution using the namespace pattern <http://www.cidoc-crm.org/extensions/{ext}/> ([decision of issue 577](#)) (*partially done*)
- Html representation

FMs Crmbase ISO Compatibility statuses

Release Candidate

Stable status and CRMbase 7.1.*

1. CRMarchaeo 2.0 (*crmbase 7.1.2*)
2. CRMsci 2.0 (*crmbase 7.1.2*)
3. CRMtex 2.0 (*crmbase 7.1.2*)
4. LRMoo 0.9.6 (*crmbase 7.1.2*)

Draft

Either draft status or CRMbase 6.*



1. CRMinf 1.0 (*Draft 2023 crmbase 7.1.2*)
2. CRMdig 4.0 (*Draft 2022 crmbase 7.1.1*)
3. CRMact 0.2 (*Draft 2022 crmbase 7.1.1*)
4. CRMgeo 1.2 (*Stable 2015 crmbase 6.2*)
5. CRMsoc 0.1 (*Draft 2019 crmbase 6.2.5*)
6. CRMba (*Stable 2016 crmbase 6.2.2*)
7. PRESSoo 1.3 (*Official 2017 crmbase 6.2*)

ISO Compatibility status: Release Candidate

Stable FM version / Compatible with CRMbase 7.1.*

Prepared the Encodings column in each FM Resources page containing:

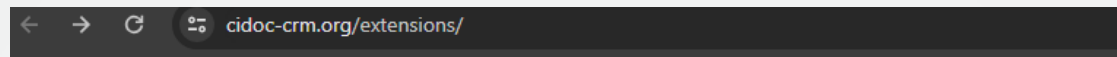
- Resolvable namespace link (*HTML/RDF requests*)
- RDFs link-group containing base RDFs, owl, repository link and if necessary pc(draft) and supplement module
- XML & HTML for declarations
- Dependencies of each FM to other models are included in the HTML
- External uri references and details regarding RDFs generation policies are included in the repository link (label: more)

Version	Release Date	Available Documents	Status	Encodings	CIDOC-CRM Compatible Version
CRMarchaeo Version 2.0	July 2023	 (.pdf),  (.docx)	Stable	Namespace: http://www.cidoc-crm.org/extensions/crmarchaeo/ -RDFs (main , pc(draft) , owl , more) -XML -Classes & Properties declarations	Version 7.1.2

ISO Compatibility status: Draft

- FM versions characterized as Draft versions by model maintainers group OR FM versions compatible to CRMbase 6.*
- **Empty** Encodings column in each FM Resources page
- Created a repository for each FM where the references to CRMbase and other CRM extensions were upgraded whenever possible to the most recent stable versions compatible with CRM base iso version.
- This repository has similar contents to the Release Candidate versions (RDFs modules, owl, external dependencies, RDFs generation policies, HTML, etc.) with a clear note that these encodings should be considered as drafts.
- These repositories can actually assist the next FM version preparation by revealing issues that should be addressed.

Extensions, useful links page



CIDOC CRM | Useful links for the *under development* Encodings column of the Family Models Resources page.

Relevant Issue: [627](#) explicitly document cross-references btw family models.

Family Model (HTML representation)	Dependencies	Useful links	Encodings Status	Current maintainers
CRMarchaeo v2.0	<ul style="list-style-type: none">Cidoc-CRM v7.1.2CRMsci v2.0	<ul style="list-style-type: none">Resources pagegitlab repository (more)Documentation issuesExternal References	Release Candidate	CEO, GH, AF, MK
CRMsci v2.0	<ul style="list-style-type: none">Cidoc-CRM v7.1.2	<ul style="list-style-type: none">Resources pagegitlab repository (more)Documentation issuesExternal ReferencesRDFS Generation Policies	Release Candidate	TV, AK, MD
CRMtex v2.0	<ul style="list-style-type: none">Cidoc-CRM v7.1.2CRMinf v0.7(b)CRMsci v2.0FRBRoo v2.4	<ul style="list-style-type: none">Resources pagegitlab repository (more)Documentation issuesExternal References	Release Candidate	PF, AF, FM, MD
LRMoo v0.9.6	<ul style="list-style-type: none">Cidoc-CRM v7.1.2	<ul style="list-style-type: none">Resources pagegitlab repository (more)Documentation issuesExternal ReferencesRDFS Generation Policies	Release Candidate	PR
CRMgeo based on v1.2 (2015) including 2024 updates	<ul style="list-style-type: none">Cidoc-CRM v7.1.3GeoSPARQL v1.1	<ul style="list-style-type: none">Resources pagegitlab repository (more)Documentation issuesExternal References	<i>Draft</i>	GH

<https://www.cidoc-crm.org/extensions/>

Extensions, useful links page table columns

- **Family Model (HTML representation):** usually* the extension namespace link that is resolvable in HTML and RDF requests
- **Dependencies:** The external models that have been used
- **Useful links:** includes notable links to the most recent development repository of each FM including:
 - **Resources page**
 - **Gitlab repository (more):** The latest development repository that is usually displayed as “more” in the Encodings column
 - **Documentation issues:** includes issues detected during parsing of the specification document
 - **External References:** direct link to the repository text that lists all the model external uri references
 - **RDFs generation policies:** direct link to the repository text that lists all the outcomes of the RDFs generation policies
- **Encodings status:** Release Candidate/Draft
- **Current Maintainers:** the current WG of each FM

* *Except for LRMoo, PRESSoo that follow different namespace pattern*

Detected documentation (?) issues

- Inverse property names missing
 - CRMarchaeo ['E55. AP29: E4', 'E55. AP30: E4', 'E55. AP31: E4']
 - CRMdig ['D2. L60: E1']
 - CRMba ['BP11. BP11.2: E24', 'B5. BP15: B3']
- Missing some declarations of superClassOf / superPropertyOf statements
 - CRMarchaeo, CRMinf, CRMdig
- Missing some quantification, FOL, example statements
 - CRMarchaeo, CRMsci, LRMoo, CRMgeo, CRMdig, CRMba, PRESSoo
- References to external non-stable or older (non iso-ready) versions of other FMs
 - CRMtex, PRESSoo
- Links to google docs which should probably be removed
 - CRMarchaeo, CRMtex
- Editing suggestions / comments that make the final text unclear
 - CRMinf

Conclusions / Next steps

- Each FM maintainer group should review the documentation issues and decide on
 - whether these issues require action (new version)
 - whether these encodings are ready for use
- Should the DRAFT HTML/RDF uri resolution be disabled or the draft note is enough for avoiding misuse
- Do we agree on the format of the Encodings column in the Resources page of Release candidate FMs?
- Keeping current issue for all issues that need to be addressed in each FM may become never-ending and confusing. Proposal for closing the current issue 627 and continue whenever needed with FM specific issues

Thank you!

<https://www.cidoc-crm.org/extensions/>

Next development steps

- PC module implementation
- Uri resolution improvement
- HTML representation improvement
 - Complete (including external references) hierarchical trees
 - Complete properties list
 - RDF uri display in most recent version
 - Versioning
- Model validation service

Example case: CRMsci - <https://cidoc-crm.org/crmsci/>

Stable version 2.0 released on March 2023 based on version 7.1.2

Namespace: <http://www.cidoc-crm.org/extensions/crmsci/>

Repository: <https://gitlab.isl.ics.forth.gr/cidoc-crm/compatible-models/crmsci>

- (Rdf, Supplement, Owl, PC module is not required)

Documentation issues

- 1 Property without quantification ([O15](#))
- 2 Properties without FOL specifications ([O17](#), [O28](#))

Model specification statistics:

- 23 Classes / 29 Properties / 38 External references to Cidoc-CRM 7.1.2

RDFs generation policies

- 23 Classes / 29 forward Properties / 28 inverse Properties
- 1 property pointing to rdfs:Literal ([O30 determined position](#))
- 1 inverse property ([O30i was determined by](#)) cannot be expressed in RDFs

TV, AK, MD

- Ready?

Example case: CRMInf - <https://cidoc-crm.org/crminf/>

Draft version 1.0 released on October 2023 based on version 7.1.2

Namespace: <http://www.cidoc-crm.org/extensions/crminf/>

Repository: <https://gitlab.isl.ics.forth.gr/cidoc-crm/compatible-models/crminf>

- (Rdf, Owl, PC module and Supplement module are not required)

Documentation issues:

- Documentation includes **change suggestions** which were all accepted in order to produce encodings
- Documentation includes **comments** which were all ignored in order to produce encodings
- superClassOf and superPropertyOf are not specified at all

Model specification statistics:

- 15 Classes / 17 Properties
- 21 External references to Cidoc-CRM 7.1.2 (16), CRMsci 2.0 (3), CRMarchaeo 2.0 (2)

RDFs generation policies

- 1 Class ([I6 Belief](#)) implemented as rdfs:Literal
- 1 property ([J5 holds to be](#)) points to rdfs:Literal

PF, MD, SdS (doc issues? Can referenced classes be used? Can replace 0.7 b?)

Example case: CRMdig - <https://cidoc-crm.org/crmDIG/>

Draft version 1.0 released on December 2022 based on version 7.1.1

Namespace: <http://www.cidoc-crm.org/extensions/crmDIG/>

Repository: <https://gitlab.isl.ics.forth.gr/cidoc-crm/compatible-models/crmDIG>

- (Rdf, Owl, PC module and Supplement module are not required)

Documentation issues:

- 1 property without inverse name ([L60 documents](#))
- No Class or Property examples
- No Property Quantification
- 9 superPropertyOf statements are missing

Model specification statistics:

- 14 Classes / 23 Properties
- 29 External references to Cidoc-CRM 7.1.2

RDFs generation policies

- L60i should be implemented or not? Should it use the forward direction name?

GB, RS, MD

- Can it be considered stable?

Example case: CRMtex - <https://cidoc-crm.org/crmtex/>

Stable version 2.0 released on June 2023 based on version 7.1.2

Namespace: <http://www.cidoc-crm.org/extensions/crmtex/>

Repository: <https://gitlab.isl.ics.forth.gr/cidoc-crm/compatible-models/crmtex>

- (Rdf, Owl, **PC module pending** - required for 1 property)

Documentation issues

- minor issues some links to be removed

Model specification statistics:






- 14 Classes / 17 Properties
- 34 External references to Cidoc-CRM 7.1.2, **Crminf 0.7(b)**, CRMsci 2.0, **FRBRoo 2.4**

RDFs generation policies - No differentiations from model specification

PF, AF, FM, MD

- Add in resources CRMsci, CRMinf, FRBR?
- Which versions of external resources? Switch to Irmoo?
- Ready?

Read more about the columns definition of the table

Version	Release Date	Available Documents	Status	CIDOC-CRM Compatible Version
Version 2.0	June 2023	 .pdf,  .docx,  .rdf Namespace: http://www.cidoc-crm.org/extensions/crmtex/	Stable	Version 7.1.2
Version 1.2	September 2022	 .pdf,  .docx	Draft	Version 7.1.2