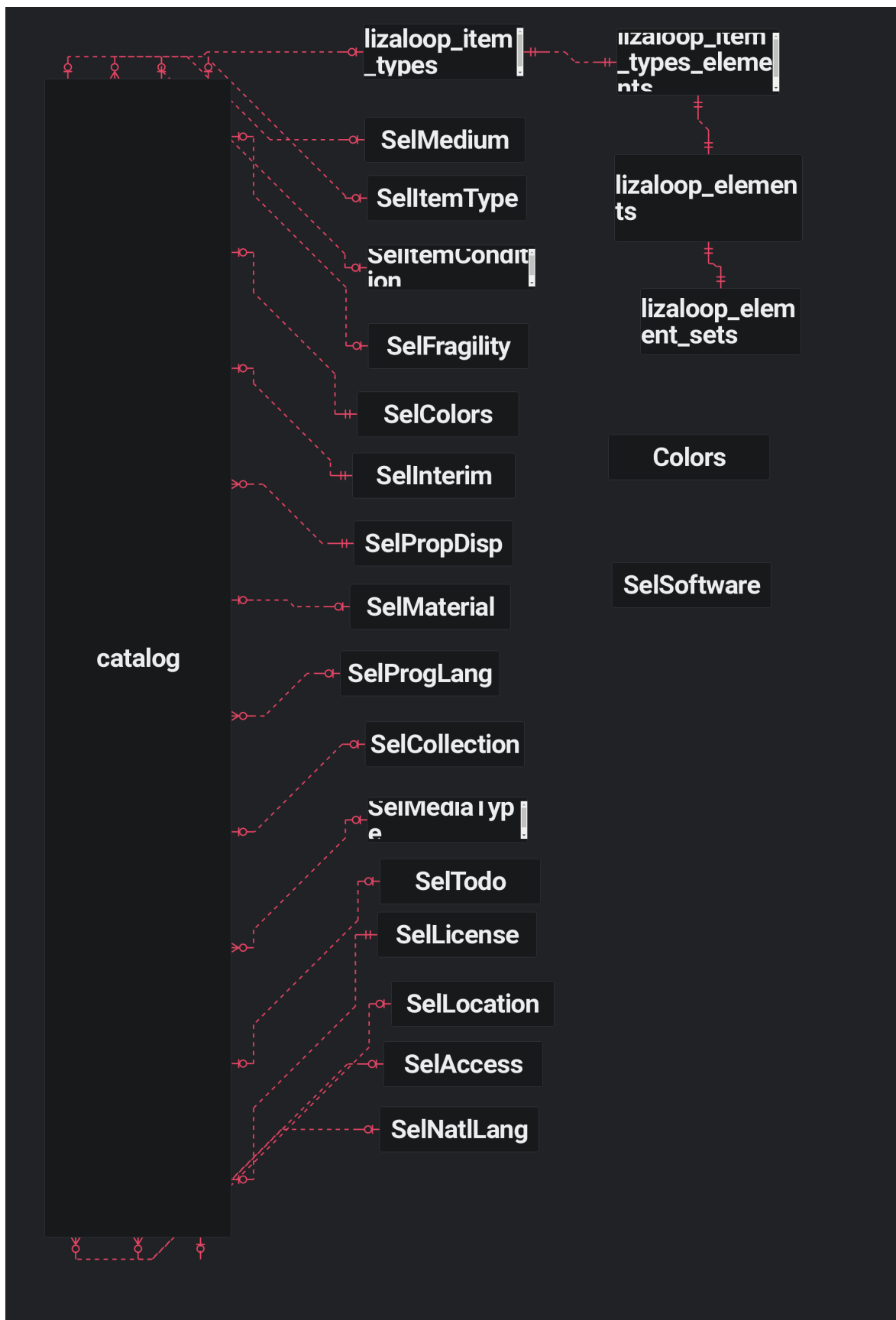


HCLE database Report

This document report the current status of HCLE database with the focus on the catalog.

Overview

HCLE database is a collection of IT related items, it is an historical view of the field by recording many documents and several devices, the main objective of this report is to describe the database structure. The HCLE catalogue is stored as relational database, specifically it uses MySQL; relational constraints has been relaxed in favour of flexibility, diagram in the figure below depict the stucture of the database, all the relationship concerning the table catalog has been added to the diagram in order to increase readability, however we should keep in mind that this relationship constraints do not exists in the database, hence referential integrity is not guaranteed. The two dangling tables (Colors and SelSoftware) are not connected because we did not found evidence of their use but are not empty.



Catalog

Integrity issues Below a list of issues concerning integrity found, we also propose some corrective actions in order to mitigate those issues.

- Color:
 - add additional color to the corresponding table (SelColor)
 - replace occurrences with newly added color
- Material:
 - Found 2 values not conform: 0, na
 - assume that the meaning is ‘Unknown’, replace with NULL.
- Fragility:
 - found 3 values that are not conform: 0, na, no.
 - assume that all three means ‘Unknown’ therefore will be replaced with NULL.
- Functional
 - Apart from y/n there are two other codes: U, D
 - U code seems to indicate ‘Unknown’
 - D code appear only once for a Bytcom Modem, assume is a typo and replace with ‘NULL’
- Copyrighted
 - Found some entries with value 0, assume it means ‘no’.
- Medium
 - Some instances with code ‘na’
 - Replace with NULL
- Type
 - Found usage of code 0
 - Mostly associated with printed document where SelType seems to be not applicable.
 - Suggested replace with NULL
- ItemType
 - Mostly corresponding to Type but some instances report the code 15 which is present in the table `lizaloop_item_types` which stands for ‘Physical Objects’
 - Add new entry with code 15 and description ‘Physical Object’ to SelType
 - Merge ItemType into Type when Type is zero and ItemType is different from 0
- MediaType
 - Found code 0, no common pattern discovered for its use
- Location
 - Found code 0, which is not listed among the location
 - Fallback to location 0th (Other)
- Interim
 - Found some codes without matching on SelInterim
 - Codes: 0, ‘?’, na; will be replaced with NULL.
 - Codes: 6, 8; probably are typos will be replaced with b6, b8 respectively.
 - Code: url will be replaced with ‘dr’ (Digital Repository)
- AccessRights
 - Code 0 is not defined, safe to assume is publicly accessible?
- License
 - Code 0 assumed ‘Unknown’ license, hence replaced with ‘NULL’
- Collection
 - Several wrong codes for the field collection
 - NULL: affects 1020 items.
 - Code 0: affects 335 items, correction probosal at the end.
 - Code 1004: two items affected, field IsPart also with value 1004, inherit collection code 1400 from item 1004.
 - Code 2816: affects 2 items, field IsPart with value 2816, item 2816 pertain to collection 0
 - Code 1124: affects 1 item, field IsPart with value 1124, item 1124 pertain to collection 0
 - Code 1127: affects 1 item, field IsPart with value 1127, inherit collection 2900 from item 1127

- Code 1128: affects 1 item, field IsVer with value 1127, inherit collection 2900 from item 1127
- Code 1130: affects 3 items, field IsPart with value 1130, inherit collection 1850 from item 1130
- Code 1135: affects 1 item, field IsPart with value 1135, inherit collection 1150 from item 1135
- Code 1120: affects 3 items, field IsPart with value 1120, inherit collection 1850 from item 1120
- Code 1160: affects 1 item, field IsPart with value 1160, inherit collection 1350 from item 1160
- Code 1191: affects 1 item any code ends in circular relationship, change collection to code 0.
- Code 1019: affects 1 item, field IsPart with value 1019, inherit collection 1300 from item 1019.
- Code 1090: affects 1 item, field IsPart with value 1090, inherit collection 0 from item 1090.
- Code 2533: affects 2 items, field IsPart with value 2533, inherit collection 2650 from item 2533.
- Code 2536: affects 1 item, field IsPart with value 2536, inherit collection 2800 from item 2536.
- Code 2550: affects 1 item, field IsPart with value 2550, inherit collection 0 from item 2550.
- Code 1001: affects 1 item, field IsPart with value 1001, inherit collection 1700 from item 1001.
- Code 1146: affects 1 item, field IsPart with value 1146, inherit collection 1200 from item 1146.
- Code 1405: affects 1 item, field IsPart with value 1405, inherit collection 1500 from item 1405.
- Code 2925: affects 1 item, field IsPart with value 2925, lead to collection NULL, change to 0.
- Code 2947: affects 1 item, field IsPart with value 2947, lead to collection NULL, change to 0.
- Code 2978: affects 2 items, field IsPart with value 2978, inherit collection 1350 from item 2978.
- Code 2982: affects 4 items, field IsPart with value 2982, inherit collection 1350 from item 2982.

Collection integrity fix proposal: Add a new collection with code 0 that acts as a super collection (named `HCLE catalog`), in which will converge also items with collection `NULL`.

Data dictionary

Field	Relationship	Description
IdNum		Primary key
Title		Title of the of the document or name of the item
Description		Textual description
DescComment		Additional comment on the item
SubjectTop		Textual representation of the main subject of the document
DonorNotes		Additional notes from the donor
WherMade		Place in which the item is made; different granularities between entries
Color	SelColor:id	Colors of the item, sometimes referenced and sometimes explicit text
Material	SelMaterial:Abbrev	Material of the item, mostly indicated by reference
ItemCondition	SelItemCondition:ConditionNum	Condition number
ConditionNts		Notes on the condition, such as discolorations etc.
Fragility	SelFragility:Abbrev	Fragility code of the item
Functional		Boolean value that indicates if the item is functional
Power		Indicates if a power source is necessary (one instance with DC indication)
ToC		Table of contents
IsPart	Catalog:IdNum	Indicate the main part of the item if exists
IsVer	Catalog:IdNum	Indicates if the item is a version of another
HasPart	Catalog:IdNum	Reverse relation of IsPart
HasVer	Catalog:IdNum	Reverse relation of IsVer
Creator		Person or Organization that have created the item, indicated by their name
Publisher		Publisher of the document, or manufacturer of the item
Contributor		Comma separated list of contributors
AddlAuth		Comma (or semicolon/ AND) separated list of additional authors
Created		Date of creation in various formats

Field	Relationship	Description
Copyrighted		Boolean value that indicates if the item is under copyright.
DateCR		Date of creation, most of the time same as Created
Available		Date from which the item became available (one instance with Y in place of the date)
Medium	SelMedium:Abbrev	Medium of the item
Type	SelItemType:id	Type of the item
Format		
ItemType	lizaloop_item_types:Type	Type of the item
Dimensions		Physical size of the item (or size in pixel if is a digital image)
Extent		Number of pages of the document
MediaType	SelMediaType:id	Media type of the item
Moves		Probable boolean that indicates if the item has moving parts, actually takes only three values: no, '' and NULL
Resolution		Size in pixels or resolution in DPI
Software		Software required to run the item
StillImage		Boolean flag y/n (sometimes used T in place of y)
MovingImage		Boolean flag (actually there are no instances with flag set to true)
Weight		Wheight of the item without the specification of the measurement unit
Identifier		Any kind of identifier code
ModelNum		Model number of the device if applicable
SerialNum		ISBN code for books, ISSN for journals
PartNum		Serial number of a device
SeriesNum		ISBN of the main collection of a book
OtherNum		Some codes that resemble ISBN/ISSN/SN
ToDo	SelToDo:id	Code of the operation to perform on the item
Location	SelLocation:Abbrev	Facility/Online repository in which the item is stored
LocNotes		Textual notes about the location
Interim	SelInterim:Abbrev	Code of the place in which the item is present at the moment
Box		Fine grained location code within the interim?
Loc		Not used (only value 0 or null)
ToGo		Indicates if the item is eligible for donation, is under consideration for a donation or will not be donated (NULL value).
AddCom		Comment about additional information required
CatBy		Code of the person who made the entry in the catalogue
EditBy		Code of the person who made the last edit
AltTitle		Alternative title of the document
BibCit		Bibliographic code of the document
SubKes		Additional subjects, comma separated
Description1		AdditionalDescription
Source		Source of the item, organization or person
Relation	Catalog:IdNum	Generic relation with another item
ConformsTo		FCC if applicable
Coverage		Not used
RightsMGMT		Usage rights in textual form
Format1		Not used
BitDepth		Bit depth of the image (8,12, 16 bits)
Resolution1		Resolution of the image (only one use with 'svga')
NatLang	SelNatLang:id	Code of the natural language adopted in the document
ProgLang	SelProgLang:id	Code of the programming language of the software?
PropDisp	SelPropDisp:id	If should be returned to the owner (value 1)
DateScan		Date in which the document has been scanned (if applicable)

Field	Relationship	Description
ProcInit		?
FormatBP		Not used
URI		URL of the scanned document
ThumbNailURI		URL of the thumbnail
AbInit		Not Used
IntInit		Not Used
InstrMeth		?
Audience		Intended audience of the item e.g adult, students...
AudLev		Education level for the intended audience
Mediator		Not used
ItemReferences	Catalog:IdNum	Reference to another item (one)
IsReferencedBy	Catalog:IdNum	Reverse relation of ItemsReferences
Replaces	Catalog:IdNum	Subsequent version of a manual?
ReplacedBy	Catalog:IdNum	Reverse relation of Replaces
Requires	Catalog:IdNum	Additional item required
RequiredBy	Catalog:IdNum	Reverse relation of Requires
AccessRights	SelAccess:id	Code of the group of people which can access to the item
RightsHolder		Organization which holds the rights for usage of the item
License	SelLicense:id	Code of the license (eg: creative commons)
Provenance		textual description of the provenance of the item, person or organization
Spacial		Physical size of the item (same of dimensions?)
Temporal		Not used
AccrualComments		Comments about the accrual of the item (used only once)
AccrualPeriodicity		Not used
AccPol		Not Used
Collection	SelCollection:IdNum	Code of the collection in which the item has been catalogued
Wiki		Not used
Blog		URL to the blog entry of the item
TravelingExhibit		Not used
SmallThumbURI		URL to a smaller version of the thumbnail
History6		Not used
History7		Not used
History8		Not used
History9		Not used