

MARC DISCUSSION PAPER NO. 2022-DP-XX

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NAME: Defining a Field for Standardized Provenance Information in the MARC 21 Bibliographic, Holdings, and Authority Formats

SOURCE: German National Library, for the Committee on Data Formats

SUMMARY: This paper explores options how copy-specific provenance information and material evidence represented by authority data and controlled terms could be accommodated in the MARC 21 Bibliographic, Holdings, and Authority formats. The existing fields 561, 700 and 710 are analyzed for this purpose, and a new field in the 3XX range is discussed.

KEYWORDS: Field 561 (BD, HD); Ownership and Custodial History (BD, HD); Identifier (BD, HD); Field 700 (BD); Personal Name (BD); Field 710 (BD); Corporate Name (BD)

RELATED:

MARC Proposal 2010-9:

“Addition of Subfield \$u to Field 561 (Ownership and Custodial History) to the MARC 21 Bibliographic and Holdings Formats”

<https://www.loc.gov/marc/marbi/2010/2010-09.html>

STATUS/COMMENTS:

Discussion Paper No. 2022-DP-XX: Defining a Field for Standardized Provenance Information in the MARC 21 Bibliographic, Holdings and Authority Formats

1. Background

Authority data for designating provenance (i.e., personal/corporate names and names of collections, representing prior ownership) as well as for recording copy-specific material evidence, play an increasing role in overarching provenance retrieval and research. In 2012, the importance of authority data for indexing provenance was put down in a national guideline by the German Library Association¹.

The future development of international provenance research depends on the interoperability of data, including authority data. These data need to be sufficiently granular to be adequate to the often complex information provenance research deals with.

The Provenance Working Group² of the Consortium of European Research Libraries (CERL) has recognized the present paper and encourages this initiative.

In the MARC formats, provenance information is currently accommodated in an unstructured way as free text in note field 561 (Ownership and Custodial History)³, which may have an URI in subfield \$u referring to an external digital resource, but lacks subfields to accommodate unique identifiers for authority data. For indicating copy-specific evidence as physical characteristics of the material being described, controlled terms taken from the RMBS *Provenance Evidence Thesaurus for Use in Rare Book and Special Collections Cataloguing*⁴ (1988) are intended for use in the subject access field 655 (Index Term - Genre/Form).

In modeling responsibility relationships, the IFLA Library Reference Model⁵ (IFLA LRM) on the second level of the relationship hierarchy connects the entities *Agent* and *Item* logical and reciprocal (IFLA LRM [2017-12], S. 68: Table 4.7, and S. 84). IFLA LRM explicitly defines two relationships expressing the provenance of items:

- LRM-R10 *Item* is owned by *Agent*
Scope note: "The logical connection between an item and a related agent

¹ https://provenienz.gbv.de/images/6/6d/DBV_Empfehlungen_zur_Provenienzverzeichnis.pdf

(in German language only)

² <https://www.cerl.org/collaboration/work/provenance/main>

³ <https://www.loc.gov/marc/bibliographic/bd561.html> and <https://www.loc.gov/marc/holdings/hd561.html>

⁴ <https://rbms.info/vocabularies/introductions/ProvenanceIntro.htm> and

https://rbms.info/vocabularies/provenance/alphabetical_list.htm

⁵ <https://repository.ifla.org/handle/123456789/40>

could serve as the basis both for identifying an agent that owned or had custodianship of an item and for ensuring that all items owned by, or in the custodianship of, a particular agent are linked to that agent.”

- LRM-R11 *Item* was modified by *Agent*
Scope note: “Examples include adding annotations, adding an ex-libris, removing pages, rebinding, restoration.”

Accordingly, RDA covers the recording of provenance through the custodial history of item (RDA 2.18) as well as the recording of owners (RDA 22.2) and custodians (RDA 22.3), but only as unstructured free text. RDA Appendix I.5 (Relationship Designators for Agents Associated with an Item) provides reciprocal relationship designators for owners (RDA I.5.1). For semantic web applications featuring provenance, the RDA Registry offers properties that represent the attribute and relationship elements of the RDA *Item* entity⁶.

Implementation of RDA has led to the revised RDA Edition of “Descriptive Cataloging of Rare Materials” (DCRMR). Among its functional objectives, DCRMR considers that “users of special collections resources routinely investigate a variety of artifactual and post-production aspects of materials”. Users also want to locate resources related by provenance. “The ability of users to identify resources that fit these criteria depends upon full and accurate descriptions and the recording of appropriate access points and relationships.”⁷ The related DCRMR principle to provide item-specific information enabling the user “to investigate physical processes and post-production history and context exemplified in the item described” lead to the recommendation of standard forms for presentation of information, “addressing the general principle of user convenience and its related subprinciple of common usage.”⁸

Although no mention is made of the implementation of authority data in order to reach these standard forms for presentation, DCRMR conceives provenance evidence as item-specific modification and allows for recording in non-standardized free text (DCRMR 9.41.33).⁹ As provenance information may not always be manifest through provenance marks, DCRMR also allows for recording details of an item’s custodial history, including dates (DCRMR 9.42.3.1).¹⁰

In the course of introducing RDA, the rules and standards “Indexing Resources for Personal Papers and Collections in Archives and Libraries Using Authority Data”¹¹

⁶ <https://www.rdaregistry.info/Elements/i/> , <https://www.rdaregistry.info/Elements/i/#P40019> , etc.

⁷ <https://bsc.rbms.info/DCRMR/introduction/#i.01.311.1>

⁸ <https://bsc.rbms.info/DCRMR/introduction/#i.01.323.1>

⁹ <https://bsc.rbms.info/DCRMR/additional-notes/Modification-of-item/#94133-provenance-evidence>

¹⁰ <https://bsc.rbms.info/DCRMR/additional-notes/Custodial-history-of-item/>

¹¹ <https://d-nb.info/1250863775/34>

(RNAB, „Ressourcenerschließung mit Normdaten in Archiven und Bibliotheken für Personen-, Familien-, Körperschaftsarchive und Sammlungen“) have recently been revised by the D-A-CH national libraries. The RNAB strive for an implementation of authority data in general. Recording of provenance and history of the resource is an additional element. RNAB explicitly recommends this approach on the level of holdings, employing authority data (RNAB D-18).

In the German K10plus union catalogue, provenance information and material evidence are recorded in standardized form and distinctly related to individual copies designated by an EPN identifier, linking authority data from the GND authority file (ISIL: DE-588) and employing terms from the T-PRO Thesaurus of Provenance Terms¹² in PICA field 9100¹³. Field 9100 is mapped to MARC 21 field 561. German T-PRO terms rely on the RMBS *Provenance Evidence Thesaurus for Use in Rare Book and Special Collections Cataloguing* and will be integrated into the GND authority file in due time, thus providing T-PRO terms with persistent URIs. T-PRO has recently been listed in the Library of Congress “Source Codes for Vocabularies, Rules, and Schemes”.¹⁴

2. Discussion

In view of these developments, an ongoing demand for standardized copy-specific provenance data on the *Item* level can be taken into account. The implementation of such standards seems to prevail more and more in the field of cataloging historical holdings in libraries, archives and museums. However, MARC 21 does not yet provide a possibility to interchange identifiers for authority data together with related terms for provenance evidence.

Implementing authority data for describing provenance and copy-specific evidence seems to fit well the IFLA LRM, with its logical connection between *Agent* and *Item*. A distinct *Item* (ISIL plus *Item* identifier) has *Evidence* (controlled terms, authority record) from *Agents* (authority record for personal/corporate name or collection). The provenance record may be complemented by an URI to an external digital resource, date, further free text description etc., if applicable.

In exploring a way how authority data representing provenance could enter the MARC format together with standardized information on material evidence, the fields 561 700, and 710 are analyzed. Field 561 (Ownership and Custodial History) is repeatable and offers a subfield \$a for free text entries and a subfield \$u for an URI referring to an external resource (option 1). However, field 561 lacks a subfield for accommodating a unique identifier for an authority record. Linking authority

¹² https://provenienz.gbv.de/T-PRO_Thesaurus_der_Provenienzbegriffe

¹³ <https://swbtools.bsz-bw.de/cgi-bin/k10plushelp.pl?cmd=kat&val=9100>

¹⁴ <https://www.loc.gov/standards/sourcelist/genre-form.html>

records representing prior personal or corporate owners would only be possible by implementing subfield \$8 (field link and sequence number) in fields 561, 700 and 710 (option 2). In order to avoid this not very popular technique, a subfield \$0 could be added to field 561 for entering an authority record control number or standard number, although subfield \$0 is not usually present in the 5XX range (option 3). Aiming at accommodating authority data for prior ownership together with controlled terms on material evidence (from which the provenance information derives) in one and the same MARC 21 field, a new field in the 3XX range could be a solution worth exploring (option 4).

A new field in the 3XX range (Physical Description, Etc. Fields) would offer the opportunity to provide a clearer, more data-driven structure than the note field 561 is able to cover. Moreover, subfields \$0 for entering unique identifiers for authority data and persistent URIs are usually available in the fields of the 3XX range.

The proposed new field for provenance and copy-specific evidence in the 3XX range should be defined in both MARC 21 Bibliographic Format and in the MARC 21 Holdings Format, but also in the MARC 21 Format for Authority Data. This is justified by a special case of application when a *Schriftdenkmal* (a distinct item of documentary heritage, a manifestation singleton,¹⁵ where a written work is manifest in one unique physical manuscript, may it be bound, scrolled or be present in stone or clay¹⁶) is described in a GND authority record (GND entity code: "wis"), where prior ownership is also indicated (e.g., *Handschrift (British Library), Royal Ms. 13 E IV*)¹⁷.

3. Options

Four options have been identified in order to address the issue.

Option 1: No changes – status quo

Provenance evidence is provided in field 561 (Ownership and Custodial History), prior personal or corporate owners in 700 (Added Entry – Personal Name) and 710 (Added Entry – Corporate Name), respectively. A relator code indicating the role of the person or organization is entered in field 700/710, subfield \$4 (e.g., \$4fmo – former owner; \$4ann – annotator, etc.). Field 655 is used for Index Terms from controlled provenance thesauri.

¹⁵ Cf. <https://cidoc-crm.org/f4-manifestation-singleton>

¹⁶ Cf. LC-PCC PS for RDA 6.2.2.6: https://original.rdatoolkit.org/lcpschp6_lcps6-149.html

¹⁷ <https://d-nb.info/gnd/1219032743>. See GND cataloging recommendation EH-W-11: <https://wiki.dnb.de/download/attachments/106927515/EH-W-10.pdf> (in German language only).

Option 2: Use subfield \$8 (field link and sequence number) in existing fields 561, 700 and 710

Subfield \$8 (field link and sequence number) is used in fields 561, 700 (Added Entry – Personal Name) and 710 (Added Entry – Corporate Name), to combine authority data identifying prior ownership in fields 700/710 with ownership and custodial history recorded as free text in field 561. A relator code indicating the role of the person or organization is entered in field 700/710, subfield \$4 (e.g., \$4fmo – former owner; \$4ann – annotator, etc.).

Field 655 could also be used with subfield \$8 in order to link terms from controlled provenance thesauri with ownership and custodial history recorded as free text in field 561, and data identifying prior ownership in fields 700/710.

Option 3: Add subfield \$0 (authority record control number or standard number) to existing field 561

Adding subfield \$0 for entering an authority record control number or standard number to field 561 (Ownership and Custodial History Note). Subfield \$0 is usually not defined in the fields of the 5XX range.

Option 4: Define a new field “Provenance Information” in the 3XX range (Physical Description, Etc. Fields)

A well-structured new field in the 3XX range could be used to accommodate authority record control numbers for prior personal or corporate owners, together with controlled terms for material evidence related to the respective provenance. Subfields \$0 for entering an authority record control number or standard number or for a URI are usually available in the fields of the 3XX range (Physical Description, Etc. Fields).

As a new field would have to be defined in MARC Bibliographic, MARC Holdings and MARC Authority, a preference is given to choosing the same field number across all three formats. A thorough analysis of the 3XX ranges of the three formats has shown that there are a few free tags in the 33X, 35X and 36X ranges. Among these, the tag “361” is the preferred one for the new field, as it has in common the second and third digit with the existing note field 561, which makes the two fields reminiscent to each other, and the two tags “rhyme” with each other. As a field name, “Provenance Information” may be chosen.

In its internal structure, the new field would be based on the existing Pica3 field 9100 / Pica+ field 092B, as documented at

<https://swbtools.bsz-bw.de/cgi-bin/k10plushelp.pl?cmd=kat&val=9100> .

The field content consists of provenance names and related types of material evidence. Provenance is not always manifest in material evidence but may also be deduced from secondary sources.

It has to be noted here that out of only one data field, two separate links to two separate records of an authority file are used. This need is based on the model used in provenance information maintenance. A typical statement is: "With regard to *this* resource, *this* provenance mark indicates the prior ownership of *this* person."

In the context of a new MARC field "361", this means that we need two subfields, one for the authority record control number of the person (etc.), and another subfield for the authority record control number of a serial provenance mark. In this discussion paper, we keep this distinction by choosing subfield \$0 for the person (etc.), and subfield \$w for the provenance mark, somewhat stretching the meaning of \$w which in general designates a "Bibliographic record control number", and adding a URI to its possible content.

Similarly, the issue of subfield \$2 will have to be discussed. It is usually defined as a non-repeatable subfield, controlling the name, term or code subfields of a MARC field, plus the identifiers used in subfields \$0. As soon as we have two separate subfields with links to two authority records, we have to explore options to deal with this situation. One possible path may be considering the recently defined subfield \$7 "Data provenance", with its data provenance element "dpesc" for a "source consulted".

The new field would have the following elements:

361 - Provenance Information (R)

First Indicator

Type of provenance information

- # - No information provided
- 0 - Current ownership
- 1 - Former ownership
- 2 - Accession
- 3 - Withdrawal
- 4 - Historical loan
- 5 - Collection

(Additional indicator values may follow)

cf. Pica 9100=092B \$S

Default value
no subfield \$S
\$S "vb" Vorbesitz
\$S "zu" Zugang
\$S "ab" Abgang
\$S "au" Ausleihe
\$S "sl" Sammlung

Second Indicator

Undefined

Subfields:

Names group

\$a – Personal name, corporate name, jurisdiction name, or collection name (NR)

\$b – Numeration of personal name, or subordinate unit of corporate/jurisdiction name (R)

\$c – Titles and words associated with a personal name (R)

\$d – Dates associated with a personal name (NR)

\$g – Miscellaneous information (R)

\$n – Number of section of a collection (R)

\$p – Name of section of a collection (R)

Provenance evidence term group

\$f – Provenance evidence term (R)

May be taken from a controlled vocabulary, e.g. T-PRO

Dates group

\$i – Date in structured form

E.g. date of accession or date of withdrawal

Date is recorded in the format *yyyymmdd* in accordance with ISO 8601, *Representation of Dates and Times*

\$j – Date in unstructured form

E.g. approximate date, or date range of accession or withdrawal

Location and other identifier group

\$s – Shelf mark of item described (R)

\$u – Uniform Resource Identifier (R)

E.g. Uniform Resource Identifier of key pages

\$y – Identifier of item described (R)

Notes group

\$x – Nonpublic note (R)

\$z – Public note (R)

Control subfields group

\$w - Authority record control number or standard number of serial provenance mark (R)

E.g. GND number of printed Ex Libris

\$0 - Authority record control number or standard number (R)

E.g. GND number and URI of person, corporate body, jurisdiction or collection

\$1 - Real World Object URI (R)

\$2 – Source (NR)

\$5 - Institution to which field applies (NR)

Designation of current ownership, i.e. the institution currently holding the item

\$6 – Linkage (NR)

\$7 – Data provenance (R)

E.g. for creator of field content, source consulted, context of use, etc.

\$8 - Field link and sequence number (R)

4. Examples

Option 1

```
561 ## $aHandschriftliches Exlibris Professor Oswald Heer Zurich from  
the Author$u990014413290205503_0001 $5Exemplar der ETH-BIB  
561 ## $aIndirektes handschriftliches Exlibris 48, 507, das ist nicht  
ermittelbar $u990014413290205503_0002 $5Exemplar der ETH-BIB  
561 ## $aGeschenkexlibris-Etikette: Aus dem Nachlasse von Oswald Heer  
dem botanischen Museum des eidgen. Polytechnikums geschenkt von  
Frau Dr. Alwine Stockar-Heer. 3. März 1903.  
$u990014413290205503_0003 $5Exemplar der ETH-BIB  
561 ## $aExlibrisstempel Botanisches Museum der Eidgenössischen  
Technischen Hochschule $u990014413290205503_0004 $5Exemplar der  
ETH-BIB
```

...

- 700 1# \$aHeer, Oswald \$d1809-1883 \$0 (DE-588)11656508X \$eFrüherer Eigentümer \$4fmo \$5Exemplar der ETH-BIB
- 700 1# \$aStockar-Heer, Alwine \$eFrüherer Eigentümer \$4fmo \$5Exemplar der ETH-BIB
- 710 2# \$aMurray \$gLondon \$0 (DE-588)116461-2 \$eVerlag \$4pbl
- 710 2# \$aBotanisches Museum \$gEidgenössischesPolytechnicum \$0 (DE-588)145711-1 \$eFrüherer Eigentümer \$4fmo \$5Exemplar der ETH-BIB

Option 2

- 561 ## \$81\u \$aHandschriftliches Exlibris Professor Oswald Heer Zurich from the Author \$u990014413290205503_0001 \$5Exemplar der ETH-BIB
- 561 ## \$aIndirektes handschriftliches Exlibris 48, 507, das ist nicht ermittelbar \$u990014413290205503_0002 \$5Exemplar der ETH-BIB
- 561 ## \$82\u \$aGeschenkexlibris-Etikette: Aus dem Nachlasse von Oswald Heer dem botanischen Museum des eidgen. Polytechnikums geschenkt von Frau Dr. Alwine Stockar-Heer. 3. März 1903. \$u990014413290205503_0003 \$5Exemplar der ETH-BIB
- 561 ## \$83\u \$aExlibrisstempel Botanisches Museum der Eidgenössischen Technischen Hochschule \$u990014413290205503_0004 \$5Exemplar der ETH-BIB

...

- 700 1# \$81\u \$aHeer, Oswald \$d1809-1883 \$0 (DE-588)11656508X \$eFrüherer Eigentümer \$4fmo \$5Exemplar der ETH-BIB
- 700 1# \$82\u \$aStockar-Heer, Alwine \$eFrüherer Eigentümer \$4fmo \$5Exemplar der ETH-BIB
- 710 2# \$aMurray \$gLondon \$0 (DE-588)116461-2 \$eVerlag \$4pbl
- 710 2# \$83\u \$aBotanisches Museum \$gEidgenössisches Polytechnicum \$0 (DE-588)145711-1 \$eFrüherer Eigentümer \$4fmo \$5Exemplar der ETH-BIB

Option 3

- 561 ## \$aHandschriftliches Exlibris Professor Oswald Heer Zurich from the Author \$u990014413290205503_0001 \$5Exemplar der ETH-BIB \$0 (DE-588)11656508X
- 561 ## \$aIndirektes handschriftliches Exlibris 48, 507, das ist nicht ermittelbar \$u990014413290205503_0002 \$5Exemplar der ETH-BIB
- 561 ## \$aGeschenkexlibris-Etikette: Aus dem Nachlasse von Oswald Heer dem botanischen Museum des eidgen. Polytechnikums geschenkt von Frau Dr. Alwine Stockar-Heer. 3. März 1903. \$u990014413290205503_0003 \$5Exemplar der ETH-BIB
- 561 ## \$aExlibrisstempel Botanisches Museum der Eidgenössischen Technischen Hochschule \$u990014413290205503_0004 \$5Exemplar der ETH-BIB \$0 (DE-588)145711-1

Option 4

- 361 1# \$5Exemplar der ETH-BIB \$aHeer, Oswald \$zHandschriftliches
Exlibris Professor Oswald Heer Zurich from the Author \$0(DE-
588)11656508X \$0<https://d-nb.info/gnd/11656508X>
\$u990014413290205503_0001
- 361 1# \$5Exemplar der ETH-BIB \$aNN \$zIndirektes handschriftliches
Exlibris 48, 507, das ist nicht ermittelbar
\$u990014413290205503_0002
- 361 1# \$5Exemplar der ETH-BIB \$aStockar-Heer, Alwine \$i19030303
\$zGeschenkexlibris-Etikette: Aus dem Nachlasse von Oswald Heer
dem botanischen Museum des eidgen. Polytechnikums geschenkt von
Frau Dr. Alwine Stockar-Heer. 3. März 1903.
\$u990014413290205503_0003
- 361 1# \$5Exemplar der ETH-BIB \$aBotanisches Museum, Eidgenössisches
Polytechnicum \$zExlibrisstempel Botanisches Museum der
Eidgenössischen Technischen Hochschule \$0(DE-588)145711-1
\$0<https://d-nb.info/gnd/145711-1> \$u990014413290205503_0004
- 361 1# \$5DE-39\$yExemplarsatz-ID: 879196521 \$sSignatur: Phil 8°
00937/04 \$aSchuler, Philipp \$fAutogramm \$zErläuterung:
Herkunftsangabe: Münsterstadiensis \$0(DE-588)11982597X
\$0<https://d-nb.info/gnd/11982597X>
- 361 1# \$5DE-39\$yExemplarsatz-ID: 879196521 \$sSignatur: Phil 8°
00937/04 \$aSchuler, Philipp \$fExemplar: Donator \$fWidmung
\$fAutogramm \$i15860416 \$0(DE-588)11982597X
\$0<https://d-nb.info/gnd/11982597X>
- 361 1# \$5DE-39\$yExemplarsatz-ID: 879196521 \$sSignatur: Phil 8°
00937/04 \$aRüffer, Anton \$fExemplar: Widmungsempfänger
\$0(DE-588)124676405 \$0<https://d-nb.info/gnd/124676405>
- 361 1# \$5DE-39\$yExemplarsatz-ID: 879196521 \$sSignatur: Phil 8°
00937/04 \$aRüffer, Anton \$fEinband \$fNummer \$zErläuterung: 47
\$0(DE-588)124676405 \$0<https://d-nb.info/gnd/124676405>
- 361 5# \$5DE-39\$yExemplarsatz-ID: 879196521 \$sSignatur: Phil 8°
00937/04 \$aBibliothek Anton Rüffer \$0(DE-588)1243536829
\$0<https://d-nb.info/gnd/1243536829>
- 361 1# \$5DE-39\$yExemplarsatz-ID: 879196521 \$sSignatur: Phil 8°
00937/04 \$aHerzogliche Bibliothek (Gotha) \$fStempel \$0(DE-
588)815650-5 \$0<https://d-nb.info/gnd/815650-5> \$w(DE-
588)1218268166 \$w<https://d-nb.info/gnd/1218268166>

(More examples based on K10plus field 9100/092B documentation: to follow.)

5. BIBFRAME Discussion

6. Questions for Discussion

6.1. Is the need for accommodating authority record control numbers for prior personal/corporate/jurisdictional owners/collections together with controlled terms for material evidence related to the respective prior owners sufficiently demonstrated?

6.2. Which one of the four options is preferred, as described in section 3: 1) No changes, 2) 561/7XX with \$8, 3) additions to field 561, or 4) a new field "361"?

6.3. If option 4 is preferred: Which one of the available field numbers should be chosen, "361", or a different one?

6.4. Is the proposed field name appropriate?

6.5. Does the internal structure of the new field, especially the subfields, meet the requirements? Do the subfields fit into the MARC structure?

6.6. More specifically: Can the issue of multiple links from one MARC field to separate authority records be solved? Is the distinction between subfield \$0 and subfield \$w, by changing the scope and internal structure of \$w, a path worth exploring?

6.7. Is there a solution for the non-repeatable subfield \$2? Can the recently designed subfield \$7 play a role here?

6.8. Is there anything else that should be taken into account?