



MARC Discussion Paper No. 2010-DP01: ISBD punctuation in the MARC 21 Bibliographic Format

As a result of the recent publication of a discussion paper on the ISBD punctuation in Bibliographic Format presented by the German National Library to all MARC 21 community, the coordination of GUMARC 21 (Gruppo Utenti MARC 21 in lingua italiana) has brought out and opened a debate through [LISTAGUMARC21](#), the electronic discussion list for GUMARC 21, in order to produce feedback on this important matter from the user community of the Format in Italian language area, and especially from the members of the Committee of experts that supports the Users' Group.

Between 21 December 2009 and 12 January 2010 several experts (Massimo Gentili-Tedeschi, Mauro Guerrini, Cristina Magliano, Paola Manoni, Susanna Peruginelli, Antonio Scolari and Zeno Tajoli) intervened in the list to give their opinion on the matter.

This document presents the MARC discussion paper that the German National Library has proposed; summarizes the reactions, attitudes and observations of experts through their interventions in [LISTAGUMARC21](#); and concludes with some reflections on the possible impact that the suppression of ISBD punctuation at the end of subfields in the MARC 21 encoding would have for the exchange of bibliographic records with other users of this format and other related complications.

1. MARC Discussion Paper No. 2010-DP01: ISBD punctuation in the MARC 21 Bibliographic Format

Presented by the German National Library in the field of the recent transition from German and Austrian communities in MARC 21 Format and made available to the MARC 21 community for discussion on 14.12.2009, this [Discussion Paper](#) explains the reasons why the German and Austrian parts of the MARC community does not provide ISBD punctuation when the content designation (e.g., a subfield code) identifies an element type.

The paper proposes coding to indicate the absence of ISBD punctuation at the end of subfields via a Leader position and ask that a new code "n - ISBD without ISBD punctuation at the end of subfields" could be added to the current values available for the position LDR/18 (Descriptive cataloging form).

Therefore the revised LDR/18 description should have the following options:

Leader/18 - Descriptive cataloging form

One-character alphanumeric code that indicates characteristics of the descriptive data in the record through reference to cataloging norms. Subfield \$e (Description conventions) of field 040 (Cataloging Source) contain additional information on the cataloging conventions used such as RDA (Resource Description and Access), RAD (Rules for Archival Description), or CCO (Cataloging Cultural Objects). This code particularly indicates the relationship of the descriptive part of the record to the rules of the International Standard Bibliographic Description (ISBD).

- Non-ISBD

Descriptive portion of the record does not follow International Standard Bibliographic Description (ISBD) cataloging and punctuation provisions.

a - ISBD/AACR 2

Descriptive portion of the record and the choice and form of entry of the access points are formulated according to the description and punctuation provisions as incorporated into the Anglo-American Cataloguing Rules, 2nd Edition (AACR 2) and its manuals.

i - ISBD

Descriptive portion of the record is formulated according to the descriptive and punctuation provisions of ISBD.

n - ISBD, without ISBD punctuation at ends of subfields

Descriptive portion of the record is based on the descriptive provisions of the ISBD but the punctuation conventions of ISBD are not included at the ends of subfields.

u - Unknown

Institution receiving or sending data in Leader/18 cannot adequately determine the appropriate descriptive cataloging form used in the record. May be used in records converted from another metadata Format.

The German and Austrian colleagues do not intend to promote their choice regarding ISBD punctuation as "best practice", but want a way to express inside a MARC record itself whether or not ISBD punctuation is included at the end of subfields.

2. LISTAGUMARC21 Interventions

Organized and coherent summary of:

<http://listserv.uv.es/cgi-bin/wa?A1=ind0912&L=listagumarc21>

Massimo Gentili-Tedeschi

Personally, as a user and especially UNIMARC expert (UNIMARC does not include punctuation in the subfields, but handles it at the moment of the output, hence the “German” problem), I have always found the inclusion of punctuation inside the subfields “bizarre”. It is clearly a legacy of the age of the Format, which might be possible now to overcome. Moreover, even the ISBD is adapting itself to the subfield scanning (somewhat independent) of the Formats, for example when agreeing to the opening and closing brackets only inside an element and not spanning more elements. Then the inclusion of significant punctuation leads to awkward movements when you want to display a field in a Format other than ISBD, chosen by the user. So, as far as I’m concerned, the proposal seems sensible to me.

Mauro Guerrini

I agree completely with Massimo’s positions.

Susanna Peruginelli

I think it is a well-drafted proposal, which would be useful to implement. The position in the Leader is relevant. It should be advisable that the use of the specific code to signal that you are not using punctuation at the end of subfield is consistent and mandatory. So there should be no exceptions. I refer to the case pointed referring the use of the equal sign for parallel data.

Paola Manoni

I think there are several points for reflection in this theme. The first that comes to mind is of terminology. In the paper we talk about exclusion of ISBD punctuation “at the end of subfield” but we state that the proposed elimination of punctuation would intervene “when content designation identifies an element type”. With this clarification, I understand then that we will leave the ISBD punctuation when it is included in the subfield (as in the more famous examples of remainders of title, parallel title or statements of more works without a collective title ... and others) or in all other cases of ambiguity, mentioned by Angela and Alejandro... So unfortunately we could not have the consistency invoked by Susanna. If I understand correctly we would have remainders of title without the first ':' (to the end of 245\$a) but then fully reported in the 245\$b to anticipate the following remainder of title (and the same could be said for '=', etc.). In the alternative, I also believe that the proposal may create some collisions with the same ISBD, consolidated ed., which now admits the inclusion of other punctuation in the resource record when it is present in the described manifestation (e.g. for older monographic resources ... think of the 'end of line' when it coincides with the end of an element ...) – an optional practice, indicated more extensively in RDA. And then I wonder why we should distinguish only the omission at the end of subfield when perhaps it should be clarified in leader/18 much more as to current use of ISBD punctuation in the description.

I know that the proposal has an old history and has another purpose for the German and Austrian libraries. But to see it realized today, is to think that the idea of restricting the cases only at the “end of the field” can be valid but it is not comprehensive overall of a changing reality.

Zeno Tajoli

As we know, if you implement ISBD, the form prescribed by the standard is to write the punctuation at the end of subfield for descriptive fields. And this happens not just in areas containing ambiguities, like the 245 field with subfields \$a, \$b, \$c, but also in 260 field where the subfields correspond to punctuation. ILS rely on the presence of this punctuation in the MARC21 data: when they create a view of the ISBD data they construct it by simply removing the subfield indicators, when they create a customized view, they automatically delete characters from the bottom.

If the data from MAB do not follow this behavior, it is right to report it but I think that the indicator should be more accurate. The description of the indicator should say more. They do not use ISBD punctuation at the end, but did they write it at the beginning? They write it at the beginning only in case of ambiguity [I think it is so reading the proposal]? Thus I would require a more precise and complete description, perhaps also including that it is specific of the data from MAB. We also need specific examples.

In favour of abandoning the inclusion of punctuation in the medium term but before that I think that it will be necessary to:

- discuss and see if this is theoretically acceptable
- alert ILS that we are going in that direction
- increase subfields where necessary

Only after all this, it will be possible to start to leave punctuation. For sure, despite the warnings and cautions, there will be problems with the ILS.

Cristina Magliano

In my experience with some MARC 21 implementers, I can say that punctuation in the description fields is highly recommended and used, therefore I would suggest to better analyze the problem as suggested by Zeno Tajoli.

GUMARC 21 coordinators

As it is emerging from the various contributions the matter is not simple. Particularly, we share the views of Cristina Magliano and Zeno, but also Paola observations. We would add:

1. it is quite acceptable that the German and Austrian communities propose a code for their practice as this value is an indicator of the quality of registration;
2. what Massimo observed about the fact that the punctuation should be treated at moment of the output may raise some doubts. This is for UNIMARC, but are UNIMARC users satisfied with this operation? They do not have problems at the moment of the output? Is it possible to restore

the ISBD punctuation 100% in all its complexity? When we speak of output is it only the OPAC, or also the professional modules: serials, purchasing, cataloguing, etc.?

3. the ISBD punctuation works as "signposts" in a card catalog environment to distinguish different data elements. The list of these signposts is longer and more complex in ISBD: MARC Formats (MARC 21 and UNIMARC) do not provide all this variety of signposts. So we must ask ourselves when the MARC Formats should omit the punctuation. Only when there is a unique match subfield code / punctuation mark. This means that the cataloguer must become an expert in the way in which his software handles punctuation. Then there is a great variety of forms in which the software handles (and returns) the punctuation. All this may make it difficult to exchange data...

Zeno Tajoli

I give some informations on the basis of my experience:

> 2. *what Massimo observed about the fact that the punctuation should be treated at the moment of the output may raise some doubts. This is for UNIMARC, are but UNIMARC users satisfied with this operation? They do not have problems with the output?*

I have no idea about the UNIMARC users satisfaction on this point. As a manager of ILS I would prefer those inputting data to be as guided as possible and to input the least data as possible. As a data manipulator for conversions and upgrades, for me the UNIMARC structure with subfields associated with specific meanings, without punctuation, is all right.

> *They do not have problems with at the moment of the output?*

The management of each output is a problem of the ILS and its operator. Modern ILS have many tools that are configured to manipulate the output. Usually the OPAC is the module with more options. For the other modules there are simplified systems.

> *Is it possible to restore the ISBD punctuation to 100% in all its complexity?*

The theory of UNIMARC is not to insert punctuation, except the '=' sign. The UNIMARC fields 2XX provides many subfields, they cover the most common situation. But there are points of failure. For example, in tag 200 the subfield (title proper) \$a is mandatory. But ISBD could create a situation like: Common title. Dependent title [General material designation]. The normal UNIMARC solution is: 200 \$aCommon title\$iDependent title\$bGeneral material designation. But is it correct? You can also think that Common title + Dependent title = Title proper so you could write: 200 \$aCommon title. Dependent title\$bGeneral material designation.

Today only Open Source ILS give the option to set up complex algorithms to display a perfect ISBD in every case, but only if you have software programming skill. But if you insert data with the goal of a perfect ISBD, you have problems to reuse data for different displays.

So, to restore the ISBD in all its complexity, we need a co-evolution of UNIMARC and ISBD.

> *So we must ask ourselves when should the MARC Formats omit the punctuation?*

UNIMARC provides all the signposts. MARC21 does not, but in terms of usage they should be always introduced.

Software can usually handle the two extreme situations quite well:

- Punctuation is never there but there are clearly defined algorithms to create it and they are quite simple.
- Punctuation is always already there, if you want to remove it this is the last x characters.

Intermediate situations are more difficult to manage. You can manage them but they have to be well specified, and you must be strict in implementing it. That's why I ask that the German case is described in detail. Without a good description, the German data could be quite difficult to reuse.

> This means that the cataloguer must become an expert in the way in which his software handles punctuation. Then, there is a great variety of ways in which the software handles (and returns) the punctuation.

In reality, the modern ILS (such as Aleph, Millennium, etc..) differ in the way they manage punctuation as default. They can be configured in such a way as to achieve the desired result. Certainly this is not always easy and sometimes there are bugs that prevent them from obtaining the best result. The point at which we exchange data between systems, I think, must be almost exclusively via Z39.50 and we must agree on how to use punctuation. But it must be an agreement included in the standard (UNIMARC or MARC21). And if the standard wants punctuation inserted (as MARC21) then it must be there and if the cataloguer has not put it there, the ILS should do it. Instead if it should not be there (as in UNIMARC), it should not be there.

If this is the theory, practice can be very different. For example, Italian UNIMARC Z39.50 in Aleph500 have RICA / SBN punctuation in 7xx fields. This is to imitate the SBN capture and also because the Aleph500 configuration cannot obtain the RICA / SBN punctuation in the OPAC without inputting it by hand in the 7xx UNIMARC fields.

Usually the ILS, as does Aleph500 in this case, expose data in Z39.50 as they have been input and they are unlikely to have routines for punctuation cleaning.

GUMARC 21 coordinators

We send hereby the message received from Massimo regarding the conclusions to the second English summary draft we sent to experts in those days.

Massimo Gentili Tedeschi

I am not convinced of the conclusions: in UNIMARC Leader the equivalent position means with the code "non-ISBD" that the description is not based on ISBD because it uses different rules, that is when the "internal" logic of the descriptive standard is non-ISBD, not simply because we do not use ISBD with its punctuation, since it assumes that the punctuation is automatically added. Changing so drastically the meaning of # - Non-ISBD in MARC21 would inevitably bring big problems in migrating from a format to another, making, it I fear, impossible the colloquium in both senses, or

otherwise creating unnecessary complications. Therefore I would maintain the German proposal, making an assessment of the details, not changing the proposal.

Paola Manoni

I refer to Massimo's observations about the findings. The change of meaning of # has not only consequences in the colloquium with the UNIMARC but I am afraid it creates confusion even within the same MARC21 because it brings together different cataloguing case studies. I also propose to limit ourselves to the evaluation of the details of the German proposal

Cristina Magliano

We are now evaluating the details of the German proposal. As far as I'm concerned, rather than adding a deeper meaning, which initially seemed to me a good solution, I would point out that with regard to the UNIMARC records exchange documentation is expected defining additional information about the records (see Appendix K of the UNIMARC). For example, in order to use the add punctuation to the labels 7 - a choice not derived from the SBN, but already by the exchange of files between the BNI and other national bibliographies, documentation was used specifying the use and options. This method could be assessed without changing the meaning of the value #.

Alejandro Gadea Raga

The doubt that the application of the new code "n" represents in fact only the RAK data migration remains: at the moment of the transition to MARC 21 the German community employed the RAK, but in 2004 Germany officially declared the intention to converge on AACR2 (later RDA) ... In this case the new code will no longer be useful in the future? Moreover, if the German community is planning to converge on AACR2, shall we need a new code for AACR2/without punctuation?

Angela Contessi

Referring to Alejandro's last post, I forwarding some recent information about the German peculiarities (including punctuation practice and rules) highlighted on the transition to MARC 21:

LITA / ALCTS MARC Formats Interest Group Palmer House, Wilson Room

See in particular: Heuvelmann Reinhold (German National Library). The German and Austrian Version of MARC 21: Standards Compliance, Flexibility, and Implementations Abstract [8]] Slides [9]] Handout [10]] Examples [11]]

[http://presentations.ala.org/index.php?title=Saturday% 2C_July_11](http://presentations.ala.org/index.php?title=Saturday%20July_11)

Question: in the light of this information, do experts maintain their position in favor of the German proposal? Is it confirm that, in any case, additional documentation available to the public should be added to the MARC 21 format in order to specify use and option of the new code?

3. Final thoughts and conclusions

As you know this paper contains a discussion that is not new about the impact of punctuation on the Format.

On the one hand ISBD does not take account of any particular encoding Format. On the other hand MARC 21 has not provided until now a subfield code for every possible ISBD punctuation mark. An example: the code of subfield 245\$b has three possible punctuation marks: ":", ";", "=". Thus in the MARC 21 Format there is not a unique correspondence between content designation / punctuation mark.

Then there is the question of position: ISBD punctuation before or after the subfield codes? Finally, there is the software problem: the way in which the ILS indexes and displays the information.

With this proposal the German and Austrian communities are demanding to code local practice in a standardized way (without of course any wish to spread it as a model).

After having evaluated the possibility to change the meaning of the existing code “#” from “Non-ISBD” to “Non-ISBD/or ISBD without punctuation” which would inevitably create complications with data exchange, the GUMARC 21 Committee of experts prefers under general agreement to maintain the German proposal for code “n” but at the same time asks for a complete documentation (detailed description of the German practice and relative examples) in order to avoid misunderstanding in the application of the code “n” and therefore guarantee the quality of the record information. The Committee of experts suggests following the UNIMARC method for additional information that specifies the use and options of the values (see UNIMARC, Appendix K: documentation to accompany exchange records, 7—Intellectual responsibility block: Indicate the policy over the inclusion or exclusion of punctuation at subfield boundaries. If punctuation is not included, give examples of typical fields).

The GUMARC 21 Committee of experts believes that this is a good solution in order to avoid multiple practices of MARC 21 records without punctuation introducing uncertainty and imprecision on this important aspect of the bibliographic data exchange.

Apart from anything else, faced with the fact that several ILS are still unable to restore a perfect ISBD punctuation, hopefully the German proposal might encourage its developers to improve this important aspect.

Milan, 12th January, 2009