

PCC Task group on BIBFRAME-to-MARC Conversion Final Report Transmittal & Tracking Sheet

Date task group charged	2023-03-10
Date task group discharged	2024-11-12

This form is to be used to track progress on the review, approval, and implementation of the final reports of PCC task groups and committees. A link to this form can be found in the task group charge. Thereafter, the form should be updated each time the report is transmitted to a different body for review or action. Additional rows may be inserted as needed. The PCC Secretariat will insert the completed form as the cover sheet for the report when the process is complete.

Submission of report (completed by chair/leader of group):

Use the chart below to record the date the report was first submitted, the name of the PCC task group or committee submitting the report, and the title of the report.

Date	Name of Group	Title of Report
2024-09-13	PCC Task Group on BIBFRAME-to-MARC Conversion	Final Report of the PCC Task Group on BIBFRAME-to-MARC Conversion
2024-11-12	PCC Task Group on BIBFRAME-to-MARC Conversion	Updated Final Report of the PCC Task Group on BIBFRAME-to-MARC Conversions

Review of report (completed by PCC chair prior to passing report on for review):

Use the chart below to record the date the report was submitted for review, to which body, and its current status (e.g. in process, completed, etc.).

Date	Name of Body	Status of Review
2024-09-26	PoCo	Review completed

Decisions regarding report:

Use the chart below to record decisions made regarding the report.

Date	Name of Body	Decisions Made
2024-10-10	PoCo	Final report approved with minor amendments

Implementation of report:

Use the chart below to record actions taken regarding implementation of the decisions.

Date	Name of Body	Actions Taken
2024-10-10	PoCo	SCA will be responsible for maintaining and updating the SCA-PCC Repertoire of BF2MARC Fields document.

Final Report of the PCC Task Group on BIBFRAME-to-MARC Conversion

Updated: November 1, 2024
Submitted: September 15, 2024

Group Membership

- Liz Miraglia (co-chair ; SCS liaison) (elizabeth.miraglia@ucop.edu)
- Charlene Morrison (co-chair) (morrisoch@oclc.org)
- Ian Bigelow (LDAC liaison) (bigelow@ualbert.ca)
- Barbara Bushman (NLM representative) (bushmanb@mail.nlm.nih.gov)
- Theodore Gerontakos (LDAC liaison alternate) (tgis@uw.edu) [*served March 2023-January 2024*]
- Amanda Xu (LDAC liaison alternate) (amanda.xu@usda.gov) [*March 2024-*]
- Kirk Hess (OCLC representative) (hessk@oclc.org)
- Nancy Lorimer (Sinopia representative) (nlorimer@stanford.edu)
- Paul Priebe (ppriebe@library.ucla.edu)
- Wayne Schneider (BIG liaison) (wayne@indexdata.com)
- Jodi Williamschen (LC representative) (jowill@loc.gov)
- Erica Zhang (SCA liaison) (ezhang20@library.ucla.edu)

Summary & Overview

The PCC Task Group on BIBFRAME-to-MARC Conversion was charged to create a repertoire for access points, while maintaining the previously created Repertoire of MARC Descriptive Fields from BIBFRAME, and providing “best practice documentation on BIBFRAME-MARC conversion”. In the following report, we include both repertoires, along with best practices and challenges that the task group encountered in our work and recommendations for the PCC.

As with the [previous group](#), this task group acknowledges the continuing evolution of BIBFRAME and MARC, noting that the work completed will need to be maintained over time..

Charge and Scope of Work

The PCC Task Group on BIBFRAME-to-MARC Conversion’s charge was threefold: continue the work previously done with descriptive fields, create a repertoire for access points, and develop best practice.

We note, as did the previous group, that both the access point and descriptive field repertoires are dynamic in nature and should be maintained as BIBFRAME and MARC standards continue

to evolve. Not all MARC fields are currently part of BIBFRAME conversion specifications published by the Library of Congress. Enhancements to BIBFRAME should be reviewed in the future along with developments in MARC. There is also no expectation that these repertoires will support round tripping, but rather, some lossiness is expected.

Task Group Meetings

Our task group was charged on March 10, 2023 and generally met bi-weekly on Zoom throughout the year, although some meetings were on a monthly basis, along with asynchronous work. Documentation of the meetings can be found in our Google Docs space, [PCC TG on BIBFRAME to MARC Meeting Notes](#).

Tasks Accomplished

- Reviewed the previous work completed by the PCC Task Group on MARC Simplification for BIBFRAME Conversion to ensure continuity between the two groups' work.
- Reviewed [PCC RDA BSR \(BIBCO Standard Record\) Metadata Application Profile](#) and [CSR \(CONSER Standard Record\) RDA Metadata Application Profile](#) to ensure that current cataloging practice was supported
- Reviewed BIBFRAME Hubs drawing on Jodi Williamschen's expertise to guide our discussion.
- Discussed the use of URIs in access point fields in MARC and how best to incorporate that into the repertoire
- Enhanced the Repertoire of MARC Descriptive Fields from BIBFRAME
- Created Repertoire of MARC Access Points from BIBFRAME

Repertoire of MARC Descriptive Fields

Maintenance work began on the descriptive fields repertoire in February 2024. The task group added and updated pathing and added fields based on discussions from the access point repertoire (see Appendix 1). Although URIs were discussed, they were not added to this repertoire at this time. Below are some of the bigger changes:

- We updated field 508 to remove the pathing for bf:credits without "Cast:", which in current BIBFRAME conversions is mapped to 511 with first indicator 0. The 511 field was added a second time to account for difference in first indicators and the JIRA created to fix this issue was added to the Notes column in the row with field 508.
- We updated field 852 to include 856 as well, since many MARC systems also use field 856 for URLs.
- We added field 884 to the list. The previous group stated that the field should be used to identify the conversion and could help with syncing between BIBFRAME and MARC records over time. While it fits more within the metadata about the metadata and no pathing exists because it is built and not pulled from the BIBFRAME, the task group thought it would be helpful to have this in the list since provenance is important.

We also included the list of descriptive fields that the previous group did not include in their repertoire, which we labeled “Descriptive Fields Not Included” in the spreadsheet. This was important to keep with the repertoire in order to provide context to which fields were discussed and kept and which fields were not. For example, there is currently no way to map a subseries specifically to a 490 field because both series and subseries are in 490\$a so both will map as a series in BIBFRAME. Another reason this was retained in the spreadsheet was to support other formats, aside from monographs as minimally viable repertoires are built for those formats in the future.

Repertoire of MARC Access Points

We created the Repertoire of MARC Access Points from BIBFRAME (see Appendix 1), starting work in March 2023 and completing the draft in February 2024. During this time we consulted the BSR and CSR and worked with the liaisons within our task group. The focus, as with the last group, was native BIBFRAME conversion into MARC to create a minimally viable MARC record for libraries to use that would conform to current cataloging guidelines. We defined minimally viable MARC records based on the previous group’s work as written in their final report’s *Appendix 2, Conversion Principles and Rubric* ([Final Report of the PCC Task Group on MARC Simplification for BIBFRAME Conversion](#)). In it, they state that the resulting converted MARC records may differ from native MARC in various ways such as missing punctuation, levels of granularity, and currency of data. The converted MARC should, however, function like native MARC to assist with discovery. Finally, they emphasize that as with all conversions, lossiness cannot be avoided. The three principles they used in their rubric included:

- PCC standard record requirements,
- data required for current systems and workflows, and
- the existence of a transformation path.

The task group expects that as the standards and requirements behind the principles evolve, the definition of minimally viable will change over time.

The BIBFRAME properties and their corresponding MARC fields in the access point repertoire fall into four main groups:

- Required if exists in BF
- Required if exists in BF AND matches (ex. 2nd indicator = 7)
- Required if exists in BF AND is not included already (ex. in \$t or \$a)
- Required if exists in BF AND Hub is not based on transliterated data

Best Practices

- Conversion programs outside of those developed by the Library of Congress should consult both the Library of Congress conversion specs as well as the PCC repertoires when developing data paths for BF2MARC.
- Conversion specifications should aim to convert as much data as possible as granularly as possible. If the data is available in a BF description, the conversion specifications

should attempt to find a corresponding MARC field/subfield. Conversion specifications should aim to recreate subfields where possible.

- Conversion programs should generate an 884 field that includes data about the conversion process and specifications used to convert data into MARC.
- The PCC repertoires should be evaluated following major updates to BIBFRAME to ensure the paths are accurate.
- Feedback, comments, and questions about Library of Congress conversion specifications should be added to their [Github repository](#). Questions about the repertoires developed in this group or other PCC policies for conversion should be directed to the Standing Committee on Applications until/unless PoCo charges a more permanent working group.

Recommendations for PoCo

- In order to facilitate the above, we recommend that the PCC create a standing group to update the conversion repertoires and best practices as BIBFRAME continues to evolve. The group could function similarly to other advisory committees in order to keep the workload manageable.

Complications and areas for future development

Hubs. Hubs are no longer subclasses of bf:Work and are instead free-standing entities that serve to pull related works together. This will affect pathing with any conversions with uniform titles and series which are modeled as Hubs in LC BIBFRAME and Share-VDE. Since this is a fairly new class, other flavors of BIBFRAME may not use bf:Hub; whether implementers choose to adopt bf:Hub across the board remains to be seen. The task group also noted that there are some possible future discussions to be had around whether the URI associated with a hub maps to \$0 or \$1. Hubs are entities in their own right but may also be associated with LC authorities that currently map to \$0 during conversion. The group recognizes that there are ongoing conversations within the PCC about the current use of \$0 and \$1 and would recommend that any future group working on BF2MARC conversion stay updated with decisions in that area.

Access points without labels. Access points may exist without labels in native BIBFRAME, linking out to the related entity, so in those cases, only the URI would be available to convert to MARC. Many of the existing conversion specifications are able to re-create labels for URIs from specific vocabularies (e.g. LCNAF) but not for every vocabulary that is available for use in BIBFRAME. This means that depending on the vocabulary that is used and the way that the BIBFRAME data is created, there may be circumstances in which the conversion process is unable to recreate a label for a given entity but these should be the exception rather than the rule. This may impact some validation processes in MARC that will need to be adjusted to allow for fields lacking \$a. While the task group is strongly concerned about the lack of labels and

acknowledges that this is not ideal, we thought that this would be good enough for a minimal MARC. Due to our concerns though, we recommend that the PCC Standing Committee on Applications continue working through this issue either with this group or another.

Gaps in lookup processes. The group noted that the creation of new entities in various vocabularies and authority files (LCNAF, FAST, etc.) that are used during lookup processes may not have URIs assigned immediately. Alternatively, the URIs may be minted immediately but there may still be a waiting period before the entity is part of any lookup process (within BIBFRAME itself or during conversion). This delay can result in the use of literals/labels in data elements that would otherwise have a valid URI or in URIs that are not able to be looked up during conversion, even when the vocabulary itself has been added to a given lookup process. The task group noted that this is an issue that affects the creation of BIBFRAME data in addition to conversion and will hopefully be streamlined over time.

Names without subfields. In cases where the `rdfs:label` (`bf:agent`) is a single string and no identifier is available, conversion processes may be unable to create a properly subfielded access point in MARC, instead all of the data from the label is added to \$a in the mapped MARC field. The task group accepted that this would need to be good enough for a minimally viable MARC output.

Titles without subfields. In cases where a `bf:mainTitle` used with a `bf:Hub` is a string, it may be impossible for the conversion process to re-subfield back into MARC, instead all of the data from the authorized access point would be added to \$a in the mapped MARC field. In the case of titles, while the entire authorized access point is included as a `bf:mainTitle` with a `bf:Hub`, portions of that authorized access point may also be included under other properties under the same `bf:title`. These include `bf:partNumber` (\$n), `bf:partName` (\$p), and `bf:subtitle` (\$b). While not included under `bf:title`, other properties related to the parts of the authorized access points may still be included within a `Work` relationship, such as `bf:musicKey`, `bf:language`, and `bf:version`. So, in theory, the title authorized access point might be built from these elements but when the `bf:mainTitle` is used with a `bf:Hub`, there is currently no property with only the main title, itself.

BIBFRAME flavors for conversion. As noted with `bf:Hubs`, there are multiple implementations of BIBFRAME including LC BIBFRAME, Sinopia, SVDE, so conversion specs will need to account for the variations. For purposes of these repertoires, it should be noted that the paths used followed the most recent LC BIBFRAME specifications available to the group, versions 2.6 and 2.7. Version 2.7 was publicly released on September 13, 2024 and so while the group was able to do some initial review for any significant updates, the vast majority of data paths have been validated against version 2.6. We also relied on Jodi Williamschen and Kirk Hess to assist with these conversions.

BIBFRAME extensions. The decision was made to, generally, not include BF extensions. Exceptions were made, however, for `bf:encodingLevel`, `bf:serialPubType`, and `bf:appliesTo` because they fell within the rubric established by the previous group. Since the start of this task

group, two bflc classes have been moved from BF extensions into BF ontology, bflc:PrimaryContribution and bflc:TransliteratedTitle.

Monograph format focus. As with the previous group's work, the access point repertoire was mainly focused on serving the monograph community, so further work will still need to be done with both repertoires to add any missing properties that are needed to support additional communities.

Support for scripts. The concerns of the previous group were discussed but with no clear way forward on whether to include conversions to 880 fields in pathing or not as part of the minimally viable MARC. As the BIBFRAME records may include any possible script, the conversion to MARC should support these scripts. We acknowledge that vernacular data mapped to field 880 may end up mapping differently depending on the conversion specifications and on how data is input in BIBFRAME. For example, if transliteration is included in the BIBFRAME description along with vernacular scripts, then conversion to MARC could reproduce 880 fields. Where transliteration is not included or not identified as such in BIBFRAME, vernacular data may not map to an 880 field but a non-paired MARC field. For example, vernacular data entered as a title in BIBFRAME may map to a 245 field in MARC without a paired transliterated title.

Order of subjects. For subject access points in MARC, the expectation is for the subjects to be ordered per the Subject Heading Manual. With BIBFRAME converted MARC records, though, this ordering is not guaranteed. While not ideal, we determined that this would be good enough for a minimally viable BIBFRAME to MARC converted record.

Reliance on vendors. The task group acknowledges that most of the work on conversions supporting any BIBFRAME to MARC will rely on onboarding vendors. While the repertoire can serve as a guide for onboarding, we strongly recommend vendors also refer to the most current Library of Congress BIBFRAME to MARC conversion specs for up to date pathing.

Relationship fields. BIBFRAME relationships that convert to linking fields as well as field 758 were excluded from the access point and descriptive repertoires as they didn't fit in either category, however, they are essential to some formats, such as serials and rare books. Currently field 758 includes the bf:Work and bf:Instance URIs. This is another area that a future group could continue to review.

Other fields and subfields not included. As stated above, when \$0 or \$1 exists, then other subfields may not be present. When \$a or \$t is present for names or titles, the entire access point will be included in the one subfield and will not be subfielded. Also, some MARC fields do not have an equivalent property or conversion specs so these were left out as well.

RDA conformance. While the group used the PCC standard record requirements to determine a minimally viable record, we also note the importance of RDA conformance in the current cataloging environment. We recommend that in the future, the LC-PCC Policy Statements and the relating Metadata Guidance documentation statements be taken into consideration for any

enhancements to the access point and descriptive field repertoires. The group noted that there may well be changes down the line because of Official RDA, but these would be relevant only if reflected in BIBFRAME and MARC standards.

Appendix 1. PCC Repertoire of BF2MARC Fields

We combined the original descriptive fields repertoire with the additional work done with access points into one Google Sheet document. Along with building the access point repertoire, we also updated the descriptive field pathing, properties, and classes to align with the current Library of Congress BIBFRAME specs at the time, version 2.6.

The Google sheets version can be found here:

https://docs.google.com/spreadsheets/d/1yektBLk7BDmcVuzgRJgIGr_uS1x84h1NYN2c6Nkt6s4/edit?usp=sharing.

Meeting minutes and other files can be found here:

<https://drive.google.com/drive/folders/1fqbhixz0DK-21r21c6qze-AuOQEbQ68I?usp=sharing>.

Appendix 2. Conversion Principles and Rubric

Our task group used the same conversion principles and rubric as the previous task group. The rubric can be found in the final Final Report of the PCC Task Group on MARC Simplification for BIBFRAME Conversion.

(https://docs.google.com/document/d/1LGul1HKSA7uOYv6Bsf4c7hv7zGx0j5CbD-nLAJCFUMg/edit?usp=drive_link)

Appendix 3. Group Charge

Charge

The PCC Task Group on BIBFRAME-to-MARC Conversion is charged to:

- Continue to develop, oversee and maintain the preliminary repertoire of MARC descriptive fields from BIBFRAME and create a new one for access points according to the ongoing development of BIBFRAME, MARC, and other related standards, including BIBCO Standard Record and CONSER Standard Record
- Provide best practice documentation on BIBFRAME-MARC conversion
- Collaborate with relevant PCC standing committees as needed
- Communicate with stakeholders on the understanding and acceptance of MARC records converted from BIBFRAME within the library community

Time Frame

Date charged: 10 March 2023

Communications/interim reports: Task group should provide regular updates to SCA. In addition, the group should provide updates two weeks prior to OpCo, PoCo and ALA meetings. Communication with related PCC groups is also encouraged.

Review charge, membership, and outcome: SCA will consider annually whether to renew, and if this task group continues to be necessary.

Date final report due: 15 September 2024

Reports to

PCC Standing Committee on Applications