

LIBER MARC Harmonization Task Force – Format Activities in European Countries

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INTRODUCTION

The LIBER MARC Harmonization Task Force has its origins in an initiative of the past President of LIBER, Professor Elmar Mittler from the Göttingen State and University Library. Professor Mittler asked Dr Elisabeth Niggemann from Die Deutsche Bibliothek to take part in the meeting of the MARC Harmonization Coordinating Committee in Ottawa in May 2001. Following that meeting the LIBER MARC Harmonization Task Force was founded at the LIBER Annual Conference in July 2001 in London.

The LIBER MARC Harmonization Task Force held its first meeting on 14 January 2002 at Die Deutsche Bibliothek Frankfurt am Main, with the aim of gaining an overview of format activities in Europe. The group's aim was to concentrate on European developments and to build up stronger cooperation in the library world in order to strengthen Europe's international influence.

The LIBER MARC Harmonization Task Force held a second meeting at the IFLA 2002 Conference in Glasgow and discussed the first draft of its report and recommendations to LIBER. After final discussion within the group, this report has been further revised and was submitted to LIBER.

The aim of the report is to give an overview of format activities in European countries and to make recommendations to LIBER regarding the use and development of data formats in Europe. The annex includes reports on migration activities from different countries. The report is based on information on data formats collected and compiled on the basis of a questionnaire distributed to the Conference of European National Librarians (CENL).

Cataloguing issues were further discussed at the 1st IFLA Meeting of Experts on an International Cataloguing Code held in Frankfurt in July 2003. Further meetings will be held at the IFLA conferences in Buenos Aires (2004) and Seoul (2006).

OVERVIEW OF FORMAT ACTIVITIES IN EUROPEAN COUNTRIES

Results of the CENL questionnaire

In October 2002 an online questionnaire on data format activities was compiled in order to collect information on data formats and cataloguing codes, and to ascertain the level of support for a MARC21 European Interest Group. (At the Groningen meeting of the LIBER Executive Board in January 2004, it was decided to change the name of the group into “LIBER – MARC21 Interest Group”.) The questionnaire was sent out to all 41 CENL members. A total of 27 questionnaires were returned, giving a return rate of 66%.

1a. What bibliographic data formats do you use as your local format?
(Multiple answers were possible)

The most common data formats in use are UNIMARC and MARC21, with local MARC adaptations (e.g. danMARC2, MARC21-Fin, NORMARC) achieving the highest score (10 responses). There are also some other local formats such as MAB2 (as a kind of “foreign language”) and OCLC PICA (as a kind of “hybrid language”), but their level of use is, not surprisingly, much lower than that of MARC.

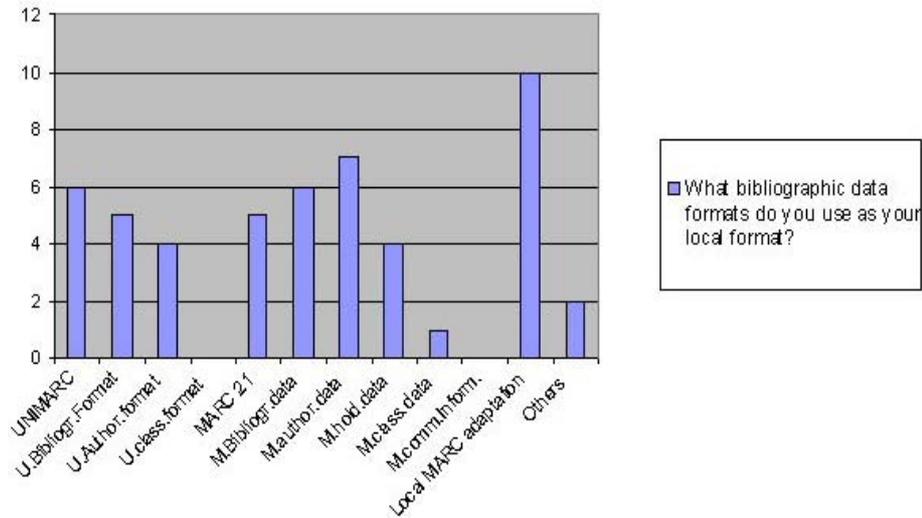


Figure 1a

1b. What bibliographic data formats do you use for exchange purposes?

(Multiple answers were possible)

The most frequently used formats are UNIMARC and MARC21 (in each case 10 responses; 31%), followed by “local” 9 (28%) and “other” 3 (9%).

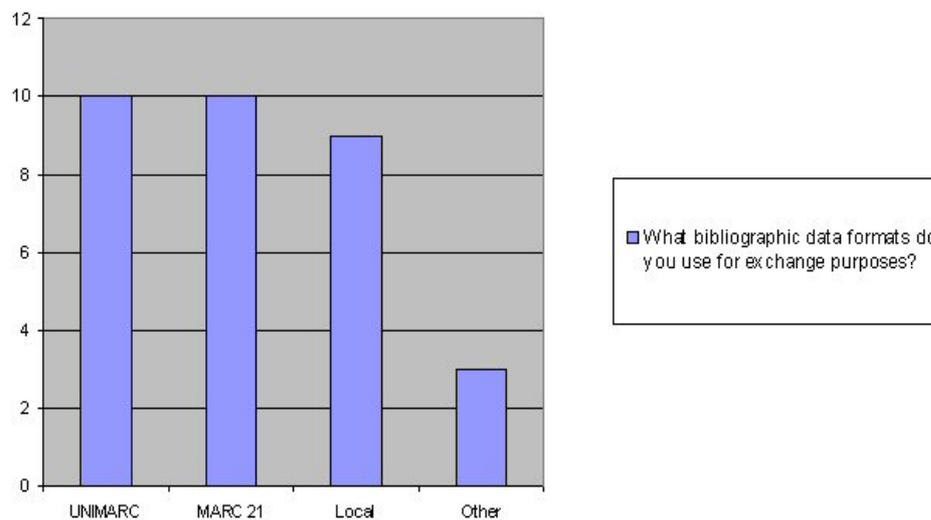


Figure 1b

2. What cataloguing codes do you use?

(Multiple answers were possible)

The most frequently used cataloguing rules are national ones (14 responses), followed by local adaptations of AACR2 (8) and AACR2 (6). Only three institutions use modifications or short versions of national cataloguing codes.

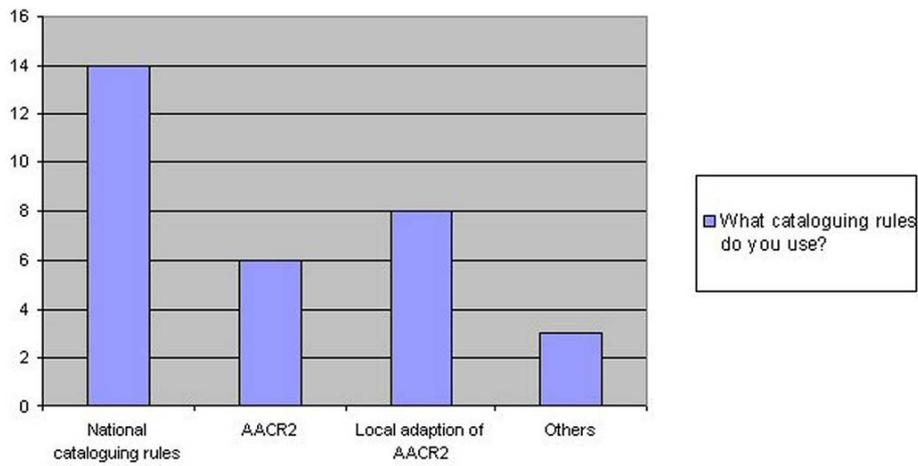


Figure 2

3. Harmonization of cataloguing codes

This question was answered by all participants. All of them consider a harmonization of cataloguing codes as important: “very important” (15 responses), “important” (12 responses).

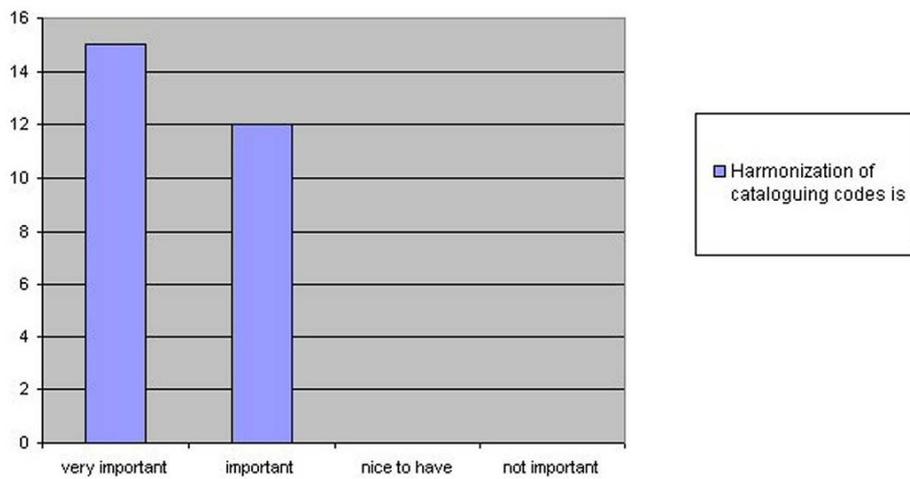


Figure 3

4. Convergence of data exchange formats

85% regard a convergence of data exchange formats as very important (18) or important (5). Only 1 CENL member regards it as not important.

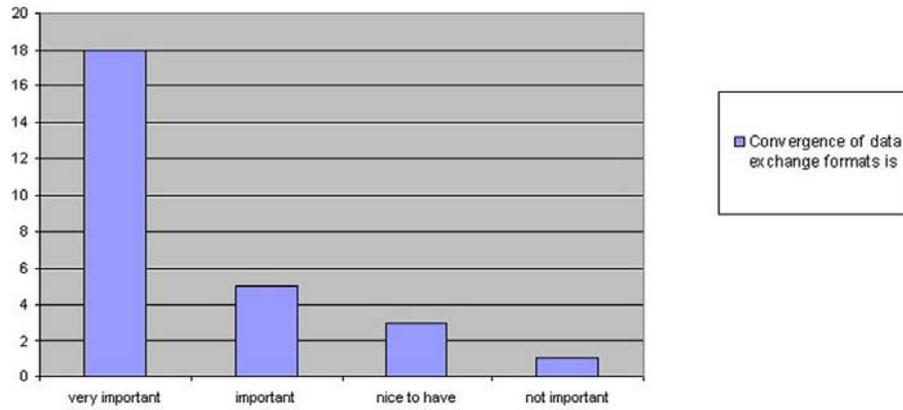


Figure 4

5. Interoperability of data exchange formats

89% regard interoperability of data exchange formats as very important (18) or important (6).

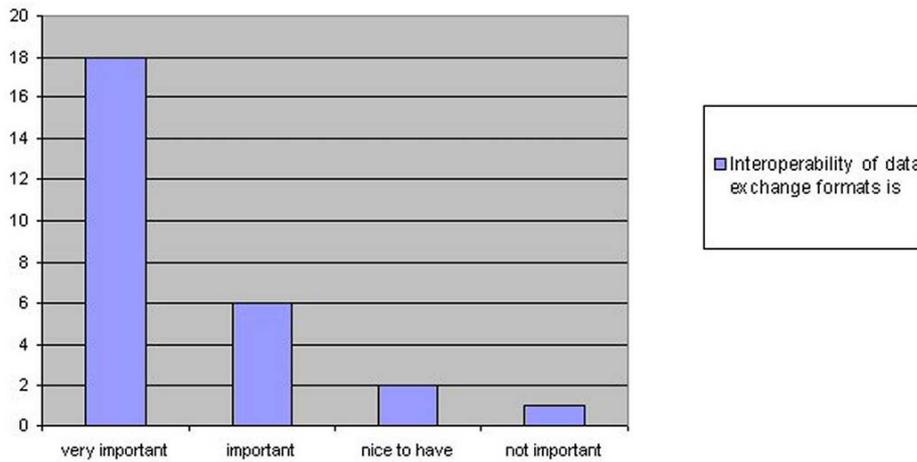


Figure 5

6a. Do you plan to migrate from your format to a new format?

The majority (21 institutions) do not plan a migration, and only six institutions have migration plans. The question about present and future formats was not answered by enough institutions and therefore could not be evaluated.

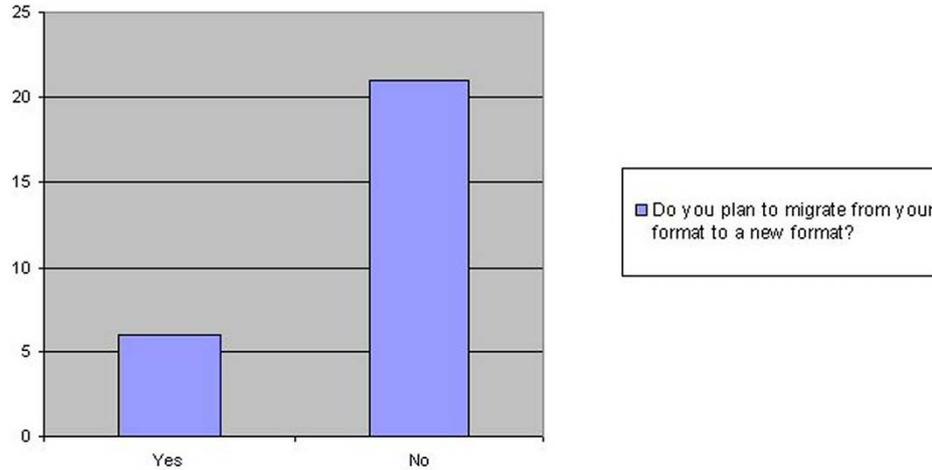


Figure 6a

Reasons for the decision to migrate are multifaceted. The most important reasons cited are the complexity of the MARC21 format (Bibliographic, Holdings, Authority, Classification, Communication formats), the fact that many sources of qualified MARC21 records are available (with consequently less need to make changes to downloaded records), and the facilitation of the international exchange of bibliographic data. Furthermore there is strong support through the MARC21 community, including full documentation of the format, mappings to new formats, active discussions and a lot of library system vendors experienced in MARC21.

The reasons for a decision not to migrate are also interesting. Some institutions have already migrated, are content with the existing format, or use a format which is very close to MARC. Others are constrained by the information system and format of their national library landscape, or by the systems supported by library system providers. Another important consideration is a requirement to handle some more new formats including XML-based ones, Dublin Core and ONIX.

6b. Which is the most important precondition before migration to a new format can take place in your library?

The answers to this question could not be evaluated because 19 institutions (70%) did not provide an answer. This may be due to the fact that 78% are not planning a migration.

7. A MARC21 European Interest Group

74% regard the implementation of a MARC21 Interest Group as very important (11 responses) or important (9).

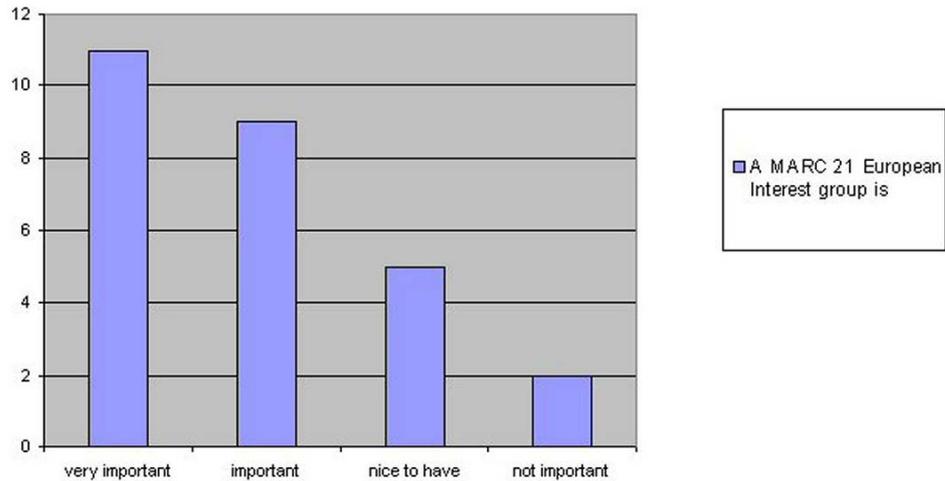


Figure 7

ADVANTAGES OF A MARC21 EUROPEAN INTEREST GROUP

The advantages of establishing a MARC21 European Interest Group are seen as manifold. The most important aspects seem to be the possibility of forging stronger links between European library culture and the widespread MARC format and therefore bringing MARC and European library culture closer together. The representation of European viewpoints and interests concerning format applications and cataloguing questions could so be better guaranteed, and the chance to build European consortia on these topics will be more practicable. Further benefits may include the exchange of experience, a greater understanding of the value of standardization to the European library community, and the opportunity to participate in the development of MARC21 formats.

The Group could be a forum where the harmonization of MARC21 and other related systems can be reviewed and information coordinated so that cooperation with Anglo-American institutions is easier and more efficient. Being able to cooperate and to build a unified community would result in greater influence on MARBI (Machine Readable Bibliographic Information Committee), and would avoid duplication of effort. The group should be a group of experts with the aim of promoting the format and keeping it up to date, and with responsibility for information and knowledge transfer in relation to format questions. It could provide for a better harmonization and interoperability between formats developed for international purposes.

One of the major goals of the LIBER MARC Harmonization Task Force is the discussion of the data format activities of libraries at the European level. Therefore it is desirable to cooperate with the Conference of European National Librarians (CENL) in order to get an overview of the format activities in all European countries. Dr Elisabeth Niggemann has kept the CENL and the CoBRA+ Forum informed about the activities of the LIBER MARC Harmonization Task Force, and she will continue to provide further reports in the future.

The group recommends close cooperation with the international library world in the field of bibliographic data formats. In particular intensive cooperation with IFLA - the IFLA UNIMARC Programme (UP), the Permanent UNIMARC Committee (PUC), the ICABS Programme -, the MARC Harmonization Coordinating Committee (MHCC) and the Machine Readable Bibliographic Information Committee (MARBI), with the intention of exchanging information and bringing European ideas into the international discussion on data formats.

Because of the importance of data formats in cataloguing matters, cooperation with cataloguing standardization bodies is imperative, as is cooperation with the IFLA Cataloguing Section and Division of Bibliographic Control, and the Joint Steering Committee for Revision of Anglo-American Cataloging Rules (JSC).

RECOMMENDATIONS TO LIBER

It can be seen from the results of the CENL questionnaire presented above that there are two principal standards of data format used by European countries: UNIMARC as an IFLA standard and MARC21.

1. Establishment of a liber MARC21 Interest Group

Because of the close association between cataloguing work and data formats, we recommend the establishment of a LIBER MARC21 Interest Group, which should also represent the interests of UNIMARC users.

2. Liber website for format issues

The discussions showed that more information should be made public. A LIBER website should be installed focussing on format issues but also addressing cataloguing issues where relevant. This website should include a calendar of events, documents about and links to format matters, as well as documents on and links to practical solutions on migration and transition.

Country reports, with overviews of format activities and format conversions (see annex of this paper), should be placed on the LIBER website, following a standard template, as practical examples, and the results of the CENL questionnaire should be made available on the website.

3. European discussion list for format issues

A European discussion list on format matters should be installed on the LIBER website to foster a lively exchange of ideas. The list should be an open discussion list, enabling libraries changing to MARC21 to benefit from the experiences of others in the same situation. For the major questions there should be an FAQ-list. The name of the list should be “European discussion list for MARC21 Format”.

4. Workshops on format issues

It is recommended to organize workshops on practical ways of migration to MARC21, with the aim of bringing experts together and learning how other libraries handle format issues. Workshops are also seen as a good tool for marketing and public relations.

CONCLUSION

At its Groningen meeting in January 2004, the LIBER Executive Board fully agreed the previous recommendations. The LIBER MARC21 Interest Group will be established and assigned to the Access Division of LIBER. The Access Division serves to foster and promote access to information resources for the benefit of the patrons of university and research libraries, and to stimulate the development of modern information services.

COUNTRY REPORTS

The following paragraphs provide a short overview of the format activities in the member countries of the LIBER MARC Harmonization Task Force, as presented at the meeting at IFLA 2002. Although the situation is different in each country, the data format is highly important for all. All countries use (or intend to use) the international data formats UNIMARC and MARC21 as the national data format and exchange format.

In the countries in which a transition to a new data format was made, a demand for training and documentation on this format was accentuated.

1. UniMARC use in Croatia - report from dr Mirna Willer

The UNIMARC format has been the Croatian national format for machine-readable cataloguing and data exchange since 1980. In 1981 it was adopted as the Yugoslav format on the recommendation of the National and University Library, Zagreb, which had by that time already started automating its cataloguing and bibliography. UNIMARC format for authorities was adopted and implemented in the National and University Library integrated information system in 1990, when it was still in draft form.

The adoption of UNIMARC as the national and exchange format was due to the fact that Croatia has always had a very strong tradition in cataloguing theory and practice based on IFLA standards, as evidenced by the fact that Eva Verona wrote the Croatian national cataloguing rules.

The National Library does not have any problem with the use of UNIMARC formats, as it has been actively involved in their development since 1991. It has also been involved in different projects and has developed ISSN–UNIMARC–ISSN conversion, and took part in the CERL/RLG conversion project UNIMARC–MARC21–UNIMARC.

2. Bibliographic formats in Germany: a rudimentary survey - report from Reinhold Heuvelmann

This paper tries to give a short overview of the bibliographic formats that are used in Germany, with emphasis on the format activities in Die Deutsche Bibliothek.

Die Deutsche Bibliothek, as well as some regional library systems, uses the format Pica, created by the Dutch organization of the same name, now part of OCLC Pica. The Pica format is derived from MARC and consists of two types. Pica3 is the cataloguing format (with tags of 3 or 4 digits and ISBD-interpunctuation); Pica+ is the internal and storage format (with tags of 3 digits, 2 indicators, and a subfield structure). The Pica format is also used as a reference format (“turntable“) for format conversions.

Other institutions have systems with their own internal formats, covering a wide range from simple to very complicated data structures. Also formats originally designed as exchange formats are used as internal formats, in a more or less abridged and adapted form.

The German exchange format (which is also used in Austria) is MAB (Maschinelles Austauschformat für Bibliotheken - Machine-readable Exchange Format for Libraries). It can be used offline (for delivery on tape and disk or by ftp-transfer) and online (e.g. via Z39.50 gateways). The Expertengruppe MAB-Ausschuss (= Expert Group MAB Committee), under the auspices of Die Deutsche Bibliothek, is responsible for maintenance and development.

The MARC-based formats UNIMARC, USMARC, UKMARC and MARC21 are used for data import and export of German data as well as foreign data from other national libraries and data suppliers.

DC (Dublin Core) is used for the import of metadata of online theses of German university libraries and will be used in the future for the export of data, using the protocol for metadata harvesting of the Open Archives Initiative.

ONIX (Online Information eXchange), the standard format used by publishers and vendors to distribute electronic information about books, is used for data exchange between Neuerscheinungsdienst (Die Deutsche Bibliothek) and German Books in Print (MVB GmbH).

Recently the issue of a transition from German to international cataloguing rules and formats was put on the agenda again. In December 2001 the German Committee for Library Standards opted for migration. The expected benefits are improved international decentralized bibliographic data systems, a simplified international data exchange, the dissemination of German information and data and the selection and acquisition of new software for bibliographic data systems. The conditions, the consequences and the time schedule for the transition should be examined in an 18-month research project funded by the German Research Foundation before migration is introduced. The project, in which Die Deutsche Bibliothek is the project leader, was launched in autumn 2002.

3. UniMARC use in Portugal - report from Rosa Maria Galvão

Portugal is a country with a long tradition concerning the application of UNIMARC. The first steps were taken in 1986, when the National Library began preparatory work for the automation of its catalogue. PORBASE - the National Bibliographic Database - is both the National Library database and the online union catalogue of the Portuguese libraries, so the adoption of UNIMARC as national and exchange format and its development was crucial to coherence, consistency, uniformity and standardization of the National Database. In January 1991 the UNIMARC authorities were also implemented into the National Library integrated information system.

The National Library, being a National Bibliographic Agency, has developed a really important role with respect to the application, development and diffusion of the format in Portugal. It has constructed and disseminated working tools, which have helped Portuguese libraries understand and apply UNIMARC in Portuguese cataloguing procedures (such as in manuals and guidelines); it has translated the UNIMARC Manual (bibliographic and authority); it has organized workshops and UNIMARC training, which are still held on a regular basis, and it is still following up and collaborating on the development of the format.

The National Library has been involved in international projects including USEMARCON (user controlled generic MARC converter) and it has cooperated in international databases including CERL/RLG.

UNIMARC is really important in Portugal, and even libraries that are acquiring new systems request the UNIMARC format. Therefore UNIMARC is the national format.

4. MARC21 Activity In Scotland -report from Gordon Dunsire

Organizations currently using MARC21 in Scotland include the National Library of Scotland (NLS), Strathclyde University, Edinburgh University, the University of the Highlands and Islands Millennium Institute, and the Centre for Digital Library Research (CDLR). Napier University, the Scottish Poetry Library and the Scottish Library and Information Council (SLIC) have commenced migration from UKMARC to MARC21, and expect to complete the process by September 2002.

Several other Higher Education libraries are planning to migrate from UKMARC to MARC21 within the next 1–3 years. A number of public library services, such as Inverclyde Council, are also planning to move to MARC21 from non-MARC metadata formats. This follows advice from SLIC for improving interoperability in the People's Network project for widening access to digital information.

SLIC is also supporting the use of MARC21 for cataloguing digital reproductions through the use of OCLC's CORC service. Several libraries are participating in a pilot project to use CORC for collaborative cataloguing of online resources, including digital reproductions of local history materials created during the NOF-digitise programme. SLIC, CDLR, NLS and Strathclyde University are collaborating on a pilot project to create MARC21 authority records for Scottish names and place names via the NACO programme.

The Co-operative Information Retrieval Network for Scotland (CAIRNS) uses Z39.50 to create a cross-searching service for many of the university and research libraries in Scotland. UKMARC and MARC21 are supported by CAIRNS, which maps data from both to a common display format. The first public library, East Ayrshire, was added to the service in June 2002; this is a non-MARC site, but its Z39.50 server can output data in pseudo-UKMARC format.

There is a growing demand for training and documentation on MARC21 for non-MARC cataloguers, and on migration from UKMARC to MARC21. The Cataloguing and Indexing Group in Scotland (CIGS) has held a series of short seminars on these topics during the past two years, and is planning more. It is also negotiating with commercial suppliers to arrange training sessions in Scotland; potential customers and suppliers have been finding it difficult to synchronize sufficient numbers of trainees to make such sessions worthwhile, although one or two have taken place. CIGS has also made

documentation such as standards, local migration notes, and seminar presentations available on the Web.

5. Format activities in Sweden - report from Gunilla Jonsson

During 2001 the transition from the national format LIBRIS-MARC, which was a UKMARC-like format, to MARC21 was prepared. This preparation involved the conversion of the existing, national union online catalogue, comprising records built during a period of almost 30 years, and it involved an extensive education programme for all the libraries which use the LIBRIS system for cataloguing - more than 200 libraries are connected. All of them, however, do not carry out full-scale cataloguing. In January 2002 the database had been converted, and cataloguing in Voyager, which requires MARC21, was started. One additional field has been designed (249 for original title); otherwise MARC21 is used as it is.

Not surprisingly, a number of conversion errors have been identified, and they are being dealt with according to a priority list. Some, but not all, can be handled automatically. A concise format manual and a complete format manual for cataloguers are finished (August 2003). LC's format comments should be more comprehensive. One example: it is, in principle, possible to use designators for non-sorting beginning and end, but LC's comments are silent about it. On the whole, MARC21 is still heavily influenced by the catalogue card format, which consequently influences system solutions.

The much-debated issue of ISBD punctuation must also be mentioned. There are cataloguing systems that generate the proper punctuation based on subfield codes, but it is not feasible for all subfields in 245 or 250. In particular, \$b is used for different things, which require different punctuation.

To sum up, the previous format took pretty good care of the need to structure the information for search purposes (not all search purposes, though!), and linking records was easy. As a consequence, identification of the physical objects sometimes suffered. The MARC21 format, however, takes better care of the identification of the physical objects, but the linking is "manual" and has to be achieved in a cumbersome manner. Some duplication of information is also needed to cover searching requirements, which should ideally be achieved in a more elegant manner.

IFLA UNIMARC FORMATS: DEVELOPMENT OF UNIMARC FORMATS - REPORT FROM DR. MIRNA WILLER

UNIMARC is an IFLA standard, which means that it supports all IFLA UBC standards, guidelines, lists etc., as well as relevant ISO standards. It was designed in the mid-1970s based on the experiences gained in designing MARC I, LCMARC, BNB MARC etc., INTERMARC, and the ISO 2709 standard for exchange of bibliographic data. This is

important to mention because in designing UNIMARC the experts were free not to follow precedents imposed on the design by national practices, uses and considerations, but to design the format according to the concepts that had their foundations in the new information technology and information theory. Also, the format was designed following the agreed international principles and standard bibliographic description into which national cataloguing rules and practices should fit, while not imposing one over the other. National cultural “flavour“ is thus preserved!

The central mission of the Permanent UNIMARC Committee (PUC) in developing and maintaining the UNIMARC suite of formats is to adopt and support the development of particular IFLA, ISO and Internet standards and also to lead research and development in related fields. The formats are: UNIMARC Manual: Bibliographic Format (2nd ed., update 4, 2004); UNIMARC Manual: Authorities Format (2nd ed. 2001); UNIMARC for Classification Format (Worldwide reviewed; to be posted on IFLANET by August 2002); and UNIMARC for Holdings Data: Draft (to be posted on IFLANET for worldwide review in autumn 2002).

The Permanent UNIMARC Committee has based its work on cooperation not only with IFLA's divisions and sections but also with other IFLA experts and non-IFLA organizations, such as ICA, ISSN, ISBN, publishing industry, etc., as well as with CERL, EROMM and INTERPARTY.

FORMAT CONVERSION / TRANSITION – PRACTICAL ISSUES

BL/UK transition to MARC21 - Report by Dennis Pilling and colleagues

Reason for transition

- overcoming obstacles to collaboration
- strong support and development of MARC21-based systems
- cost of maintaining separate national standards
- local and national level
- availability of derivable catalogue record
- shift to MARC21 by major UK libraries

Steps in the process

- 1993 - opening talks with LC
- 1995 - consultation in UK
- 1997 - progressive convergence strategy

- 1999 - UK consultative body – big bang
- 2000 - consultation exercise
- 2001 - decision to move to MARC21

1. Introduction

As far back as 1993 the British Library recognized that harmonization of the MARC formats was a desirable goal with many practical advantages. Since then the changing environment, with technological developments and financial constraints, has emphasized the advantages. The current reasons for harmonization in the UK are, in the main:

- costs of maintaining separate national standards - at local and national level
- overcoming obstacles to collaboration - availability of derivable catalogue records
- strong support and development of MARC21-based systems
- shift to MARC21 by major UK libraries

Since the British Library is the body responsible for developing and maintaining the UKMARC format and for data services based on that format, it has been essential that the UK national consultative body, Book Industry Communication Bibliographic Standards Technical Working Group, and the UKMARC user community should be in agreement with any decisions taken by the library in relation to harmonization with, or transition to MARC21.

2. History

In 1993 US libraries did not want the further major change that would have been necessary for full harmonization at that time, for although the US and CANMARC applications were very similar, UKMARC was closer to ISBD, the punctuation by software. Therefore harmonizing formats was put forward as an alternative approach to establish a common platform and consultation with the UK library and information community in 1995 showed that the majority view was in favour of harmonization. Unfortunately an impact assessment in the US revealed a reluctance by bibliographic utilities and systems vendors to undertake the large-scale database conversions required, which they did not feel were warranted by the benefits of a harmonized format.

A further alternative, progressive convergence, was worked out in 1997 and a joint MARC Harmonization Coordinating Committee was formed. Each of the national libraries, BL, LC, and NLC agreed to keep future developments in step, in order to prevent any further divergence. As a result, the British Library began progressively adopting USMARC fields, starting with unique fields that would have little impact on users and working towards the more complex changes that would require systems or database changes by users. The intention was to consult the community at each stage and

stop when users felt the process had gone as far as they were prepared to go. In the meantime Canada and the US harmonized their formats to create MARC21.

In 1999, as part of the ongoing dialogue with UKMARC users, the British Library consulted the Book Industry Communication (BIC) Bibliographic Standards Technical Working Group, the UK consultative body, on the next phase of harmonization. The Working Group advised that users might prefer the big-bang approach, given the changed circumstances since the last major consultation, especially the increasing implementation of MARC21-based systems and collaboration with North American bibliographic utilities.

Whilst the result of the major consultation exercise in Autumn 2000 showed that there was still a large minority (30%) that wished to retain the unique features of UKMARC, there was a clear mandate (57%) for adopting MARC21, with only 7% who wanted to keep UKMARC largely unchanged. With this level of support for MARC21, the British Library decided to move to MARC21 and, significantly, without any preconditions.

3. Transition

The decision to move to MARC21 coincided with the British Library's work on upgrading its corporate bibliographic system. This upgrade will be a MARC21-based integrated library system (ILS), with a planned implementation date of January 2004 and the transition to MARC21 will be made as part of this ILS implementation. Other UK libraries have been moving to MARC21 in increasing numbers over the past five years or more, as they have installed new integrated library systems, which are MARC21-based.

During the consultation exercise, a number of concerns were expressed about how the British Library would implement MARC21, and what practical consequences this might have for UK users of MARC. In order to answer some of the questions raised, and to describe the proposed transition process, the British Library has issued a "White Paper" entitled *The MARC21 Format and the UK Library Community - Proposals by the British Library*. The following sections give an indication of the issues covered by the proposals.

4. Maintenance of the MARC21 Format

The maintenance and development of the MARC21 format is to be carried out under a formal agreement between the Library of Congress, the National Library of Canada and the British Library. The agreement, signed in July 2002, establishes the means for the parties to achieve the above purpose by defining:

- roles and responsibilities for format development and revision;
- roles and responsibilities for publication and related activities.

Each library will be responsible for consultation within its national structure and for drafting, reviewing and editing any proposals that result from this consultation. In addition, the Library of Congress consults worldwide for input from MARC21 users.

The British Library will consult with its formal national consultative committee to determine which changes to the format should be formally proposed. It is intended that the BIC (Book Industry Communication) Bibliographic Standards Technical Subgroup, which currently oversees UKMARC development, will adopt this role. The membership of the BIC group will be reviewed, in order to ensure adequate UK stakeholder representation. Any UK user or group of users will be able to propose changes to the format through BIC. New proposals will be passed from BIC to the Library of Congress and then disseminated throughout the MARC21 community worldwide via the MARC forum discussion list. These proposals will be discussed and recommendations made at the biannual open US MARC Advisory Committee meetings, held in the context of the MARBI meetings and at the Canadian Committee on MARC (CCM) meeting. The cycle for consideration of format revision proposals will be twice a year, in January/February and June/July.

5. MARC21 and the UK User Community

The annual Standards Forum of CILIP CIG (Cataloguing and Indexing Group) has been established as the platform through which UK users of the MARC21 format can express their views, and constitutes:

- an open forum for discussing and developing proposals and other input to MARBI through the medium of the BIC Bibliographic Standards Technical Subgroup,
- an open forum for reporting and discussing news and developments from the Library of Congress, and progress on the implementation of proposals.

6. Changes by MARC21: New Features

The British Library, in consultation with the BIC Bibliographic Standards Technical Subgroup, submitted a limited set of proposals for consideration to MARBI in 2002. The adoption of MARC21 will inevitably affect cataloguing policy in certain areas. The library is currently in discussion with PCC (Program for Co-operative Cataloguing) over the implementation of LCRIs (Library of Congress Rule Interpretations), and will clarify its position once the discussion process has concluded.

Authority Control Standards

Development of the full potential of the Anglo-American Authority File has been frustrated by the differences between UKMARC and MARC21. The British Library, therefore, intends to adopt USNAF as the standard for authority control of name, title and series headings in conjunction with the transition to MARC21. From the date of implementation of MARC21, BLNAL headings will be deprecated in favour of the equivalent USNAF heading. If there is no equivalent USNAF heading, the BLNAL heading will be contributed to NACO. The Library will seek to align the headings in its bibliographic files with USNAF.

Bibliographic Record Standards

The British Library will adopt the Program for Co-operative Cataloguing Core Record Standard for Books as the standard for the British National Bibliography. The BNB currently follows the British Library Record Standard which is very similar to the PCC Core Standard.

Content Standards

The data content of certain fields within BL MARC records will be changing as a result of MARC21 implementation (see the full version of the White Paper).

Bibliographic Products

It is the intention of the British Library to continue to make bibliographic data available in UKMARC format from date of implementation for up to three years, depending on demand. When the library implements MARC21, the records will be created according to MARC21 and 'converted out' into UKMARC. The UKMARC format will no longer be maintained or developed following the issue of the final UKMARC Manual Update (8) in February 2003. It is intended that tag 886 (Foreign MARC data) will be added to the UKMARC format to accommodate MARC21 data elements with no corresponding UKMARC equivalent once the British Library's implementation has taken place.

Documentation

The library does not intend to replicate the core documentation already produced by the Library of Congress.

Training

Since the British Library does not possess a significant reservoir of MARC21 expertise it will not be able to undertake direct training, but will disseminate free via the web any training materials prepared in connection with its own internal training, and the White Paper contains details of organizations that provide training courses.

Assistance to Systems Suppliers

Although the British Library is able to convert its own records to MARC21 the library is not able to offer a data conversion service to other libraries. There are often significant differences in the way that individual libraries have used the format, and it would not be feasible to undertake conversions to account for each local variation. However, to assist the smooth transition from UKMARC to MARC, the British Library is making various tools available which are likely to be of particular use to library system suppliers:

- **USEMARCON** - This is a conversion application for UKMARC to MARC21, and vice-versa, which runs on a PC running Windows or Linux platform and can be downloaded from the USEMARCON web page free of charge.
- **UKMARC to MARC21 Conversion Tables** – UKMARC to MARC21 Conversion Tables – In order to support the consistent and accurate conversion of UKMARC data to MARC21, the British Library has prepared mapping tables from UKMARC to MARC21 which are available free of charge. Requests for the tables should be made by e-mail to marc-tables@bl.uk.
- **Consultancy** - In addition to the above tools, the British Library is also able to offer priced consultancy services to systems suppliers in the form of training in the use of USEMARCON and the creation of the required rules.

7. Update on progress - system (ILS) implementation and transition to MARC21 at the British Library

Several strands of the ILS Programme are underway:

Procurement Project

This project has reached the stage of selecting the long list from the companies that have expressed an interest in tendering for the supply on an ILS to the Library. The project is currently on schedule to award the contract in December 2002 and to start implementation in January 2003.

Data Preparation Project

Conversion of the main catalogues and indexes to MARC21 is taking place alongside the procurement process and it on schedule to be completed by December 2002. British Library staff, with the support of an external software consultant, is doing this.

The project will be undertaken in three phases.

- Phase 1 = Data cleaning and enhancement
- Phase 2 = Conversion to MARC21
- Phase 3 = Conversion to a common character set (probably Unicode, but dependant on ILS vendor chosen)

Change Programme

Change will have two elements: re-engineering of processes to fit an off-the-shelf system, and process change to take advantage of the functionality offered by the new system, not least the process integration and the MARC21 platform. A new post has been

created to co-ordinate ILS related change across the Library and to interface this change with other non-ILS related change and demand on resources.

MARC harmonization - change proposals

Proposal 2002-14 Changes for UKMARC Alignment was discussed by MARBI. The proposal contained 10 separate provisions of which 9 were accepted, some with amendment. The 10th proposal was tabled and will be returned to MARBI's meeting in January following discussion with BIC BSTS (Bibliographic Standards Technical Subgroup). Despite OCLC's concerns, field 038 Record Content Licensor, requested by British Library and CURL, was approved. Full details of the MARBI meeting are contained in the BL report to BIC BSTS. The BL perception is that there was a desire among MARBI members to accommodate UKMARC proposals. Further evidence of the internationalization of MARC21 was the approval of Proposal 2002-15 from the National Library of Russia.

Conversion tables

The conversion tables have been completed and are available as a Word file and as a Zip file. Requests for the tables should be made by e-mail to marc-tables@bl.uk

Documentation

Robert Hill, BL Bibliographic Services has completed a guide outlining the differences between UKMARC & MARC21 called "Changing the Record", available at the BL website.

User familiarization

The British Library, CILIP and BIC ran a series of workshops at a number of venues around the UK in the autumn, including London, Cardiff, Glasgow, Leeds and Manchester. These concentrated on timing, system replacement & differences in philosophy and structure between UKMARC and MARC21. They were not intended to be cataloguing training courses.

UKMARC to MARC21 migration at SLIC and Napier University - Report by Gordon Dunsire

1. Background

The Scottish Library and Information Council (SLIC) maintains a catalogue of electronic resources relating to Scottish literature and culture. The same database is used for the catalogue records of the Scottish Poetry Library (SPL). All records are currently in UKMARC format; there are approximately 38. 000 in total. The catalogue of Napier

University Learning Information Services (NULIS) is also in UKMARC format, and contains around 200 000 records.

Both catalogues use epixtech's Dynix library management system. SLIC and NULIS have collaborated on catalogue development for several years, and agreed to work together on migrating to MARC21. Because the SLIC database is smaller, and covers a narrower range of resources, it was decided, after discussion with epixtech, to migrate SLIC first, with NULIS following immediately. The migration is not yet completed for either organization, and the schedule has been extended for two months, until the end of July 2003.

2. Preparation for migration

Several activities have been carried out to prepare the catalogues for migration. These can be assigned to two categories: those carried out by the libraries to remove known problems; and standard system and data checks carried out by the supplier.

SLIC did not have much to do for its catalogue, because substantial checks on data integrity had been carried out in 2001 when the SPL records were added.

The NULIS catalogue, being much larger, more diverse, and with older records dating from 1987, contained many known problem areas. These included minor data corruption caused by previous migration projects, the presence of several thousand non-MARC records imported during a catalogue merger in 1996, and specific tags and subfields not used by NULIS but attached to MARC records downloaded from utilities and other libraries.

Counts of records affected by each type of problem were carried out using the system's reporting functions. These were used to make decisions on whether to correct the problems prior to migration, use the migration process itself to correct problems, or leave them unresolved. Where counts were low and machine and staff resources available for manual intervention, work programmes were implemented to resolve problems before migration. Some anomalies can be corrected during migration, such as deleting unwanted tag or subfield contents.

The supplier also carried out pre-migration checks. In particular, a list of all tags and subfields used in each catalogue was generated, giving numbers of instances and mappings to indexes and authority files. SLIC and NULIS compared the lists against the UKMARC and MARC21 structures to check for erroneous codings; any problems identified were included in the local preparation activities.

The lists were used by the supplier to ensure that every tag and subfield was represented in a set of test records. NULIS also created a false UKMARC record containing as many tags and subfields, with appropriate content, as possible, so that mappings from UKMARC to MARC21 could be more easily compared.

The British Library did not release the final version of its mapping tables until 1 July 2002, but a draft version became available shortly after the pre-migration activities had begun. The supplier has not conducted a UKMARC to MARC21 migration before, and has therefore had to make several attempts to develop a completely correct mapping of tags and subfields and add the punctuation required by MARC21. This activity is nearly complete for the SLIC catalogue, but will take a little longer for NULIS, which has four times as many tags to map. SLIC is now checking the mapping of authority records, which is not expected to take more than a couple of days.

3. Migration

When the full migration is due to proceed, library amendments to the UKMARC catalogue will be suspended. The catalogue will remain available for look-up only. SLIC has purchased a new server, and its database will be migrated onto it; NULIS will use spare capacity on its existing server.

The migration will be carried out and made available to the library for checking. If problems are found, the mappings will be corrected and the full migration repeated. When the library is satisfied, it will carry out appropriate amendments to the display mappings for staff and public catalogue views and test them. When the parallel MARC21 catalogue is ready for use, it will be switched into the live system, and the UKMARC catalogue removed. It is expected that this stage of the process will take at least a week, during which all cataloguing activity will remain suspended. For this reason, university libraries intending to migrate usually arrange schedules so that this disruption occurs during vacation periods. This may result in bottlenecks for the system suppliers.

4. Post-migration

NULIS and SLIC plan to train cataloguing staff in using MARC21 immediately after migration is completed.

Documentation, record templates, and MARC import and export profiles will require appropriate amendment.

External sources of bibliographic records will be reviewed to identify low-cost, quality providers; for example, Library of Congress MARC21 records do not carry any copyright charges.

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WEB SITES REFERRED TO IN THE TEXT

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<http://cairns.lib.strath.ac.uk/>

CCM - Canadian Committee on MARC. <http://webserv.nlc-bnc.ca/marc/s19-203-e.html>

CENL - Conference of European National Librarians.
http://www.kb.nl/gabriel/about_cenl/

CIGS - Cataloguing and Indexing Group in Scotland.
<http://www.slainte.org.uk/CIGS/cigshome.htm>

CIGS Toolkit. <http://www.slainte.org.uk/CIGS/Toolkit/marchome.htm>

CILIP - Chartered Institute of Library & Information Professionals.
<http://www.cilip.org.uk/>

CoBRA - Computerised Bibliographic Record Actions. <http://www.bl.uk/gabriel/cobra>

DCMI - Dublin Core Metadata Initiative. <http://www.dublincore.org/>

Die Deutsche Bibliothek. <http://www.ddb.de/>

ICABS Strategic Plan 2004 - 2005 <http://www.ifla.org/VI/7/annual/icabs-sp03-04.pdf>

IFLA-CDNL Alliance for Bibliographic Standards (ICABS)
<http://www.ifla.org/VI/7/icabs.htm>

IFLA Permanent UNIMARC Committee (PUC). <http://www.ifla.org/VI/3/puc.htm>

IFLA UNIMARC Programme (UP) <http://www.ifla.org/VI/8/up.htm>

JSC - Joint Steering Committee for Revision of Anglo-American Cataloging Rules
<http://www.nlc-bnc.ca/jsc>

LIBER Task Force on MARC Harmonization.
<http://www.kb.dk/guests/intl/liber/division/taskforce/marc/>

MARBI - Machine-Readable Bibliographic Information.
<http://www.lcweb.loc.gov/marc/marbi.html>

MARC Advisory Committee. <http://www.lcweb.loc.gov/marc/marcadvz.html>

MARC. Library of Congress, Network Development and MARC Standards Office:
MARC Standards <http://www.loc.gov/marc/>

MARC Standards. <http://www.loc.gov/marc/>

NULIS - Napier University Learning Information Services. <http://nulis.napier.ac.uk/>

Open Archives Initiative. <http://www.openarchives.org/>

ONIX - Online Information eXchange.
<http://malgosia.mit.edu/guides/subjects/metadata/standards/onix.html>

PORBASE. <http://www.porbase.org/>

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<http://www.loc.gov/catdir/pcc/bibco/corebook.html>

SLIC - Scottish Library and Information Council. <http://www.slainte.org.uk/SLIC/>

SPL - Scottish Poetry Library. <http://www.spl.org.uk/>

USEMARCON Plus. <http://www.bl.uk/services/bibliographic/usemarcon.html>