

ATRIBAL

INFOBILA

REUNION DE ANALISIS DEL FORMATO MARC PARA LA
TRANSFERENCIA DE INFORMACION BIBLIOGRAFICA
EN AMERICA LATINA.

México, D.F. 4 al 6 de Octubre 1976.

INFOBILA

REPORT OF THE MID-PROJECT MEETING ON THE MARCAL FORMAT
(I MARCAL)*

Washington D.C., 2-6 February 1976

1. I MARCAL, Washington D.C., 2-6 February 1976.

1.1. Background and Purpose of I MARCAL

Sponsored jointly by the MARC Development Office of the Library of Congress and the Library and Archives Development Program of the Organization of American States, a Mid-Project Meeting on the MARCAL Format in Spanish for application in Latin America was held at the Library of Congress from 2-6 February 1976. The purpose of the meeting of the OAS working group was to provide those directly and indirectly involved in the production of the MARCAL Format and manual the opportunity for informal observation and discussion of the "state of the art" with respect to MARC and its development and application in the Library of Congress and the United States, to format development in Mexico, Canada and Spain, and of the stage of development achieved in Puerto Rico on the MARCAL Format.

1.2. Recommendations of REPLICA for MARCAL and Their Implementation

The development of a MARC Format in Spanish, to be called MARCAL (MARC para América Latina), was recommended at the February 1973 meeting in Quirama, Rio Negro, in Antioquia, Colombia, by a multinational group of experts participating in REPLICA (Reunión de Expertos - LILIBU y CATACEN), called by the OAS to discuss proposed multinational projects in the development of selected lists of books for university libraries and the creation of centralized cataloging projects, and their automation. Subsequently the Library of Congress, in order to advance the application of computer technology to the transmission of bibliographic information in standardized form in the Americas, requested that the United States Department of State to submit a proposal to the OAS to produce a multilingual format for Machine-Readable Cataloging for Latin America and a manual for use in Latin America.

A contract was awarded by the OAS to the Graduate School of Librarianship of the University of Puerto Rico in Rio Piedras to carry out the translation, modification wherever necessary, and production of a MARC manual in Spanish. Mexico "Consejo Nacional de Ciencia y Tecnología (CONACYT), offered to share with Puerto Rico its experience in applying the MARC format in Mexico to certain tasks, because of its interest in the availability of a MARC Format in Spanish to facilitate its own bibliographic and library projects and to further the application of computer technology to the provision of scientific and technical information.

The Library of Congress offered to aid the team in the development of the MARCAL Format as it has done in the development of national formats for other countries and regions of the world.

Thought to be help also to the team from Puerto Rico was the experience of the National Library of Canada in developing a bilingual format in English and French to serve its two linguistic communities, as well as that of the Dirección General de Archivos y Bibliotecas in developing a MARC-compatible format for the production of a national bibliography, with possible expansion to include bibliographic information from Latin America.

Early in the planning for developing the MARCAL Format it was planned that the team from Puerto Rico would visit the Library of Congress not only to familiarize itself with recent developments there but to seek answers to questions that would inevitably arise in this stage of the project. The Mid-Project Meeting was called to bring representatives of the various projects mentioned together for planning purposes.

2. Reports and Discussions of the Participants

2.1. OAS Planning

A brief review was given by staff members of the Library and Archives Development Program of the OAS of both short and long-range planning with respect to library automation and centralized cataloging services in Latin America and of their potential connections with cataloging centers in the United States, including as a first step the development of a Spanish-language version of the MARC Format and a manual for Latin American application.

2.2. LC MARC and Its Uses

Staff of the MARC Development Office of the Library of Congress conducted a "customized MARC Institute" for participants which included visits to the operations of the MARC System at LC. It was explained that the purpose of the operations were three-fold: (1) to provide a core bibliographic record for LC purposes; (2) to provide a base for national bibliographic services; and (3) to provide bibliographical information for the international community. Use is made of the MARC Format to convert to machine-readable form some 150,000 titles a year, now cover works in Spanish, German, French, Portuguese and other languages as well as English, and a variety of materials as well as books and serials. By 1980 it is anticipated that all cataloging done by LC will be in machine-readable form.

For external purposes the MARC Format is used to generate tapes, to print catalog cards, and to produce a book catalog. The LC List of Subject Heading is available in microfilm, as well as in printed form, and it is planned to make it available in machine readable form by the summer of 1976 and on-line in 1977.

An important current project is the recording of the 1.6 million names in the name authority file in machine-readable form, for use with the MARC format. A next step will be the linking of the name file and the subject file with the bibliographic file for on-line access. Necessary references from the resulting authority file will be made both for names and subjects.

Through the National Program for Acquisition (NPAC) LC obtains MARC tapes from many countries. (It is hoped that an LC Office can be set up next year in one of the Spanish-speaking countries to complement the one in Brazil, and that records provided by the LC Offices in Latin America will soon be in machine-readable form.)

Older records of the Library of Congress, converted by other organizations, are being updated and included in the COMARC Project. To develop the technology of transmission of information from computer to computer, LC is collaborating with the Research Library Group. The project for the conversion of serial records to machine-readable-form (CONSER) now being carried on at the Ohio College Library Center (OCLC) in Columbus, Ohio, will be returned to LC operation in 1977.

LC Staff described the "MARC Retriever Program" as a method to provide for information retrieval off-line. For internal LC purposes, an automated Processing Information File is being implemented where a light pen will be used to post status to the file as the item goes through the cataloging continuum. MARC records are an input by the MARC Editorial Division, using format recognition for editing and corrected on-line.

For each kind of communication format required a new internal format is developed by LC. Participants were given full sets of the documentation developed by LC for the various operations of the MARC System.

2.3. MARC Uses in the United States.

Various developments in the United States outside the Library of Congress were reported by the MARC Development Office Staff, with special mention made of the operations of OCLC which is prepared to provide custom designed catalog cards. OCLC uses the MARC tapes from the Library of Congress. Other libraries input information on titles they catalog when records cannot be found in the OCLC data base. From these records OCLC connections can utilize the information in the data base on-line, through the purchase of cards or the purchase of computer tapes.

Also using MARC records, the University of Chicago is developing a fully automated capacity. The Washington State Library has produced a book catalog. MARC records are being used by the New York Public Library, and MARC records are being used for a cooperative cataloging project headquartered in the University of Massachusetts Library in Amherst. Various commercial cataloging services utilize MARC tapes to provide cards to libraries.

2.4. Other National MARC-Compatible Formats

Several countries have made certain modifications to the full MARC Format for internal national purpose, such as Great Britain, Canada, France, and Italy, especially for the production of the national bibliography.

2.4.1. Canadian MARC

The representative of the National Library of Canada explained the development of the Canadian MARC format to parallel the LC MARC for internal purposes and the various uses being made of it. The National Library is availing itself of the MARC tapes through the MARC Distribution Service, and is adding Canadian records to it to form the data base for Canada.

The peculiar linguistic characteristics of Canada make it necessary for records to be created in French as well as in English. Their experience of trying to use the 900 field for bilingual information for monographs and serials indicates that this should not be repeated in for multilingual purposes for Latin America. To satisfy the bilingual needs of Canada, on the other hand, an authority file is being encoded into the computer for names in English and French, now with some 12,000 entries, to be extended soon to include subject headings.

2.4.2. Spain: IBERMARC

A MARC format, very close to LC MARC has been developed in Spain, Centro de Datos, called IBERMARC, especially for the purpose of compiling and publishing the Bibliografía española, and aspiring eventually to include records from Latin American countries. This MARC format has become operational. The participants brought with them copies of the Manual on IBERBARC: Formato para Monografías (Madrid, 1976, recently published by the Ministerio de Educación) above-mentioned agencies.

The Spanish bibliography is already being published by using the IBERMARC format both for the content of the index and the typesetting of the bulletin. Collaboration with the Library of Congress is anticipated soon in the Shared Cataloging Program. Current plans call for developing an authority file, a network study for university libraries, the adaptation of IBERMARC to an exchange format, and participation in international meetings dealing with various aspects of the transmission of bibliographic information in machine-readable format.

In the meantime, the IBERMARC project includes in addition to the publication of the Bibliografía española such activities as the exchanging of bibliographic information with other countries, the printing and distributing of catalog cards by using tapes. Additional formats are being prepared for periodicals and serials, as well as for the publication of a union list of serials and other types of materials.

2.4.3. Mexico: MARC/Mexico

Experimentation with the MARC Format is being done by CONACYT especially for the purpose of producing subject bibliographies in science and technology based on information retrieved from subject heading assigned by some ten scientific and technical libraries in Mexico, and to support technical processes in libraries. CONACYT's representative to the meeting brought with him magnetic tapes produced in Mexico in this "mini-project", which were run off on LC computers, and a duplicate copy made for LC.

Inasmuch as many institutions in Mexico and other countries of Latin America are using the "ISO Format" and the soft-ware developed by the International Labour Office (ILO) which is free, CONACYT decided to utilize it for bibliographic purposes as well as for other needs of the agency. The task of the Information Center of CONACYT, therefore, has been that of making the

ISIS Format MARC-compatible, made somewhat difficult by virtue of the fact that it does not have "Content Designators." Some two weeks more of work were anticipated to achieve that goal.

The principal task of CONACYT has been technical rather than technological, that of uniform subject headings. Much work has gone into making a thesaurus for the "mini-project". The operation is now on-line for retrieval by subject but not for cataloging which still required much attention to subject headings in Spanish.

2.4.4. The Brazilian MARC: CALCO

Work begun by Alice Príncipe Barbosa at the Instituto Brasileiro de Bibliografia e Documentação, under the supervision of Prof. LaVahn Overmyer of Case Western Reserve University, has resulted in the development of a format and manual in Portuguese for the automation first of the cooperative cataloging program carried out for many years in IBBD. Anexo II to the manual concerns "Adaptação do CALCO/Brasil para implantação do MARCAL."

Brazil is also one of the few countries of Latin America where librarians have made a special effort to collaborate with publishers in providing "Cataloging in Publication" (CIP), and the application of the International Standard Book Number (ISBN) for new Brazilian publications.

2.4.5. Puerto Rico: Centralized Cataloging and Library Automation

For some years planning has been discussed for centralized and/or cooperative cataloging and cooperation especially among academic libraries, such as the libraries of the University of Puerto Rico, the Inter-American University and the Caribbean Regional Library now located in the library building of the UPR. The Inter-American University in recent years set up a centralized processing agency for the libraries of its thirteen campuses throughout the Island.

The Director of Libraries of the University of Puerto Rico has long been interested in automation. After automating some processed such as acquisitions in other university libraries in Puerto Rico, he has set about to automate similar processes at the UPR.

In order that Puerto Rico might take advantage of library technology developed in recent years, a proposal was submitted through the Commissioner of Puerto Rico in Washington to the OAS for a feasibility and cost study for making OCLC records available on-line to Puerto Rico for a centralized cataloging facility for all academic libraries interested in participating. The bilingual problem with respect to author and subject headings would form a part of the study proposed.*

* The proposal, which was subsequently referred to the Department of State as the official liaison agency with the OAS, is being studied with the U.S. Office of Education for funding possibilities.

2.5. International MARC Developments

To expedite the exchange of bibliographic information with other countries, the Library of Congress has collaborated with the International Federation of Library Associations and other entities in the Development of "UNIMARC" as well as the International Standard Bibliographic Description (ISBD). UNIMARC has been designed to communicate information between countries, utilizing any cataloging code. UNIMARC was originally referred to as the "MARC International Format."

2.6. AACR and Automation

Participant reaction to the LC report led to the observation that it would be desirable to get the Anglo-American Cataloging Rules closer to computer capabilities. Although the OAS issued this code in Spanish, there is a serious need for steps to be taken to obtain funding for the translation of the new Chapters 6 and 12, as well as for the new revision of the entire code now being prepared by an international working committee sponsored by American Library Association, Library Association of Great Britain, and the Caribbean Library Association.

3. Progress on MARCAL

The University of Puerto Rico team contracted by the OAS to produce the Spanish version of the MARC Format and the manual to facilitate Latin American application of it brought to the meeting copies of the translation of the MARC Format: Books. Work has begun also on MARC Format: Serials, and was to be initiated soon on the preparation of the manual in Spanish. After considerable discussion of the content of the manual, it was agreed that there would be less confusion on the part of the potential users if the elements which librarians need to have are separated from the elements of a purely technological nature for computer specialists.

It was anticipated that the format and manual in Spanish would be ready by the first week in May, 1976.

4. Conclusions

The following findings and conclusions were reached by the experts:

4.1. The MARCAL Format and Manual in Spanish

4.1.1. The MARCAL Format for Books and Serials should be as full as possible, with the level of detail at least that of the LC MARC, and perhaps even more full for Latin American needs.

4.1.2. Elements of Interest to Librarians are to be separated in the MARCAL Format from those primarily of concern to the computer specialists, and the two sections published with appropriate cross references from one to another, so as to overcome the difficulty which some people have had in understanding the integrated MARC Format.

4.1.3. Complementary MARCAL codes must be developed for types of materials in addition to Books and Serials, as well as for languages and geographical notations. It was suggested that the language and geographical codes be issued in a volume apart from the basic MARCAL Format for Books and Serials.

In view of the importance of standardizing the vocabulary of automation it applies to libraries and documentation, it was recommended that the formats produced by Spain and Mexico be reviewed for vocabulary in the preparation of the MARCAL Format and Manual in Spanish.

4.2. MARCAL for Multinational Purposes

4.2.1. Multilingual Format

Although REPLICA recommendations called for the development of a "multilingual MARCAL Format," in the light of the experience of the National Library of Canada, it is recommended that the multilingual purposes of MARCAL would best be served by developing a separate capability apart from the MARCAL Format.

4.2.2. Equivalency lists in English and Spanish for author and subject headings

Equivalency lists must be developed for bilingual purposes in the United States and Puerto Rico and for the automatic conversion of MARC and other records in data banks and on tapes in English to their Spanish equivalents, and of those generated in the future in Spanish-speaking countries to their English equivalents for use in the United States, Canada and other English-speaking countries. Canada's solution of putting both the English and French equivalents into the computer in the form of an automated authority file can be followed in developing an English-Spanish authority file. The multilingual character recommended for MARCAL might be developed by adding French and Portuguese equivalents to the English-Spanish authority file.

4.2.3. Subject Headings in Spanish

So as to facilitate the development of the subject authority file in the computers, the OAS was asked to press forward as rapidly as possible in the expansion of the general Rovira Lista de encabezamientos de materia, which was derived primarily on the basis of the translations made by some 12-15 well-organized libraries in Latin America of LC headings, and for the development of key specialized lists and thesauri to be used with the MARCAL format for subject retrieval of records on MARC and MARCAL tapes, as well as for other national or regional applications. It was also felt that specialists from several countries of Latin America and Spain with experience in subject heading and thesauri compilations should be involved in developing a comprehensive general list with compatible specialized lists and ample cross references.

4.2.4. Name Authority File

In the development of the name authority file, it was suggested that lists of corporate bodies developed by the OAS, the United Nations and other international agencies for the indexing of their official records be utilized as well as the authority file developed by the Library of Congress, soon to be automated.

4.2.5. Possible Numbering System for Bilingual and Multilingual Headings.

As has been suggested by other international meetings and experts, it was recommended that a numbering system might be devised for identifying subject heading equivalencies in different languages to facilitate the transmission of information in the same way that the International Standard Book Number is used for the identification of books.

4.2.6. Computer Language and Equipment

In the application of the MARCAL Format it was suggested that the computer language COBOL be used as a further means of standardization. Furthermore, it was recommended that an inventory be made as soon as possible of computer equipment and capacity available for library use in Latin America.

4.3. International MARCAL Formats

The MARCAL Format is intended to serve as a standard for MARCAL subsets to be created by individual countries in developing their own formats for internal national uses. It was suggested that the OAS fund the development of a model internal format for one country, such as for Costa Rica where its application might be tested for its multiplier effect in connection with the OAS assistance given to the University of Costa Rica to provide centralized cataloging services to university libraries in Nicaragua and other countries of Central America, in cooperation with Panama.

4.4. An Inter-American System for Transmitting Bibliographic Information

For regional purposes there appears to be developing an INTERMARC Association for Western Europe. It has been suggested that an INTERAM/MARC group be developed among the countries of the Western Hemisphere.

4.5. Development of Other Cataloging Codes and Bibliographical Standards

The automated transmission of bibliographic information for maximum benefit requires adherence to internationally accepted standards such as those developed for descriptive cataloging as well as subject heading lists and specialized thesauri. Such codes include the International Standard Bibliographic Description (ISBD) and the Anglo-American Cataloging Rules (AACR) for descriptive cataloging and author entries. Therefore, it was urged that the OAS make immediate plans for the translation and publication of the revised Chapter 6 covering the ISBD and Chapter 12 on audiovisual materials, as well as the complete new revised edition of the AACR.

For the maximum utilization of the MARCAL Formats, it is hoped that the index to the Spanish translation of the 18th edition of the Dewey Decimal Classification (with the inclusion of new material from the 19th) can be automated in the near future, as well as the index to the Library of Congress classification schedules. Publishers are urged to utilize International Standard Book Numbers (ISBN).

4.6. Centralized Cataloging Services

Interest is expressed in the creation of centralized cataloging services on a national as well as on a regional basis with the assistance of the OAS and other organizations, for the purposes of achieving greater standardization by making bibliographical records on a manual or automated basis, and by reducing the cost to each library of the cataloging or processing procedures. National and regional centers can then be connected with regional and national centers in the United States to produce the maximum benefit for the least expenditure of funds.

4.7. Project MARCAL: Other Steps to be Taken in First Phase Development of MARCAL and Its Acceptance

As soon as the MARCAL Format and Manual are completed for Books and Serials, copies should be distributed to Latin America for review. In accordance with REPLICA recommendations, the participants in I MARCAL agreed that a technical meeting should be called in 1976 by the OAS of representatives of all or key countries of Latin America to review the work for formal approval before an edition is issued for wide distribution to libraries and library schools. Representatives should be asked to share the copies sent to them with their colleagues competent in library automation and obtain their reactions to the edition in Spanish before coming to the meeting. They should also be asked to bring a report on the present state of library automation in their countries, courses which have been given on the subject, and how they expect to use the format and manual in library automation, bibliographic compilation, or the exchange of cataloging information for centralized cataloging. The final report of the meeting should be issued as a supplementary volume to the format and manual.

The OAS should explore further the interest which has been expressed informally by CONACYT in Mexico to serve as the Multinational Center of the OAS for the continuation and maintenance of Project MARCAL, the financing of pilot project in its application in Latin America, and for training librarians/documentalists as well as computer specialists in its utilization.

4.8. Project MARCAL: Second Phase of Exploration, Planning, Expansion.

The second phase of MARCAL it is hoped will be carried out upon the formal request from the Government of Mexico for CONACYT to serve as the Multinational Center, its approval by the collegiate bodies of the OAS, and its funding by the OAS and Mexico. In addition to keeping up-to-date with MARC developments in the U.S. and elsewhere, the Multinational Center would produce whatever codes and formats are required for other types of library materials as well as books and serials.

It is suggested that among the first uses of the MARCAL Format and Manual would be for the production of national and regional bibliographies, for centralized cataloging services and connections among national and regional centers for accessing data bases, and for subject retrieval and the production of national, regional, and specialized bibliographies. In collaboration with the Centro Regional del Libro en América Latina (CERIAL) it has been agreed that the countries of the Andean Pact should provide cataloging copy to be included in the Bibliografía española, which is now produced by a computer.

4.9. Project MARCAL: Third Phase of Operations and Information Planning

While cataloging centers are being developed for national or regional purposes, planning must be made for their inter-connection on an automated basis, including the development of the codes and bibliographic aids mentioned above. The interconnection of these centers in Latin America with those in the United States and Canada will lead to an inter-American network for the automated exchange of bibliographic information.

The availability of bibliographic information in automated data bases in libraries, in national and regional centers, and in exchangeable computer tapes will make possible the planning of an Inter-American System for the Exchange of Information utilizing information generated in the Americas and throughout the world. At the same time, plans should be made for the integration of the system of exchanging cataloging information with such information systems as AGRINFER, of the Inter-American Institute of Agricultural Sciences, developed as an inter-American component of FAO's AGRIS for the exchange of information in the field of agriculture.

4.10. Interim Measures for International Cooperation

Offers of collaboration were accepted for the following responsibilities: (a) the team from the University of Puerto Rico will dedicate attention to the development of an acceptable vocabulary on library automation in Spanish in addition to completing the MARCAL Format and Manual for Books and Serials, and press for centralized and/or cooperative cataloging services in Puerto Rico; (b) Spain will seek to add bibliographic information from the Andean Pact countries to its current national bibliography; (c) Mexico will continue to experiment with the retrieval of information and the compilation of specialized bibliographies utilizing subject headings from catalog cards; (d) the OAS will seek the funds for the technical meeting of national representatives to review the MARCAL Format and Manual, as well as continue to collaborate with Member States at their request in the development of national and regional cataloging centers and for their connection among themselves and with national and regional centers in the United States and Canada; and study the integration of the Brazilian experience with its MARC-compatible CALCA into the system for the Spanish-speaking countries of Latin America and Spain.

5. Participation in I MARCAL

Participation in the meeting of the working group was limited to those engaged in developing MARC-compatible formats in bilingual form or in the Spanish language, so as to assist the team from Puerto Rico in the production of the Format and Manual for MARCAL. The team from Puerto Rico consisted of Stephen Faunce and Dra. María Faunce, professors in the Graduate School of Librarianship of the University of Puerto Rico. Antonio Ayesterán, head of CONACYT's Centro de Servicios de Información y Documentación, represented Mexico. The Comisaría Nacional de Bibliotecas sent at the expense of the Spanish Government María Jesús Cuesta, Chief of the Servicio de Información y Documentación Bibliográfica of the Comisaría, and María Teresa Molina Avila, Program Analyst of the Centro de Proceso de Datos. Mr. Edwin Buchinski, Chief of the Offices of Library Standards, represented the National Library of Canada. An OAS Volunteer and cataloging expert and instructor at the Louisiana State University and Agricultural and Mechanical College, Sra. Lourdes Deyá, participated in the meeting in preparation

for an OAS assignment to CONACYT in Mexico to assist in planning centralized cataloging services there and curriculum at the graduate level for technical processes.

Mr. John Hafenrichter, Information Specialist of AID, participated in some of the sessions of I MARCAL. The Chief of the OAS Library and Archives Development Program, Mrs. Marietta Daniels Shepard, was accompanied by three program specialists, Carmen Kovira, Martha Tomé, and Susan Shatuck Benson, and by Marvin Broadbent of the Columbus Memorial Library. In addition to Mrs. Henriette Avram, Specialist Assistant to the Librarian of Congress for Network Planning, many staff members of that office and other sectors of LC assisted in giving the "Mini-MARC Institute," including Lucia Rather, Josephine Pulsifer, James Agenbroad, Edith Goldberg, Kay D. Guiles, Lucinda Leonard, Mary Ann Madden, Lenore Maruyama, and Barbara Roland.

28 April 1976 , Rev. 1. 9 June, 1976

MDS