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THE BIBLIOGRAPHIC RECORD CARD
 OF CARISPLAN

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THE BIBLIOGRAPHIC RECORD CARD
OF CARISPLAN

The Bibliographic Record Card serves as the basic input record for each item entered in the System. It consequently served as the link with all subsequent processes which are carried out after initial input.

The Record Card which contains the bibliographic record or document profile, provides unique identification of each document, ensuring retrieval from various access points.

The Physical Layout

Although more detailed than the conventional catalogue card, the physical format has been structured to permit filing in a card catalogue. The CARISPLAN national focal points, and participating centres all opted for the record card being prepared in the card form in which it is now used.

The Record Card integrates information for the various types of literature being treated, so that the main subdivision is between bibliographic description and content analysis rather than between type of literature. The preparation of the record can conceivably be divided between the clerical bibliographic description and the more intellectually demanding content analysis.

One can contemplate separate worksheets for different types of literature, as proposed by UNIBID, and as used by large libraries where the processing of the collections is divided by type of literature.

Integrated record cards similar to the one used by CARISPLAN are employed by indexing and abstracting systems, and by special libraries where processing is integrated.

The Data Elements

Each bibliographic record is composed of a number of data elements, data items or fields. The Reference Manual for machine-readable bibliographic descriptions, defines a data element as:

"A piece of information forming part of the bibliographic record, and having a specific functional relationship with the content of the document to which the record refers."

Basically the elements in each record are:

- 1. NUMBER (Accession No., Patent No. etc.,))
- 2. AUTHOR(S))
- 3. TITLE(S))
- 4. PUBLISHER) DOCUMENT DESCRIPTION
- 5. PLACE OF PUBLICATION)
- 6. DATE)
- 7. PAGINATION, NO. OF VOLUMES, etc.)
- 8. ABSTRACT)
- 9. DESCRIPTORS) DOCUMENT CONTENT
- 10. CITATIONS (No. of references))
- 11. LANGUAGE OF DOCUMENT)

These are the basic elements but often more elements are required in an active system, which requires access to several types of material at various bibliographical levels.

The elements serve to provide:

- retrieval keys
- indication of location of documents

while - dictating filing order.

Types of Documents

The combination of basic data elements with the types of documents included in the system is used to determine the total number of data elements or fields required. CARISPLAN in its design requires information from all types of documents and therefore the record card as is now used can accommodate the following types of documents:

- Serials (including series)
- Serial contributions
- Monographs (including books, chapters, collections)
- Theses and dissertations
- Conference proceedings and reports
- Conference papers
- Patent documents
- Project reports

The design of the record card, which is dependent on the determination of data elements as: - mandatory

- optional

also had to take into consideration the layout which would be required in the printed CARISPLAN Abstracts which also has five indexes to aid retrieval.

The internal machine-readable record, the file structure, and the ISIS software, are also influential in the determination of the record cards' structure.

In addition to the requirements of housing, the range of data elements and types of literature, an important determinant of the structure and scope of the CARISPLAN record card is the capability of the software. The CDS/ISIS package permits the construction of a fairly elaborate record which suits the requirements of bibliographic processing. The internal record structure and the file structure as permitted by CDS/ISIS, as well as the requirements for producing the printed product CARISPLAN Abstracts, have resulted in the worksheet as now currently employed in establishing the CARISPLAN data base.

Another important determinant of the structure of the record card is the desire for compatibility with the Reference Manual which has as its main objective the provision of:

"a standardized communication format for the exchange of machine-readable bibliographic information between bibliographic data bases, or between any other type of bibliographic information services including libraries."

The objective of the Reference Manual implies therefore provision for adequate description and identification of the bibliographic items referred to in the records, as a basis for adequate and efficient storage and retrieval of the items and related records.

At this point it seems useful to consider the emphasis of the types of machine-readable formats.

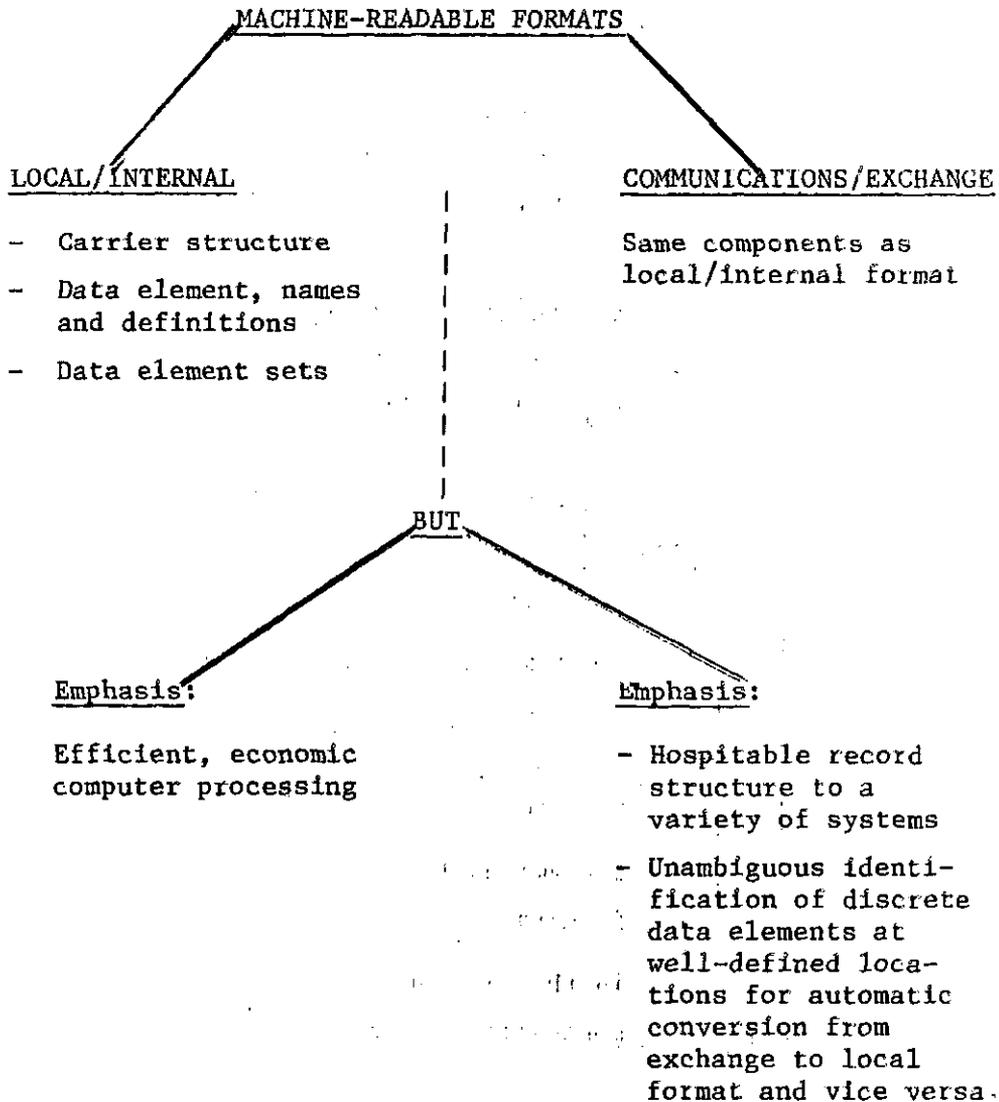
As illustrated in the diagram on the following page, the local/internal and the communication/exchange formats are both composed of:

(1) The Carrier Format

The file and record structure - a prescribed fixed pattern for arranging and locating records in a machine-readable file and data elements within individual records. Content designators are an important sub-set of record structure. These are tags, identifiers and indicators which identify or delimit data, or provide additional information.

(2) Data Elements, Names and Definitions

The name and detailed specification of the content of each data element including an indication of its components, which must be separately identifiable in a computer-based system.



(3) Data Elements Sets

The specification of particular sets of data elements to be present in records describing particular types of bibliographic entities.

The internal record structure which is concerned with efficient economic computer processing is likely not to emphasize aspects necessary for exchange, without the existence of a communication format, such as provided by the Reference Manual or UNIVERSAL MARC.

In the case of the CARISPLAN, the Reference Manual provides the Communication or Exchange format. With a view to providing for access to records held in other systems, and for transmission of CARISPLAN records to other systems, the Reference Manual has been employed, with the expectation that it will provide:

- a record structure hospitable to a variety of systems;
- unambiguous identification of discrete data elements at well-defined locations for automatic conversion from local to exchange format and vice versa.

In addition to its communication format function, the UNISIST Reference Manual permits:

- the creation of bibliographic description with all necessary entry points for:
 - cataloguing
 - filing
 - searching and other processing
- a source for local systems design
- use in manual or computerized environments.

These are therefore the factors which have influenced the design of the bibliographic record card providing a basis for bibliographic description with the expectation that each system will employ its own cataloguing rules.

A further examination of the worksheet is useful in regard to the particular combination of data elements chosen and the fields used to accommodate the data elements.

Rationale for the Elements and the Fields

The CARISPLAN bibliographic record serves for:

- record identification;
- bibliographic description;
- content analysis; and
- Data base control

Record Identification

The Record number identifies the record in the data base and in the printed product and therefore serves as the main internal record identification during processing, searching and revision.

(4) The Bibliographic Entity

Identification in Fields 04, 05, 06, describes the combinations of entities reflective of the document being treated. After initial identification, the Matrix or Table of Fields to occupy according to the type of record (Manual for Use of the Bibliographic Record Card, page 109) serves as a means of quick identification of the fields to be completed for each document. These fields are used for the identification of the record during processing.

Bibliographic Description

The fields are defined to ensure retrieval of the data. The variety of combinations of elements can lead to a range of fields and sub-fields, determined on the basis of:

- the range of literature to be indexed; and
- the retrieval requirements.

Within the scope of bibliographic processing, the public or school library collections can usually be processed with a smaller number of elements and fields, than is possible in a system such as CARISPLAN which requires indexing of journal articles, chapters in books, patents, consultancy reports, conference papers etc. In addition to the conventional bibliographic description, additional fields are therefore required to identify information often included in the notes such as:

- The Conference
- Sponsoring Institution
- The University to which a thesis was presented

and other similar areas likely to be search keys at the time of retrieval. The bibliographic level was therefore another factor which influenced the design of the record card. The CARISPLAN data base requires treatment at the:

Analytical
Monographic
Collective, and
Periodical levels

reflecting the fact that information is sought from material which is most efficiently retrieved at the most specific level.

24 Fields - 10-14 Analytical
16-21 Monographic
23-27 Collective, and
29-35 Serial

are therefore used for similar description at the most appropriate level of:

Authorship
Title
Collation

11 Fields - 38-48 accommodate the edition statement for the document being treated. This information is automatically recognized as being related to the appropriate bibliographic level.

Types of Literature

Certain types of literature were considered as requiring specific descriptive information: to uniquely identify them in the bibliographic record. This information is usually entered in a note in manual cataloguing, but to ensure that these can appear in the five indexes and also be used as retrieval keys in searching, the sponsoring organization of a conference, for example, needs to be entered in a separate field. The information entered in:

Fields 50-51 Thesis
52-57 Conference
58-60 Projects

is of course applicable to the appropriate bibliographic level identified in field 05.

Content Analysis

The second part of the Bibliographic Record Card accommodates information about the content of the document.

The abstract, descriptors and period covered, are in:

Fields 72	Abstract
76, 82-85	Descriptors
74-75	Period covered

Classification of the content is by descriptors but additional subject classification permits weighing of the geographical treatment by indication of:

Geographic category in Field 82

Primary country in Field 83

Secondary country in Field 84

with the geographic category permitting classification of the document analysed according to the country or region to which its content chiefly refers. This can serve the purpose of organizing the records to be included in CARISPLAN Abstracts, or in a special bibliography.

Primary and secondary countries on the other hand permit a distinction between the countries or regions of Latin America and the Caribbean and those of the rest of the world.

Control

The control function of the data base manager is facilitated by the inclusion of control fields in the Bibliographic Record Card.

Field 92 records the dates on which the BRC's were completed as well as:

- submitted by participating centres
- received by the Caribbean Documentation Centre
- finally revised

Length of Fields

The data entered in each field has to be of a length permitted by the programme. The nature of bibliographic description prevents exact prediction of most field lengths, and consequently the fields which are not composed of

special numbers and codes are designed as variable. Although the fields are variable, CDS/ISIS requires that there be a maximum length set for each of the fields. These are stated in the field definition table on page 11, as guidance in completing the BRC.

Completing the Bibliographic Record Card

The Manual for the Use of the Bibliographic Record Card is the main aid in the completion of the BRC. It complements the Field Definition Table, and the matrix and provides a detailed description of the characteristics and purpose of each field.

The main characteristics are:

- whether the fields are obligatory, essential or desirable
- fixed/variable length
- maximum number of characters or required number of characters in the case of fixed fields
- repeatability
- the purpose of the field
- description of elements

Relationship with the Anglo-American Cataloguing Rules II

In preparing bibliographic entries for CARISPLAN, AACR II serves as the basis of the cataloguing rules. It is used to determine forms of names of:

- persons (in English and some other languages)
- corporate bodies

and provides guidance for the headings of types of publications such as:

- laws
- treaties
- administrative regulation

These are areas of choice within AACR II which, in an in-house system, would be determined by precedence, authority files and an in-house manual. These are mainly dealt with in CARISPLAN by the Authority File which has been developed, with the System.

The Co-ordinating Centre also has to make decisions on areas of choice within AACR II which might arise for the first time, and these are subsequently reflected in the Authority File.

Relationship with other Systems

Compatibility with other bibliographic information systems was an important consideration in the design of the BRC and the establishment of the CARISPLAN data base.

The Reference Manual therefore serves as the standardized communication format with this aim in view.

The use of the Reference Manual was initially examined by Harold Dierickx who prepared for UNESCO a proposed common format for existing and proposed computerized bibliographic information systems in the Caribbean region. The study on which the proposed common format was based, examined the regional data bases which are currently being established in manual and automated form and recommended a common format based on the Reference Manual.

The main regional systems which were examined are:

- The Caribbean Information System for Economic and Social Planning producing CARISPLAN Abstracts
- The CARICOM Bibliography
- CARINDEX

In addition Dierickx examined the processing activities in systems in Jamaica, Guyana, Barbados and Trinidad and Tobago.

As a result of this mission, and developments in the information technology environment, the Record Card is being considered for processing of the CARICOM Bibliography and CARINDEX. Both systems are on their way to being computerized in the near future, and this will certainly facilitate the introduction of this format.

In addition to the Record Card the International Standard Bibliographic Description which forms Chapter 6 of the Anglo-American Cataloguing Rules II, is used by libraries in the region for bibliographic description. Standard punctuation is used to unambiguously identify each element, and consequently this provides some basis for establishing a mechanized system. It is not able, however, to accommodate all the elements considered necessary for the CARISPLAN data base.

Another international format likely to be employed in the region, is the MARC format, which as a result of the use of OCIC's cataloguing services, is being contemplated. There is certainly need therefore for closer examination of the relationship between the Reference Manual and the UNIMARC format.

Within the Caribbean, the BRC format is being used by the Caribbean Development Bank's Library for bibliographic processing, and the results of this will be treated later in greater detail, by the systems analyst of the Caribbean Development Bank.

In Latin America, the BRC is also used for processing records for the Common Bibliographic Systems of ECLAC - the creation of data bases, the preparation of abstracting journals, and for general library storage and retrieval processes.

The result of the use of the ISIS software and the Record Card format with the Reference Manual providing the communication format, is that the data bases have identical structures, and are therefore interchangeable.

The communication format provided by the Reference Manual also permits functional compatibility with the AGRIS system, so that although another software package is employed, the records can be converted for acceptance by systems using the Reference Manual.

The CARISPLAN BRC does offer a format composed of a well-defined set of elements and able to be employed with CDS/ISIS, DOS/ISIS and the micro-computer package IV and V. The question of its usefulness in a library situation has been demonstrated by the CDB library, and it is expected that other systems will begin to use the Record Card as soon as appropriate software can be acquired.

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