UNESCO, in cooperation with several other organizations, has produced a manual, the scope and purpose of which has been to define, for most types of scientific and technical literature, a set of data elements which will constitute an adequate bibliographic citation, and to define the representation of these data elements as they should appear in a machine record for exchange purposes between two or more computer-based systems. In the first section the format and content of bibliographic records are defined, as well as the notations of literature type and bibliographic level and the sets of data elements regarded as essential for each type of literature. Next are detailed definitions of each individual data element, and guidance on how the data element content is to be selected and entered. A third section provides more detailed specifications of the record format, character coding and other matters of concern to computer system designers. Finally, there are examples showing complete bibliographic descriptions prepared in accordance with the conventions described in the manual. The appendixes include information on codes, transliteration schemes, and tables. (Author/LS)
UNISIST

Reference Manual for machine-readable bibliographic descriptions

United Nations Educational, Scientific and Cultural Organization
Reference Manual
for machine-readable bibliographic descriptions

Prepared by
the UNISIST/ICSU-AB Working Group on Bibliographic Descriptions
with the assistance of ICSU and ICSU-AB member services

Compiled by M.D. Martin

Unesco, Paris 1974
The preparation of the UNISIST Reference Manual has involved the participation of a large number of individuals and organizations, whose assistance is gratefully acknowledged. They include all those individuals who served as members or observers of the UNISIST/ICSU-AB Working Group on Bibliographic Descriptions; the member services of ICSU-AB, and other organizations represented on the Working Group; the University of Sheffield Postgraduate School of Librarianship and Information Science, which was responsible for testing the first draft of the Manual; and all organizations which contributed time and effort in carrying out the test.

The preparation of the Manual was undertaken with the financial support of Unesco and ICSU.
Contents

INTRODUCTION

PART 1
1.1 Bibliographic records ........................................... 7
1.2 Literature type .................................................. 8
1.3 Bibliographic level .............................................. 9
1.4 Bibliographic data fields ........................................ 10
1.5 Selection of data elements ....................................... 12

PART 2
DATA ELEMENT DEFINITIONS ......................................... 17
(in alphanumeric sequence of field numbers)

PART 3
3.1 Record format .................................................... 47
3.2 Representation of extended character sets ....................... 49

PART 4
EXAMPLES OF COMPLETE BIBLIOGRAPHIC RECORDS ............... 53

APPENDICES
A Country codes ..................................................... 56
B Language codes .................................................... 56
C Transliteration schemes ............................................ 56
D ICIREPAT codes for patent documents ............................ 59
E INID numbers for identification of patent data elements ........ 65
F Tables for calculating CODEN check characters ................. 66

REFERENCES ......................................................... 71
This Reference Manual, prepared by the UNISIST/ICSU-AB Working Group on Bibliographic Descriptions, represents the results of some four years' work by an international group brought together within the framework of UNISIST, the ICSU-UNESCO joint project to study the feasibility of a world science and technology information network.

The Working Group (referred to hereafter as 'WGBD') has been a special concern of the ICSU Abstracting Board in co-operation with Unesco. It has included direct or indirect representation of all the ICSU-AB member services, together with other experts serving in an individual capacity or as representatives of organizations with special interests in mechanized information processing, including ISO, FID, IFLA, IATUL, INIS and OECD.

The scope and purpose of the WGBD's work has been to define, for most types of scientific and technical literature commonly covered by secondary information services, a set of data elements which will constitute an adequate bibliographic citation. For each type of literature, an essential minimum set is identified, together with additional supplementary elements. It cannot be emphasized too strongly, however, that the sets of data elements defined in the Manual are not to be regarded as exclusive. The WGBD has been well aware that for many applications the bibliographic description must be supplemented with additional information. The group's purpose has been to define a minimum set of data elements which could be agreed upon by abstracting and indexing services, to facilitate the exchange of information between services, and to enable them to present their computer-based products to the user in a more compatible and therefore more easily usable form. It is hoped, nevertheless, that this Manual will find other applications in the wider field of information processing and exchange.

The scope of the WGBD's recommendations is further limited to defining the representation of these data elements as they should appear in a machine record for exchange purposes between two or more computer-based systems. Nothing in the Reference Manual should be interpreted as attempting to lay down standards for input or display formats. A local system may choose any input format which is convertible by computer programme to the exchange format; and the exchange format has been designed with the aim of retaining the highest degree of flexibility for deriving different types and arrangements of output, whether in the form of computer printout or printed publications such as abstracts journals and indexes.

It has been the policy of WGBD to work as closely as possible within the framework of ISO recommendations wherever they exist. Some aspects of the group's work have been or will be submitted to ISO for consideration as international recommendations; and reference is made to current and forthcoming ISO recommendations and standards, wherever possible.

In particular, the bibliographic exchange format described in the Manual is an implementation of an international standard ISO 2709: 'Documentation - Format for bibliographic information interchange on magnetic tape' [1].

A first draft of the Reference Manual was completed early in 1972, and was the subject of a test conducted by an independent expert organization (University of Sheffield, Postgraduate School of Librarianship and Information Science), with the co-operation of an international group of libraries and secondary information services. A report was submitted to a Working Group meeting in November 1972, and the results of the test and subsequent discussions have been incorporated in an extensive revision of the Manual.

It must be emphasized that the Manual does not set out to be a training manual for staff who are unfamiliar with bibliographic problems or computer applications in this field; nor is it intended as a cataloguing manual to be placed in the hands of library or information staff engaged in the actual preparation of bibliographic descriptions on a day-to-day basis.

It is to be regarded as a specification manual for technical management and systems design staff in information centres, abstracting and indexing services, and libraries, to assist them in designing local systems in such a way that they can exchange files in either direction with other centres which have adopted the Reference Manual format. The reader of the Manual is therefore expected to be already familiar with the fundamentals of bibliographic data handling in mechanized and manual systems.

It also needs to be emphasized that the Reference Manual does not represent a single monolithic standard which must be applied invariably to all situations. There are various degrees of freedom in the application of the conventions which it describes: and it is expected that individual users or other groups will select a level of implementation which is appropriate to their functional requirements. Areas of implementation choice are identified as they arise in Parts 1 and 2 of the Manual.

The Reference Manual is presented in four parts.

Part 1 defines in broad outline the format and content of bibliographic records, the notions of literature type and bibliographic level, and the sets of data elements regarded as essential for each type of literature.

Part 2 gives detailed definitions of each individual data element and, where necessary, guidance on how the data element content is to be selected and entered.

Part 3 provides more detailed specifications of the record format, character coding and other aspects which are primarily of concern to computer system designers.

Part 4 consists of a set of examples showing complete bibliographic descriptions prepared in accordance with the conventions described in the Manual.

Additional background information is given in a series of appendices.
Chapter 1.1

BIBLIOGRAPHIC RECORDS

For the purposes of the Reference Manual, a bibliographic record is defined as a collection of information which pertains to a single document, and which is stored in machine-readable form as a self-contained and unique logical structure. A bibliographic record is likely to include a bibliographic description of the document in question; some form of classification and/or indexing applied to the subject content of the document; an abstract or summary; and other information. The Reference Manual is concerned only with that part of the record which constitutes the bibliographic description. Additional user-defined data fields will be required in order to carry such other information as may be needed for a particular application.

From the computer system point of view, it should be noted that the Reference Manual definition of a bibliographic record constitutes a logical record, with no special assumptions regarding the breakdown into physical records or blocks on a recording medium.

Documents

A document is any published item which is to be described in a bibliographic record. Since the Reference Manual is primarily designed for secondary information services which provide access to current and past literature, a document need not be a single physical piece. It may be an article, chapter or other contribution; it may be a volume or monograph; or it may be a (non-serial) collection which is to be treated as a single item for purposes of recording.

Specific classes of document ('literature types') which are covered in the present Manual are:

- Serials (including serial contributions)
- Books (including book chapters, and collective works)
- Conference publications (including individual conference papers)
- Reports (including report chapters)
- Theses and dissertations
- Patent documents

Bibliographic description

The bibliographic description of a document is a collection of information which is intended to provide a unique and unambiguous reference, such as will enable a librarian to identify and retrieve the document, or an intending purchaser to order it from the publisher or other source. It must be borne in mind that the prime function of secondary information services is to inform their users of the existence of relevant documents, and to provide this information in such a form as to enable the user (a) to retrieve relevant references (b) to assess the likely value of the documents referred to and (c) to obtain original documents on the basis of the references given.

The most important function of the bibliographic description is to meet objective (c), although some data elements (title, author name, author affiliation, etc.) may be considered equally important for retrieval or relevance assessment. It is important to draw a clear distinction between 'bibliographic description' and 'bibliographic record'. The term 'bibliographic description' refers to the information which is required in order to describe a given document. A bibliographic description is made up of a number of 'data elements'. The term 'bibliographic record', properly speaking, refers to the structure within which the bibliographic description is stored in machine-readable form. A bibliographic record is made up of a number of 'data fields'.

Data elements

A data element is a piece of information forming part of the bibliographic description and having a specific functional relationship with the content of the document to which the record refers. Examples of data elements are: title, author name, patent number.

Data elements are separately identified within the machine record so that each element can, if desired, be independently accessed and manipulated by computer programme. This is achieved by dividing the bibliographic record into a series of data fields, identified by field numbers or tags. Data fields are further subdivided into subfields, introduced by subfield identifiers. Each data element normally occupies a given subfield of a tagged data field.

Data fields

More details of the format and structure of the machine record are given in Part 3. For the purposes of Parts 1 and 2 of the Manual, however, it is important to have a basic understanding of the layout of data fields.

The machine record has three distinct parts: a fixed-length leader (the content of which is described in Part 3); a variable-length directory; and variable-length data fields. The directory may be regarded as a list of field numbers or tags identifying the data fields which are present in the record, and providing pointers to the location of the fields within the variable-length data part of the record. Thus the field number or tag which identifies the data field is not contiguous with the data field itself.

Each data field begins with two or more indicator characters, followed by one or more subfields, followed by a field separator.

The number of indicator characters at the beginning of each field is predetermined for a given implementation of the Reference Manual: the Manual requires a minimum of two, but additional indicators may be included at the user's discretion. Each subfield consists of a subfield

7
identifier followed by a data string. The subfield identifier is a two-character code, of which the first character is the ISO symbol IS (for convenience, represented throughout the Manual by the symbol '0').

The field separator is the symbol IS: whenever a data field is represented in the Reference Manual, however, the field separator is omitted, but should be understood to be always present at the end of the last or only subfield. The following is a schematic representation of the record and data field layouts described above.

Record layout: LEADER DIRECTORY DATA FIELDS

Data field layouts.

Single subfield: IS DATA F

Two subfields: IS DATA S DATA F

(1: indicators, S: subfield identifier, F: field separator)

Examples of data fields as represented in the Reference Manual:


Two subfields: 001 INSTITUTE IS 002 IS

(Here the first two digits are indicators; '01' and '02' are subfield identifiers; 'b' represents 'blank' or 'space'; and note that the field separator is not shown).

Character sets

The intention has been that the Reference Manual should provide an exchange record format which would be receptive to any required character set for a given subject field, basing the character set representations on existing ISO Recommendations and extensions thereof. Consequently, examples of data fields shown in the Manual frequently use a character set which is much wider than is provided by conventional computer coding systems. However, within the general framework of ISO Recommendations, it is again open to the user to determine what particular subset he needs to meet his functional requirements.

Summary

Much of the information given in the preceding paragraphs is amplified elsewhere in the Manual, notably in Part 3. The purpose of this section has been to introduce some of the terminology and conventions which are basic to Parts 1 and 2. Essentially the Reference Manual attempts to define an exchange format for that part of a machine-readable bibliographic record which contains the bibliographic description of the document to which the record refers. The bibliographic record is a collection of data fields as described above. The remainder of Part 1 is devoted to defining an appropriate set of data fields, and its application to the description of various types of literature likely to be encountered in secondary information services.

Chapter 1.2

LITERATURE TYPE

It is notoriously impossible to divide published literature into rigorously defined types. Nevertheless, for practical purposes, and having regard to the existing procedures of most abstracting and indexing services, it has been found necessary to attempt to categorize the types of literature covered by the Reference Manual, as follows:

Serials

Books

Reports

Theses and dissertations

Patent documents

Conference publications

In practice, the selection of data elements to be included in the bibliographic record is usually guided by a prior selection of the type or types of literature to which the document is regarded as belonging. In many cases, this selection is straightforward and unique: for example, it is usually easy to identify a patent. Sometimes, however, a document may have the characteristics of more than one type (for example, 'serial' and 'report'). In this event, the approach to be followed will depend on the policy of the service concerned. Some services may wish to treat the document as belonging to more than one literature type, and thus include data elements pertaining to both. Others may prefer to limit the bibliographic description to a single type, and the choice of type may become somewhat arbitrary, depending on the functional requirements of the data base. While it is recognized that hard and fast definitions of literature types cannot be provided, this chapter attempts to set out some guidelines on the interpretation of the six types listed above.

Serials

The definition of a serial adopted for the Reference Manual is that given in the Guidelines for the International Serials Data System (ISDS) [2]:

"A serial is a publication in print or in non-print form, issued in successive parts, usually having numerical or chronological designations, and intended to be continued indefinitely. Serials include periodicals, newspapers, annuals (reports, yearbooks, directories, etc.), journals, memoirs, proceedings, transactions etc. of societies, and monographic series.

"It should be noted that this definition does not include works produced in successive parts for a period predetermined as finite, and that it allows the inclusion of unnumbered series."

The Reference Manual does not, however, cover serials as entities in themselves, in the manner in which they would be referred to in a library catalogue, a national bibliography, or in ISDS. The coverage of serials is limited to the description of articles or contributions published in a serial issue, and monographic items where an issue or part of a serial consists of a single contribution.

Consequently, the data elements defined in the Manual for description of a serial as such are limited to its identification code (International Standard Serial Number or CODEN) and an abbreviation of the ISDS 'key title'. For details of a machine format for fuller bibliographic description of serials, see Guidelines for ISDS.

Books

No fully satisfactory definition of a 'book' has been found, but the following (based partly on INIS conventions) may be used as guidelines.

A book is a published item, available to be purchased through normal commercial channels; bound but not necessarily in hard covers; carrying a publisher's name, place and date of publication; and not falling obviously into one of the other categories defined in this chapter. It may
also be a finite collection of such items (i.e. a multi-volume work), published simultaneously or during a predetermined period of time.

A book may contain individual chapters or parts by separate authors and/or covering separate topics, so that in secondary information services it may be appropriate to treat such chapters or parts as 'documents' in their own right.

Reports
'Reports' are also particularly difficult to define: again, the following are suggested as guidelines.

A report is a published item, usually not available to be purchased through normal commercial channels, but obtainable from the organization responsible for its issue or from a clearinghouse such as the United States Government NTIS. It is usually but not always identified by a report number; and may exhibit some of the characteristics of a serial, in that the numbering scheme often has a component for 'report series', and there may sometimes be a series title.

A report may contain individual chapters or parts by separate authors and/or covering separate topics, so that in secondary information services it may be appropriate to treat such chapters or parts as 'documents' in their own right.

Theses and dissertations
Theses and dissertations may be defined as treatises which have been submitted to university or other educational institution in fulfilment of the requirements for a higher degree course. Most frequently they are not 'published' in a conventional sense, but they may be available through the university concerned or through a clearinghouse such as a clearinghouse such as the United States Government NTIS. Some theses are subsequently published in book form, and it would be recommended that these should be treated as 'books', with the option of including data elements appropriate to a thesis as part of the bibliographic description.

Patent documents
Patent documents are documents published or laid open for public inspection by a patent office, and falling into one of the following categories: patents, inventors' certificates, utility models or certificates, and applications therefor. Since the legal definitions of these different types depend on differing national practices, and since they will generally be well understood by those services which cover patent documents, no fuller definition will be attempted in the Manual. A list of patent documents arranged by type of document is given in Appendix D.

Conference publications
Conference publications are a special category, in that they do not in themselves constitute a separate literature type. Papers presented at a conference may be published in any of a number of forms: as books, as contributions to or issues of a serial, or as reports.

For the purposes of the Reference Manual, individual papers which happen to have been presented at a conference are not necessarily to be regarded as conference publications, although some users may consider it worthwhile to include a reference to the conference in such cases. Reference to the conference is regarded as essential if and only if the document(s) are explicitly described as constituting the official publication of the conference proceedings. This may, again, apply to a book, a serial issue, or a report.

Consequently, 'conference publication' is never a complete description of the literature type: the document(s) concerned must also be identified as belonging to one of the other categories named in the last paragraph.

For any document identified as belonging to a conference publication, a small set of additional data elements is defined, to be added to the set of essential elements required for whatever main literature type is invoked.

Literature type codes
In the bibliographic record, the literature type or types to which the document is considered to belong are represented by codes in the leader position of the record (see Part 3 for details).

The following literature type codes may be used either in isolation, or in combination if the document has characteristics of more than one type:

- Serial
- Book
- Report
- Thesis or Dissertation
- Patent

The following literature type code may be used only in combination with another code:

- Conference publication

Note, however, that it is not obligatory to use more than one literature type code if the document has characteristics of more than one type. It is equally permissible, as an implementation option, to assign a document to a single main type, while including in the bibliographic description some data elements which describe aspects of a different type. For example, if a report belongs to a report series, it is permissible to include an ISSN and a series title in the record without formally identifying the document as being of type 'serial'.

The selection of essential data elements for the bibliographic description is dependent first on the assignment of the document to a given literature type or types; and secondly, on a decision as to the bibliographic level at which the document is to be treated. The notion of bibliographic level is defined in the next chapter.

Chapter 1.3

BIBLIOGRAPHIC LEVEL

The notion of 'bibliographic level' may be novel to some users, but it is increasingly widely employed in mechanized information systems such as INIS and MARC.

Its purpose is to define unambiguously the different types of record which are required when the document to be recorded is:

(a) a part of a larger physical piece: for example, an article in an issue of a journal; a chapter in a book; a section in a report.

(b) a single piece in its own right: for example, an issue or part of a serial; a book in one volume; a report; a patent document.

(c) a collection of physical pieces: for example, a multi-volume work issued at one time, or over a predetermined and finite period of time.

When the document selected for recording in the machine system is a part of a larger physical piece, the record is said to be at the analytic level.

When the document is a single piece in its own right, the record is said to be at the monographic level.

When the document is a collection of physical pieces, the record is said to be at the collective level.
If the document is at the analytic level, it will always be necessary to include data elements which describe the monographic and/or collective entities of which it forms a part, in order to give a complete bibliographic description. However, the record is always assigned the lowest applicable bibliographic level.

Thus, a record at the analytic level must always include data elements which provide at least one higher level of bibliographic description. A record at the monographic level may stand alone, or it may include details of a collection of which the monograph forms part. A record at the collective level always stands alone.

In many systems, a fourth level - serial - is also identified, to distinguish between a serial publication as defined in Chapter 1.2 and a non-serial collection. In the Reference Manual, this level is not used, since the scope of the Manual does not include the bibliographic description of serials as such.

Just as the selection of data elements is guided by the assignment of the document to one or more 'literature types', so also it is dependent, within literature type, on the bibliographic level at which the document is to be treated.

For the purposes of the Reference Manual, the table below shows the combinations of literature type and bibliographic level which are permitted:

<table>
<thead>
<tr>
<th></th>
<th>Analytic</th>
<th>Monographic</th>
<th>Collective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Book</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Report</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Thesis</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Patent</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

*if taken from a comprehensive announcement in an official gazette*

Note that the designation 'conference publication' may be used in combination with any of the literature types listed above, at any bibliographic level.

The bibliographic level is identified by a code in the leader part of the record: see Part 3 for details.

# Chapter 1.4

**BIBLIOGRAPHIC DATA FIELDS**

This chapter constitutes a complete reference list of the bibliographic data fields which are defined in full in Part 2 of the Reference Manual, and from which a selection must be made in order to construct a bibliographic record appropriate to a particular literature type and bibliographic level.

The reference list is given as a series of tables in which the data fields are shown in alphanumeric sequence of field codes or tags, which are three-character codes in the range A01 to A99.

For each data field, the tables show the literature type and bibliographic levels for which the field is rated as 'essential'. Other data fields may be included in the bibliographic record if desired, and Chapter 1.5 gives a more detailed breakdown by literature type, showing additional fields which are recommended for inclusion as 'supplementary' (The terms 'essential' and 'supplementary' are defined in Chapter 1.5). Some data fields, however, are optional for all types of literature, and these are indicated in the tables by an asterisk against the tag.

It should be noted that a data field which is rated as 'essential' may include optional subfields. The detailed data element definition in Part 2 will indicate what constitutes the essential portion of each field. (For example, field A08 and other 'title' fields have an optional subfield to indicate the language of the title).

Since it is natural to approach the design of input and conversion procedures by a somewhat hierarchical route, based on the selection of the types of document which are to be handled, it is expected that the systems designer will work primarily from Chapter 1.5, associated with the detailed definitions in Part 2. However, the tables on subsequent pages provide in one place a complete list of the UNISIST Reference Manual data elements, with an indication of their status.
<table>
<thead>
<tr>
<th>Tag</th>
<th>Field name</th>
<th>Serial</th>
<th>Book</th>
<th>Report</th>
<th>Thesis</th>
<th>Patent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
<td>M</td>
<td>A</td>
<td>M</td>
<td>C</td>
</tr>
<tr>
<td>A01</td>
<td>International Standard Serial Number (ISSN)</td>
<td>E</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A02</td>
<td>CODEN (interim alternative to ISSN)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A03</td>
<td>'Short title' of serial</td>
<td>E</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A04*</td>
<td>Series designation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A05</td>
<td>Volume number</td>
<td>E</td>
<td>E</td>
<td>E¹</td>
<td>E¹</td>
<td></td>
</tr>
<tr>
<td>A06</td>
<td>Issue or part number</td>
<td>E</td>
<td>E</td>
<td>E¹</td>
<td>E¹</td>
<td></td>
</tr>
<tr>
<td>A07</td>
<td>Other identification of issue or part</td>
<td>E</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A08</td>
<td>Title of contribution (analytic)</td>
<td>E</td>
<td>E</td>
<td>E⁷</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A09</td>
<td>Title of volume, monograph or patent document</td>
<td>E</td>
<td>E</td>
<td>E⁷</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A10</td>
<td>Title of collection</td>
<td>E¹</td>
<td>E¹</td>
<td>E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A11</td>
<td>Person associated with a contribution</td>
<td>E</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A12</td>
<td>Person associated with a monograph</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A13</td>
<td>Person associated with a collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A14</td>
<td>Affiliation - contribution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A15</td>
<td>Affiliation - monograph</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A16*</td>
<td>Affiliation - collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A17</td>
<td>Corporate author - contribution</td>
<td>E</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A18</td>
<td>Corporate author - monograph</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A19</td>
<td>Corporate author - collection</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A20</td>
<td>Page numbers</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A21</td>
<td>Date of issue or imprint</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>A22</td>
<td>Date of publication</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>A23</td>
<td>Language(s) of text</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>A24*</td>
<td>Language(s) of summaries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A25</td>
<td>Publishers name and location</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A26</td>
<td>International Standard Book Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A27</td>
<td>Edition</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. For books (at analytic and monographic levels) fields A05, A06 and A10 are essential only if the item is part of a collection having numbered parts.

* Tags marked with an asterisk indicate data elements which are never designated as essential.

<table>
<thead>
<tr>
<th>Tag</th>
<th>Field name</th>
<th>Serial</th>
<th>Book</th>
<th>Report</th>
<th>Thesis</th>
<th>Patent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
<td>M</td>
<td>A</td>
<td>M</td>
<td>C</td>
</tr>
<tr>
<td>A14</td>
<td>Affiliation - contribution</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A15</td>
<td>Affiliation - monograph</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A16*</td>
<td>Affiliation - collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A17</td>
<td>Corporate author - contribution</td>
<td>E</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A18</td>
<td>Corporate author - monograph</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A19</td>
<td>Corporate author - collection</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A20</td>
<td>Page numbers</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A21</td>
<td>Date of issue or imprint</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>A22</td>
<td>Date of publication</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>A23</td>
<td>Language(s) of text</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>A24*</td>
<td>Language(s) of summaries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A25</td>
<td>Publishers name and location</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A26</td>
<td>International Standard Book Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A27</td>
<td>Edition</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Field A22 may be used for any literature type where the actual date of publication is known to differ from the nominal date of issue.

3. Field A26 (ISBN) may be used for any type of literature if the publisher has chosen to assign an ISBN to the piece being recorded.

* Tags marked with an asterisk indicate data elements which are never designated as essential.
### Tag Field name

<table>
<thead>
<tr>
<th>Tag</th>
<th>Field name</th>
<th>Serial</th>
<th>Book</th>
<th>Report</th>
<th>Thesis</th>
<th>Patent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A78</td>
<td>Collation: description of non-serial collection</td>
<td>A</td>
<td>A</td>
<td>M</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>A79</td>
<td>Collation: description of monograph</td>
<td>A</td>
<td>A</td>
<td>M</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>A80</td>
<td>Name of meeting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A81</td>
<td>Location of meeting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A82</td>
<td>Date of meeting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A83</td>
<td>Identification of patent document</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A84</td>
<td>Person associated with a patent document</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A85</td>
<td>Corporate body associated with a patent document</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A86</td>
<td>Domestic filing data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A87</td>
<td>Convention priority data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A88</td>
<td>Reference to a legally-related domestic document</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A89</td>
<td>Report number</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Fields A80, A81 and A82 are essential - regardless of literature type - if and only if the piece is formally designated as constituting the published proceedings of a meeting.

* Tags marked with an asterisk indicate data elements which are never designated as essential.

### Tag Field name

<table>
<thead>
<tr>
<th>Tag</th>
<th>Field name</th>
<th>Serial</th>
<th>Book</th>
<th>Report</th>
<th>Thesis</th>
<th>Patent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A90</td>
<td>Name of performing organisation</td>
<td>A</td>
<td>A</td>
<td>M</td>
<td>C</td>
<td>E</td>
</tr>
<tr>
<td>A91</td>
<td>University (or other educational institution)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>E</td>
</tr>
<tr>
<td>A92</td>
<td>Degree level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A93</td>
<td>Availability of document</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>E</td>
</tr>
<tr>
<td>A94</td>
<td>Source of abstract</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>E</td>
</tr>
<tr>
<td>A95</td>
<td>Number of references</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>E</td>
</tr>
<tr>
<td>A96</td>
<td>'Summary only' note</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A97</td>
<td>Abstract number(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A99</td>
<td>Ancillary data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Tags marked with an asterisk indicate data elements which are never designated as essential.

## Chapter 1.5

### SELECTION OF DATA ELEMENTS

This chapter embodies the recommendations of the UNISIST/ICSU-AB Working Group on Bibliographic Descriptions as to the essential data elements required for the bibliographic description of each literature type defined in Chapter 1.2. In addition, certain other data elements are defined as supplementary for each literature type.

These two categories - 'essential' and 'supplementary' - must be interpreted in the light of the WGBD's stated purpose to define a minimum set of data elements required for the exchange of reliable bibliographic data between computer-based systems. Some users will find that information which is regularly included in their own systems is omitted from the lists of data elements given in this chapter. It must be stressed that the Manual is not intended to be exclusive; it is to be expected that users will define additional local data fields, while standardizing on the basic 'core' set of bibliographic data elements listed in the Manual.
The category 'essential' is defined as meaning that any data element so described must be included in the bibliographic description if it is either present on or derivable from the original piece (in some instances, with the assistance of an external authority: for example, a serial title code — either ISSN or CODEN — is an essential element for serials, although it will usually be necessary to refer to ISDS or CODEN services in order to obtain the code).

In this context, the designation 'essential' must not be taken to mean that it is necessarily valid in computer systems design to incorporate checks which require the inclusion of 'essential' data elements in all records for a particular literature type. In many cases, valid circumstances may arise in which an 'essential' data element is absent (e.g. authorship may be unidentified; a report may be unnumbered). The category 'supplementary' is defined as meaning that:

(a) any data element so described is regarded as being relevant to the literature type in question, and likely to provide useful information, worthy of inclusion in the bibliographic record.

(b) The data element is not, however, an absolute requirement for complete, unambiguous bibliographic description, and its inclusion is therefore optional, at the discretion of the individual user or system designer.

The fact that a data element is not designated as either 'essential' or 'supplementary' for a given literature type does not mean that it cannot or should not be included in bibliographic records of this type, provided that it is present on or derivable from the piece. This again is an area where users of the Manual are presented with a free choice. The designation 'supplementary' is primarily intended to draw attention to data elements whose inclusion is therefore optional, but not necessarily mean that the element in question is 'illegal' in the given context.

Thus, the fact that a blank ('') appears against a particular data element in the table in this chapter does not necessarily mean that the element in question is 'illegal' in the given context.

In particular, where an individual piece has the characteristics of more than one literature type, some users may wish to include whatever additional data elements are necessary for a full description. Others may prefer to limit the bibliographic record to the essential data elements for one particular literature type, depending on the functional requirements of their data base. Either approach is an equally valid implementation of the Reference Manual.

Section 1.5.1: SERIALS

Bibliographic level

The scope of the Reference Manual does not extend to the cataloguing of serials at the collective level (for which see, for example, International Standard Bibliographic Description for Serials [3] and Guidelines for ISDS [2]).

Since the main concern of the Reference Manual is with the bibliographic description of individual scientific and technical documents, as covered in secondary information services, provision is made only for the description of serial contributions, at the analytic level, and serial issues or parts, at the monographic level, in the event that the issue or part is to be treated as a single document.

Data element matrix for serials

This matrix is a subset of the full data element matrix given in Chapter 1.4, showing those items which are considered to be essential data elements for serials, and those which are considered to be supplementary data elements. Detailed definitions of each element are given in Part 2 of the Manual, which can be referenced by the tag code shown in the matrix. Status code 'E' means that the data element must be included if present on or derivable from the original document (thus, for example, a serial title code — either ISSN or CODEN — is an essential data element even though it may not appear on the piece). Status code 'S' means that the data element is not a required bibliographic data element, and that its inclusion is at the discretion of the individual user.

<table>
<thead>
<tr>
<th>Description</th>
<th>Tag</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial title code</td>
<td>A0</td>
<td>E</td>
</tr>
<tr>
<td>either ISSN</td>
<td>A01</td>
<td>E</td>
</tr>
<tr>
<td>or CODEN</td>
<td>A02</td>
<td>E</td>
</tr>
<tr>
<td>'Short title' of serial</td>
<td>A03</td>
<td>E</td>
</tr>
<tr>
<td>Series designation</td>
<td>A04</td>
<td>S</td>
</tr>
<tr>
<td>Volume number</td>
<td>A05</td>
<td>E</td>
</tr>
<tr>
<td>Issue or part number</td>
<td>A06</td>
<td>E</td>
</tr>
<tr>
<td>Other identification of issue or part</td>
<td>A07</td>
<td>E</td>
</tr>
<tr>
<td>Title of contribution</td>
<td>A08</td>
<td>E</td>
</tr>
<tr>
<td>Person associated with a contribution</td>
<td>A11</td>
<td>E</td>
</tr>
<tr>
<td>Affiliation - contribution</td>
<td>A14</td>
<td>E</td>
</tr>
<tr>
<td>Corporate author -- contribution</td>
<td>A17</td>
<td>E</td>
</tr>
<tr>
<td>Title of volume or monograph</td>
<td>A19</td>
<td>E</td>
</tr>
<tr>
<td>Person associated with a volume or monograph</td>
<td>A12</td>
<td>E</td>
</tr>
<tr>
<td>Affiliation -- monograph</td>
<td>A15</td>
<td>E</td>
</tr>
<tr>
<td>Corporate author -- monograph</td>
<td>A16</td>
<td>E</td>
</tr>
<tr>
<td>Page number</td>
<td>A20</td>
<td>E</td>
</tr>
<tr>
<td>Date of issue or imprint</td>
<td>A21</td>
<td>E</td>
</tr>
<tr>
<td>Date of publication (if different from date of issue)</td>
<td>A22</td>
<td>S</td>
</tr>
<tr>
<td>Language(s) of text</td>
<td>A23</td>
<td>E</td>
</tr>
<tr>
<td>Language(s) of summaries</td>
<td>A24</td>
<td>S</td>
</tr>
<tr>
<td>Number of references</td>
<td>A45</td>
<td>S</td>
</tr>
</tbody>
</table>

*A = Analytic  M = Monographic

Section 1.5.2: 'BOOKS' (NON-SEASONAL COLLECTIONS AND MONOGRAPHS)

Bibliographic level

In this section, the notion of bibliographic level is used to distinguish between bibliographic records which refer to:

(a) A collection of books, treated as a single entity (collective)

(b) A monograph or single volume from a collection (monographic)

(c) A chapter in, or contribution to, a volume or monograph (analytic)
Data element matrix for books

This matrix is a subset of the full data element matrix given in Chapter 1.4, showing those items which are considered to be essential data elements for books, and those which are considered to be supplementary data elements. Detailed definitions of each element are given in Part 2 of the Manual, which can be referenced by the tag code shown in the matrix. Status code 'E' means that the data element must be included if present on or derivable from the original document. Status code 'S' means that the data element is not a required data element, and that its inclusion is at the discretion of the individual user.

<table>
<thead>
<tr>
<th>Description</th>
<th>Tag</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>A* M C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data elements describing a collection of books

<table>
<thead>
<tr>
<th>Description</th>
<th>Tag</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title of collection</td>
<td>A10</td>
<td>E** E** E</td>
</tr>
<tr>
<td>Person associated with a collection</td>
<td>A13</td>
<td>-- E</td>
</tr>
<tr>
<td>Affiliation - collection</td>
<td>A16</td>
<td>-- S</td>
</tr>
<tr>
<td>Corporate author - collection</td>
<td>A19</td>
<td>-- E</td>
</tr>
<tr>
<td>Collation: description of non-serial collection</td>
<td>A28</td>
<td>-- E</td>
</tr>
</tbody>
</table>

Data elements describing a volume or monograph

<table>
<thead>
<tr>
<th>Description</th>
<th>Tag</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume number</td>
<td>A05</td>
<td>E** E** E</td>
</tr>
<tr>
<td>Part number</td>
<td>A06</td>
<td>E** E** E</td>
</tr>
<tr>
<td>Title of volume or monograph</td>
<td>A09</td>
<td>E E</td>
</tr>
<tr>
<td>Person associated with a monograph</td>
<td>A12</td>
<td>E E</td>
</tr>
<tr>
<td>Affiliation - monograph</td>
<td>A15</td>
<td>S S</td>
</tr>
<tr>
<td>Corporate author - monograph</td>
<td>A18</td>
<td>S E</td>
</tr>
<tr>
<td>Collation: description of monograph</td>
<td>A29</td>
<td>S E</td>
</tr>
</tbody>
</table>

Data elements describing a chapter or contribution

<table>
<thead>
<tr>
<th>Description</th>
<th>Tag</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title of contribution (analytic)</td>
<td>A08</td>
<td>E --</td>
</tr>
<tr>
<td>Person associated with a contribution</td>
<td>A11</td>
<td>E --</td>
</tr>
<tr>
<td>Affiliation - contribution</td>
<td>A14</td>
<td>E --</td>
</tr>
<tr>
<td>Corporate author - contribution</td>
<td>A17</td>
<td>E --</td>
</tr>
<tr>
<td>Page numbers</td>
<td>A20</td>
<td>E --</td>
</tr>
</tbody>
</table>

'Common' data elements

(applyable at any bibliographic level)

<table>
<thead>
<tr>
<th>Description</th>
<th>Tag</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of issue or imprint</td>
<td>A21</td>
<td>E E E</td>
</tr>
<tr>
<td>Edition</td>
<td>A27</td>
<td>E E E</td>
</tr>
<tr>
<td>Language(s) of text</td>
<td>A23</td>
<td>E E E</td>
</tr>
<tr>
<td>Language(s) of summaries</td>
<td>A24</td>
<td>S S S</td>
</tr>
<tr>
<td>Publisher: name &amp; location</td>
<td>A25</td>
<td>E E E</td>
</tr>
<tr>
<td>ISBN</td>
<td>A26</td>
<td>E E E</td>
</tr>
<tr>
<td>Number of references</td>
<td>A45</td>
<td>S S S</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Tag</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = Analytic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M = Monographic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C = Collective</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Essential only if the item comes from a collection with numbered volumes or parts

Section 1.5.3: REPORTS

Bibliographic level

In this section, the notion of bibliographic level is used to distinguish between bibliographic records which refer to:
(a) A report treated as a single published item (monographic)
(b) A chapter or section of a report (analytic)

The collective level is not used for the purposes of this Manual (since it may be regarded as corresponding to the collective treatment of a serial publication).

Data element matrix for reports

This matrix is a subset of the full data element matrix given in Chapter 1.4, showing those items which are considered to be essential data elements for reports, and those which are considered to be supplementary data elements. Detailed definitions of each element are given in Part 2 of the Manual, which can be referenced by the tag code shown in the matrix. Status code 'E' means that the data element must be included if present on or derivable from the original document. Status code 'S' means that the data element is not a required data element, and that its inclusion is at the discretion of the individual user.

<table>
<thead>
<tr>
<th>Description</th>
<th>Tag</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>A* M</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data elements describing a report series

<table>
<thead>
<tr>
<th>Description</th>
<th>Tag</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report series title code</td>
<td>A01</td>
<td>S S</td>
</tr>
<tr>
<td>Either ISSN or CODEN</td>
<td>A02</td>
<td>S S</td>
</tr>
<tr>
<td>Title of report series</td>
<td>A10</td>
<td>S S</td>
</tr>
</tbody>
</table>

Data elements describing the report as a whole

<table>
<thead>
<tr>
<th>Description</th>
<th>Tag</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title of volume or monograph</td>
<td>A09</td>
<td>E E</td>
</tr>
<tr>
<td>Person associated with a monograph</td>
<td>A12</td>
<td>S E</td>
</tr>
<tr>
<td>Affiliation - monograph</td>
<td>A15</td>
<td>S S</td>
</tr>
<tr>
<td>Corporate author - monograph</td>
<td>A18</td>
<td>S E</td>
</tr>
<tr>
<td>Report number</td>
<td>A39</td>
<td>E E</td>
</tr>
<tr>
<td>Name of performing organization</td>
<td>A40</td>
<td>S S</td>
</tr>
<tr>
<td>Date of report</td>
<td>A21</td>
<td>E E</td>
</tr>
<tr>
<td>Date of publication (if different from date of report)</td>
<td>A22</td>
<td>S S</td>
</tr>
<tr>
<td>Collation: description of monograph</td>
<td>A29</td>
<td>-- E</td>
</tr>
<tr>
<td>Language(s) of text</td>
<td>A23</td>
<td>E E</td>
</tr>
<tr>
<td>Language(s) of summaries</td>
<td>A24</td>
<td>S S</td>
</tr>
<tr>
<td>Availability</td>
<td>A43</td>
<td>E E</td>
</tr>
<tr>
<td>Number of references</td>
<td>A45</td>
<td>S S</td>
</tr>
</tbody>
</table>

Data elements describing a chapter or contribution

<table>
<thead>
<tr>
<th>Description</th>
<th>Tag</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title of contribution</td>
<td>A08</td>
<td>E --</td>
</tr>
<tr>
<td>Person associated with a contribution</td>
<td>A11</td>
<td>E --</td>
</tr>
<tr>
<td>Affiliation - contribution</td>
<td>A14</td>
<td>E --</td>
</tr>
<tr>
<td>Corporate author - contribution</td>
<td>A17</td>
<td>E --</td>
</tr>
<tr>
<td>Page numbers</td>
<td>A20</td>
<td>E --</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Tag</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = Analytic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M = Monographic</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 1.5.4: THESSES AND DISSERTATIONS

Bibliographic level

Theses and dissertations are regarded as exclusively monographic publications; the analytic and collective levels are not used.

Data element matrix for theses or dissertations

This matrix is a subset of the full data element matrix given in Chapter 1.4, showing those items which are considered to be essential data elements for theses and dissertations, and those which are considered to be supplementary data elements. Detailed definitions of each element are given in Part 2 of the Manual, which can be referenced by the tag code shown in the matrix.

Status code 'E' means that the data element must be included if present on or derivable from the original document. Status code 'S' means that the data element is not a required data element, and that its inclusion is at the discretion of the individual user.

<table>
<thead>
<tr>
<th>Description</th>
<th>Tag</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title of volume or monograph</td>
<td>A09</td>
<td>E</td>
</tr>
<tr>
<td>Person associated with a monograph</td>
<td>A12</td>
<td>E</td>
</tr>
<tr>
<td>University (or other educational institution)</td>
<td>A41</td>
<td>E</td>
</tr>
<tr>
<td>Degree level</td>
<td>A42</td>
<td>S</td>
</tr>
<tr>
<td>Date of submission</td>
<td>A21</td>
<td>E</td>
</tr>
<tr>
<td>Collation: description of monograph</td>
<td>A29</td>
<td>E</td>
</tr>
<tr>
<td>Language(s) of text</td>
<td>A23</td>
<td>E</td>
</tr>
<tr>
<td>Availability of document</td>
<td>A43</td>
<td>E</td>
</tr>
<tr>
<td>Number of references</td>
<td>A45</td>
<td>S</td>
</tr>
</tbody>
</table>

*M = Monographic

Section 1.5.5: PATENT DOCUMENTS

Definition

'Patent documents' include patents, inventors' certificates, utility models or certificates, and applications therefor. A list of patent documents arranged by type of document is given in Appendix D. Throughout this section, the term 'patents' is to be read as including all types of patent document as here defined.

Coverage of patents by abstracting and indexing services

Those abstracting and indexing services which cover patent documents may do so from either or both of two points of view: either in order to provide a comprehensive coverage of patents in a particular subject field, in sufficient detail to satisfy legal as well as scientific interests; or more selectively, from the point of view of scientific and technical information content.

The minimum set of essential bibliographic data elements defined in the Reference Manual is designed to satisfy the requirements of this second approach. Some supplementary data elements are also included, but services which aim at a comprehensive coverage of patents as legal documents may need to add further data elements to this set.

Relationship between the Reference Manual and ISO proposals

In preparing this section of the Reference Manual, due account has been taken of ISO/TC 46 (Secr.-611) 1072E (Fifth Draft ISO Proposal: Patents and like documents: bibliographic references: essential and complementary elements) [4]. All elements defined in the ISO Proposal as essential for 'short' bibliographic references to patent documents have been incorporated into the recommendations of the Reference Manual.

Relationship between the Reference Manual and ICIREPAT recommendations

This section of the Reference Manual has been prepared after full consultation with representatives of the World Intellectual Property Organization (WIPO), and every effort has been made to retain a strict correspondence with the relevant recommendations of ICIREPAT* for the identification and presentation of bibliographic data elements appearing on patent documents.

INID codes

An ICIREPAT recommendation [5] provides for a numeric encoding scheme whereby the various data elements appearing on the first page of a patent document can be identified without knowledge of the languages used for the laws of the country in question. The scheme is already successfully applied by a number of Patent Offices.

This encoding scheme has been given the acronym 'INID' (ICIREPAT Numbers for Identification of Data). INID codes are printed against relevant data items on the first page of a patent document. They are frequently enclosed in a small circle (see example below); or they may be printed in parentheses or brackets.

Example

As far as possible, a close correspondence has been maintained between UNISIST recommended data elements and ICIREPAT recommendations. The INID codes are included in the matrix of data elements for patent documents. It should be noted, however, that the conversion is not always on an exact one-to-one basis: see data element definitions in Part 2 for full details.

A complete list of INID codes is given in Appendix E.

Standard code for identification of different kinds of patent documents

ICIREPAT has established a recommendation which provides for an encoding scheme whereby the various kinds of patent documents can be identified. This code is reproduced in Appendix D. It is referred to hereafter in the Manual as the 'ICIREPAT code for patent documents', and its use is recommended as the preferred means of identifying document type.

Bibliographic level

Patent documents are normally to be regarded as individual pieces, and thus treated at the monographic level. In certain countries, however, the method of publication may be as a notice in an official gazette, which has the characteristics of a serial.

A bibliographic record which was prepared from the patent document itself should therefore be entered at the monographic level.

A bibliographic record which is taken from the notice published in an official gazette may be entered at the analytic level.

In either case the same set of data elements is used to describe the patent document; but in the second case these data elements may be combined in a single bibliographic record with data elements which describe a serial contribution.

Data element matrix for patent documents

This matrix is a subset of the full data element matrix given in Chapter 1.4, extended to show those items which are considered to be supplementary data elements for patent documents. INID codes corresponding to each data element are also shown. Detailed definitions of each element are given in Part 2 of the Manual, which can be referenced by the tag code shown in the matrix.

Status code 'E' means that the data element must be included if present on or derivable from the original document. Status code 'S' means that the data element is not a required bibliographic data element, and that its inclusion is at the discretion of the individual user.

<table>
<thead>
<tr>
<th>Description</th>
<th>Tag</th>
<th>Status</th>
<th>INID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of patent document (includes issuing country, document type, document number)</td>
<td>A33</td>
<td>E</td>
<td>19,11</td>
</tr>
<tr>
<td>Title of the invention</td>
<td>A09</td>
<td>E</td>
<td>54</td>
</tr>
<tr>
<td>Person associated with a patent document</td>
<td>A34</td>
<td>E</td>
<td>71 to 73,</td>
</tr>
<tr>
<td>Corporate body associated with a patent document</td>
<td>A35</td>
<td>E</td>
<td>75, 76</td>
</tr>
</tbody>
</table>

*AM = Analytic or monographic

**It is recommended that language be included as an essential element where it is not unambiguously identified by reference to the 'issuing country', e.g. in the case of patent documents originating in Canada, Finland, USSR, etc.

Section 1.5.6: CONFERENCE PUBLICATIONS

Conference publications are not regarded as constituting a separate type of literature. Instead, a group of three additional data elements is defined below. These data elements can be used within any record to indicate that the item is part of the proceedings of a conference, whether published as a book, or in a regular journal, or otherwise.

<table>
<thead>
<tr>
<th>Description</th>
<th>Tag</th>
<th>Status</th>
<th>INID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of meeting</td>
<td>A30</td>
<td>E**</td>
<td>E**</td>
</tr>
<tr>
<td>Location of meeting</td>
<td>A31</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>Date of meeting</td>
<td>A32</td>
<td>E</td>
<td>E</td>
</tr>
</tbody>
</table>

*AM = Analytic  M = Monographic  C = Collective

If the title of the meeting is not included in the title of the publication: optional if the title of the meeting is so included.

*Any of these data elements may be used at any bibliographic level.

Detailed descriptions appear in Part 2 of the Manual. It should be emphasized that the inclusion of conference details is regarded as essential if and only if the publication is explicitly identified as constituting the formal proceedings of a conference. Where individual papers are identified (often in a footnote) as having been presented in the first instance at a meeting, the inclusion of this information in the bibliographic record is optional.
DATA ELEMENT DEFINITIONS

Part 2 of the Reference Manual provides detailed definitions of data elements, arranged in alphanumeric order of data field codes. Each data element is defined in terms of:

(a) A brief summary of the essential features (Field definition)
(b) A detailed description of the data content (Data description)
(c) Examples, wherever necessary and appropriate.

However, where a group of fields shares an identical structure, the field definition is given in full for each one, but the data description is given only under the first, and an additional section defining the use of the individual fields is provided.

General conventions

The following conventions are applicable to all fields:

(a) Indicators
Indicator positions 1 and 2 are reserved for the uses indicated in the Manual. Where they are not so used, they are entered as zeros. If either or both of the indicator positions is used, the value zero is never assigned a specific meaning; but, in general, the user system has the option of entering a zero indicator with the meaning 'not specified' (see, for example, field A08).

In the examples, only two indicator positions are shown. In a specific implementation, one or more extra indicator positions would be inserted, if required, after indicator position 2 and before the first subfield identifier.

(b) Subfield identifiers
As defined in Part 3, a subfield identifier consists of the ISO character IS1 and one other symbol (usually a numeric digit). For the purposes of illustration, the IS1 code is represented by the symbol '@'. Expressions of the form 'subfield 0', 'subfield 1' are used to designate 'the subfield introduced by the identifier @0', 'the subfield introduced by the identifier @1', and so on.

(c) Field separators
The field separator character IS2 is omitted in all examples, but should be understood as being present in the bibliographic record as the character immediately following the end of the data string shown in any example.

(d) Character coding
No attempt is made in the examples to reproduce the code structures which would be used in the machine record: all data strings are shown as plain text.

(e) Representation of 'zero' and 'space'
To avoid ambiguity, the symbol '0' is used for the number 'zero'. 'Space' or 'blank' is represented by ' '.

(f) Implementation options
Where a number of user options exist, it has not always been possible to show all alternatives in the set of examples chosen for a particular data field. In such cases, the selection of a particular option does not imply that this is a 'preferred' implementation.

(g) 'Notes' subfield
The 'notes' subfield (identifier @N) is an optional subfield which may be included in any data field to incorporate additional free-form information which the user wishes to associate specifically with the content of the field. For this reason, it is shown as a permitted subfield in all data fields, although it will be obvious that its use in connexion with some fields which are themselves free-form is rather improbable. It may, however, have some application in a situation where the user system needs to enter additional information which must be suppressed for the purposes of a particular output, such as a printed publication.

A01: ISSN

1. Field definition
   Tag: A01
   Indicators: Not used: entered as zeros
   Subfields: 0: ISSN: fixed length, eight characters. Character set restricted to numerals only, except for the last character which may be a numeral or letter 'X'.
   N: Notes
   Repeatable: No

2. Data description
   Field A01 is used to enter the International Standard Serial Number (ISSN) as a unique identification of a serial title.
   The assignment and dissemination of ISSN are the responsibility of the International Serials Data System, based on an International Centre in Paris (Centre International pour l'Enregistrement des Publications en Série: CIEPS) and National or Regional Centres.
   The format and basic requirements for the assignment of ISSN are defined in an ISO Standard [6]; fuller details of ISSN assignment and the operation of ISDS are given in Guidelines for ISDS [2].
   The ISSN is an 8-digit number, the last figure being a check character. (Because of the method of check-digit calculation, the last character may be either
numeric or letter 'X'). Where the ISSN appears on the original piece, it is preceded by the letters 'ISSN', and the number itself is divided into two four-character groups with either a space or a hyphen as separator. In the machine record, the ISSN should be entered in subfield 0 as an eight-character string without separator.

3. Example

ISSN as shown on the piece:
"ISSN 0046-9963"

Contents of field A01:
00000469963

A02: CODEN

1. Field definition

Tag: A02
Indicators: Not used: entered as zeros
Subfields: 0: CODEN: fixed length, six characters. Character set restricted to upper-case letters and numerals. The sixth character is a check digit.
N: Notes
Repeatable: No

2. Data description

Field A02 may be used pending the full availability of ISSN to enter a unique identification of a serial title in the form of the ASTM CODEN.

CODEN for serial titles consists of five letters and a check character which may be a letter or a numeric digit. The CODEN system is administered by the Franklin Institute, Philadelphia, on behalf of the American Society for Testing and Materials. An index of over 100,000 titles and CODENs is available [7], and CODENs for new or amended titles may be obtained by direct application to the Franklin Institute.

Calculation of check character

The check character is generated as follows:
(a) Each alphanumeric character of the CODEN is replaced by an equivalent value. The equivalents are:
CODEN: A, B... Y, Z, 1, 2... 9, 0
Value: 1, 2... 25, 26, 27, 28... 35, 36
(b) The procedure used to generate the check character is:
Evaluate \( X = (11 \times n_1) + (7 \times n_2) + (5 \times n_3) + (3 \times n_4) + (1 \times n_5) \)
where \( n_1, n_2 \) etc., are the numeric values equivalent to the CODEN characters in the order of their appearance in the CODEN.
Divide \( X \) by 34, and take the remainder.
(c) The remainder is then converted to a check character by the following set of equivalents:
Remainder: 1, 2... 25, 26, 27, 28... 33, 34 (or zero)
Check character: A, B... Y, Z, 2, 3, 4... 8, 9
The numerals 1 (one) and 0 (zero) are not used as check characters, to avoid confusion with letters I and O.

Appendix F gives a convenient look-up table for manual calculation of CODEN check characters.

3. Example

Journal title: "Annalen der Physik"
CODEN: "ANPY-A"
Check character, calculated as above: "2"

Contents of field A02:
0000ANPYA2

A03

1. Field definition

Tag: A03
Indicators: Position 1
Subfields: 0: 'Short title'
N: Notes
Repeatable: No

2. Data description

Field A03 is used to enter the title of a serial, abbreviated where appropriate in accordance with ISO Standards ISO R4 [8] and ISO 833 [9], and ISDS practice. ISO 833 provides a list of word-abbreviations to be used for serial titles: the responsibility for maintaining and adding to this list rests with the ISDS International Centre, which will provide new word-abbreviations on request.

(The term 'short title' is used here to take account of the fact that in many cases the serial title will not in fact be abbreviated: i.e. wherever the title word or words are not among those listed in ISO 833, or future supplements, as candidates for abbreviation; or where the title consists of an acronym or other non-verbal construction).

The preferred form of title is the ISDS 'key title', as abbreviated in field 210 of the ISDS data base: see Guidelines for ISDS. Any 'added parenthetical information' included in the ISDS file in order to ensure the uniqueness of the key title should also be included as part of the 'short title', and should be enclosed within parentheses. The 'short title' should be entered in subfield 0 as a variable-length character string; where it is impossible for practical reasons to use the ISDS 'abbreviated key title', a locally constructed 'short title' may be entered.

Indicators

Indicator position 2 should be used in accordance with the following table of values:
0 Source of 'short title' unspecified
1 'Short title' derived from ISDS files or authority lists (and therefore consistent with ISDS practice for the identification of 'key title' and with ISO Standards for title-word abbreviation)
2. ‘Short title’ not derived from ISDS.

NB: even though a locally constructed short title may have been prepared in accordance with the relevant ISO Standard, indicator I should not be used unless the title has been checked against ISDS lists.

3. Examples

(Example 1)
Key title: “Teoreticheskaya
Eksperimentalnaya Khimiya”
Contents of field A03:

(Example 2)
Key title: “Annals of Physics (New York)”
Contents of field A03:
010Ann. Phys. (New York)

(Example 3)
Key title: “Nature” (no abbreviated form)
Contents of field A03:
010Nature

(Example 4)
Original title: “Geophysical Journal of the
Royal Astronomical Society”
Locally constructed abbreviation:
Contents of field A03:

A04: SERIES DESIGNATION

1. Field definition
Tag: A04
Indicators: Not used: entered as zeros
Subfields: 0: Series designation
N: Notes
Repeatable: No

2. Data description
Field A04 is used to record a series designation which differentiates between successive issues of the same serial title: i.e. a chronological series designation. It should not be confused with a series designation which differentiates between two or more parts published concurrently (e.g. ‘Special Series’, ‘Series A: Physics’); in the latter case the two parts will be distinguished by separate and unique serial codes and the series designation will be regarded as an integral part of the title, in accordance with ISDS practice.

A series designation may be alphabetic or mixed alphanumeric (e.g. ‘New Series’, ‘Third Series’, ‘Series 2’). It should be entered as subfield 0 in the original language and precise wording shown on the piece, if necessary transliterated in accordance with UNISIST recommendations.

A chronological series designation is seldom, if ever, an element which is absolutely required in order to distinguish between issues of a serial. This field is therefore regarded as optional.

3. Example

Series designation: "New Series"
Contents of field A04:
000New Series

A05: VOLUME NUMBER

1. Field definition
Tag: A05
Indicators: Not used: entered as zeros
Subfields: 1: ‘Caption’
2: Volume number
3: Year: fixed length, four-digit number
4: Subdivision of volume
N: Notes
Repeatable: No

2. Data description
Field A05 is used to record a volume number, and any other information relating to the numbering of volumes or parts of volumes other than individual issues.

The field is divided into four subfields:
1 This subfield may be used if it is desired to enter a ‘caption’ (e.g. ‘Vol’, ‘Tom’, etc.). Captions should be entered exactly as given on the original, transliterated if necessary. Captions are regarded as an optional element.
2 This subfield is used to enter only the volume number itself, without ‘captions’ (e.g. ‘Vol’, ‘v’, ‘Tom’, ‘Band’). If the volume number is numeric (whether arabic or roman, cardinal or ordinal) it should be entered as an arabic number without suffixes such as ‘th’, ‘eme’. If the volume number is non-numeric, it should be entered exactly as given on the original, transliterated if necessary. If the volume number is a multiple number (e.g. 1-2), the two numbers should be entered in subfield 2, separated by a hyphen.
3 This subfield may be used to enter a ‘year used as volume number’. The year is entered in full as a four-digit numeric. The year should also be included in field A21, as part of the date of issue.
4 This subfield is used to identify any part or subdivision of, or supplement to, a volume, other than an individual issue. Any entry made in the subfield should be in the original language and precise wording of the primary journal, transliterated if necessary.

Some journals carry a continuous volume number in spite of title changes, as well as a volume number referring to the present title, e.g. ‘Tom XV (XLVI)’. In such cases, use only the number which refers to the present title.
Some journals carry a volume designation in the form '17th Year', '44e année'. If issues are numbered within these year numbers, enter the year number as 'volume number'. If a year number is given as well as another form of volume number, it may be ignored, and should not be entered in field A05.

3. Examples

(Example 1)
Volume number: "Volume XVI"
Contents of field A05:
0001Vol.016 (without 'caption': volume number converted to Arabic numerals and entered in subfield 2)
or 0001Vol.016 (with 'caption' entered in subfield 1)

(Example 2)
Volume number not given: issues numbered within year: "1971"
Contents of field A05:
00011971

A07: OTHER IDENTIFICATION OF ISSUE OR PART

1. Field definition
Tag: A07
Indicators: Not used: entered as zeros
Subfields: 0: Issue identification
N: Notes
Repeatable: No

2. Data description
Field A07 is used:
(a) to record the distinctive title of a serial issue or part;
(b) to record the identification of an unnumbered serial issue or part;
(c) to record any other information which is required to identify a serial issue or part, and which cannot appropriately be entered under any of fields A04, A05 or A06.

For example, a special issue which appears outside the normal volume, volume issue or consecutive issue numbering sequence would be identified by a description given in this field. By contrast, a supplement to a numbered volume or a numbered issue would not be if necessary. Captions are regarded as an optional element.

2. This subfield is used to enter only the issue or part number itself, without 'captions' (e.g. 'No.', 'n.'). If the issue or part number is numeric (whether Arabic or Roman, cardinal or ordinal) it should be entered as an Arabic number, without suffixes such as 'th', 'ème'. If the issue or part number is non-numeric, it should be entered exactly as given on the original, transliterated if necessary.

If the issue number is a multiple number (e.g. 1-2), the two numbers should be entered in subfield 2, separated by a hyphen.

3. This subfield is used to specify any part or subdivision of, or supplement to, an individual issue which is identified by an issue or part number. Any entry made in the subfield should be in the original language and precise wording of the primary journal, transliterated if necessary.
recorded here, but would be entered in subfield 4 in field A05 or subfield 3 in field A06. The required title or other descriptive information should be entered in subfield 0 in the original language and precise wording of the piece, transliterated if necessary in accordance with UNISIST recommendations.

3. Example

Issue outside normal numbering sequence:
"Special Issue, June 1970"

Contents of field A07:

0040 Special Issue

(Date of issue would be entered in field A21, and not field A07).

A08: TITLE OF CONTRIBUTION (ANALYTIC)

1. Field definition

Tag: A08

Indicators: Position 1 not used: entered as zero

Position 2 may take any of the values 0, 1, 2, 3, 4

Subfields:

1: Title

2: Language code (optional)

N: Notes

Repeatable: Yes, if it is required to enter more than one form of title (e.g. parallel titles, original and translated titles)

Note that the definition of field A08 applies also to fields A09 (TITLE OF MONOGRAPH), A10 (TITLE OF COLLECTION) and A30 (NAME OF MEETING).

2. Data description

Field A08 is used to enter the title of a contribution (paper, article letter, book chapter, etc.). It is used only for records at the analytic level; but note that the description given below applies also to fields A09, A10 and A30.

The title should always be entered in full, including subtitles and relevant footnotes.

The title may be entered exactly as given on the original, or it may be translated, transliterated or otherwise modified. The original piece may carry a single title, or parallel titles (e.g. in different languages); or a translated or transliterated title may appear on the piece in a 'less prominent' position (e.g. in a footnote).

To allow for various combinations of these cases to be entered unambiguously in a single record, the following conventions may be applied:

(a) Any title which appears on the piece is to be regarded as an 'original' title, even if the language or alphabet differs from that of the text.

(b) Any modification made by the cataloguer may be distinguished by the use of indicator position 2.

(c) Field A08 may be repeated, with the same or different indicators, to allow for the inclusion of parallel titles, or the original and a modified title.

The text of the title is entered in subfield 1, following accepted standards for capitalization and punctuation in the language concerned.

Indicators

Indicator position 2 should be used in accordance with the following table of values:

0 Exact nature of title not specified
1 'Original' title: i.e. the title, or one of the titles, given on the piece, entered in the original language and alphabet.
2 Title in original language and alphabet, but modified in content as part of the cataloguing process.
3 Title transliterated or transcribed as part of the cataloguing process.
4 Title translated (with or without modification of content) as part of the cataloguing process.

Language of title

An additional subfield (subfield 2) is provided to enable a language code to be entered if the user so desires, in order to identify the language of the title where this differs from either the language of the document as given in field A23 or the language of the database.

The language code should be derived from the relevant ISO Standard (in preparation): see Appendix B.

The use of subfield 2 is optional.

3. Examples

(Example 1)

Original title: "Exploratory experimental studies comparing on-line and off-line programming performance"

Modified title entered in field A08:

0 2 @ Comparing on-line and off-line programming performance

(Example 2)

Original titles

Организация контро ды в автоматизированном управлении
справочно-информационном центре по электротехнике

Transliterated title entered in field A08:

03 Организация контроля в автоматизированном
справочно-информационном центре по электротехнике

Translated title entered in field A08 (tag repeated in same record):

04 @ Организация контроля в автоматизированном
eлектротехническом центре по информационным

A09: TITLE OF VOLUME, MONOGRAPH OR PATENT DOCUMENT

1. Field definition
Tag: A09
Indicators: Position 1 not used: entered as zero
Position 2 may take any of the values 0, 1, 2, 3, 4
Subfields: 1: Title
2: Language code (optional)
N: Notes
Repeatable: Yes, if it is required to enter more than one form of title (e.g., parallel titles, original and translated titles)

2. Use of field A09
Field A09 is used only for the title of an item at the monographic level, e.g.
(a) Book published as a single piece;
(b) Volume forming part of a series or collection of books;
(c) Patent document;
(d) Report;
(e) Thesis or dissertation.

3. Data description
The format and content of field A09 follow the same conventions as for field A10.

A10: TITLE OF COLLECTION

1. Field definition
Tag: A10
Indicators: Position 1 not used: entered as zero
Position 2 may take any of the values 0, 1, 2, 3, 4
Subfields: 1: Title
2: Language code (optional)
N: Notes
Repeatable: Yes, if it is required to enter more than one form of title (e.g., parallel titles, original and translated titles)

2. Use of field A10
Field A10 is used only for the title of a non-serial collection.
Although field A10 always refers to a collection of items, it may occur in a record at the monographic or analytic levels, for example when the record refers to a single volume forming part of a collection, or to a chapter in a book which is itself part of a collection.

3. Data description
The format and content of field A10 follow the same conventions as for field A08.

A11: PERSON ASSOCIATED WITH A CONTRIBUTION

1. Field definition
Tag: A11
Indicators: Position 1 not used: entered as zero
Position 2 may take any of the values 0, 1, 2, 3, 4, 5, 6, X
Subfields: 1: Name as derived from the piece
2: 'Established form': i.e. a 'correct' form of the name established by reference to an authority other than the piece to which the bibliographic record refers (optional element)
3: Real name (optional element)
4: Pseudonym (optional element)
5: Former name (optional element)
6: Subsequent name (optional element)
9: Role: a description in free form of the relationship between the person cited and the bibliographic item to which the record refers (optional element)
N: Notes
Repeatable: Yes: each different person to whom reference is made in the bibliographic record requires a separate repetition of field A11.

Note that the definition of field A11 applies also to fields A12 (PERSON ASSOCIATED WITH A MONOGRAPH), A13 (PERSON ASSOCIATED WITH A COLLECTION) and A34 (PERSON ASSOCIATED WITH A PATENT DOCUMENT).

2. Use of field A11
Field A11 is used to enter the name of a person who is associated with a contribution, as author, translator, illustrator etc.
Field A11 is used only for records at the analytic level.

Selection of names to be entered in the bibliographic record
(a) Authors:
The names of all individual authors associated with a given contribution are to be entered in the bibliographic record, unless there is a clear indication on the original that the chief responsibility for the contribution lies with only one (or less than all) of the persons cited as authors, in which case only those indicated as chief contributors are to be entered. See Example 1.

(b) Other persons associated with a contribution:
 Provision has been made to enter the names of persons associated with a contribution, other than the authors; but these are not regarded as essential elements in the bibliographic description.
(Example 1)

Authorship as shown on the piece:

"By Richard P. Wendt, Mohammed Shemin, Loyola University, New Orleans, Louisiana, for Office of Saline Water, C.M. Wong, Director; W. Sherman Gilliam, Assistant Director, Research; W.H. McCoy, Chief, Chemical Physics Division".

Contents of personal name fields:

First author: 8101Wendt,0Richard0P. or 8101Wendt,0R.P.

Second author: 8101Shamin,0Mohammed or 8101Shamin,0M.

(see below for details of indicators and subfield codes)

Other names cited in this example are not to be entered as authors.

3. Data description (all 'personal name' fields)

This section is applicable to fields A11, A12, A13 and A34, except where otherwise noted.

Indicators

Indicator position 2 is used to define the relationship between the person whose name has been entered in the bibliographic record, and the item to which the record refers. Most commonly, this relationship will be that of author or editor, but provision is made for other possibilities, in accordance with the table below:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Relationship not specified (may be any of those listed below)</td>
</tr>
<tr>
<td>1</td>
<td>Author</td>
</tr>
<tr>
<td>2</td>
<td>Editor</td>
</tr>
<tr>
<td>3</td>
<td>Compiler</td>
</tr>
<tr>
<td>4</td>
<td>Translator</td>
</tr>
<tr>
<td>5</td>
<td>Illustrator</td>
</tr>
<tr>
<td>6</td>
<td>Preface or introduction by</td>
</tr>
<tr>
<td>X</td>
<td>Other (specifically not one of those listed above)</td>
</tr>
</tbody>
</table>

Subfields

The field structure for personal names provides a number of subfields (1 to 6) for entering alternative forms of an author name. Any of the following forms may be included (but only subfield 1 is an essential element):

1. Name as derived from the piece, unaltered except for transliteration if necessary. It is also permissible to enter here a name in which an initial has been expanded to a full forename (by reference to an authority file), or forenames replaced by initials, provided the name has not otherwise been altered.

   * This table of indicator values applies to fields A11, A12 and A13, but not to field A34 (q.v.)

2. 'Established form' of the name, derived from an authority file, where this differs from the form given in the primary publication by something more than the substitution of a forename for an initial, or vice-versa. An example would be where a non-Russian name has been transliterated into Cyrillic, and when retransliterated in accordance with UNISIST recommendations, it emerges in an incorrect form (e.g. 'Courtois' - 'Kurtoa'). It is important to retain under subfield 1 the form derived directly from the primary publication, since users may not know the original form of the name.

3. 'Real name', where the name given on the piece (and recorded under subfield 1) is a pseudonym.

4. 'Pseudonym', where the individual whose real name is given on the piece (and recorded under subfield 1) is known to have published under another name.

5. 'Former name' where a change of name is known to have occurred, e.g. maiden name for a married woman author, or former name if the person cited actually changed the name by which he was known, for example on moving to take up residence in another country.

6. 'Subsequent name' where a change of name is known to have occurred, e.g. married name for a woman author writing under her maiden name, or subsequent name if the author later changed the name by which he was known at the time of writing the item in question.

Subfield 9 is used as follows:

9. 'Role': in the event that the relationship between the person cited and the bibliographic item cannot be adequately defined by any of the specific indicators listed above, this subfield may be used to enter a free-form description of the relationship.

Elements in a personal name

The conventions described under this and subsequent sections apply equally to any of subfields 1 to 6, except as otherwise noted.

The elements in an individual name may be defined as follows:

'Key' name or names 'K'
Forename and/or initials 'F'
Suffix 'S'
Title 'T'

All names are to be entered in the following form:

K,F,S,T

Commas are used to separate the 'key' names (surnames) from the forename and/or initials, and to separate the forenames from any suffix (such as 'Jr', 'III'). A title, if required, is entered in parentheses at the end of the name. For example:

'Rutherford (Lord)'
'Rutherford, James D., Jr.'
'Rutherford, J.D.'

'Key' names

The 'key name' element (K) corresponds to the surname in a Western name. The term 'key name' is used rather than 'surname', however, since there may be occasions when it is not clear that the content of this element really represents a surname in the Western sense. (Also, it is envisaged that there may be an exact
correspondence between 'K' elements and entry points, or 'keys', in a printed author index). There may be more than one 'K' element if the surname is a compound one (e.g. 'Martinez Moreno'), or in the case of certain oriental names where there is real doubt about which component is the surname.

The 'K' element is always an essential element, except in some names consisting only of a religious title and forename(s) (e.g. 'Sister Mary Hilda').

**Forename and/or initials**

The 'F' element is an essential element unless the fullest available form of the name comprises only a surname and a title, or unless all components of the name are treated as key names.

If one or more forenames are given in full, the first (or second if the individual is generally known by the second forename) may be retained and all others reduced to the initial(s).

If the fullest form of the name on the original gives only initials for the forenames, the first forename may be entered as an initial, or may be spelled out in full if this information is readily and unambiguously available from existing reference works (previous indexes, directories, biographical dictionaries, etc.).

If a forename appears in abbreviated form (e.g. 'Chr.', 'Jas.'), the abbreviation may be retained and entered in the 'F' element:

(Example 2)

**Authorship as shown on the piece:**

"DR. F. GROSS und TH. BECK"

**Contents of personal name fields:**

First author: 0101Gross,0,F.
Second author: 0101Beck,0,Th.

If a hyphenated forename is reduced to initials, the initial letters of both parts are to be retained, linked by a hyphen (e.g. 'Jean-Paul' gives 'J.-P.').

**Suffixes**

The 'S' element is used to enter "suffixes" such as 'Jr.', 'II', etc. Any such suffix is to be retained as an essential element. Some examples are given below:

<table>
<thead>
<tr>
<th>Language</th>
<th>Suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>Jr., Sr., II, III</td>
</tr>
<tr>
<td>Spanish</td>
<td>hijo, nieto</td>
</tr>
<tr>
<td>Portuguese</td>
<td>filho, nieto, sobrinho</td>
</tr>
<tr>
<td>Hungarian</td>
<td>ifj., id.</td>
</tr>
<tr>
<td>Russian</td>
<td>ml.</td>
</tr>
</tbody>
</table>

(Example 3)

**Authorship as shown on the piece:**

"BY F.S. HARRIS, JR., The Aerospace Corporation, P.O. Box 95081, Los Angeles, Calif. 90045"

**Contents of personal name fields:**

0101Harris,0,F.S.,0,Jr.

Suffixes representing titles, or professional or academic qualifications, are not normally entered: see below.

**Titles and qualifications**

The 'T' element may be used in a few special circumstances to enter a title which forms part of a person's name. In general, however, titles are omitted from names entered in bibliographic descriptions. Detailed rules are suggested as follows:

- Academic, professional, religious or military titles preceding the name (such as 'Dr.', 'Ing.', 'Rev.', 'General', etc.), and titles or qualifications following the name, are omitted from bibliographic descriptions:

(Example 4)

**Authorship as shown on the piece:**

"Ino. STEFANIA BAICU"

**Contents of personal name fields:**

0101Baicu,0,Stefania
or 0101Baicu,0,St.

'Mr.', 'M.', 'Ms.', 'Mme.', and their equivalents in other languages are normally omitted. 'Mrs.', 'Mme.', etc., may be retained for married women authors when only the husband's forenames or initials are given in the original; e.g. 'Mrs. John J. Doe':

(Example 5)

**Authorship as shown on the piece:**

"Note de MM. JEAN-MARC DESRUMAUX, JEAN-MICHEL ROUVAEN et Mme CLAUSD MORIAMEZ, presente par M. René Lucas"

**Contents of personal name fields:**

First author: 0101Desrumaux,0,Jean-Marc
or 0101Desrumaux,0,J.-M.
Second author: 0101Rouvaen,0,Jean-Michel
or 0101Rouvaen,0,J.-M.
Third author: 0101Moriamez,0,Clauode (Mme.)
or 0101Moriamez,0,Cl. (Mme.)

The title "Mme." is included since the name given is that of the husband (but this particular example could be ambiguous: 'Claude' in French is both masculine and feminine). Note also the contraction of hyphenated forenames, and the fact that the person cited as 'presenting' the paper is not included as an author.

'Miss', 'Mlle.', 'Ms.' and their equivalents in other languages are omitted unless only the surname is given:
Authorship as shown on the piece:
"Note de Mlle. EDITH DEVIN et M. ROBERT LOCUENNEUX, présentée par M. Louis de Broglie"

Contents of personal name fields:
First author: 0101Devin, Edith
Second author: 0101Locqueneux, Robert

Terms which indicate affiliation with religious orders (e.g. Sister, Brother) are not retained unless only the forename(s) are given:

Authorship as given on the piece:
"Sister Helen Therese Nyberg, O.P."

Contents of personal name field:
0101Nyberg, Helen T.

Honorific titles are normally omitted, but may be retained if they constitute an indispensable part of the name:

Authorship as given on the piece:
"LORD TODD"

Contents of personal name field:
0101Todd, Lord

Spelling
Individual author names are to be entered in the vernacular, as they appear on the original piece, except:
(a) If transliteration from a non-roman alphabet to roman alphabet is required, UNISIST recommended transliteration schedules are to be used.
(b) If an 'established form' of the name is known to the originator of the bibliographic description, and if this form differs from what has been derived from the original, then the 'established form' may be entered in subfield 2.

This is particularly likely to arise where a non-Russian name is transliterated into Cyrillic for publication in a Russian journal, and is subsequently re-transliterated to the roman alphabet.

In all cases, the name as given on the piece (transliterated if necessary) should be regarded as the primary form for entry in a bibliographic description, since the use of the 'established form' depends on prior knowledge which may not be accessible to all users of a bibliographic data base. Subfield 1 should always carry the name as derived from the piece.

Surname prefixes
All surname prefixes are retained in personal author names. A prefix and the name to which it is affixed are together regarded as forming a single 'key' name. Examples of frequently used prefixes are:

- van
- la
- lo
- von
- della
- du
- van der
- de
- le
- des
- da
- del'
- de la

See note below on "Special symbols used in author names", and examples given in that section.

Compound surnames
Compound surnames are the rule for most Spanish and Portuguese authors, and are occasionally found among almost all nationalities.

If the surname is a compound containing a hyphen (e.g. 'Litvak-Gorskaya, L.B.'), the whole compound name should be entered as a single 'key' name.

If it is apparent that the surname is a compound which is not hyphenated, both names should be entered as 'key' names, (e.g. Hunter Dunn'). If in doubt, enter only the final element as a 'key' name and treat the rest element as a forename.

Names that indicate marital status
In certain languages a married woman author's name is the same as her husband's with the addition of one or more letters, or a different word-ending. For example, in Hungarian the suffix 'né' may be applied to either a forename or a surname. Names of this kind should be entered exactly as they appear on the contribution without modification, and in accordance with the rules previously defined:
Names where 'forename' and 'surname' are not readily identifiable

In practice, particularly with oriental names, there may be many cases where it is not possible to determine with assurance which of two or three names is really the surname. In this event, it is recommended that two or more elements may be treated as 'key' names, entered in the sequence given on the contribution, and used to generate cross-references in author indexes, if desired.

Examples: 'Teh Fu Yen', 'Krishna Mohana Rao' (or 'Mohana Rao, Krishna').

Special symbols used in personal names

Two special symbols may occur in personal names as entered in accordance with UNISIST recommendations. They have been introduced in order to make it possible to deal with certain problems which arise in the production of author indexes and other listings when an author has a complex surname or one which includes prefixes or abbreviations. Their use is in no way mandatory, but they have been defined in such a way that it will be possible for services which exchange bibliographic records to leave all options open for the recipient of an exchange tape to apply whatever conventions he may wish in deriving author indexes from the machine file.

The two symbols are ‘-’ and ‘+’. Both are to be regarded as 'space' for purposes of display and search matching.

- The connective ‘-’ is intended to be used to link a prefix to the name to which it is affixed and to indicate that the following character is the beginning of a 'strong' component of the name, i.e. one which may (depending on the policy of the individual service) be used as a key for creating an index entry or cross-reference.

Examples: 'Teilhard de-Chardin'

'von-Dorrien'

+ The connective ‘+’ is intended to be used to link components of a compound surname and to indicate that the following character is the beginning of a 'weak' component of the name, i.e. one which should never be used as a key for creating an index entry or cross-reference.

Examples: 'Gonzales+G.,R.'

'Asin+y Cabrera, M.D.'

'van+der=Avoird,A.'

The remaining examples illustrate the various possibilities which arise when dealing with compound names, and names involving prefixes. Although the Reference Manual leaves certain options open, it would be expected that any individual service, or the parties to an exchange of bibliographic data, would adopt a single coherent policy across the whole of their data base.

Examples: 'AD VAN DER AVOIDR'

First author: 0101Brunel,Michel

Second author: 0101deBergevin,Francis

Alternatively:

First author: 0101Brunel,MM.

Second author: 0101deBergevin,FF.

or 0101deBergevin,FF.
A12: PERSON ASSOCIATED WITH A MONOGRAPH

1. Field definition

Tag:  A12
Indicators:  Position 1 not used: entered as zero (but see note at end of section on field A11)
           Position 2 may take any of the values 0, 1, 2, 3, 4, 5, 6, X
Subfields:  1, 2, 3, 4, 5, 6, 9, N (see field A11 for definition of subfields)
Repeatable:  Yes: each different person to whom reference is made in the bibliographic record requires a separate repetition of field A12

2. Use of field A12

Field A12 is used to enter the name of a person who is associated with an item at the monographic level, e.g.
(a) Book published as a single piece;
(b) Volume forming part of a series or collection of books;
(c) Report;
(d) Thesis or dissertation.

Field A12 is not used in connexion with patent documents, since these require a separate treatment of the 'author' relationship: see field A34 (PERSON ASSOCIATED WITH A PATENT DOCUMENT).

Although field A12 always refers to a monographic item, it may occur in a record at the analytic level, for example when the record refers to a chapter of a book.

Selection of names to be entered in the bibliographic record

(a) Authors:
The names of all individual authors associated with a given item at the monographic level are to be entered in the bibliographic record, unless there is a clear indication on the original that the chief responsibility for authorship lies with only one (or less than all) of the persons cited, in which case only those indicated as chief contributors are to be entered. See Example 1 under field A11.

(b) Other persons associated with a monograph:
Provision has been made to enter the names of persons associated with a monograph, other than the authors. These may include: editor, compiler, translator, illustrator, author of preface or introduction. None of these was specifically identified as 'essential' during the discussions of the Working Group on Bibliographic Descriptions, but it is expected that for monographic items it would be normal practice to regard editors' names as an essential element, and most others as optional.

The relationship (author', 'editor', etc.) between the person named and the bibliographic item is defined by a code in indicator position 2: see field A11.

3. Data description

See field A11.

Note on multiple authors and affiliations

There are two obvious approaches for dealing with the problem of entering a theoretically unlimited number of individual names in a single record: (a) to allow unlimited repetition of subfields; (b) to allow unlimited repetition of personal name fields.

The second alternative has been recommended, for the following overriding reason. UNISIST proposals for authors' affiliation call for only a single affiliation to be entered as the minimum requirement in a bibliographic record, but it is recognized that some systems may want to enter all, or a larger number, of affiliations. In this case, it is essential that the record and field format should be hospitable to a convenient means of linking individual names and their affiliations. It is suggested that this can best be done by repeating personal name and affiliation fields as many times as are required, and using indicator position 1 to link related names and affiliations.
1. Field definition
Tag: A13
Indicators: Position 1 not used: entered as zero (but see note at end of section on field A11)
Position 2 may take any of the values 0, 1, 2, 3, 4, 5, 6, X
Subfields: 1, 2, 3, 4, 5, 6, 9, N (see field A11 for definition of subfields)
Repeatable: Yes: each different person to whom reference is made in the bibliographic record requires a separate repetition of field A13

2. Use of field A13
Field A13 is used to enter the name of a person who is associated with a non-serial collection.
Although field A13 always refers to a collection of items, it may occur in a record at the monographic or analytic levels, for example when the record refers to a single volume forming part of a collection, or to a chapter in a book which is itself part of a collection.

Selection of names to be entered in the bibliographic record
(a) Authors:
The names of all individual authors associated with a given item at the collective level are to be entered in the bibliographic record, unless there is a clear indication on the original that the chief responsibility for authorship lies with only one (or less than all) of the persons cited, in which case only those indicated as chief contributors are to be entered. See Example 1 under field A11.
(b) Other persons associated with a collection:
 Provision has been made to enter the names of persons associated with a collection, other than the author. These may include: editor, compiler, translator, illustrator, author of preface or introduction. None of these was specifically identified as essential during the discussions of the Working Group on Bibliographic Descriptions, but it is expected that for collective items it would be normal practice to regard editors’ names as an essential element, and most others as optional.
The relationship (author, editor, etc.) between the person named and the bibliographic item is defined by a code in indicator position 2: see field A11.

3. Data description
See field A11.

A14: AFFILIATION – CONTRIBUTION

1. Field definition
Tag: A14
Indicators: Not used: entered as zeros
Subfields: 1: Name of organization
2: Address or location
3: Country code (optional element): fixed length, two or three characters depending on the code adopted
N: Notes
Repeatable: No
Note that the definition of field A14 applies also to fields A15 (AFFILIATION – MONOGRAPH) and A16 (AFFILIATION – COLLECTION).

2. Use of field A14
Field A14 is used to enter the name and address of a single organization to which one or more of the individuals cited as authors of a contribution are affiliated. It may only be used in a record in which field A11 occurs at least once: i.e. where at least one person has been cited as associated with the contribution.
Field A14 is used only for records at the analytic level.

3. Data description
This section is applicable to fields A14, A15 and A16.

Subfields
1 Name of organization. Where several levels of the organization are cited (e.g. laboratory, faculty, university), they should be entered in descending order of scale, from the larger unit to the smaller. For large and complex organizations, such as some university or government departments, discretion may be exercised in omitting intermediate levels, the inclusion of which does not add significant information to the entry, provided always that the most specific unit is cited and that the entry provides an unambiguous identification of the organization:

(Example 1)
Affiliation as shown on the piece:
"Lubrication Research Laboratory,
Department of Mechanical Engineering,
School of Engineering and Applied Science,
Columbia University, New York NY10027"

Contents of affiliation field (subfield 1):
$Columbia\University\Lubr.Res.Lab.$

The name of the organization should be entered in the language of the piece (unless the name shown on the piece is itself a translation and the name in its original language is known, in which case the latter form may be entered). The following conventions apply:
(a) If transliteration is required, UNISIST recommended transliteration schedules are to be used.
(b) A fuller form of the name than that given on the piece may be entered if known.
(c) If the organization is customarily known by its initials or an acronym (‘IBM’, ‘ASLIB’), this short form may be entered in place of a fuller name given on the piece.
(d) Words may be abbreviated in accordance with UNISIST recommendations.

2 Address of organization. The address or location of the organization should be entered in subfield 2. The address should be entered in the fullest available form, ignoring any redundancy which may arise where the place name forms part of the name of the organization (e.g. 'Cambridge University, Cambridge, England'). However, an incomplete address may be entered where no fuller information is available.

3 Country code. The country of the affiliation may optionally be entered in subfield 3, using an ISO Standard country code (see Appendix A).

(Example 3)

Authorship as shown on the piece:
"JESSE H. KATZ*
International Business Machines Corp.,
Los Angeles, Calif.
*Present address: Computer Processes,
Inc., 10889 Wilshire Blvd., Los Angeles,
Calif."

Contents of affiliation fields:
@MIC1IBM1Corp.02LosAngeles,Mc01101
or @MIC1IBM1Corp.02LosAngeles,Mc02USA
or @MIC1IBM1Corp.02LosAngeles,Mc02USA

c) More than one author: only one address given.
This address is to be entered:

(Example 4)

Authorship as shown on the piece:
"STANLEY R. PETRICK, PAUL M. POSTAL AND PETER S. ROSENBAUM, IBM Thomas J. Watson Research Center, Yorktown Heights, New York"

Contents of affiliation fields:
@MIC1IBM1Corp.,02ThomasJ.WatsonResearchCenter02YorktownHeights,4NY03101
or @MIC1IBM1Corp.,02ThomasJ.WatsonResearchCenter02YorktownHeights,4NY03USA
or @MIC1IBM1Corp.,02ThomasJ.WatsonResearchCenter02YorktownHeights,4NY03USA

(b) One author: several addresses given. One address only is to be selected, in accordance with the following descending sequence of preferences: location where the work was done; author's affiliation at the time of the work; first organization cited:

(Example 2)

Authorship as shown on the piece:
"THOMAS C. LOWE
Informatics Inc., Bethesda, Maryland"

Contents of affiliation field:
@MIC1InformaticsInc.02Bethesda,4Maryland03101
or @MIC1InformaticsInc.02Bethesda,4Maryland02USA
or @MIC1InformaticsInc.02Bethesda,4Maryland,4USA

(Example 4)
(d) More than one author: several addresses, but not more than one for any single author. The address given for the first author is to be entered, unless it is a private address and an organizational affiliation is given for another author (in which case enter the first such affiliation):

(Example 5)

Authorship as shown on the piece:
"RONALD L. GUE, JOHN C. LIGGETT
Southern Methodist University, *Dallas, Texas AND
KENNETH C. CAIN
Ernst and Ernst, Atlanta, Georgia.
*Computer Sciences Center"

Contents of affiliation field:

\[ \text{Southern Methodist University, \text{Dallas, Texas}} \]
\[ \text{Computer Sciences Center} \]

(e) More than one author: several addresses and more than one for an individual author. One address only is to be selected, in accordance with the following descending sequence of preferences: location where the work was done; first author's affiliation at the time of the work; first organization cited:

(Example 6)

Authorship as shown on the piece:
"R. GALIMBERTI AND U. MONTANARI**
Istituto di Elettrotecnica e di Elettronica,
Politecnico di Milano, Italy.
*Present address: LABEN, Laboratori
Elettronici e Nucleari S.p.A., Milano, Italy.
**Present address: Istituto di Elaborazione
dell'Informazione, Consiglio Nazionale
delle Richereche, Pisa, Italy."

Contents of affiliation field:

\[ \text{Istituto di Elettrotecnica e Elettronica, \text{Politecnico di Milano, Italy}} \]
\[ \text{Laboratori Elettronici e Nucleari S.p.A., Milano, Italy} \]
\[ \text{Istituto di Elaborazione dell'Informazione, Consiglio Nazionale delle Richereche, Pisa, Italy} \]

(f) An individual's private address is never entered unless it is the only address available on the original: in this event, subfield 1 is omitted:

(Example 7)

Authorship as shown on the piece:
"Aus der Medizinischen Universitätsklinik
(Ludolf-Krehl-Klinik) Heidelberg (Direktor: Prof. Dr. G. Schettler) und dem Institut für Zytologie und Elektronenmikroskopie
der Universität des Saarlandes, Homburg,
(Direktor: Prof. Dr. M. Sitte)
TH. PFLEIDERER, E. MORGANSTERN und
H. WEBER"

(In this case it is not clear what relationship exists between the two organisations cited and the three individuals named as authors. The first-named organisation is therefore selected).

Contents of affiliation field:

\[ \text{Medizinische Universitätsklinik (Ludolf-Krehl-Klinik), Heidelberg, Germany} \]
\[ \text{Institut für Zytologie und Elektronenmikroskopie, Universität des Saarlandes, Homburg, Germany} \]

Multiple affiliations
It is recognized that some services will wish to enter more than one affiliation. To avoid confusion, it is recommended that...
A 15: AFFILIATION - MONOGRAPH

1. Field definition
   Tag: A 15
   Indicators: Not used: entered as zeros
   Subfields:
   1: Name of organization
   2: Address or location
   3: Country code (optional element): fixed length, two or three characters (alphabet or numeric, depending on the code adopted)
   N: Notes
   Repeatable: No

2. Use of field A 15
   Field A 15 is used to enter the name and address of a single organization to which one or more of the individuals cited as authors (or editors, etc.) of a monographic item are affiliated. Monographic items include:
   (a) Book published as a single piece;
   (b) Volume forming part of a series or collection of books;
   (c) Report;
   (d) Thesis or dissertation.

   Field A 15 is not used for the affiliation of individuals associated with a patent document.

   Although field A 15 always refers to a monographic item, it may occur in a record entered at the analytic level, for example when the record refers to a chapter in a book.

3. Data description
   See field A 14.

A 16: AFFILIATION - COLLECTION

1. Field definition
   Tag: A 16
   Indicators: Not used: entered as zeros
   Subfields:
   1: Name of organization
   2: Address or location
   3: Country code (optional element): fixed length, two or three characters (alphabet or numeric, depending on the code adopted)
   N: Notes
   Repeatable: No

2. Use of field A 16
   Field A 16 is used to enter the name and address of a single organization to which one or more of the individuals cited as authors (or editors, etc.) of a monographic or analytic collection are affiliated.

   Although field A 16 always refers to persons associated with the authorship of a collective item, it may occur in a record at the monographic or analytic levels, for example when the record refers to a single volume forming part of a collection, or to a chapter in a book which is itself part of a collection.

3. Data description
   See field A 14.

A 17: CORPORATE AUTHOR (CONTRIBUTION)

1. Field definition
   Tag: A 17
   Indicators: Not used: entered as zeros
   Subfields:
   1: Name of corporate author
   2: Address of corporate author (optional element)
   3: Country code (optional element): fixed length, two or three characters depending on the code adopted
   N: Notes
   Repeatable: Yes: if there is more than one corporate author associated with a contribution, each one cited in the bibliographic record requires a separate repetition of field A 17.

Note that the definition of field A 17 applies also to fields A 18 (CORPORATE AUTHOR - MONOGRAPH), A 19 (CORPORATE AUTHOR - COLLECTION) and A 35 (CORPORATE BODY ASSOCIATED WITH A PATENT DOCUMENT).

2. Use of field A 17
   Field A 17 is used to enter the name and, optionally, the address and country of a corporate author of a contribution (paper, article, letter, book chapter, etc.)

   Field A 17 is used only for records at the analytic level. Where more than one corporate author is cited in connexion with a contribution, field A 17 may be repeated as many times as required.

3. Data description (all 'corporate author' fields)

   Subfields

   1 Name of corporate author. Where several levels of the organization are cited (e.g. laboratory, faculty, university), they should be entered in descending order of scale, from the larger unit to the smaller.
   For large and complex organizations, such as some university or government departments, discretion may be exercised in omitting intermediate levels, the inclusion of which does not add significant information to the entry, provided always that the most specific unit is cited and that the entry provides an unambiguous identification of the organization:
The names of a corporate author should be entered in the language of the piece (unless the name shown on the piece is itself a translation, and the name in its original language is known, in which case the latter form may be entered). The following conventions also apply:

(a) If transliteration is required, UNISIST recommended transliteration schedules are to be used.
(b) A fuller form of the name than that given on the piece may be entered if known.
(c) If the organization is customarily known by its initials or an acronym ('IBM', 'ASLIB'), this short form may be entered in place of a fuller name given on the piece.
(d) Words may be abbreviated in accordance with UNISIST recommendations.

Address of corporate author. The address or location of the corporate author may optionally be entered in subfield 2, and it is recommended that it should be so entered if the name of the organization alone is not sufficient for unambiguous identification, as in Example 2. If the country is given in the form of a code in subfield 3, it should not be included in subfield 2.

Country code. The country of the corporate author may optionally be entered in subfield 3, using an ISO Standard country code (see Appendix A).

It will be noted that the option is deliberately left open for country names to be entered 'informally' as part of the address, or to be encoded in a specific subfield if there is a requirement that a file be searchable automatically by country. It is expected that any individual service, or parties to an exchange, would adopt a consistent policy across the data base concerned.)

A18: CORPORATE AUTHOR - MONOGRAPH

1. Field definition
Tag: A18
Indicators: Not used: entered as zeros
Subfields: 1: Name of corporate author
2: Address of corporate author (optional element)
3: Country code (optional element): fixed length, two or three characters (alphabetic or numeric, depending on the code adopted)
N: Notes
Repeatable: Yes: if there is more than one corporate author associated with a monograph, each one cited in the bibliographic record requires a separate repetition of field A18.

Field A18 is used to enter the name and, optionally, the address and country of a corporate author as associated with an item at the monographic level, e.g.
(a) Book published as a single piece;
(b) Volume forming part of a series or collection of books;
(c) Report.

Field A18 is not used for corporate bodies associated with a patent document: see field A35.

Although field A18 always refers to a monographic item, it may occur in a record entered at the analytic level, for example when the record refers to a chapter in a book.

Where more than one corporate author is cited in connexion with a monographic item, field A18 may be repeated as many times as required.

2. Data description
See field A17.

A19: CORPORATE AUTHOR - COLLECTION

1. Field definition
Tag: A19
Indicators: Not used: entered as zeros
Subfields: 1: Name of corporate author
2: Address of corporate author (optional element)
3: Country code (optional element):
   fixed length, two or three characters
   (alphabetic or numeric, depending on
   the code adopted)
N: Notes
Repeatable: Yes: if there is more than one corporate
author associated with a collection, each
one cited in the bibliographic record re-
quires a separate repetition of field A19.

2. Use of field A19

Field A19 is used to enter the name and, optionally,
the address and country of a corporate author asso-
ciated with a non-serial collection.

Although field A19 always refers to a collection of
items, it may occur in a record at the monographic
or analytic levels, for example when the record refers
to a single volume forming part of a collection, or to
a chapter in a book which is itself part of a collection.

Where more than one corporate author is cited in
connexion with a non-serial collection, field A19 may
be repeated as many times as required.

3. Data description

See field A17.

A20: PAGE NUMBERS

1. Field definition

Tag: A20
Indicators: Not used: entered as zeros
   1: Page numbers
   2: 'Page fragment': numeric only
   3: Additional information
N: Notes
Repeatable: No

2. Data description

Field A20 is used to enter the page numbers of an
individual contribution (e.g. a journal article or a
paper in a conference proceedings). 'Page numbers'
may be represented by a single number if the con-
tribution is contained entirely within one page; or by
first and last page numbers if the contribution occu-
pies a continuous 'run' of pages; or by a string of
single numbers and/or pairs of numbers in the case of
discontinuous pagination.

Field A20 occurs only in records at the analytic
level.

Subfields

1 Page numbers. Subfield 1 is used to enter the page
numbers as described above. The numbers should
be entered exactly as given on the piece, trans-
literated if necessary where letters are used as part of
the page number. If roman numerals are used, they
should not be converted into arabic numerals,
since the distinction may often be significant within
a single publication.

All numbers (including first and last numbers of
a sequence such as 1234-1235) should be entered
in full. A hyphen is used to separate the first and
last page numbers of a continuous sequence. Commas
are used to separate individual page numbers or
pairs of numbers where pagination is discontinuous,
as '27-40, 44, 46-57, 53, 55'. Note that ambiguity
could occur if the page numbering on the piece
included hyphens (if pages were numbered within
chapters or issues as 123-41, 123-42, 123-43, etc.).
In such a case it is recommended that these
hyphens be changed to full points (as 123.41,
123.42, etc.).

2 'Page fragment number'. Subfield 2 is used to de-
fine a 'page fragment' if several short contributions
are contained within a single page, or several con-
tributions begin on a single page. The contents of
subfield 2 will always be taken as modifying the
first page number cited in subfield 1. When several
contributions begin on a single page, they are to be
assigned 'page fragment numbers' 1, 2, 3, etc., in a
sequence based on scanning the page strictly column
by column, from top to bottom within each column
and from left to right across the page. This 'page
fragment number' and nothing else, should be
entered in subfield 2.

3 Additional information. Subfield 3 is used to enter
additional or alternative page numbers, or pagina-
tion which cannot be expressed in the manner de-
fined for subfield 1. Examples are:
(a) Serials which carry page numbering both within
issue and within volume. In such cases the page
numbering within the larger unit (usually volume
or year) is to be regarded as the preferred num-
bering, and will be entered in subfield 1. The
issue page numbering may be entered in sub-
field 3, but is not regarded as an essential
element.
(b) Items whose only page numbering is within
the individual contribution. In such cases sub-
field 3 may be used in free form to describe the
pagination.

3. Examples

(Example 1)

Paper occupies page 1234 only, and no
other paper begins on that page.

Contents of field A20: 00011234

(Example 2)

Paper occupies pages 1234 to 1246, and
no other paper begins on page 1234.

Contents of field A20: 00011234-1246
A21: DATE OF ISSUE OR IMPRINT

1. Field definition

Tag: A21
Indicators: Not used: entered as zeros
Subfields:
1: 'Normalized date', entered in ISO
  Standard format: fixed length, eight-digit numeric
2: 'Date part'
3: Date in full/non-Gregorian date
N: Notes
Repeatability: No

Note that the definition of field A21 applies also to
field A22 (DATE OF PUBLICATION) and field A32
(DATE OF MEETING), except where otherwise
indicated.

2. Use of field A21

Field A21 is used to record:
(a) The nominal date of issue of a serial issue or part,
    as distinct from the actual date of publication
    which may sometimes be different.
(b) The imprint date(s) of a book or non-serial
    collection.
(c) The nominal date of a report.
(d) The date of submission of a thesis or dissertation.
Field A21 is not used to record:
(a) A date of publication of any of the above items
    which differs from the nominal date of issue or
    imprint (see field A22).
(b) The date of publication of a patent document
    (see field A22).
If there is doubt as to whether the date given on the
piece is the nominal issue date or date of publication,
should be entered in field A21.
Field A21 may occur in records at any bibliographic
level.

3. Data description

This section is applicable to fields A21, A22 and A32.

4. Examples

(Example 1)

"29th May 1971"  
Contents of date fields: $019710529$
A22: DATE OF PUBLICATION

1. Field definition

Tag: A22

Indicators:
- Position 1 not used: entered as zero
- Position 2 may take any of the values 0, 1, 2, 3, 4, 5, 6 (for patent documents only: otherwise entered as zero)

Subfields:
- 1: 'Normalized date', entered in ISO Standard format: fixed length, eight-digit numeric
- 2: 'Date part'
- 3: Date in full/non-Gregorian date
- N: Notes

Repeatable: No

2. Use of field A22

Field A22 is used to record:
- (a) The actual date of publication of a serial issue, report, or other item, if this is different from the nominal date of issue, and the information is available on the piece.
- (b) The date of publication of a patent document. When used under (a) above, field A22 is in all respects identical to field A21.

3. Data description

For all other aspects of field A22 format and contents, see field A21.

A23: LANGUAGE(S) OF TEXT

1. Field definition

Tag: A23

Indicators:
- Not used: entered as zeros

Subfields:
- Q: Language code or codes
- N: Notes

Repeatable: No

2. Date description

Field A23 is used to enter one or more fixed-length codes indicating the language or languages in which the text of the item appears. The codes used should be in accordance with the relevant ISO Standard (in preparation); see Appendix B.

Pending the availability of an ISO Standard, an interim coding scheme may be adopted as agreed by the parties to an exchange of bibliographic information.

If the original text appears in more than one language, all languages concerned should be cited in...

* Not applicable to field A32: see examples under field A32
field A23. Multiple language codes should either be packed together without separators, or separated by a space, as an implementation option. The former approach is preferred as more logical for machine-readable records. Field A23 is used in records at all bibliographic levels.

A24: LANGUAGE(S) OF SUMMARIES

1. Field definition
Tag: A24
Indicators: Not used: entered as zeros
Subfields: 0: Language code or codes
N: Notes
Repeatable: No

2. Data description
Field A24 is used to enter one or more fixed-length codes indicating the language or languages of summaries given on the original piece. Field A24 is a supplementary element: in normal practice, it is likely to be used only where the original piece carries summaries in a language or languages different from the text.

The codes used should be in accordance with the relevant ISO Standard (in preparation); see Appendix B. Pending the availability of an ISO Standard, an interim coding scheme may be adopted as agreed by the parties to an exchange of bibliographic information.

Multiple language codes should either be packed together without separators, or separated by a space, as an implementation option. The former approach is preferred as more logical for machine-readable records.

Field A24 is used in records at all bibliographic levels.

A25: PUBLISHER: NAME & LOCATION (MONOGRAPH OR COLLECTION)

1. Field definition
Tag: A25
Indicators: Position I may be used to link 'publisher' with 'ISBN' (field A26) where more than one publisher is cited, and the work carries a different ISBN for each country in which it is distributed (see field A26)
Position 2 not used: entered as zero
Subfields: 1: Publisher name
2: Location or address
3: Country code (optional element): fixed length, two or three characters, depending on the coding scheme adopted
N: Notes
Repeatable: Yes: where more than one publisher is cited, field A25 should be repeated as many times as required

2. Data description
Field A25 is used to enter the name and location of an organization cited as publisher of a monographic or collective work.

3. Subfields
1 Publisher name, entered as given on the piece, transliterated if necessary in accordance with UNISIST recommendations.
2 Location. The location of the publisher is entered in

A26: ISBN

1. Field definition
Tag: A26
Indicators: Position 1 may be used to link 'ISBN' with 'publisher' (field A25) where more than one publisher is cited, and the work carries a different ISBN for each country in which it is distributed
Position 2 not used: entered as zero
Character set restricted to numerals only, except for the last character, which may be letter X.
N: Notes
Repeatable: Yes: where the work carries more than one ISBN, field A26 may be repeated as many times as required.

2. Data description
Field A26 is used to enter an International Standard Book Number (ISBN), in accordance with the relevant ISO Standard [11]. Only the number itself should be entered in subfield 1 (not the letters 'ISBN' which may precede the number as printed on the piece).

Field A26 can apply only to a monographic or collective item; but it may appear in a record at the analytic level, for example if the record refers to a chapter in a work which carries an ISBN.

ISBN
An ISBN is a ten-character number made up of four components:
(a) Group identifier;
(b) Publisher identifier;
Components (a), (b) and (c) are of variable length (within the overall fixed length of the number), and are made up of arabic digits 0 to 9. Component (d) is a single character, which may be the letter X or any of the digits 0 to 9. In written or printed form, the four components are conventionally separated by spaces or hyphens. In the machine record, the number should be stored in packed form, without separators.

Calculation of check character

The check character is calculated on modulus 11, as described in the following example:

(a) Write the digits of the number without check character: \(0 \ 5 \ 7 \ 1 \ 0 \ 8 \ 9 \ 8 \ 9\)

(b) Write the constant weights associated with each position of the number: \(1 \ 0 \ 9 \ 8 \ 7 \ 6 \ 5 \ 4 \ 3 \ 2\)

(c) Multiply each digit by its associated weight: \(0 \times 10 = 0\)
\(45 \times 9 = 405\)
\(56 \times 8 = 448\)
\(7 \times 7 = 49\)
\(0 \times 6 = 0\)
\(40 \times 5 = 200\)
\(36 \times 4 = 144\)
\(24 \times 3 = 72\)
\(18 \times 2 = 36\)

(d) Add the product of these multiplications: \(0 + 405 + 448 + 49 + 0 + 200 + 144 + 72 + 36 = 1286\)

(e) Divide the sum by modulus: 1286 \(\div 11 = 117\) plus a remainder of 5

(f) Subtract the remainder from modulus to find the required check digit: \(117 - 5 = 112\)

(g) Append the check digit to make the full ten-digit ISBN: \(0 \ 5 \ 7 \ 1 \ 0 \ 8 \ 9 \ 8 \ 9 \ 5\).

Field A27 is applicable only to an item at either the monographic or collective level, but it may also appear in a record at the analytic level, for example when the record describes a chapter in a book.

3. Example

**Edition as indicated on the piece:**
"XIIth edn."

**Contents of field A27:** \(\varnothing \$ \$ 1 2\)

---

**A28: COLLATION: DESCRIPTION OF NON-SERIAL COLLECTION**

1. **Field definition**

   **Tag:** A28

   **Indicators:** Not used: entered as zeros

   1: Number of pieces: variable-length, numeric only

   2: Other descriptive information (optional element)

   **N:** Notes

   **Repeatable:** No

2. **Data description**

   Field A28 is used to describe the physical pieces which together constitute a non-serial collection to which the bibliographic record refers. Although field A28 always refers to a collective item, it may be included in a record at the monographic or analytic levels, for example when the record describes a single volume belonging to a collection, or a chapter in a book which is itself part of a collection.

   **Subfields**

   1. **Number of pieces:** in the simplest case, the or description required may be the number of pieces or volumes which together constitute the collection. This number, and nothing else, is entered in subfield 1, as one or more numeric digits.

   2. **Other descriptive information:** any other descriptive information regarding the physical composition of the collection (e.g. format, collation of individual volumes, plates, maps, inserts) may optionally be entered in subfield 2, in free form.

3. **Example**

   "Twenty-four vols."

   **Contents of field A28:** \(\varnothing \@ \# 124\)
A29: COLLATION: DESCRIPTION
OF MONOGRAPH

1. Field definition
Tag: A29
Indicators: Not used: entered as zeros
1: Number of pages
2: Other descriptive information (optional element)
N: Notes
Repeatable: No

2. Data description
Field A29 is used to describe the collation details of a monograph, including:
(a) Book published as a single piece;
(b) Volume forming part of a series or collection of books;
(c) Patent document;
(d) Report;
(e) Thesis or dissertation.

Although field A29 always refers to a monographic item, it may be included in a record at the analytic level, for example when the record describes a chapter in a book or report.

Subfields
1 Number of pages: in the simplest case, the only required information is the total number of pages, which may be entered in free form in subfield 1, using both arabic and roman numerals if both are used on the piece. A single overall total may be given, if desired, or separate totals may be entered for separate sections which are numbered independently.

2 Other descriptive information: any other descriptive information regarding the physical composition of the monograph (e.g. format, inserts, separately numbered plates) may optionally be entered as subfield 2, in free form.

When field A29 is used for patent documents, the total number of pages, including drawings, should be entered as a single number in subfield 1.

3. Example
Preface 22 pages, numbered i to xxii
Text 226 pages, numbered 1 to 226

Contents of field A29:
02001226
or 02001248

A30: NAME OF MEETING

1. Field definition
Tag: A30
Indicators: Position 1 not used: entered as zeros
Position 2 may take any of the values 0, 1, 2, 3, 4

2. Data description
Field A30 is used to enter the name of a meeting (conference, symposium etc.,) if the piece or collection to which the record refers constitutes the proceedings of a meeting. If the meeting is one of a series ('Third International Conference on ...'), and the titles of successive meetings in the series are differentiated by a 'meeting number', this number should be included as part of the name entered in field A30.

The use of field A30 is optional if the name of the meeting occurs as part of the title of the piece or collection; in this event, however, it may still be found desirable to enter the name of the meeting separately in field A30, e.g. in order to compile a 'conference index'.

It should be noted that the recommendations of the Reference Manual in respect of meetings and conferences do not imply that the bibliographic record must always include a reference to the fact that an individual paper was originally presented at a meeting. For example, this information is often included as a footnote to a serial contribution; but its inclusion in the bibliographic record is optional unless the serial issue, or a part of the issue, constitutes the formal proceedings of the meeting.

Field A30 may be used in records at all bibliographic levels. The format of field A30 is identical to that of field A08 (since the name of a meeting is regarded as a form of title).

Indicator position 2 may be used in accordance with the table below:
0 Unspecified: i.e. indicator not used
1 Name of meeting given in original language and alphabet
2 Name of meeting in original language and alphabet, but modified in content as part of the cataloguing process
3 Name transliterated or transcribed as part of the cataloguing process
4 Name translated (with or without other modification) as part of the cataloguing process.

3. Examples
"PHYSICS OF SEMICONDUCTORS. Proceedings of the 7th International Conference. Paris 1964"

Contents of field A30:
0101 Physics of Semiconductors. 7th International Conference
or 010017 International Conference on Physics of Semiconductors
A31: LOCATION OF MEETING

1. Field definition
   Tag: A31
   Indicators: Not used: entered as zeros
   1: Location of meeting
   2: Country code (optional element): fixed length, two or three characters depending on the code adopted.
   N: Notes
   Repeatable: No

2. Data description
   Field A31 is used to enter the location of a meeting, the name of which has been entered in field A30.

Subfields
1 Location of meeting, entered in free form. The amount of detail required will be dictated partly by the nature of the location, and partly by the information available on the piece. If the country is given in the form of a code in subfield 2, it should not be included in subfield 1.
2 Country code. The country in which the meeting was held may optionally be entered in subfield 2, using an ISO Standard country code (see Appendix A).

Field A31 may be used in records at all bibliographic levels.

3. Example
   Location of meeting as given on the piece:
   "Reading, Berks., England"
   Contents of field A31:
   0041Reading, Berks.02344
   or 0041Reading, Berks.02GBR
   or 0041Reading, Berks., England

A32: DATE OF MEETING

1. Field definition
   Tag: A32
   Indicators: Not used: entered as zeros
   Subfields: 1: 'Normalized date': fixed length, eight-digit numeric
   2: 'Date part'
   3: 'Date in full'
   N: Notes
   Repeatable: No

2. Data description
   Field A32 is used to enter the date (or inclusive dates) of a meeting, the name of which has been entered in field A30.

   The format and method of use for field A32 is as described for field A21 (DATE OF ISSUE OR IMPRINT), except that where inclusive dates are cited for a meeting, the 'normalized date' in subfield 1 should be derived from the starting date of the meeting, not the end date (see Examples).

   Field A32 may be used in records at all bibliographic levels.

3. Examples
   (Example 1)
   Dates of meeting:
   "June - July 1969"
   Contents of field A32:
   0011969060003June-Puly$1969

   (Example 2)
   Date of meetings
   "27th June - 3rd July 1971"
   Contents of field A32:
   00119710627113270June$43Pulyjuly$1971

A33: IDENTIFICATION OF PATENT DOCUMENT

1. Field definition
   Tag: A33
   Indicators: Not used: entered as zeros
   1: Country code: fixed length, two or three characters depending on the code adopted
   2: Type of patent document (ICIREPAT code): fixed length, two characters
   3: Type of patent document (CODEN): fixed length, six characters (this subfield is an alternative to subfield 2)
   4: Type of patent document, as a free text description (optional element)
   5: Document number
   N: Notes
   Repeatable: No

2. Data description
   Field A33 is used to enter the full identification of a patent document.

   The preferred form of identification consists of the following subfields:
   1. Country code
   2. ICIREPAT code (see Appendix D)
   3. Document number

   Alternative forms of identification may consist of either:
   1 Country code or 3 CODEN
   4 Type of document, as a free text description
   5 Document number
Subfields are defined in more detail below:

1. **Country code**, based on ISO Standards (see Appendix A). This subfield is compulsory.

2. **ICIREPAT code**. The ICIREPAT code is the preferred means of identifying 'document type'. It is a fixed-length two-character code. A complete list of these codes is given in Appendix D.

3. **CODEN**. CODEN may be used instead of the ICIREPAT code to identify 'document type'. It will be noted that there is redundancy between this subfield and subfield 1, since CODEN for patent documents identify not only the document type but also the country of origin. However, it is considered desirable that the ISO country code should always be included in the record.

4. **Type of patent document**, entered as a free text description (e.g. 'Offenlegungsschrift', 'Certificat d'Utilité'). This subfield may be used in place of, or as well as, either of subfields 2 and 3.

5. **Document number**. Subfield 5 is used to record the complete number assigned to the document, including any prefixes and/or suffixes. Some countries use an annual numbering system; where this is the case, exact identification of the number must include, as a prefix or suffix, the year of filing or granting, respectively.

Do not record the number separately assigned to an application in this subfield, but in field A36. Do not record the serial or filing number assigned to a priority application in this subfield, but in field A37.

Field A33 may be used at the monographic level; or at the analytic level if a patent document is abstracted from an official gazette which is handled as a serial.

3. **Example**


Contents of field A33:

- 00110103 USXXAM0536G7127
- 0001USA03 USXXAM0536G7127
- 00110104 Patent0536G7127
- 0010USA4 Patent0536G7127

4. **A34: PERSON ASSOCIATED WITH A PATENT DOCUMENT**

1. **Field definition**

   **Tag:** A34

   **Indicators:** Position I not used; entered as zero.

   Position 2 may take any of the values

   0, 1, 2, 3, 4, 5, 6, 7

   **Subfields:** 1, 2, 3, 4, 5, 6, 9, N (see field A11 for definition of subfields)

   **Repeatable:** Yes, if more than one person is cited on a patent document, field A34 may be repeated as many times as required.

2. **Data description**

   Field A34 is used to enter the names of persons cited on a patent document as inventors, applicants, grantees or assignees.

   Field A34 may be repeated as many times as are necessary in a single record to enter the names of all individuals cited in the above-mentioned capacities.

   Fields A34 may be used in records at the monographic or analytic levels depending on whether the record is derived from the patent document itself or from an entry in an official gazette.

   Personal names are to be recorded in field A34 according to the conventions specified for field A11, using the same set of subfield codes.

   Subfield 1 (name as derived from the piece) is the only essential element: all others are optional.

   **Indicators**

   The indicators for field A34 differ from those defined for field A11 and other personal name fields. Indicator position 1 is not used. Indicator position 2 may be used, optionally, as with other personal name fields, to define the relationship between the person and the work cited, but a separate table of values is defined below to cover the special requirements of patent documents. Indicator position 2 may therefore take any of the following values:

   0 Relationship not specified (may be any of those listed below)
   1 Inventor who is neither an applicant nor a grantee
   2 Inventor who is also an applicant but not a grantee
   3 Inventor who is also a grantee but not an applicant
   4 Inventor who is also a grantee and an applicant
   5 Applicant who is neither a grantee nor an inventor
   6 Grantee who is neither an applicant nor an inventor
   7 Grantee who is also an applicant but not an inventor

   It should be noted that for United States Patents the following conventions apply:

   (a) The applicants must, except under very exceptional circumstances, be the inventors.

   (b) Unless the rights attached to the application have been assigned, the inventors are also the grantees.

   (c) If the rights attached to the application have been assigned, the assignees are to be regarded as the grantees.

   Thus, the names of the parties concerned with a United States Patent will almost invariably be recorded using indicators 02 and 06 or using indicator 04. The same conventions apply for patents from Canada and the Philippines, which have patent laws similar to those of the United States in this respect.
The relationship between the above-mentioned indicators and the ICIREPAT INID Codes is as shown in the table below; but note that the ICIREPAT scheme does not differentiate between individuals and corporate bodies — field A35 must be used for inventors, applicants, grantees and assignees which are corporate bodies.

<table>
<thead>
<tr>
<th>Indicator position 2</th>
<th>INID Code</th>
<th>Contents of field A34:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>any of 71, 73, 75, 76</td>
<td>$71:Dinqualbre, Paul</td>
</tr>
<tr>
<td>2</td>
<td>72</td>
<td>or $71:Dinqualbre, P.</td>
</tr>
<tr>
<td>3</td>
<td>71 + 72; or 75</td>
<td>$72:Dinqualbre, P.</td>
</tr>
<tr>
<td>4</td>
<td>72 + 73</td>
<td>or $72:Dinqualbre, M. P.</td>
</tr>
<tr>
<td>5</td>
<td>71 + 72 + 73; or 76</td>
<td>$73:Dinqualbre, P.</td>
</tr>
<tr>
<td>6</td>
<td>71</td>
<td>or $71:Dinqualbre, P.</td>
</tr>
<tr>
<td>7</td>
<td>71 + 73</td>
<td>or $73:Dinqualbre, M. P.</td>
</tr>
</tbody>
</table>

If an inventor is also an applicant, or is also an applicant and a grantee, he may be identified on a patent document (a) by INID 75 or 76, or (b) by INID 71 used together with 72, or with 72 and 73, or (c) by repeating the name and using a different INID Code for each mention of the name. In situation (c) all the INID Codes associated with each name must be considered in order to determine the correct indicator to be used. A similar situation arises in the case of an applicant, who may be an inventor and a grantee, and in the case of a grantee, who may be an inventor, or an inventor and an applicant.

3. Examples

(Example 1)
Individual named on the piece (United States Patent - no mention of assignee):
Inventor: Joseph P. Segre, 45 Wuabond Road, Acton, Mass. 01720
Contents of field A34:
$40:Segre, Joseph P.
or $40:Segre, J. P.

(Example 2)
Individuals named on the piece (United States Patent - assignee named):
Inventors: Herbert S. Polin and Gustavo Kuhn, both of Veyrier, Switzerland
Contents of field A34 (repeated three times):
First individual: $20:Polin, Herbert S.
or $20:Polin, M. S.
Second individual: $20:Kuhn, Gustavo or $20:Kuhn, M. G.
Third individual: $60:Vogel, Paul or $60:Vogel, M. P.

(Example 3)
Individual named on the piece (French Patent):
Applicant: Cinqualbre, Paul
Grantee: Idem
Inventor: Not named
Contents of field A34:
$70:Cinqualbre, Paul
or $70:Cinqualbre, M. P.

A35: CORPORATE BODY ASSOCIATED WITH A PATENT DOCUMENT

1. Field definition
Tag: A35
Indicators: Position 1 not used: entered as zeros
Position 2 may take any of the values 0, 1, 2, 3, 4, 5, 6, 7
Subfields: 1: Name of corporate body
2: Address of corporate body (optional element)
3: Country code (optional element): fixed length, two or three characters depending on the code adopted
N: Notes
Repeatable: Yes: if more than one corporate body is cited on a patent document, field A35 may be repeated as many times as required
(Note that in general, field A35 follows the same format and conventions as are defined for field A17).

2. Data description
Field A35 is used to record the names of corporate bodies cited on a patent document as inventors, applicants, grantees or assignees. While corporate inventorship is rare, it is nevertheless provided for in the laws of some countries.
Field A35 may be repeated as many times as are necessary in a single record to enter the names of all corporate bodies cited in the above-mentioned capacities.
Field A35 may be used in records at the monographic or analytic levels, depending on whether the record is derived from the patent document itself or from an entry in an official gazette.
Corporate names are to be recorded generally according to the conventions specified for field A17, using the same set of subfield codes.
Subfield 1 (name of corporate body) is the only essential element: all others are optional.

Indicators
In field A17 and other 'corporate author' fields the indicator positions are not used. In field A35, however, it may be necessary to define the relationship between the corporate body and the patent document cited, and for this purpose indicator position 2 is used exactly as described under field A34. The
relationship between the indicators and ICIREPAT INID codes is also as described under field A34.
Field A35 corresponds to INID codes 71-73, 75 or 76, wherever these are associated with the name of a corporate body, and not a person.

A36: DOMESTIC FILING DATA

1. Field definition
   Tag: A36
   Indicators: Not used: entered as zeros
   Subfields:
   1: Number assigned to a patent application
   2: Date of filing the patent application referred to in subfield 1: fixed-length eight-digit numeric
   3: Other filing date(s) associated with the application: variable-length, numeric
   N: Notes
   Repeatable: Yes: if a patent document is based on more than one original application field A36 may be repeated as many times as required.

2. Data description
   Field A36 is used to record the domestic filing data associated with a patent document. Essentially this data consists of:
   (a) an application number;
   (b) the date on which the application was filed;
   (c) under certain circumstances, another date or dates associated with the application ("exhibition" filing date, date of filing complete specification, etc.).
   Sometimes a patent document is the result of more than one original application. In this event, field A36 may be repeated as many times as required.
   Field A36 is regarded as an optional element in the bibliographic description of a patent document. It may occur in records at the monographic or analytic levels, depending on whether the record is derived from the patent document itself or from an entry in an official gazette.

   Subfields
   1 Number assigned to a patent application. Subfield 1 is used to record the complete number, including any prefixes and/or suffixes, assigned to an application by the Patent Office which eventually publishes the resulting document, or otherwise makes it available to the public. Some countries use an annual numbering system; where this is the case, exact identification of the number must include, as a prefix or suffix, the year of filing or granting, respectively. The number assigned to the application should be entered here without punctuation or spaces within the number (but retaining any punctuation which separates the number from a prefix or suffix).
   Subfield 1 is equivalent to ICIREPAT INID 21 (Number assigned to the application: e.g. 'Numero d'enregistrement national', 'Aktenzeichen').

   2 Date of filing the patent application. Subfield 2 is used to record the application date, on which the application referred to in subfield 1 was filed in the Patent Office which eventually publishes the resulting document, or otherwise makes it available to the public.

Subfield 2 corresponds to ICIREPAT INID 22. The date is entered in ISO Standard format, as an eight-digit number of the form YYYYMMDD (as in field A21, subfield 1).

3 Other filing date(s). Subfield 3 may be used to enter one or more other dates associated with the filing of a patent application, such as an "exhibition" filing date or the date of filing a complete specification following a provisional specification.
   Subfield 2 always carries the original (i.e. the earliest) date of filing.
   Subfield 3 corresponds to ICIREPAT INID 23. Each date in subfield 3 is entered in ISO Standard format, as an eight-digit number of the form YYYYMMDD.

3. Examples

   (Example 1)
   "Application no: 084,080
   Filing date: September 25, 1970"
   Contents of field A36:
   00010840800219700925

   (Example 2)
   "Application no: 123,456, filed April 14, 1970
   Application no: 131,204, filed August 22, 1970
   Date of filing (single) complete specification: April 19, 1971"
   Field A36 is repeated as below:
   First application: 000112345602197004140319710419
   Second application: 001113120412197008220319710419
   (In this example, the 'notes' subfield might also be used to indicate that the two applications were combined into a single complete specification).

A37: CONVENTION PRIORITY DATA

1. Field definition
   Tag: A37
   Indicators: Not used: entered as zeros
   1: Country code: fixed length, two or three characters depending on the code adopted
   2: Number assigned to the priority application
   3: Date of filing of priority application: fixed length, eight-digit numeric
   N: Notes
   Repeatable: Yes: if more than one priority application is cited, field A37 may be repeated as many times as required.
2. Date description

Field A37 is used to enter details of a priority application which is cited on the patent document to which the bibliographic record refers. It is regarded as an optional element in the bibliographic description of a patent document.

The field is divided into three subfields, to record respectively the country of the priority application, the application number, and the date, all of which must be entered.

A patent document may cite more than one priority application, in which case field A37 may be repeated as many times as required.

Field A37 may appear in a record at either the monographic or analytic level, depending on whether the bibliographic record is derived from the patent document itself or from an entry in an official gazette, treated as a serial "contribution".

Subfields

1. Country where the priority application was made.
   The country should be entered using one of the ISO Standard country codes (see Appendix A).

   Subfield 1 corresponds to ICIREPAT INID 33.

2. Number assigned to the priority application. The number must be recorded in full, including any prefixes or suffixes. It should be entered without commas or spaces, but punctuation marks which link a prefix or suffix to the number should be retained. Note that the application number to be entered in this subfield should not be confused with:
   (a) the application number associated with the patent document to which the record refers: this number is entered in field A36.
   (b) the document number (if known) assigned to a patent document arising from the priority application: this number is not a required data element in the bibliographic description.

   Subfield 2 corresponds to INID 31.

3. Date of filing of priority application: to be entered in ISO Standard format, as an eight-digit number of the form YYYYMMDD, where
   YYYY represents the year in full
   MM the month expressed as a two-digit number with leading zero where required
   DD the day of the month expressed as a two-digit number with leading zero where required.

   Subfield 3 corresponds to INID 32.

3. Example

"Application made in France (No.29624) on 27 Aug. 1965"

Contents of field A37:

| 000133002296240319650827 |

or 0001FRA2296240319650827

A38: REFERENCE TO A LEGALLY RELATED DOMESTIC DOCUMENT

1. Field definition

Tag: A38

Indicators: Position 1 not used: entered as zero Position 2 may take any of the values 0, 1, 2, 3, 4

Subfields: 1. Country code: fixed length, two or three characters depending on the code adopted (optional element)
   2. Type of patent document (ICIREPAT code: fixed length, two characters
   3. Type of patent document (CODEN): fixed length, six characters (this subfield is an alternative to subfield 2)
   4. Type of patent document, as a free text description (optional element)
   5. Document number
   6. Application number (this subfield is an alternative to subfield 5, when the document number is not known)

N: Notes

Repeatable: Yes: if more than one legally-related domestic document is cited. Field A38 may be repeated as many times as required

2. Data description

Field A38 may be used to record details of a patent document (a) legally related to the document to which the bibliographic record refers, and (b) published in the same country.

Field A38 is regarded as an optional element in the bibliographic description of a patent document.

The preferred form of reference to a legally related domestic document consists of the following subfields:

1. Country code (optional, since by definition it must, be the same as the country code in field A33)
   2. ICIREPAT code (see Appendix D)
   3. Document number (or subfield 6: application number may be used when the document number is not known).

The definitions and form of entry for subfields 1 to 5 are identical to those given under field A33: other forms of reference than the preferred form may be used as in field A33. Conventions for recording an application number in subfield 6 are as described under field A36, subfield 1.

Field A38 may be repeated if more than one legally-related domestic document is cited.

Indicators

Indicator position 2 may be used to distinguish between different types of legal relationship between the document cited and the document to which the bibliographic record refers, in accordance with the following table of values:

0 Relationship not specified: may be any of those given below
1 Relation due to addition(s)
2 " " division(s)
3 " " continuation(s) - including continuation(s)-in-part
4 " " reissue(s)
These indicator values correspond to the ICIREPAT INID codes shown in the following table:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>INID Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>any of 61-64</td>
</tr>
<tr>
<td>1</td>
<td>61</td>
</tr>
<tr>
<td>2</td>
<td>62</td>
</tr>
<tr>
<td>3</td>
<td>63</td>
</tr>
<tr>
<td>4</td>
<td>64</td>
</tr>
</tbody>
</table>

3. Examples

In these examples, the following conventions have been adopted, in view of the considerable range of variation which is possible:

(a) Indicator position 2 is used to show the nature of the legal relationship: alternatively, this could have been left unspecified.

(b) Country codes are included in all cases, and the numeric form of the ISO draft code is used.

(c) CODEN are used to show the type of patent document.

(Example 1)
Relation due to addition
Addition data as given on French patent specification: "Nature du titre principal: Brevet d'invention n° 1,548,709"
Contents of field A38:
0113903FAXX1051511548709

(Example 2)
Relation due to division(s)
Division data as given on British patent specification: "Divided out of number 1242211"
Contents of field A38:
2013440580XX1051242211

(Example 3)
Relation due to continuation(s)-in-part
Contents of field A38:
30115103USXXAM053492221

A39: REPORT NUMBER

1. Field definition
Tag: A39
Indicators: Not used: entered as zeros
Subfields: Ø: Report number
N: Notes
Repeatable: Yes: if a report carries more than one number, field A39 may be repeated as many times as are required

2. Data description
Field A39 is used to enter a number which identifies a report (but not a contract or grant number, which is not regarded as an essential element for bibliographic description). The number should be entered exactly as shown on the document, including punctuation and spaces. Frequently the report number may include a component which identifies a report series: the number entered in field A39 should include this component, even if the report series is separately identified elsewhere in the record (e.g. by ISSN). If the report carries more than one identification number, field A39 may be repeated as required. Field A39 may be used in records at the monographic or analytic levels.

3. Example
"Report No. AIP ID 70-P"
Contents of field A39:
00AIPX1070-P

A40: NAME OF PERFORMING ORGANIZATION

1. Field definition
Tag: A40
Indicators: Not used: entered as zeros
A41: UNIVERSITY (OR OTHER EDUCATIONAL INSTITUTION)

1. Field definition
   Tag: A41
   Indicators: Not used: entered as zeros
   Subfields:
   1: Name of university, or other institution
   2: Address or location (optional element)
   3: Country code: fixed length, two or three characters, depending on the code adopted (optional element)
   N: Notes
   Repeatable: Yes: if more than one organization is cited, field A40 may be repeated as many times as required

2. Data description
   Field A40 is used to enter the name of an organization responsible for performing the whole or part of the work which is the subject of a report, if and only if this organization is different from the corporate author or author affiliation.

   The format of field A40 is identical to that defined for field A17 (CORPORATE AUTHOR). Only subfield 1 (name of organization) is an essential element: others are optional.

   Field A40 may be repeated as required, if more than one organization is cited as responsible for the work.

   Field A40 occurs only in records describing report literature, and may be used at either the monographic or analytic level.

A42: DEGREE LEVEL

1. Field definition
   Tag: A42
   Indicators: Not used: entered as zeros
   Subfields:
   0: Degree level
   N: Notes
   Repeatable: No

2. Data description
   Field A42 is used, in a record which refers to a thesis or dissertation, to enter a note of the level of the degree for which the thesis or dissertation was presented. This information may be entered in free form.

   Field A42 is an optional data element. It is used only at the monographic level.

3. Example

   "Ph.D."

Contents of field A42:

Ph.D.

A43: AVAILABILITY OF DOCUMENT

1. Field definition
   Tag: A43
   Indicators: Not used: entered as zeros
   Subfields:
   0: Availability note
   N: Notes
   Repeatable: No

2. Data description
   Field A43 is used to enter the source of availability of the document to which the bibliographic record refers, together with any other notes relevant to the process of obtaining the original document (e.g. restrictions on availability, price, order number).

   An entry in field A43 may be made in free form, but should include the name (and, optionally, the address) of the organization from which the document is available. Abbreviations, if used, should be in accordance with UNISIST recommendations.

   Field A43 may be used in records at all bibliographic levels. It is particularly relevant for reports and any other items which are not available through normal commercial channels.

3. Example

   "Available from US Patent Office: $0.50"

Contents of field A43:

Available from US Patent Office: $0.50

(And other permitted variations)
A44: SOURCE OF ABSTRACT

1. Field definition
   Tag: A44
   Indicators: Not used: entered as zeros
   Subfields: 0: Source of abstract
              N: Notes
   Repeatable: No

2. Data description
   Field A44 may be used to enter a reference to the source of an abstract, other than an abstract which appears in the document to which the bibliographic record refers.
   The entry is made in free form, but in so far as it consists of data elements (e.g. ISSN, volume and issue numbers) which are defined elsewhere in the Reference Manual, the same conventions for selection, transliteration, abbreviation etc., should be applied.
   Field A44 is an optional data element. It may be used in records at all bibliographic levels.

A45: NUMBER OF REFERENCES

1. Field definition
   Tag: A45
   Indicators: Not used: entered as zeros
   Subfields: 0: number of references: variable length, numeric only
              N: Notes
   Repeatable: No

2. Data description
   Field A45 is used to enter the number of references cited in the document to which the bibliographic record refers.
   Subfield 0 should contain an arabic number, and nothing else. Any additional details may be entered in the 'notes' subfield.
   Field A45 is an optional data element. It may be used in records at all bibliographic levels.

3. Example
   "27 references"
   Contents of field A45:
   000027

A46: 'SUMMARY ONLY' NOTE

1. Field definition
   Tag: A46
   Indicators: Not used: entered as zeros
   Subfields: 0: 'Summary only' note
              N: Notes
   Repeatable: No

2. Data description
   Field A46 is provided in order to enter the information that the original document referred to in the bibliographic record is itself only a summary, and not the full text (as is often the case, for example, with conference proceedings).

A47: ABSTRACT NUMBER(S)

1. Field definition
   Tag: A47
   Indicators: Not used: entered as zeros
   Subfields: 0: Abstract number(s)
              N: Notes
   Repeatable: Yes: if it is desired to include details of the appearance of the item in more than one abstracting service, field A47 may be repeated as many times as required.

2. Data description
   Field A47 is provided in order to enter one or more 'abstract numbers' relating to coverage of the document in the printed publications of an abstracting service or services.
   The format of field A47 is dependent on the practice of the service(s) concerned, and is therefore undefined.
   This field is optional, and may be used at any bibliographic level.

A99: ANCILLARY DATA

1. Field definition
   Tag: A99
   Indicators: Not used: entered as zeros
   Subfields: 0: Ancillary data
              N: Notes
   Repeatable: Yes

2. Data description
   Field A99 is provided as a special 'notes' field to make it possible to enter any ancillary data required in the bibliographic record which meets both the following criteria:
   (a) The data cannot appropriately be entered in any of the fields defined in the Reference Manual, or in a 'notes' subfield associated with a particular field.
   (b) The data is not such as to justify the definition of additional specific fields as part of a local implementation format: i.e. it is relatively informal in nature, or of highly infrequent occurrence.
   It must be stressed that, although field A99 has been provided to meet the possibility of an occasional need for the inclusion of ancillary data in free form, its use is recommended only as a last resort. Where an individual service regularly needs to include data elements which are outside the scope of the Reference Manual, it is recommended that separately tagged 'local' fields should be defined for this purpose.
   Field A99 may be entered in completely free form, and may be repeated if required. It may be used in records at all bibliographic levels.
Chapter 3.1

RECORD FORMAT

ISO Standard

UNISIST proposals for a standardized bibliographic description in machine-readable form are to be regarded as a specific implementation of the International Standard ISO 2709 [1] for a communication format for bibliographic records. This Standard is a generalized derivative of the MARC II record structure, but independent of the data element definitions and tagging scheme used for Library of Congress MARC data bases.

Record format: general

The UNISIST/ICSU-AB Working Group on Bibliographic Descriptions has recommended the adoption of the record format defined by ISO 2709. The WGBD's objective has been to define an implementation of this standard which would be suited to the needs of abstracting and indexing services, information centres and others.

The record structure defined by ISO 2709 will be referred to hereafter as the 'ISO bibliographic record'.

The ISO bibliographic record is divided into three sections: a fixed length leader occupying this first 24 characters or bytes; a variable length directory; and data fields of fixed or variable length. Some aspects of the record structure are described below, but for full details the reader should consult ISO 2709. A diagrammatic representation of the record format is attached at the end of Part 3.

Record format: leader

The table below shows the contents of the fixed leader at the beginning of each record, as specified by ISO and as applied in the proposed UNISIST implementation (an asterisk in the right-hand column indicates exact correspondence with the ISO Standard):

<table>
<thead>
<tr>
<th>Characters (or bytes)</th>
<th>ISO Standard</th>
<th>UNISIST implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 4</td>
<td>Record length</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Record status character (e.g. new, amended)</td>
<td>Record status character (to be defined by agreement between parties to an exchange: if not used, enter as zero)</td>
</tr>
<tr>
<td>6 to 9</td>
<td>Implementation codes</td>
<td>Character positions 6-8: literature type codes (see notes below) Character position 9: bibliographic level code (see notes below)</td>
</tr>
<tr>
<td>10</td>
<td>Indicator length</td>
<td>Indicator length: minimum 2 for UNISIST exchange records; but additional indicator positions may be defined by agreement between parties to an exchange; see below.</td>
</tr>
<tr>
<td>11</td>
<td>Identifier length</td>
<td>&quot;2&quot;: see below</td>
</tr>
<tr>
<td>12 to 16</td>
<td>Base address of data</td>
<td></td>
</tr>
<tr>
<td>17 to 19</td>
<td>For user systems</td>
<td></td>
</tr>
<tr>
<td>20, 21</td>
<td>Directory map</td>
<td></td>
</tr>
<tr>
<td>22, 23</td>
<td>For future use</td>
<td></td>
</tr>
</tbody>
</table>
Positions 6 to 8 are reserved for 'literature type' codes as follows:

Character position 6

<table>
<thead>
<tr>
<th>Bit position</th>
<th>Tag</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 = '1'</td>
<td>Serial</td>
</tr>
<tr>
<td>6 = '1'</td>
<td>Book</td>
</tr>
<tr>
<td>5 = '1'</td>
<td>Report</td>
</tr>
<tr>
<td>4 = '1'</td>
<td>Thesis or dissertation</td>
</tr>
<tr>
<td>3 = '1'</td>
<td>Patent document</td>
</tr>
<tr>
<td>2 = '1'</td>
<td>Conference publication</td>
</tr>
<tr>
<td>1</td>
<td>Reserved for future use</td>
</tr>
<tr>
<td>0</td>
<td>Reserved for future use</td>
</tr>
</tbody>
</table>

Character positions 7 and 8 are also reserved for future use, and should be entered as zero, as should all unused bit positions in character position 6.

The bit codes defined above may be treated as additive if it is desired to categorize a document as belonging to more than one literature type. Bit position 1 (conference publication) can only be used in association with another code identifying the main literature type.

The bibliographic level code in character position 9 shall be derived from the following set:

<table>
<thead>
<tr>
<th>Bit position</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 = '1'</td>
<td>Analytic</td>
</tr>
<tr>
<td>6 = '1'</td>
<td>Monographic</td>
</tr>
<tr>
<td>5 = '1'</td>
<td>Collective</td>
</tr>
<tr>
<td>0-4</td>
<td>Reserved for future use</td>
</tr>
</tbody>
</table>

(See Part 1 of the Reference Manual for discussion of 'literature type' and 'bibliographic level').

Record format: directory

The directory is a table containing a variable number of twelve-character entries, terminated by a field separator code (see below).

Each entry is divided into three parts:

(a) Tag: a three-character code identifying the content of the data field which corresponds to the directory entry.

(b) Length: the number of characters or bytes occupied by the data field which corresponds to the directory entry, including indicators and field separator (but excluding the record separator code if the data field is the last field in the record).

(c) Starting character position: a decimal number giving the position of the first character of the data field which corresponds to the directory entry. The position is computed relative to the base address of the data part of the record (i.e., the starting character position of the first data field following the directory is zero). The number \( n_1 \) of character positions allocated to hold the 'length' part of the directory entry is defined in character position 20 of the record leader. The number \( n_2 \) of character positions allocated to hold the 'starting character position' part of the directory entry is defined in character position 21 of the record leader. The arithmetic sum \( n_1 + n_2 \) must be equal to 9.

Where the length of a data field exceeds the largest number \( N \) which can be stored in the 'length' part of the directory entry, two or more successive directory entries are assigned, and the field is treated as if it were divided into a series of arbitrary blocks of length \( N \) and a remainder block. Each directory entry referring to a field of this type contains the following items:

(a) The tag which identifies the field, repeated in all entries.

(b) Length = zero, except in the final directory entry, which contains the length of the remainder block.

(c) Starting character position of the block to which the directory entry refers.

Record format: data fields

In the proposed UNISIST implementation of the ISO bibliographic record format, a data field is defined as consisting of:

(a) An indicator;

(b) One or more subfields;

(c) A field separator (see below).

The indicator length may be varied by individual users to meet their own system requirements. However, the first two indicator positions are reserved for use as defined for each data field in Part 2 of the Reference Manual. Consequently, the minimum length of the indicator in a UNISIST exchange record is 3, and the reserved indicator positions should not be used for any other purposes. The indicator length is shown in character position 10 of the record leader.

A subfield consists of a subfield identifier followed by a data string, which is delimited by either another subfield identifier or a field separator. A subfield identifier, in UNISIST exchange records, consists of a subfield identifier flag (see below) and one other character, normally a decimal digit or a letter. In Part 2 of the Reference Manual the subfield identifier flag is represented by the symbol '@'. Note that the Manual follows the convention that in fields which have only a single subfield, the identifier '@' is used; in fields that have more than one subfield '@' is not used and subfields are normally coded '@1', '@2', etc.

Thus it will be observed that the UNISIST implementation of the ISO bibliographic record format uses only 'type 4' fields of the four 'bibliographic field alternatives' shown in the figure at the end of Part 3.

Tagging scheme

The ISO bibliographic record format prescribes three-character tags. Early versions of the standard insisted that tags should be numeric, and this has been the most common implementation practice; however, the Reference Manual assumes that this restriction will be lifted, in accordance with a recommendation which is being put forward to ISO.

Additionally, ISO 2709 assigns special significance to certain groups of tags as specified below:

Tag @Q01: record identifier data field. In the UNISIST implementation, the content of this field is not defined, since the fundamental record identifier will vary from one user system to another. The principle of reserving tag @Q01 for an identifier is to be followed; its use is regarded as a matter for agreement between parties to an exchange.

Tag @Q02-@Q09: reserved data fields. These are conventionally used to store groups of fixed length data items; they do not carry indicators or subfield identifiers. The use of reserved data fields is not excluded in the UNISIST proposals, but is left undefined. All data elements treated in the Reference Manual are deliberately regarded as variable length, or potentially variable length.

Tag assignments in the Manual have been made arbitrarily from base A@Q. It was felt that the allocation of specific tag representations should be unstructured and non-hierarchical, to be consistent with modern 'table-oriented' programming methods. This has two benefits:
At the maximum flexibility of assignment, and effectiveness of table-oriented programme design. An intellectual structuring of groups of tags assigned to ‘related’ data elements may be useful for some purposes, but this structuring should be reflected in the contents of the tables used to interpret the tags, not in the tag representations themselves. The usefulness of such intellectual groupings is solely for input or output, not for exchange between machine systems.

The alphanumeric format with base A00 was chosen to avoid confusion with the widely-known MARC systems which use tags in the range 100-999.

Nesting of sub-records

Certain situations may arise in which it is desirable, for bibliographic reasons, to treat a record as including one or more sub-records. For example, if a paper is a translation of an item which has been published elsewhere, it may be necessary to include a citation of the original source as a sub-record within the main record referring to the translation. In general, this situation will normally arise whenever reference must be made in a bibliographic record to one or more related documents, or where it is necessary to treat a collective work at more than one bibliographic level.

A number of techniques may be suitable in different circumstances for dealing with this type of problem:

(a) Use of a ‘notes’ field. Where the information regarding related items is required solely for display, and need not be processed in a structured way, it may be included in free form as part of a notes field; but this approach renders it useless for computer processing.

(b) Cross-referencing between records. In some circumstances the related items may be entered as separate bibliographic records, with pointers in each direction and an indication of the nature of the relationship between them.

(c) Nesting of sub-records. One or more sub-records, using the same data elements as the main record, may be nested within the bibliographic record, to form a hierarchical structure.

A procedure for structuring a record into a number of sub-records is referred to in ISO 2709, but is not fully defined. It is based on the use of tag 002 as a “sub-record directory”, containing pointers to the main directory. This procedure has been adopted in some systems, including, for example, INIS. It is widely regarded by existing users as being less than wholly satisfactory. At the present time, therefore, the Reference Manual does not embody any recommendations on the technique to be employed for this purpose.

Physical tape standards

It should be noted that the assumption is made throughout Part 3 of the Reference Manual that the basic medium for exchange will be nine-track, half-inch magnetic tape recorded at 800 bpi in NRZI mode in an industry-compatible form, complying where applicable with relevant ISO Recommendations. Extension of the UNISIST exchange format to nine-track tape recorded in other modes or at other packing densities is trivial; extension to physical formats or media which differ in other respects may require more work to define a suitable representation of the exchange record.

Standard separators

The following standard separators or delimiters are used in the ISO bibliographic record format, and therefore in the UNISIST exchange format:

- Record separator $IS_3$ (see Table 1)
- Field separator $IS_2$
- Subfield identifier flag $IS_1$

Chapter 3.2

REPRESENTATION OF EXTENDED CHARACTER SETS

ISO Standard

At the time of writing, a Working Group of ISO/TC46 is developing a comprehensive draft standard for character sets to be used in bibliographic information exchange. When the results of its work become available in the form of an ISO Standard, it is expected that users of the Reference Manual will be advised to adopt them, and this chapter will be amended accordingly.

Interim Recommendations

The UNISIST/ICSU-AB Working Group on Bibliographic Descriptions developed its own detailed proposals for the representation of extended character sets. These were based on an existing ISO Recommendation, R646 [12], shown in Table 1 at the end of this chapter, and an existing USSR Standard, COST 13052.67 [13] (Table 2). The WGBD proposals have been taken into account in the work now being undertaken within ISO/TC46; and in the interim it is recommended that character coding should be based on the ISO and USSR standards referred to above.

In the light of the ISO/TC46 developments it is considered inappropriate to lay down any separate guidelines for the representation of extended character sets.
**BEST COPY AVAILABLE**

**Bibliographic Information Interchange**

**Format for Magnetic Tape**

- **rs = Record Separator**
- **fs = Field Separator**

---

**Character positions 0 - 4**
- Record length
- Record status
- Implementation codes
- Indicator length
- Identifier length

**12 - 16**
- Base addr. of data

**17 - 19**
- For user systems

**20**
- Length of entry field

**21**
- Length of start charact. pos.

**22 - 23**
- For future use

**Number of characters 3**

**Tag**
- Length of datafield
- Start char. pos.

**Base address of data**

**Tag 001**
- Ref. data

**Tag 002 - 009**
- Ref. data

**Additional tags**
- Data

**Bibliographic fields**

---

**Bibliographic field alternatives**

<table>
<thead>
<tr>
<th>Indicator length</th>
<th>Identifier length</th>
</tr>
</thead>
<tbody>
<tr>
<td>= 0</td>
<td>= 0</td>
</tr>
<tr>
<td>&gt; 0</td>
<td>&gt; 0</td>
</tr>
</tbody>
</table>

---

**Record label**

**Fix length field**

**24 char.**
<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>NUL</td>
<td>TC₂</td>
<td>SP</td>
<td>0</td>
<td>0</td>
<td>P</td>
<td>`</td>
<td>p</td>
</tr>
<tr>
<td>1</td>
<td>TC₁</td>
<td>DC₁</td>
<td>1</td>
<td>1</td>
<td>A</td>
<td>Q</td>
<td>a</td>
<td>q</td>
</tr>
<tr>
<td>2</td>
<td>TC₂</td>
<td>TC₂</td>
<td>&quot;</td>
<td>2</td>
<td>B</td>
<td>R</td>
<td>b</td>
<td>r</td>
</tr>
<tr>
<td>3</td>
<td>TC₃</td>
<td>DC₃</td>
<td>£</td>
<td>3</td>
<td>C</td>
<td>S</td>
<td>c</td>
<td>s</td>
</tr>
<tr>
<td>4</td>
<td>TC₄</td>
<td>DC₄</td>
<td>$</td>
<td>4</td>
<td>D</td>
<td>T</td>
<td>d</td>
<td>t</td>
</tr>
<tr>
<td>5</td>
<td>TC₅</td>
<td>TC₈</td>
<td>%</td>
<td>5</td>
<td>E</td>
<td>U</td>
<td>e</td>
<td>u</td>
</tr>
<tr>
<td>6</td>
<td>TC₆</td>
<td>TC₉</td>
<td>&amp;</td>
<td>6</td>
<td>F</td>
<td>V</td>
<td>f</td>
<td>v</td>
</tr>
<tr>
<td>7</td>
<td>BEL</td>
<td>TC₁₀</td>
<td>;</td>
<td>7</td>
<td>G</td>
<td>W</td>
<td>g</td>
<td>w</td>
</tr>
<tr>
<td>8</td>
<td>FE₀</td>
<td>CAN</td>
<td>(</td>
<td>8</td>
<td>H</td>
<td>X</td>
<td>h</td>
<td>x</td>
</tr>
<tr>
<td>9</td>
<td>FE₁</td>
<td>EM</td>
<td>)</td>
<td>9</td>
<td>I</td>
<td>Y</td>
<td>i</td>
<td>y</td>
</tr>
<tr>
<td>10</td>
<td>FE₂</td>
<td>SUB</td>
<td>*</td>
<td>:</td>
<td>J</td>
<td>Z</td>
<td>j</td>
<td>z</td>
</tr>
<tr>
<td>11</td>
<td>FE₃</td>
<td>ESC</td>
<td>+</td>
<td>;</td>
<td>K</td>
<td>[</td>
<td>k</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>FE₄</td>
<td>IS₄</td>
<td>'</td>
<td>&lt;</td>
<td>L</td>
<td>]</td>
<td>l</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>FE₅</td>
<td>IS₃</td>
<td>-</td>
<td>=</td>
<td>M</td>
<td>]</td>
<td>m</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>SO</td>
<td>IS₂</td>
<td>&gt;</td>
<td>N</td>
<td>^</td>
<td>n</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>SI</td>
<td>IS₁</td>
<td>/</td>
<td>?</td>
<td>0</td>
<td>_</td>
<td>0</td>
<td>DEL</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>0</td>
<td>NUL</td>
<td>TC\textsubscript{7}</td>
<td>SP</td>
<td>0</td>
<td>Ю</td>
<td>Л</td>
<td>Ю</td>
<td>Л</td>
</tr>
<tr>
<td>1</td>
<td>TC\textsubscript{1}</td>
<td>DC\textsubscript{1}</td>
<td>Т</td>
<td>1</td>
<td>я</td>
<td>А</td>
<td>Я</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>TC\textsubscript{2}</td>
<td>DC\textsubscript{2}</td>
<td>&quot;</td>
<td>2</td>
<td>р</td>
<td>Б</td>
<td>Р</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>TC\textsubscript{3}</td>
<td>DC\textsubscript{3}</td>
<td>#</td>
<td>3</td>
<td>ц</td>
<td>е</td>
<td>Ц</td>
<td>С</td>
</tr>
<tr>
<td>4</td>
<td>TC\textsubscript{4}</td>
<td>DC\textsubscript{4}</td>
<td>¥</td>
<td>4</td>
<td>т</td>
<td>Д</td>
<td>Т</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>TC\textsubscript{5}</td>
<td>TC\textsubscript{8}</td>
<td>%</td>
<td>5</td>
<td>е</td>
<td>У</td>
<td>Е</td>
<td>У</td>
</tr>
<tr>
<td>6</td>
<td>TC\textsubscript{6}</td>
<td>TC\textsubscript{9}</td>
<td>&amp;</td>
<td>6</td>
<td>Ф</td>
<td>Х</td>
<td>Ф</td>
<td>Х</td>
</tr>
<tr>
<td>7</td>
<td>BEL</td>
<td>TC\textsubscript{10}</td>
<td>'</td>
<td>7</td>
<td>Г</td>
<td>В</td>
<td>Г</td>
<td>В</td>
</tr>
<tr>
<td>8</td>
<td>FE\textsubscript{0}</td>
<td>CAN</td>
<td>(</td>
<td>8</td>
<td>Х</td>
<td>Ъ</td>
<td>Х</td>
<td>Ъ</td>
</tr>
<tr>
<td>9</td>
<td>FE\textsubscript{1}</td>
<td>EM</td>
<td>)</td>
<td>9</td>
<td>И</td>
<td>Ы</td>
<td>И</td>
<td>Ы</td>
</tr>
<tr>
<td>10</td>
<td>FE\textsubscript{2}</td>
<td>SUB</td>
<td>*</td>
<td>:</td>
<td>й</td>
<td>З</td>
<td>Й</td>
<td>З</td>
</tr>
<tr>
<td>11</td>
<td>FE\textsubscript{3}</td>
<td>ESC</td>
<td>+</td>
<td>:</td>
<td>К</td>
<td>Ш</td>
<td>К</td>
<td>Ш</td>
</tr>
<tr>
<td>12</td>
<td>FE\textsubscript{4}</td>
<td>IS\textsubscript{4}</td>
<td>&lt;</td>
<td>Л</td>
<td>Э</td>
<td>Л</td>
<td>Э</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>FE\textsubscript{5}</td>
<td>IS\textsubscript{3}</td>
<td>-</td>
<td>=</td>
<td>М</td>
<td>Ш</td>
<td>М</td>
<td>Ш</td>
</tr>
<tr>
<td>14</td>
<td>SO</td>
<td>IS\textsubscript{2}</td>
<td>&gt;</td>
<td>Н</td>
<td>Ч</td>
<td>Н</td>
<td>Ч</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>SI</td>
<td>IS\textsubscript{1}</td>
<td>/</td>
<td>?</td>
<td>0</td>
<td>О</td>
<td>Д</td>
<td>Е</td>
</tr>
</tbody>
</table>
EXAMPLES OF COMPLETE BIBLIOGRAPHIC RECORDS

This section embodies examples of each type of literature treated by the Reference Manual.

Each example is in three parts:

- the original data derived from the piece;
- implementation codes entered in the leader part of the record to identify literature type and bibliographic level;
- data fields required for the bibliographic description. Except where otherwise noted, the data fields in these examples have been limited to those identified in Part 1 of the Manual as essential for the given literature type.

The conventions for representing data fields are identical to those used elsewhere in the Manual, and defined in Chapter 1.1 and at the beginning of Part 2.

Where the Reference Manual allows certain degrees of freedom, the selection of a particular option in the examples does not imply that it is a 'preferred' form.

Example 1: SERIAL CONTRIBUTION

Communications of the ACM, Volume 8, Number 5, May 1965, pages 300-305. 'BLNSYS - A 1401 Operating System with Braille Capabilities'. J.B. LANDWEHR, C. MCLAUGHLIN, H. MUELLER, M. LICHSTEIN AND S.V. POLLACK. University of Cincinnati, Medical Computing Center, Cincinnati, Ohio.

Implementation codes in leader, character positions 6 to 9:

Character position 6: bit position 7 = 1, other bits = zero

Character positions 7, 8: all zero

Character position 9: bit position 7 = 1, other bits = zero

These codes indicate literature type = serial, bibliographic level = analytic.

Data fields

A01 UNIV - University
A02 ACM - Association for Computing Machinery
A04 BLNSYS - BLNSYS - A 1401 Operating System with Braille Capabilities
A06 0001GACM - Institution name
A07 0001Landwehr, J.B.
A08 0001McLaughlin, C.
A09 0001Mueuller, H.
A10 0001Lichstein, M.
A11 0001Pollack, S.V.
A14 UNIV - University
A15 MEDICAL COMPUTING CENTER
A16 OHIO - USA
A17 03013J300 - Dates
A18 03019650500 - Issue date
A21 0301300305 - Page numbers
A23 EN - Language of text

Example 2: BOOK (MONOGRAPH)


Implementation codes in leader, character positions 6 to 9:

Character position 6: bit position 6 = 1, other bits = zero

Character position 7: all zero

Character position 9: bit position 6 = 1, other bits = zero

These codes indicate literature type = book, bibliographic level = monographic.

Data fields

A01 0101AnInsightintoManagAccounting - Title of monograph
A04 0101Sizer, J.J. - Author name
A12 030119690000 - Date of imprint
A23 EN - Language of text
A25 0101PenguinBooks2Har - Publisher name and location
A26 01010140210873 - ISBN
A29 0001341 - Collation

Example 3: REPORT (MONOGRAPHIC)


English title also given: 'Erosion corrosion in copper water tubing'.

Implementation codes in leader, character positions 6 to 9:

Character position 6: bit position 5 = 1, other bits = zero

Character positions 7, 8: all zero

Character position 9: bit position 6 = 1, other bits = zero

These codes indicate literature type = report, bibliographic level = monographic.

The code 'EN' is employed here to represent 'English' by way of example only, pending the availability of a standard coding scheme.
Note also that field A43 (availability of document), which is an essential element for dissertations, could not be entered in this example since it was not derivable from the information given on the piece.

Example 5: PATENT
[72] Inventor Robert W Pfeiffer
Bronxville N.Y.
[21] Appl. No 5,170
[22] Filed Jan. 23,1970
[45] Patented Sept. 21, 1971
[73] Assignee Pullman Incorporated
Chicago, III.
[54] Apparatus for conversion of hydrocarbons
9 Claims, 4 Drawing Figs. (12 pages).
(Note: codes in square brackets are INID numbers).

Implementation codes in character positions 6 to 9:
- Character position 6: bit position 4 = 1, other bits = zero
- Character position 7: bit position 8 = 1, all other bits = zero
- Character position 9: bit position 6 = 1, all other bits = zero

These codes indicate literature type = patent, bibliographic level = monographic.

Data fields
A99 $101@ApparatusforConversion ofhydrocarbons Title of the invention
A22 $80119710921 Date of publication
A29 $80112 Number of pages
A33 $801USA02A$053607127 Identification of document*
A34 $801Pfeiffer,B.R.W. Inventor**
A35 $801PullmanInc.-2Chic ago, Illinois Assignee**
A38 $801USA02A$053492221 Reference to a legally-related domestic document (supplementary element)*

Data fields
A9 $301Erosion$corrosion Title (original language and alphabet)
A22 $80119660929 Date of submission
A23 $801NE Language of text***
A29 $801126 Collation
A41 $801UniversiteitvanNederland University
A42 $801DoctorinWetenschap Degree level (supplementary element)

* In fields A33 and A38, the code 'USA' is used in subfield 1 by way of example only, pending the availability of a standard coding scheme. The ICIREPAT code for patent documents is entered in subfield 2, in accordance with Appendix D.

** In fields A34 and A35, the indicator is used to distinguish the relationship between the person or corporate body cited and the document in question. INID 72 corresponds to indicator value '6'; see table in Part 2, under field A34. Note also that in field A38, the indicator value '3' denotes a relationship by continuation (including continuation-in-part); see under field A38 in Part 2.

Example 4: DISSERTATION

Implementation codes in leader, character positions 6 to 9:
- Character position 6: bit position 3 = 1, other bits = zero
- Character position 7: bit position 8 = 1, all other bits = zero
- Character position 9: bit position 6 = 1, all other bits = zero

These codes indicate literature type = dissertation, bibliographic level = monographic.

Data fields
A9 $801Erosion$corrosion Title (original language and alphabet)
A22 $80119660929 Date of submission
A23 $801NE Language of text***
A29 $801126 Collation
A41 $801UniversiteitvanNederland University
A42 $801DoctorinWetenschap Degree level (supplementary element)

* The English title is regarded here as an original title, since it is given on the piece.
** The code 'SV' is employed here to represent 'Swedish' by way of example only, pending the availability of a standard coding scheme.
*** The code 'NE' is employed here to represent 'Dutch' by way of example only, pending the availability of a standard coding scheme.
Example 6:  **CONFERENCE PAPER**

(This example refers to an individual paper from a conference proceedings published as a monograph).


**Implementation codes** in character positions 6 to 9:

Character position 6: bit position 6 = 1, bit position 2 = 1, other bits = zero

Character position 7: bit position 7 = 1, other bits = zero

These codes indicate literature type = conference proceedings published in 'book' form, bibliographic level = analytic (since the record refers to a single paper).

**Data fields**

A09 $\#01$Ice$\&$Snow$\&$Properties, Processes$\&$Applications

A12 $\#$W.D. Kingery

A11 $\#$M.R. de Quervain

A20 $\#$377-390

A21 $\#$EN


A23 $\#$xv+684

A29 $\#$377-390

A30 $\#$Conference on Ice and Snow properties, processes and applications


A32 $\#$February 12-16, 1962

A45 $\#$11

The use of subfield 2 in field A29 is by way of example, and not necessarily a recommended practice.

The code 'EN' is employed here to represent 'English' by way of example only, pending the availability of a standard coding scheme.
Appendices

Appendix A (provisional)

COUNTRY CODES

An ISO Standard for country codes is in the course of preparation, and it had been hoped that it would be available by the date of publication of this first edition of the UNISIST Reference Manual. In the event, approval of the draft Standard has been delayed. Nevertheless, publication of a Standard is expected in the near future, and users of the Manual are referred to the Secretariat of ISO/TC46 for information on this point.

While it is impossible at this time to provide a reference to an agreed Standard, examples given in the text of the Manual have been taken from an ISO draft: they must, not, however be treated as authoritative.

This Appendix will be replaced as soon as the proposed ISO Standard becomes available.

Appendix B (provisional)

LANGUAGE CODES

An ISO Standard for language codes is in the course of preparation, to replace an existing Recommendation (ISO/R639), which is now considered to be incomplete and unsuitable for use in machine systems.

Users of the Reference Manual are referred to the Secretariat of ISO/TC37 for information on this point.

This Appendix will be replaced as soon as the proposed ISO Standard becomes available.

Appendix C (provisional)

TRANSLITERATION SCHEMES

Section C.1 in this appendix covers transliteration or transcription of languages which use non-Roman alphabets. Section C.2 covers transcription of languages which use a modified Roman alphabet. In both cases the objective is to represent the required character set within the limitations of a basic Roman alphabet, comprising letters a-z, without accents or diacriticals, so that it can readily be processed in machine-readable form. To this end, it is sometimes necessary to sacrifice the ability to convert back unambiguously from the transliterated form to the original alphabet.

C.1 Transliteration or transcription of non-Roman alphabets

At the time of compiling the present version of the Reference Manual, the only full transliteration scheme available is for the Cyrillic alphabet and its variants. Other alphabets will be added as and when suitable transliteration systems can be adopted.

C.1.1 Cyrillic

The tables on the following three pages give a full, non-reversible, transliteration scheme for the Cyrillic alphabet, based rather closely on current ISO Recommendations, but with all diacritical marks eliminated.
<table>
<thead>
<tr>
<th>Letter number</th>
<th>Cyrillic char.</th>
<th>Used in</th>
<th>Proposed Unisist</th>
<th>UNISIST</th>
<th>translit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>printed</td>
<td>manuscript</td>
<td>Russian</td>
<td>Ukraine</td>
<td>Belarus</td>
</tr>
<tr>
<td>7</td>
<td>т т я я й й</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>8</td>
<td>г г и и й й</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>9</td>
<td>е(3) е(3) е(3) е(3)</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>10</td>
<td>е Е Е Е Е</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>ж ж ж ж</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>12</td>
<td>з з з з</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>13</td>
<td>3 3 3 3</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>и и и и</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>15</td>
<td>ы ы ы ы</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>16</td>
<td>ю ю ю ю</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>й й й й</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>18</td>
<td>й й й й</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>19</td>
<td>к к к к</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>20</td>
<td>л л л л</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>21</td>
<td>м м м м</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>22</td>
<td>н н н н</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>23</td>
<td>ю ю ю ю</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>24</td>
<td>o o o o</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>25</td>
<td>р р р р</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>26</td>
<td>с с с с</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>27</td>
<td>т т т т</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Letter number</td>
<td>Cyrillic char.</td>
<td>Used in</td>
<td>Proposed transl.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>----------------</td>
<td>---------</td>
<td>------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>printed</td>
<td>manuscript</td>
<td>Russian</td>
<td>Ukraine</td>
<td>Belarus</td>
</tr>
<tr>
<td>30</td>
<td>ɐ</td>
<td>ɐ</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>ｋ</td>
<td>ｋ</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>ь</td>
<td>ь</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>33</td>
<td>ь</td>
<td>ь</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Ї</td>
<td>Ї</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>35</td>
<td>х</td>
<td>ҳ</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>36</td>
<td>у</td>
<td>ў</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>37</td>
<td>ъ</td>
<td>ъ</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>38</td>
<td>ъ</td>
<td>ъ</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>ћ</td>
<td>ћ</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>40</td>
<td>ћ</td>
<td>ћ</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Є</td>
<td>Є</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>42</td>
<td>Є</td>
<td>Є</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Є</td>
<td>Є</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>44</td>
<td>Є</td>
<td>Є</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Є</td>
<td>Є</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>Є</td>
<td>Є</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>47</td>
<td>Є</td>
<td>Є</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>48</td>
<td>Є</td>
<td>Є</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C.2 Transcription of accented letters in languages which use a modified Roman alphabet

**French**
- ç to be represented by c
- all other accents to be suppressed (acute, grave, circumflex, etc.)

**German**
- ä to be represented by ae
- ö to be represented by oe
- ü to be represented by ue

**Scandinavian languages**
- å to be represented by aa
- ø to be represented by oe

**Spanish**
- ñ to be represented by n
Appendix D

ICIREPAT CODES FOR PATENT DOCUMENTS

In fields A33 and A38, reference is made to the ICIREPAT code as the preferred means of identifying 'type of patent document'. This Appendix embodies an ICIREPAT paper which defines a 'standard code for identification of different kinds of patent document', and lists a substantial number of known types of document.

It will be noted that in fields A33 and A38 the ICIREPAT code is specified as a two-character fixed-length code. This Appendix defines only the first character, which is always a letter of the Roman alphabet. The second character, which is numeric, will be defined by national patent offices. If only the first character is known, it is recommended that the second character position be entered as '11' (blank or space).

STANDARD CODE FOR IDENTIFICATION OF DIFFERENT KINDS OF PATENT DOCUMENTS

Introduction

1. The recommendation provides for groups of letter codes in order to distinguish patent documents. The letter codes also facilitate the storage and retrieval of such documents.

2. If any Office wants to amplify the information contained in the letter code, this letter code may be optionally associated with a numerical code. The meaning of such numerical code should then be defined by each Patent Office availing itself of this option.

3. The code also provides for a letter for non-patent literature documents (N) and for documents to be restricted to the internal use of Patent Offices (X) (e.g. confidential documents, not to be disclosed outside the Office). See in this respect also SI.1 (ICIREPAT Manual pages 4.3.1.1 to 4.3.1.4).

Definitions

4. For the purposes of this recommendation, the expression "patent documents" includes patents for inventions, inventors' certificates, utility certificates, utility models, patents or certificates of addition, inventors' certificates of addition, utility certificates of addition and published applications therefor.

5. For the purposes of this recommendation, the term "entry in an official gazette" means at least one comprehensive announcement in an official gazette regarding the making available to the public of the complete text, claims (if any) and drawings (if any) of a patent document.

6. For the purposes of this recommendation, the terms "publication" and "published" are used in the sense of
   (i) making available to the public for inspection or copying on request
   (ii) reproducing in multiple copies
   (iii) printing
   of a patent document.

   Explanation: If, at a particular procedural stage, a copy of the document is first made available to the public for inspection or copying and is then, at the same procedural stage, printed or reproduced in multiple copies, only a single publication is considered to have occurred. If, on the other hand, printing or multiple reproduction results from a new procedural stage, this printing is considered to be a further publication of the document, even if the texts at the two stages are identical.

7. According to certain national patent laws or regulations, the same patent application may be published at various procedural stages. For the purposes of this recommendation, a publication level is defined as the level corresponding to a procedural stage at which normally a document is published under a given national patent law.

Recommendation

8. It is recommended that the code:
   (a) be used for the recording of the "kind of document" in machine-readable data carriers, such as 80-column punched cards, magnetic tapes, aperture cards, etc.;
   (b) be used on the first page of patent documents, preferably near the document number, if these have been published in the sense of paragraph 6;
4.3.8.2(E)

(c) be used in entries in official gazettes or, if all entries in a section of the Gazette relate to the same kind of a document at the beginning of such a section.

9. Code

The code is subdivided into mutually exclusive groups of letters. The groups characterize patent documents and documents specified in paragraph 3. Groups 1 - 5 comprise one or several letters enabling identification of documents pertaining to different publication levels.

**GROUP 1**

Use for primary or major series of patent documents

- A First publication level
- H Second publication level
- C Third publication level

**GROUP 2**

Use for secondary series of patent documents

- E First publication level
- F Second publication level
- G Third publication level

**GROUP 3**

Use for further series of patent documents, as the special requirements of each Office may be

- N
- I

**GROUP 4**

Use for medicament patent documents

- M

**GROUP 5**

Use for utility model documents having a numbering series other than the documents of Group 1

- U First publication level
- Y Second publication level
- Z Third publication level

**GROUP 6**

Other (see paragraph 3)

- N Non-patent literature documents
- X Documents restricted to the internal use of Offices

10. It is understood that documents resulting from a patent application and being identified as the major series will fall under Group 1 (e.g. DP Offenlegungsschrift, Auslegeschrift and Patentschrift). However, documents identified as a secondary series will fall under Group 2 (e.g. EP patent of addition under old law, US issued). In exceptional cases of need for a further series, Group 3 is reserved for such purposes (e.g. US defensive publication). Group 4 applies only, at present, to special documents concerning the medicament patents published in France. If any country would publish similar documents, Group 4 should then be used.

11. As indicated in paragraph 2, the above letter code may optionally be associated with a numerical code to amplify the information represented by the letter code. For this numerical code, only digits 1 to 9 should be used. The significance of this code will be defined by any national Office applying such code and communicated to the International Bureau, which will publicize this information. The numerical code must always be interpreted in conjunction with the country code and the above letter code.

12. As an appendix to this recommendation a list of patent documents, past and currently published, and intended to be published in the future, divided in accordance with the code, is given.

(Appendices I & II follow)

Original: STAC III No. 43d, expanded to STAC III No. 93a
Adopted by first session of TC
Revised and adopted by fifth session of TCST (document IC/TCST/17(73), Annex III)
Revised version amended and adopted by tenth session of TC (document IC/TC/4/5/1), Annex IV
Amended and adopted by fifth PLC ordinary session (document IC/1/IC/5/11, paragraphs 65 to 68)

[Signatures]

Date April 1974
## Appendix I

### List of Patent Documents, Past and Currently Published, and Intended to be Published in the Future, Divided in Accordance with this Code

**Code: A**

**Patent Documents Numbered in Primary or Major Series - First Publication Level**

<table>
<thead>
<tr>
<th>Country</th>
<th>Document Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Patent Application published in the sense of paragraph 6(i)</td>
</tr>
<tr>
<td>Belgium</td>
<td>Brevet d'invention/Uitvindingsoctrooi</td>
</tr>
<tr>
<td>Belgium</td>
<td>Brevet de perfectionnement/Verbeteringsoctrooi</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>Opisanie na izobretanie po patent</td>
</tr>
<tr>
<td>Canada</td>
<td>Patent</td>
</tr>
<tr>
<td>Cuba</td>
<td>Patent Application published in the sense of paragraph 6(i)</td>
</tr>
<tr>
<td>Czechoslovakia</td>
<td>Patent Application published in the sense of paragraph 6(i)</td>
</tr>
<tr>
<td>Czechoslovakia</td>
<td>Inventors' Certificate Application published in the sense of paragraph 6(i)</td>
</tr>
<tr>
<td>Denmark</td>
<td>Patent Application published in the sense of paragraph 6(i)</td>
</tr>
<tr>
<td>Egypt</td>
<td>Patent specification</td>
</tr>
<tr>
<td>Finland</td>
<td>Patent Application published in the sense of paragraph 6(i)</td>
</tr>
<tr>
<td>France</td>
<td>Brevet d'invention (old law)</td>
</tr>
<tr>
<td>France</td>
<td>Brevet d'invention, première et unique publication</td>
</tr>
<tr>
<td>France</td>
<td>Certificat d'addition à un brevet d'invention, première et unique publication</td>
</tr>
<tr>
<td>France</td>
<td>Certificat d'utilité, première et unique publication</td>
</tr>
<tr>
<td>France</td>
<td>Demande de brevet d'invention, première publication</td>
</tr>
<tr>
<td>France</td>
<td>Demande de certificat d'addition à un brevet d'invention, première publication</td>
</tr>
<tr>
<td>Germany</td>
<td>Patentschrift (Ausschliessungspatent)</td>
</tr>
<tr>
<td>Germany</td>
<td>Patentschrift (Wirtschaftspatent)</td>
</tr>
<tr>
<td>Hungary</td>
<td>Patent Application published in the sense of paragraph 6(i)</td>
</tr>
<tr>
<td>India</td>
<td>Patent specification</td>
</tr>
<tr>
<td>Ireland</td>
<td>Patent specification</td>
</tr>
<tr>
<td>Italy</td>
<td>Brevetto per invenzione industriale</td>
</tr>
<tr>
<td>Japan</td>
<td>Kokai tokyo koho</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>Brevet d'invention</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>Certificat d'addition à un brevet d'invention</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Ter inzage gelegde octrooianvrage</td>
</tr>
<tr>
<td>Norway</td>
<td>Patent Application published in the sense of paragraph 6(i)</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Patent specification</td>
</tr>
<tr>
<td>Code</td>
<td>Patent Documents Published in Primary or Major Series - Second Publication Level</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>A</td>
<td>Examples: PUB Patent specification</td>
</tr>
<tr>
<td></td>
<td>Austria Patent specification</td>
</tr>
<tr>
<td></td>
<td>Cuba Patentschrift</td>
</tr>
<tr>
<td></td>
<td>Czechoslovakia Patent specification</td>
</tr>
<tr>
<td></td>
<td>Denmark Patentschrift</td>
</tr>
<tr>
<td></td>
<td>Finland Kuulutusjulkaisu - Utläggningsskrift</td>
</tr>
<tr>
<td></td>
<td>France Brevet d'invention, deuxième publication de l'invention</td>
</tr>
<tr>
<td></td>
<td>France Certificat d'addition à un brevet d'invention, deuxième publication de l'invention</td>
</tr>
<tr>
<td></td>
<td>France Certificat d'utilité, deuxième publication de l'invention</td>
</tr>
<tr>
<td></td>
<td>Germany, Federal Republic of Auslegeschrift</td>
</tr>
<tr>
<td></td>
<td>Hungary Szabadalmi leírás</td>
</tr>
<tr>
<td></td>
<td>Japan Tokkyo koho</td>
</tr>
<tr>
<td></td>
<td>Netherlands Openbaar gemaakte octrooi aanvrage</td>
</tr>
<tr>
<td></td>
<td>Norway Utläggningsskrift</td>
</tr>
<tr>
<td></td>
<td>Sweden Utläggningsskrift</td>
</tr>
<tr>
<td></td>
<td>Switzerland Patentschrift/Exposé d'invention/Esposato d'invenzione</td>
</tr>
<tr>
<td></td>
<td>(Patent published in the sense of paragraph 6(iii) and pertaining to the technical fields for which neither search nor examination as to novelty is made)</td>
</tr>
<tr>
<td>B</td>
<td>Examples: Australia Patent specification</td>
</tr>
<tr>
<td></td>
<td>Austria Patentschrift</td>
</tr>
<tr>
<td></td>
<td>Cuba Patente de invención</td>
</tr>
<tr>
<td></td>
<td>Czechoslovakia Popis vynálezu k patentu</td>
</tr>
<tr>
<td></td>
<td>Denmark Fremlaeggelsesskrift</td>
</tr>
<tr>
<td></td>
<td>Finland Kuulutusjulkaisu - Utläggningsskrift</td>
</tr>
<tr>
<td></td>
<td>France Brevet d'invention, deuxième publication de l'invention</td>
</tr>
<tr>
<td></td>
<td>France Certificat d'addition à un brevet d'invention, deuxième publication de l'invention</td>
</tr>
<tr>
<td></td>
<td>France Certificat d'utilité, deuxième publication de l'invention</td>
</tr>
<tr>
<td></td>
<td>Germany, Federal Republic of Auslegeschrift</td>
</tr>
<tr>
<td></td>
<td>Hungary Szabadalmi leírás</td>
</tr>
<tr>
<td></td>
<td>Japan Tokkyo koho</td>
</tr>
<tr>
<td></td>
<td>Netherlands Openbaar gemaakte octrooi aanvrage</td>
</tr>
<tr>
<td></td>
<td>Norway Utläggningsskrift</td>
</tr>
<tr>
<td></td>
<td>Sweden Utläggningsskrift</td>
</tr>
<tr>
<td></td>
<td>Switzerland Patentschrift/Exposé d'invention/Esposato d'invenzione</td>
</tr>
<tr>
<td></td>
<td>(Patent published in the sense of paragraph 6(iii) and pertaining to the technical fields for which neither search nor examination as to novelty is made)</td>
</tr>
<tr>
<td>C</td>
<td>Examples: Denmark Patent</td>
</tr>
<tr>
<td></td>
<td>Finland Patentti - Patent</td>
</tr>
<tr>
<td></td>
<td>Germany, Federal Republic of Patentschrift</td>
</tr>
<tr>
<td></td>
<td>Netherlands Octrooi</td>
</tr>
</tbody>
</table>
Code: C (continued)
Examples: Norway Patent
Swed,eq Patentskrift

Examples: France Certificat d'addition à brevet d'invention (old law)
United States Reissue

Code: H or I Patent Documents Numbered in Further Series
Examples: United States Defensive publication

Code: I Equipment Patent Documents
Examples: France Brevet spécial de médicament
France Addition à un brevet spécial de médicament

Code: U Utility Model Documents Numbered in Series other than the Documents of Group I: First Publication Level
Examples: Germany, Federal Gebrauchsmuster
Republic of Japan Kokai jitsuyo shinan koho
Spain Utility Model Application published in the sense of paragraph 6(I)

Code: Y Utility Model Documents Numbered in Series other than the Documents of Group I: Second Publication Level
Examples: Japan Jitsuyo shinan koho
Spain Modelo de utilidad

(Appendix II follows)
## Appendix II

### Description of the National Numerical Code Adopted by Each Country Applying II, in Conjunction With the One-Letter Code

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>Demande de brevet d'invention, première publication</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Demande de certificat d'addition à un brevet d'invention, première publication</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Demande de certificat d'utilité, première publication</td>
<td>A</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Demande de certificat d'addition à un certificat d'utilité, première publication</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Brevet d'invention, première et unique publication</td>
<td>A</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Certificat d'addition à un brevet d'invention, première et unique publication</td>
<td>A</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Certificat d'utilité, première et unique publication</td>
<td>A</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Certificat d'addition à un certificat d'utilité, première et unique publication</td>
<td>A</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Brevet d'invention, deuxième publication de l'invention</td>
<td>B</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Certificat d'addition à un brevet d'invention, deuxième publication de l'invention</td>
<td>B</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Certificat d'utilité, deuxième publication de l'invention</td>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Certificat d'addition à un certificat d'utilité, deuxième publication de l'invention</td>
<td>B</td>
<td>4</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Auslegenschaft/Mi-erte Exposé/ Esposto d'invizione (Patent Application published in the sense of paragraph 6(1) and 6(111) and pertaining to the technical fields for which search and examination as to novelty are made)</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Patentschrift/Exposé d'invention/ Esposto d'inversione (Patent published in the sense of paragraph 6(111) and pertaining to the technical fields for which neither search nor examination as to novelty are made)</td>
<td>A</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Patentschrift/Tomàl d'invention/ Esposto d'inversione (Patent published in the sense of paragraph 6(111) and pertaining to the technical fields for which search and examination as to novelty are made)</td>
<td>R</td>
<td>5</td>
</tr>
</tbody>
</table>

**Note:** The document includes a table comparing the national numerical codes adopted by each country with their respective one-letter codes. The codes are used in conjunction with one-letter codes to denote specific types of patent documents. For example, in France, the one-letter code 'A' corresponds to different types of patent documents such as '1' for a first publication of an invention. The table also mentions codes for additional publications and certificates, providing a comprehensive overview of the system used across various countries.
Appendix E

INID NUMBERS FOR IDENTIFICATION OF PATENT DATA ELEMENTS

This Appendix embodies an ICIREPAT paper which defines a set of codes for identification of bibliographic data on the first page of a patent document and in entries in an official gazette. These codes, known as INID numbers, have been referred to in Chapter 1.5 and in the descriptions of individual patent data elements in Part 2.

INID numbers are organized into decimal groups (10, 20, etc.), each of which is subdivided into a number of specific items (12, 13, 14, 21, 22, 23, etc.). The individual codes are used only with the precise meanings defined on subsequent pages. If none of the specific item definitions is applicable, the generic code for the group (ending in *) may be used.

This Appendix is included for reference purposes only, to assist in creating bibliographic records for patent documents which use the INID system. INID numbers are not themselves used in UNISIST exchange records.

ICIREPAT

Recommendation concerning Bibliographic Data

(Identification by INID Codes and Minimum Required)


Introduction

1. The recommendation STAC III No. 62d of September 1967 provides for means whereby the various data appearing on the first page of a patent document can be identified without knowledge of the language used and the laws applied. This recommendation is already successfully applied by various Patent Offices.

2. The recommendation STAC III No. 77a of September 1967 likewise provides for means whereby the various data appearing in entries in official gazettes and like publications can be identified.

3. It was considered necessary to revise these recommendations in certain respects in the light of experience with their use.

4. It was also considered necessary to include in the recommendation an indication of the minimum bibliographic data to be provided on the first page of such a document, and in an entry in such a gazette, in order to give the information required for subject-matter and legal patent searches, including finding patent families, and for documentation purposes, such as the compiling of indexes.

Definitions

5. "Patent documents" includes patents, inventor's certificates, utility models or certificates, and applications thereof.

6. "Documents" means patent documents unless otherwise stated.

7. "Making available to the public" means (a) publication by printing or similar process or (b) laying open for public inspection and copying on request.

8. "Entry in an official gazette" means at least one comprehensive announcement in an official gazette, regarding the making available to the public of the complete text, claims (if any) and drawings (if any) of a patent document.

9. "INID" is an acronym for "ICIREPAT Numbers for the Identification of Data."

General

10. The INID codes should be associated with the corresponding data elements in so far as these elements normally appear on the first page of the document or in the entry in the official gazette. The INID codes should preferably be indicated using Arabic numerals within small circles or — if this is not feasible — in parentheses, immediately before the corresponding data element. Provided the presentation of bibliographic data elements in entries in an official gazette is uniform, INID codes may be applied to the data elements in a representative specimen entry in each gazette issued instead of being included in each entry.

11. If data elements to which INID codes are assigned in accordance with this recommendation do not appear on the first page of a document or in an entry in an official gazette because they are not applicable (e.g., when no priority is claimed) or for some other reason — it is not necessary to call attention to the non-existence of such elements (e.g., by leaving a space or by providing the relevant INID code followed by a dash).

12. Two or more INID codes may be assigned to a single data element when necessary.

13. The list of data elements has been organized into categories (10, 20 ... 70) to facilitate grouping of related elements. Each category has two or more sub-divisions to each of which an INID code has been assigned. If none of the specific codes can be assigned to a data element which clearly falls within the category definition, the relevant category code, ending in 0, should be used.

14. In order that the users of patent documents and official gazettes may be enabled to make maximum use of these INID codes, it is recommended that a list of the codes be published in Patent Office or other official publications, e.g. official gazettes, at regular intervals.

Implementation

15. It is, of course, open to each Patent Office to implement this recommendation either in its entirety or to some lesser extent, whichever it finds more convenient.

(10) Document Identification

* (11) Number of the document

* (15) ICIREPAT country code, or other identification, of the country publishing the document

* (9) Minimum data element for documents only

(20) Domestic filing data

* (21) Number(s) assigned to the application(s), e.g. "Number d'enregistrement national ", "Aktenzeichen"

* (22) Date(s) of filing application(s)

* (28) Other date(s) of filing, including examination filing date and date of filing complete specification following provisional specification
Appendix F

TABLES FOR CALCULATING CODEN CHECK CHARACTERS

Tables 1 and 2 on following pages are to be used for the manual calculation of CODEN check characters, in accordance with the look-up method described below. The algorithm for calculating CODEN check characters by computer programme is given in the notes on field A02.

Instructions for use

Look up the character in each position of the CODEN (proceeding from left to right) in the “CHARACTER” column of Table 1. Move right to the appropriate value column for the particular position of CODEN under consideration. Add the numeric value found to a cumulative total for all positions of the CODEN under consideration. When all five (5) positions have been handled and their values accumulated, search for the accumulated value in the “TOTAL” column of Table 2. The correct check character is to the immediate right of the “TOTAL” value.

Example: The check character for the CODEN “BOOKA” is found by calculating the sum of the position values for the characters of the CODEN as follows:

From Table 1:

- B = 22
- O = 3
- O = 7
- K = 33
- A = 1

Total = 66

By reference to Table 2, a total of 66 gives the check character = 7

CODEN is then BOOKA7
<table>
<thead>
<tr>
<th>Character</th>
<th>Pos 1</th>
<th>Pos 2</th>
<th>Pos 3</th>
<th>Pos 4</th>
<th>Pos 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>11</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>B</td>
<td>22</td>
<td>14</td>
<td>10</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>C</td>
<td>33</td>
<td>21</td>
<td>15</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>D</td>
<td>10</td>
<td>28</td>
<td>12</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>E</td>
<td>21</td>
<td>1</td>
<td>25</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>F</td>
<td>32</td>
<td>8</td>
<td>30</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>G</td>
<td>9</td>
<td>15</td>
<td>1</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>H</td>
<td>22</td>
<td>22</td>
<td>6</td>
<td>24</td>
<td>8</td>
</tr>
<tr>
<td>I</td>
<td>31</td>
<td>29</td>
<td>11</td>
<td>27</td>
<td>9</td>
</tr>
<tr>
<td>J</td>
<td>8</td>
<td>2</td>
<td>16</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>K</td>
<td>19</td>
<td>9</td>
<td>21</td>
<td>33</td>
<td>11</td>
</tr>
<tr>
<td>L</td>
<td>30</td>
<td>16</td>
<td>26</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>M</td>
<td>7</td>
<td>23</td>
<td>31</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>N</td>
<td>18</td>
<td>30</td>
<td>2</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>O</td>
<td>29</td>
<td>3</td>
<td>7</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>P</td>
<td>6</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>Q</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>R</td>
<td>28</td>
<td>24</td>
<td>22</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>S</td>
<td>5</td>
<td>31</td>
<td>27</td>
<td>23</td>
<td>19</td>
</tr>
<tr>
<td>T</td>
<td>16</td>
<td>32</td>
<td>26</td>
<td>26</td>
<td>21</td>
</tr>
<tr>
<td>U</td>
<td>27</td>
<td>11</td>
<td>3</td>
<td>29</td>
<td>22</td>
</tr>
<tr>
<td>V</td>
<td>4</td>
<td>18</td>
<td>8</td>
<td>32</td>
<td>23</td>
</tr>
<tr>
<td>W</td>
<td>15</td>
<td>25</td>
<td>13</td>
<td>1</td>
<td>24</td>
</tr>
<tr>
<td>X</td>
<td>26</td>
<td>32</td>
<td>18</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>Y</td>
<td>3</td>
<td>5</td>
<td>23</td>
<td>7</td>
<td>26</td>
</tr>
<tr>
<td>Z</td>
<td>14</td>
<td>12</td>
<td>28</td>
<td>15</td>
<td>26</td>
</tr>
<tr>
<td>Character</td>
<td>Pos 1</td>
<td>Pos 2</td>
<td>Pos 3</td>
<td>Pos 4</td>
<td>Pos 5</td>
</tr>
<tr>
<td>-----------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>1</td>
<td>25</td>
<td>19</td>
<td>33</td>
<td>13</td>
<td>27</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>26</td>
<td>4</td>
<td>16</td>
<td>28</td>
</tr>
<tr>
<td>3</td>
<td>13</td>
<td>33</td>
<td>9</td>
<td>19</td>
<td>29</td>
</tr>
<tr>
<td>4</td>
<td>24</td>
<td>6</td>
<td>14</td>
<td>22</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>13</td>
<td>19</td>
<td>25</td>
<td>31</td>
</tr>
<tr>
<td>6</td>
<td>12</td>
<td>20</td>
<td>24</td>
<td>28</td>
<td>32</td>
</tr>
<tr>
<td>7</td>
<td>23</td>
<td>27</td>
<td>29</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>8</td>
<td>Ø</td>
<td>Ø</td>
<td>Ø</td>
<td>Ø</td>
<td>Ø</td>
</tr>
<tr>
<td>9</td>
<td>11</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Ø</td>
<td>22</td>
<td>14</td>
<td>1Ø</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Total Check Character</td>
<td>Total Character</td>
<td>Total Check Character</td>
<td>Total Check Character</td>
<td>Total Check Character</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------</td>
<td>-----------------------</td>
<td>-----------------------</td>
<td>-----------------------</td>
<td></td>
</tr>
<tr>
<td>Ø 9</td>
<td>24 X</td>
<td>48 N</td>
<td>72 D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 A</td>
<td>25 Y</td>
<td>49 O</td>
<td>73 E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 B</td>
<td>26 Z</td>
<td>50 P</td>
<td>74 F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 C</td>
<td>27 2</td>
<td>51 Q</td>
<td>75 G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 D</td>
<td>28 3</td>
<td>52 R</td>
<td>76 H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 E</td>
<td>29 4</td>
<td>53 S</td>
<td>77 I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 F</td>
<td>30 5</td>
<td>54 T</td>
<td>78 J</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 G</td>
<td>31 6</td>
<td>55 U</td>
<td>79 K</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 H</td>
<td>32 7</td>
<td>56 V</td>
<td>80 L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 I</td>
<td>33 8</td>
<td>57 W</td>
<td>81 M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 9</td>
<td>34 9</td>
<td>58 X</td>
<td>82 N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 K</td>
<td>35 A</td>
<td>59 Y</td>
<td>83 O</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 L</td>
<td>36 B</td>
<td>60 Z</td>
<td>84 P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 M</td>
<td>37 C</td>
<td>61 2</td>
<td>85 Q</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 N</td>
<td>38 D</td>
<td>62 3</td>
<td>86 R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 O</td>
<td>39 E</td>
<td>63 4</td>
<td>87 S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 P</td>
<td>40 F</td>
<td>64 5</td>
<td>88 T</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 Q</td>
<td>41 G</td>
<td>65 6</td>
<td>89 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 R</td>
<td>42 H</td>
<td>66 7</td>
<td>90 V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 S</td>
<td>43 I</td>
<td>67 8</td>
<td>91 W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 T</td>
<td>44 J</td>
<td>68 9</td>
<td>92 X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 U</td>
<td>45 K</td>
<td>69 A</td>
<td>93 Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22 V</td>
<td>46 L</td>
<td>70 B</td>
<td>94 Z</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 W</td>
<td>47 M</td>
<td>71 C</td>
<td>95 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Check Character</td>
<td>Total Check Character</td>
<td>Total Check Character</td>
<td>Total Check Character</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------</td>
<td>-----------------------</td>
<td>-----------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>96 3</td>
<td>129 R</td>
<td>144 H</td>
<td>168 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>97 4</td>
<td>121 S</td>
<td>145 I</td>
<td>169 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>98 5</td>
<td>122 T</td>
<td>146 J</td>
<td>170 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>99 6</td>
<td>123 U</td>
<td>147 K</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100 7</td>
<td>124 V</td>
<td>148 L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>101 8</td>
<td>125 W</td>
<td>149 M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>102 9</td>
<td>126 X</td>
<td>150 N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103 A</td>
<td>127 Y</td>
<td>151 O</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>104 B</td>
<td>128 Z</td>
<td>152 P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>105 C</td>
<td>129 2</td>
<td>153 Q</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>106 D</td>
<td>130 3</td>
<td>154 R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>107 E</td>
<td>131 4</td>
<td>155 S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>108 F</td>
<td>132 5</td>
<td>156 T</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>109 G</td>
<td>133 6</td>
<td>157 U</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>110 H</td>
<td>134 7</td>
<td>158 V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>111 I</td>
<td>135 8</td>
<td>159 W</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>112 J</td>
<td>136 9</td>
<td>160 X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>113 K</td>
<td>137 A</td>
<td>161 Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>114 L</td>
<td>138 B</td>
<td>162 Z</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>115 M</td>
<td>139 C</td>
<td>163 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>116 N</td>
<td>140 D</td>
<td>164 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>117 O</td>
<td>141 E</td>
<td>165 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>118 P</td>
<td>142 F</td>
<td>166 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>119 Q</td>
<td>143 G</td>
<td>167 6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Items marked with an asterisk (*) are considered essential for users of the Reference Manual.

1 ISO 2709 - 1973: Documentation - Format for bibliographic information interchange on magnetic tape.
5 CIREPAT Recommendations concerning bibliographic data on the first page of a patent document and in entries in an official gazette. (Incorporated in Appendix E).
8 ISO/R4 - 1972: Documentation - International code for the abbreviation of titles of periodicals.
9 ISO 823 - 1973: Documentation - International list of periodical title-word abbreviations.
12 ISO/R646 - 1973: 7-bit coded character sets for information processing interchange.
13 GOST 1 3052-67 (USSR standard for 7-bit coded character sets).