

IFLA Universal Bibliographic Control and International MARC Core Programme (UBCIM)

UNIMARC Guidelines no. 6

Electronic Resources

2000-08-22

1 INTRODUCTION

The following Guideline shows how the UNIMARC format is to be used when creating records for electronic resources. This Guideline was developed under the auspices of the IFLA Universal Bibliographic Control and International MARC (UBCIM) Programme. It results from meetings of the IFLA Permanent UNIMARC Committee and the requirements of the International Standard Bibliographic Description for Electronic Resources, ISBD(ER). At these meetings data elements used to describe electronic resources were compiled and their location in UNIMARC was determined.

Besides additional fields or content designators redefinition of existing fields may prove necessary in the future. As a result of the publication of ISBD(ER) certain changes were made to the UNIMARC Manual. Owing to the increasing use of UNIMARC for electronic resources and other non-book material and media, requirements for yet additional data may be encountered. They should be brought to the attention of the IFLA UBCIM Programme Office.

Section 2 of the Guideline indicates the general model for encoding UNIMARC records for electronic resources. The following section lists data elements commonly included in bibliographic descriptions of electronic resources and indicates where each data element would be placed in a UNIMARC record. Section 4 gives examples of full records for electronic resources.

This version of the Guideline takes account of the expansion of field 135, details of which were published in the UNIMARC Manual Update 3. The new values (from character position 2 onwards) are also described in MARC 21 Bibliographic field 007 for computer files on

<http://lcweb.loc.gov/marc/bibliographic/ecbd007s.html#mrcb007c>

2 UNIMARC MODEL FOR ELECTRONIC RESOURCES

The UNIMARC bibliographic format contains data elements for the specification, description and identification of electronic resources. Electronic resources consist of materials that are computer-controlled, including materials that require the use of a peripheral attached to a computer. That includes two types of resources:

- Data (information in the form of numbers, letters, graphics, images, and sound, or a combination thereof)
- Programs (instructions or routines for performing certain tasks including the processing of data).

In addition, they may be combined to include electronic data and programs (e.g. online services, interactive multimedia).

Electronic resources are treated in two ways depending on whether access is local or remote:

- Local access is understood to mean that a physical carrier can be described, which is to be inserted into a computer or a peripheral attached to a computer (e.g. disk/disc,

cassette, tape, cartridge).

- Remote access is understood to mean that no physical carrier can be handled by the user - typically access can only be provided by use of an input-output device either connected to a computer system (e.g. a resource in a network or time-sharing environment) or by use of resources stored in a hard disk or other storage device.

When the electronic resource is available in different types of carriers, and/or in different sizes of carriers, or in a different output medium or display format, the bibliographic agency may choose either of two methods of description:

- Each different physical carrier may be described in the same bibliographic record, with each carrier occupying a separate line or else grouped in a single line in the description.
- Each different physical carrier may be described in separate bibliographic records.

For further information see ISBD(ER), 5, Introductory note.

As it is the case with other materials, cataloguing and bibliographic description of electronic resources is based on the item. The UNIMARC record for an electronic resource therefore does not differ in general from the structure of UNIMARC record for other materials. The data necessary for the bibliographic description may be taken from the following sources in order of preference:

- Sources internal to the electronic resource, provided that such information is formally presented (e.g. in the title screen, main menu, program statements, first display of information, file header, home page or other identifying information prominently displayed). When the information varies in degrees of fullness in these sources, the source is to be preferred which provides the fullest or most complete information.
- Other sources in the following order of preference when information in the internal sources is insufficient or unavailable:
 - Labels permanently affixed to or imprinted on the physical carrier of the resource
 - Documentation, containers, or other accompanying material (e.g. publisher's letter)
 - Any other published description of the resource (e.g. bibliographic databases, reviews).

For further information on sources of information see ISBD(ER), 0.5.

Some electronic resources may share characteristics with other types of documents, e.g. an electronic serial (Example 6). In these cases other ISBDs may need to be consulted as well.

"...ISBD (ER), page 2, gives two options for cataloguing electronic resources which share the characteristics of another form: one is to catalogue the item as an electronic resource and add details of the additional characteristics; the other is to catalogue the item following the rules of the other relevant ISBD and add the electronic resource details. In the case of a digitised map, the first option would lead to a catalogue record with a character position 6 of 'l'; the record would describe the item as an electronic resource with additional coded fields and notes giving the cartographic details. The second option would lead to a catalogue record with a character position 6 of 'e'; the record would describe the item as a map with additional coded fields and notes giving those details applicable to the electronic resource." - UNIMARC Manual, Record label (as amended in Update 3).

3 DATA ELEMENTS AND UNIMARC LOCATIONS

Any applicable UNIMARC field or subfield may be used for the description of electronic resources. The following data elements are frequently required to support access to and display of electronic resources. In addition any other data elements from UNIMARC may be used in a record for an electronic resource.

	UNIMARC Location
--	-----------------------------

Title: Title as it appears on internal sources (opening screen, formal title screen, first display of information, header of the electronic resource etc.) container, labels on the physical carrier, documentation, containers, or other accompanying material	200
Parallel Title: Title in another language appearing on the electronic resource	510
Author(s) Authors, programmers of the computer files as listed on the electronic resource	200\$f \$g and/or 700, 701, 710, 711
Author affiliation(s): Institutional affiliations of the authors, programmers at the time the electronic resources were written or programmed	700\$p, 701\$p, 710\$p, 711\$p
Edition statement: Any term, phrase or group of characters relating to: A) all copies of an item formally identified as constituting a named and/or numbered edition; or B) all the copies of an item in a particular form of presentation having significant differences, in intellectual or artistic content, from other copies in the same form of presentation, whether or not the item bears any formal statement to that effect.	205
Publication, distribution	210
Physical description of the electronic resource: To be omitted for remotely accessed electronic resources, because there is no physical item. Electronic resource characteristics is used instead (see below).	215
Accompanying materials: User handbooks	215, 307
Series	225, 410
Electronic Resource Characteristics Mandatory for remotely accessed electronic resources. A replacement for Physical description of the electronic resource (see above)	230
Availability information: Price units, stock number, agency for ordering a copy of the electronic resource	345, 010, 011
Notes: Type of electronic resource System requirements Notes pertaining to title and statement of responsibility: Source of title proper. Notes pertaining to edition: Licensed by ... Notes pertaining to publication, distribution: Shareware, etc. Notes pertaining to series Notes pertaining to availability Contents notes	336 337 304 305 306 308 310 327 333 856

Users / Intended audience note
Electronic location and access

Coded data:	Record label/6
Qualifying Data:	
Language of electronic resource	101\$a
Target audience	100 /17-19
Publication date	100 /8-16
Country of publication or production	102
Coded data relating to electronic resources: program, representational, textual	135
Other access points	5--
Linking entries	4--

The following table shows the data elements prescribed by ISBD(ER) for the bibliographic description of electronic resources and the corresponding locations in UNIMARC and other important bibliographic information for the bibliographic description of electronic resources:

ISBD (ER)	UNIMARC Location
1. Title and statement of responsibility area	200
2. Edition area	205
3. Type and extent of file area	230
4. Publication, distribution, etc., area	210
5. Physical description area	215
6. Series area	225
7. Note area	3--
Note on source of title proper (Mandatory)	304
Notes relating to type and extent of file area and other files characteristics	336
Notes on system requirements and the physical description area	337, 307
Notes relating to mode of access	856
8. Standard number (or alternative) and terms of availability	010, 011 (and 530), 013, 015, 021, 022, 040

4 FULL RECORD EXAMPLES

Example 1: Computer program on CD ROM

```
||||nlm0#22||||###450#
001 lsp96-1263
005 19960214114210.0
100 ## $a19950109f1989####|||a0engy0103####ba
101 0# $aeng
```

102 ## \$aUS
 105 ## \$a#####c###000yy
 135 ## \$adoug#---nnnuu
 135 ## \$aduo#---nnnuu
 200 1# \$aCongressional masterfile\$bcomputer file\$eCIS
 retrospective congressional databases on CD-ROM,
 1789-1969\$fCongressional Information Service
 205 ## \$aRelease 1.1
 210 ## \$aBethesda\$cCongressional Information Service\$d1989
 215 ## \$a1 compact disk\$d4 ¾ in.\$e2 computer disks ; 5 ¼ in.\$e1 user guide (1 v. loose-leaf ;
 28 cm.)
 230 ## \$aComputer data
 300 ## \$a"Contents of Installation Diskette and Program Diskette ...
 by Quantum Access, Inc." -- User guide
 330 ## \$a"The CIS Congressional Masterfile is a set of
 searchable databases containing bibliographic records for four major
 bodies of congressional documents. The databases correspond in
 coverage to four printed indexes: ... 1. CIS US Congressional
 Committee Prints Index, 1833-1969; 2. CIS Index to Unpublished US
 Senate Committee Hearings, 1823-1964; 3. CIS US Congressional
 Committee Prints Index, 1830-1969; 4. CIS US Serial Set Index,
 1789-1969" -- User guide.
 337 ## \$aSystem requirements: IBM AT (or equivalent); 640K RAM; DOS
 3.1 (or higher); hard disk; Microsoft CD-ROM extensions
 606 ## \$aLegislative hearings\$yUnited States\$xIndexes\$2lc
 607 ## \$aUnited States\$xGovernment documents\$xSources\$xIndexes\$2lc
 660 ## \$an-us---
 710 01 \$aUnited States\$bCongress\$bSenate
 711 02 \$aCongressional Information Service
 712 02 \$aQuantum Access, Inc.
 801 #0 \$aUS\$bNNU\$c19960214\$gAACR2
 801 #1 \$aUS\$bNNU-L\$c19960214

Notes:

200\$b At present the relevant Anglo-American Cataloguing Rules GMD is "computer file".
 The Joint Steering Committee for Revision of AACR has recommended that "electronic
 resource" be adopted instead. 304 Mandatory field (Source of title proper) not present in
 original.

Example 2: Computer program on a diskette

00938nlm0#2200181###450#
 001 00.017499.8
 005 19950109104810.0
 010 ## \$a3-89390-096-9\$din Hülle : DM 19.80
 100 ## \$a19950109f1994####|||y0gery0103####ba
 101 1# \$ager\$ceng
 102 ## \$aDE
 135 ## \$abjcou---uunun
 200 1# \$a*NSB*The *NSE*last half of darkness\$eein spannendes
 Grafik-Adventure\$fSoftlab Laboratories
 210 ## \$a[München]\$cSysthema-Verl.\$d[1994 ?]
 215 ## \$a1 Diskette\$cfarb.\$d5,25"
 230 ## \$aComputerprogramm
 337 ## \$aSystemvoraussetzungen: Personalcomputer PC/XT/AT oder
 PS/2 bzw. dazu Kompatibler, mindestens 512 KB Arbeitsspeicher, MS-DOS

ab Version 3.0, Festplatte mit mindestens 1,7 MB freiem Speicherplatz, EGA- oder VGA-Grafikkarte mit entsprechendem Farbmonitor, möglichst eine Microsoft- (oder dazu kompatible) Maus. - Shareware for greater value. - Mit Bedienungsanleitung
 712 02 \$aSoftlab Laboratories
 801 #0 \$aDE\$bGyFmDB\$c19950109\$gRAK-WB

Notes:

304 Mandatory field (Source of title proper) not present in original.

Example 3: Computer program and data on a CD

|||||nlm0#22||||##450#
 001 frBN018464136
 100 ## \$a19950202d1994####m##y0frey0103####ba
 101 1# \$afre
 102 ## \$aFR
 135 ## \$acoug##--uu|||
 200 1# \$aAlbum de photos\$bdocument électronique\$e101 photos de qualité professionnelles\$fKarel de Gendre
 210 ## \$aParis\$cMicro Application\$d1994
 215 ## \$a1 disque optique numérique\$ccoul.\$d12 cm\$emanuel utilisateur 8 (p.)
 230 ## \$aDonnées (203 fichiers : 471 Mo) et programmes
 304 ## \$aTitre pris sur le disque optique numérique
 327 ## \$aBase de données de 101 images au format Kodak Photo-CD (extension PCD) et au format THN\$aContient également les programmes de visualisation Paintshop Pro 2.0 et Graphic Workshop, version shareware
 336 ## \$aDonnées graphiques
 337 ## \$aConfiguration requise : PC 386 ; 4 Mo RAM ; DOS 5 ; Windows 3.1 ; logiciel de visualisation photo-CD ; moniteur VGA 256 couleurs ; lecteurs de CD-ROM
 700 #1 \$aGendre\$bKarel de\$4070
 801 #0 \$aFR\$bBNF\$c19950607\$gAFNOR

Example 4: Computer program on diskettes (software)

|||||nlm0#22||||##450#
 001 lsp96-1266
 005 19960214085310.0
 100 ## \$a19931210f1993####|||a0engy0103####ba
 101 0# \$aeng
 102 ## \$aUS
 105 ## \$a#####000yy
 135 ## \$abjuau---uun|||
 200 1# \$aPro-Cite for the IBM PC and compatibles\$bcomputer file
 205 ## \$aVersion 2.2.1
 210 ## \$aAnn Arbor, MI.\$cPersonal Bibliographic Software, Inc.\$d[1993?]
 215 ## \$a2 computer disks\$d3 1/2 in.\$e1 user's manual (loose-leaf ; 25 cm.)\$e1 basic guide (ii, 54 p. ; 23 cm.)\$e1 installation guide (40 p. ; 23 cm.)\$e1 reference card
 230 ## \$aComputer data
 304 ## \$aTitle from disk label

327 0# \$aDisk 1. Program disk -- Disk 2. Supplement disk
 330 ## \$aThis program is a system for managing a bibliographic database and formatting bibliographic reading lists.
 337 ## \$aSystem requirements: IBM or compatible; 640K RAM; DOS 3.3 (or higher); fixed disk drive
 606 ## \$aBibliographical citations\$2lc
 606 ## \$aInformation storage and retrieval systems\$2lc
 606 ## \$aBibliography\$xSoftware\$2lc
 606 ## \$aDatabases, Bibliographic\$xSoftware\$2lc
 610 0# \$aProCite for the IBM PC and compatibles
 710 02 \$aPersonal Bibliographic Software, Inc.\$2lc
 801 #0 \$aUS\$bNNC-M\$c19960214\$gAACR2
 801 #2 \$aUS\$bNNC-M\$c19960214
 801 #2 \$aUS\$bCStRLIN\$c19960214

Notes:

200\$b At present the relevant Anglo-American Cataloguing Rules GMD is "computer file". The Joint Steering Committee for Revision of AACR has recommended that "electronic resource" be adopted instead.

Example 5: Electronic document on diskettes

```
|||||nlm0#22||||##450#
001 frBN017709903
010 ## $a2-87728-023-3$d3600 F
100 ## $a19950607d1993####k##c0frey0103####ba
101 0# $afre
102 ## $aFR
135 ## $aaajca#---uu||
200 1# $aComex langues$bdocument électronique$ebase de données multilingues pour l'export agro-alimentaire$fDélégation académique à la formation continue (D.A.F.C.O.) de Montpellier
210 ## $aMontpellier$cDAFCO$d1993
215 ## $a2 disquettes (720 K)$d9 cm$e1 manuel
230 ## $aDonnées (24 fichiers) et programmes (1 fichier)
304 ## $aTitre figurant dans le texte numérisé
336 ## $aDonnées textuelles
337 ## $aConfiguration requise : PC 286 ; 640 K RAM; MS-DOS ;
moniteur couleur ; souris
710 01 $aFrance$bAcadémie de Montpellier$bDélégation académique à la formation continue$4070
801 #0 $aFR$bBNF$c19950607$gAFNOR
```

Example 6: Record for a serial publication

```
|||||nls0#22||||##450#
001 frBN01788026
011 ## $a0994-9895
100 ## $a19950620a198#9999||y0gery0103####ba
101 0# $aeng
102 ## $aFR
110 ## $aaafuz###0uu0
135 ## $adjua#---uuuuu
200 1# $aImmunoclones$bdocument électronique$e[a publication on new monoclonal antibodieshybridomas and other types of immunoclones]$fEuropean Centre of scientific
```

information and communication (CERDIC)\$gpublication manager, L. Réchaussat\$gscientific contribution, J. Polais-Kitabgi and B. Dutertre\$floppy disk version for PC compatibles prepared by R.A. Schravendael
 210 ## \$aSophia-Antipolis\$cCERDIC\$d198?
 215 ## \$aDisquette\$d9 cm
 300 ## \$aNotice red. d'après le n° 11 du vol. 4 (1993, mars)
 326 ## \$aMensuel
 337 ## \$aConfiguration requise : PC 286 ; 680 K RAM ; MS-DOS 3.3
 ; Carte vidéo VGA
 702 #1 \$aRéchaussat\$bL.\$4345
 702 #1 \$aPolais-Kitabgi\$bJ.\$4205
 702 #1 \$aDutertre\$bB.\$4205
 710 02 \$aCentre européen de recherches documentaires sur les immunoclones\$4070
 801 #0 \$aFR\$bBNF\$c19950620\$gAFNOR

Notes:

304 Mandatory field (Source of title proper) not present in original.

Example 7: Multimedia, incl. Electronic resources on CD-ROM

|||||nlm**22||||***450*
 001 ** 999600
 100 ** \$a19980609d1998****km*y0pory0103****ba
 101 2* \$apor\$aeng
 102 ** \$APT
 135 ** \$avocg#---uuuu
 200 1* \$aBiblioteca virtual dos autores portugueses\$bdocumento electrónico\$dVirtual Library of portuguese authors\$fcoord. cient. Ivo Castro... *et al.*
 210 ** \$aLisboa\$cBiblioteca Nacional\$d1998
 215 ** \$a2 cd-rom\$ccolor.\$d12 cm\$emanual do utilizador (*8 p.* ; 13 cm)
 230 ** \$aDados e programas (CD 1: 6730 ficheiros, 1042 directorias, 435 MB; CD2: 9360 ficheiros, 2020 directorias, 482 MB)
 327 1* \$aDisco 1: Crónica de D. Fernando / Fernão Lopes. Os Lusíadas ; rimas / Luís de Camões. Carta de guia de casados / Francisco Manuel de Melo. Sentimento de um ocidental / Cesário Verde. Os Maias / Eça de Queiroz\$aDisco 2: Cantigas de amigo amor e escárnio / Dom Dinis. Carta / Pêro Vaz de Caminha. Auto de Inês Pereira / Gil Vicente. Écloga Aleixo / Sá de Miranda. O cuidar e suspirar / Jorge da Silveira...*et al.*. Menina e moça / Bernardim Ribeiro.
 Peregrinação / Fernão Mendes Pinto. Viagens na minha terra / Almeida Garrett. Maria Moisés / Camilo Castelo Branco. Clepsidra / Camilo Pessanha. Mensagem ; O guardador de rebanhos / Fernando Pessoa. Mau tempo no canal / Vitorino Nemésio
 336 ** \$aTexto (manuscritos originais, ed. modernas, trad., biografias e bibliografias)
 337 ## \$aConfiguração mínima : Pentium 100 ou equivalente; 16 MB RAM; 20 MB livres em disco (mais 20 MB para instalação do Internet Explorer 4.01); Windows 95; placa vídeo 640x480 com 16 bits de cor; leitor de CD de dupla velocidade
 702 #1 \$aCastro,\$bIvo,\$f1945-
 801 #0 \$aPT\$bBNP\$c19980615\$gRPC

Notes:

304 Mandatory field (Source of title proper) not present in original.

Example 8: Serial publication on CD-ROM

|||||nls**22||||***450*

001 ** 802967

011 ## \$a0873-3171

100 ** \$a19960321a19959999km*a0pory0103****ba

101 0* \$apor

102 ** \$aPT

110 ## \$aajaaaa##0yy1

135 ** \$adoug#---uuuuua

200 1* \$aBibliografia nacional portuguesa\$bdocumento electrónico\$fInstituto da Biblioteca Nacional e do Livro, Direcção de Serviços Porbase

210 ** \$aLisboa\$cIBL\$aMadrid\$cChadwick-Healey [distrib.]\$d1995-

215 ** \$aCD-ROM\$eManual do utilizador (53 p.)

230 ** \$aDados e programas (8 directorias; 122 ficheiros)

303 ## \$aCada n. substitui o anterior

326 ## \$aSemestral

336 ** \$aTexto (reg. bibliográficos)

337 ## \$aConfiguração mínima : IBM PC 286,386,486 ou compatível; 640 KB RAM; 512 KB livres; placa gráfica EGA ou VGA; MSDOS 3.2 ou posterior; leitor de CD

433 #1 \$tBoletim de bibliografia portuguesa\$iMonografias\$x0253-3413

433 #1 \$tBoletim de bibliografia portuguesa\$iPublicações em série\$x0253-3421

530 0# \$aBibliografia nacional portuguesa

620 ## \$aLisboa

675 ## \$a015 (469) (0.034) (05)\$vBN\$zpor

712 01 \$aPortugal.\$bInstituto da Biblioteca Nacional e do livro.\$bDirecção de Serviços Porbase\$4650

801 #0 \$aPT\$bBNP\$c19980615\$gRPC

Notes:

304 Mandatory field (Source of title proper) not present in original.

Example 9: Multimedia, incl. electronic resources on CD-ROMs

Record for multimedia ER series

00423nls1#2200157###450#

001 00.017628.1

005 19950109104810.0

100 ## \$a19950109a19911999||y0gery0103####ba

101 0# \$ager

102 ## \$aDE

110 ## \$aaauz###0uu0

105 ## \$a#####z#####

135 ## \$acocg#---uuuuu

200 1# \$aMultimedia-Galerie\$fCarsten Scheibe (Hrsg.)

210 ## \$aMünchen\$cRowohlt-Systhema-Verl.

215 ## \$d12 cm

225 1# \$aColorsof-CD

702 #1 \$aScheibe,\$bCarsten\$4340

801 #0 \$aDE\$bGyFmDB\$c19950109\$gRAK-WB

Notes:

200\$b ISBD(ER) states that the GMD is optional.

Record for one item in the series above

00923nmm2#2200205###450#
 001 00.017629.X
 005 19950109104810.0
 010 ## \$a3-634-20618-7\$din Karton : DM 39.00, sfr 38.00, S
 299.00
 100 ## \$a19950109d1994####|||y0gery0103####ba
 101 0# \$ager
 102 ## \$aDE
 105 ## \$a#####z###000yy
 135 ## \$avocga---uuuu
 200 1# \$aTools, ClipArts, Sounds, Demos und jede Menge Tips und
 Tricks\$fCarsten Scheibe (Hrsg.)
 210 ## \$aMünchen\$cRowohlt-Systhema-Verl.\$d1994
 215 ## \$a1 CD-ROM\$cfarb., mit Ton\$d12 cm\$eBeih. (43 S.)
 225 0# \$aMultimedia-Galerie\$vVol. 2
 225 1# \$aColorsof-CD
 230 ## \$aComputerprogramm
 337 ## \$aSystemvoraussetzungen: 80386er DX-33 oder besser,
 mindestens 2-4 MB RAM, Festplatte, Maus, SuperVGA-Grafikkarte mit hochauflösendem
 Farbmonitor, SoundBlaster-Karte, ab MS-Windows 3.1. - Shareware. - Virengeprüft
 410 1# \$100100.017628.1\$12001 \$aMultimedia-Galerie\$vVol. 2
 702 #1 \$aScheibe,\$bCarsten\$4340
 801 #0 \$aDE\$bGyFmDB\$c19950109\$gRAK-WB

Notes:

200\$b ISBD(ER) states that the GMD is optional. 304 Mandatory field (Source of title proper)
 not present in original.

Example 10: Remotely accessed electronic document on the Internet

|||||nlm0#22|||||##450#
 001 lsp96-1267
 005 19960214152810.0
 100 ## \$a19950616a19959999|||a0engy0103####ba
 101 0# \$aeng
 102 ## \$aUS
 105 ## \$a#####z###000yy
 135 ## \$adrcn#---mu|||
 200 1# \$aBeyond the Internet\$bcomputer file\$ethe transition to the National Information
 Infrastructure\$eproceedings of the Library of Congress Network Advisory Committee,
 December 4-5, 1994
 210 ## \$aWashington, D.C.\$cNetwork Development and MARC Standards Office, Library of
 Congress\$d1995
 225 0# \$aN Network planning paper\$vno. 28
 230 ## \$aComputer data
 300 ## \$aTitle from home page
 310 ## \$aASCII version available via LC MARVEL
 330 ## \$aFull text of the proceedings of the meeting, including the agenda, table of contents,
 list of attendees and speakers, and goals of the meeting
 410 #1 \$aN Network planning paper (Online)\$vno. 28
 606 ## \$aInformation superhighway\$yUnited
 States\$xCongresses\$xDatabases\$2lc
 660 ## \$an-us---
 710 12 \$aN Network Advisory Committee.\$bMeeting\$f(1994 Dec.
 4-5\$eWashington, D.C.)

711 02 \$aLibrary of Congress.\$bNetwork Development and MARC Standards Office
 801 #0 \$aUS\$bDLC\$c19960214\$gAACR2
 856 4# \$uhttp://lcweb.loc.gov/nac/nac28/nactoc.html
 856 7#
 \$ugopher://marvel.loc.gov:70/11/services/libinforg/nac/nac28\$2gopher

Notes:

200\$b At present the relevant Anglo-American Cataloguing Rules GMD is "computer file". The Joint Steering Committee for Revision of AACR has recommended that "electronic resource" be adopted instead. 300 Source of title proper placed in general notes in MARC 21 records (MARC 21 field 500) so has been converted to UNIMARC general notes field 300 not to field 304.

Example 11: Remotely accessed electronic document on the Internet

```
|||||nlm0#2200181###450#
001 123456789
100 ## $a19950105d1991####k|y0engy0103####ba
101 0# $aeng
135 ## $adrnu---uuuuu
200 1# $aWho's who in the Internet$bcomputer file$biographies
of IAB, IESG, and IRSG members$fG. Malkin$gNetwork Working Group
210 ## $d1991
230 ## $aComputer data
300 ## $a"August 1991"
304 ## $aTitle from title screen
330 ## $aBiographical information about members of the Internet Activities Board (IAB), the
Internet Engineering Steering Group (IESG) of the Internet Research Task Force (IETF), the
Internet Research Steering Group (IRSG) and the Internet Research Task Force (IRTF)
336 ## $aText
700 #1 $aMalkin,$bGary Scott
801 #0 $aUS$bDLC$c19960104$gAACR2
856 1# $uftp.sunet.se/pub/Internet-documents/fyi/fyi9.html
856 4# $uhttp://www.globecom.net/ietf/rfc/rfc1336.
856 4#
$uhttp://webrum.uni-mannheim.de/rz/nerz/config/1web/1netz/1inte/1fyi/
9fyi0.htm
$zRestricted access, permission required.
```

Notes:

200\$b At present the relevant Anglo-American Cataloguing Rules GMD is "computer file". The Joint Steering Committee for Revision of AACR has recommended that "electronic resource" be adopted instead.

Example 12: Remotely accessed electronic journal on the Internet

```
|||||nls0#2200181###450#
001 123459876
100 ## $a19900105a19899999km|y0engy0103####ba
101 0# $aeng
135 ## $adrcn---muuuu
200 1# $aQuanta$bcomputer file
210 ## $aPittsburgh, Pa.$cQuanta Magazine$d1989-
230 ## $aComputer data
```

300 ## \$aEditor: Daniel K. Appelquist
 304 ## \$aTitle from title page
 330 ## \$aStories of science fiction and fantasy
 336 ## \$aText
 517 1# \$aQuanta magazine
 801 #0 \$aUS\$bDLC\$c19950214\$gAACR2
 856 4# \$uhttp://www.etext.org/Zines/Quanta/

Notes:

200\$b At present the relevant Anglo-American Cataloguing Rules GMD is "computer file".
 The Joint Steering Committee for Revision of AACR has recommended that "electronic
 resource" be adopted instead. 300 The online file contains a facsimile of the printed title page.

Example 13: Remotely accessed electronic document on the Internet

```
|||||nlm0#2200181###450#
001 987654321
100 ## $a19941216f1992####k||y0engy0103####ba
101 0# $aeng
135 ## $adrunu---uuauu
200 1# $a*NSB*The *NSE*Oedipus trilogy$bcomputer file$fby
Sophocles
210 ## $aLisle, IL$cIllinois Benedictine College$d[1991?]
225 1# $aProject Gutenberg etext
230 ## $aComputer data
300 ## $aTitle from title screen
324 ## $aElectronic text of: Sophocles. The Oedipus trilogy / by
Sophocles ; English translation by F. Storr. Cambridge, Mass. :
Harvard University Press, 1912. (Loeb Library)
327 0# $aOedipus the King$aOedipus at Colonus$aAntigone
336 ## $aText
700 #0 $aSophocles
801 #0 $aUS$bDLC$c19941216$gAACR2
856 1#
$uftp://sailor.gutenberg.org/pub/gutenberg/etext92/oedip10.txt
856 1#
$uftp://src.doc.ic.ac.uk/media/literary/collections/project_gutenberg
/gutenberg/ etext92/oedip10.txt
856 1#
$uftp://uiarchive.cso.uiuc.edu/pub/etext/gutenberg/etext92/oedip10.txt
```

Notes:

200\$b At present the relevant Anglo-American Cataloguing Rules GMD is "computer file".
 The Joint Steering Committee for Revision of AACR has recommended that "electronic
 resource" be adopted instead. 300 Source of title proper placed in general notes in MARC 21
 records (MARC 21 field 500) so has been converted to UNIMARC general notes field 300 not
 to field 304.

856/2 \$u: The space between "gutenberg/" and "extext" in the URL has been added for text
 formatting purposes only. It is not intrinsic to the URL and must be deleted before searching.

Example 14: Multimedia computer files on a CD-ROM

01108nlm0#2200181###450#

001 00.017623.0

005 19950109104810.0
 010 ## \$a3-86126-800-0\$din Kassette : DM 178.00
 100 ## \$a19950109d1994####||y0gery0103####ba
 101 0# \$ager
 102 ## \$aDE
 105 ## \$a#####z###000yy
 135 ## \$avocga---muuu
 200 1# \$aArs Medici\$eärztliche Untersuchungstechniken\$einteraktive Multimedia-CD-ROM\$eenthält über 1500 Bildschirmseiten, mehr als 120 Videoclips, nahezu 2000 Bilder, über 360 Minuten Ton-/Sprachsequenzen - entsprechen einem gesamten Speicherumfang von circa 400 MB\$fStiftung NeoCortex für Interaktive Medien im Bildungswesen\$gEntwicklung dieses Programmes Hanspeter Rohr und seine Mitarb.
 210 ## \$aWiesbaden\$cUllstein Mosby\$d1994
 215 ## \$a1 CD-ROM\$cfarb., mit Ton\$d12 cm
 336 ## \$aText, Graphik (Bilder, Videoclips)
 337 ## \$aSystemvoraussetzungen: IBM-kompatibler PC (Empfehlung 486 DX 50 oder 66 MHz), 8 MB RAM, VGA-Karte (Auflösung 640/480, 256 Farben), Soundblaster-Pro-Karte oder kompatible Karte, DOS ab 5.0, Windows ab 3.1
 702 #1 \$aRohr,\$bHanspeter\$4560
 712 02 \$aStiftung NeoCortex für Interaktive Medien im Bildungswesen
 801 #0 \$aDE\$bGyFmDB\$c19950109\$gRAK-WB

Notes:

200\$b ISBD(ER) states that the GMD is optional. 304 Mandatory field (Source of title proper) not present in original.

Example 15: Computer programs and graphic computer files on a CD-ROM and a diskette

00967nmm1#2200205###450#
 001 00.017500.5
 005 19950109104810.0
 010 ## \$a3-89362-626-3\$din Buchrückentasche : DM 39.00, sfr 37.00, S 332.00
 100 ## \$a19950109d1994####||y0gery0103####ba
 101 1# \$ager\$ceng
 102 ## \$aDE
 105 ## \$a#####z###000yy
 135 ## \$aco
 200 1# \$aGrafikbearbeitung & Morphing\$eMorphing mit PhotoMorph, DMorf und Rmorph, Arbeiten mit Graphic Workshop, Paint Shop Pro, NeoPaint, Tiffy und GIFDesk, zahlreiche Bilder im GIF-, JPEG- und TIFF-Format, Video\$fClaudia Born
 205 ## \$a1. Aufl.
 210 ## \$aMünchen\$cctewi-Verl.\$d1994
 215 ## \$a1 CD-ROM\$cmit Ton, farb.\$d12 cm\$eBenutzerhandbuch (100 S.), 1 Diskette
 225 1# \$atewi-CD
 230 ## \$aComputerprogramm
 336 ## \$aComputergraphik
 337 ## \$aSystemvoraussetzungen: IBM-kompatibler AT 80286 oder höher, 4 MB RAM, 50 MB Festplatte, VGA-Grafikkarte, Soundkarte. - Shareware
 702 #1 \$aBorn,\$bClaudia\$4340
 801 #0 \$aDE\$bGyFmDB\$c19950109\$gRAK-WB

Notes:

200\$b ISBD(ER) states that the GMD is optional.
 304 Mandatory field (Source of title proper) not present in original.

Example 16: Computer program on a CD-ROM

```
00749nlm0#2200169###450#
001 00.017617.6
005 19950109104810.0
010 ## $a3-541-12791-0$din Kassette : DM 298.00
100 ## $a19950109f1994####||y0gery0103####ba
101 1# $ager$ceng
102 ## $aDE
105 ## $a#####z###000yy
135 ## $abocg#---mu|||
200 1# $aMSD-Manual
205 ## $a5. Aufl.
210 ## $a[München$aWien$aBaltimore]$cUrban und
Schwarzenberg$d[1994 ?]
215 ## $a1 CD-ROM$cfarb.$d12 cm
230 ## $aComputerprogramm
337 ## $aEnth. Windows- und DOS-Version. - Systemvoraussetzungen
für Windows-Version: IBM-kompatibler PC mit MS-Windows 3.1, 4 MB RAM.
- Systemvoraussetzungen für DOS-Version: IBM-kompatibler PC mit
MS-DOS ab 3.3, 1 MB RAM, Treibersoftware, VGA-Grafikkarte, Festplatte
ca. 2 MB Speicherplatz
801 #0 $aDE$bGyFmDB$c19950109$gRAK-WB
```

Notes:

200\$b ISBD(ER) states that the GMD is optional.
 304 Mandatory field (Source of title proper) not present in original.

Example 17: Remotely accessed document on the Internet Record for ER series

```
90330002#####
00000ns1#2200000
001 990330002
100 ## $a19990330a199#9999####y0hrvy0103####ba
101 0# $ascr
102 ## $aHR
110 ## $abuu####0xx0tx
135 ## $adrunk---uu|||
200 1# $aIspitna literatura$bElektronicka građa$edigitalna
zbirka$fFilozofski fakultet, Odsjek za informacijske znanosti,
Katedra za bibliotekarstvo$g*uređuje Aida Slavic*
210 ## $a*Zagreb$cFilozofski fakultet$d*199-*-
230 ## $aTekst
300 ## $aStv. nasl. zaslona
300 ## $aInacica stv. nasl.: Digitalna knjižnica Katedre za
bibliotekarstvo
300 ## $aNenumerirana nakladnicka cjelina
517 1# $aDigitalna knjižnica Katedre za bibliotekarstvo
```

801 #0 \$aHR\$bNSK\$cPPIAK

856 4# \$uhttp://www.ffzg.hr/infoz/biblio/nastava/dz/zbirka.htm

Record for the item in the series above

990330001#####00000nlm2#2200000
 001 990330001
 100 ## \$a19990330f1994###y0hrvy0103###ba
 101 0# \$ascr
 102 ## \$aHR
 105 ## \$ay#####000yy
 135 ## \$adrun#---uu|||
 200 1# \$aRad u knji♦nici\$bElektronicka građa\$epriruènik za
 knji♦nicare\$fKatica Tadic
 210 ## \$a*Zagreb\$cFilozofski fakultet\$dposlije 1994*
 225 2# \$aIspitna literatura\$edigitalna zbirka\$fFilozofski
 fakultet, Odsjek za informacijske znanosti, Katedra za
 bibliotekarstvo
 230 ## \$aTekst
 300 ## \$aStv. nasl. s naslovnice
 300 ## \$aDostupno i u tiskanom obliku
 320 ## \$aBibliografija
 327 1# \$aNa nasl. str.: "Sve osim odjeljka o katalogizaciji i
 odjeljka o klasifikaciji"
 410 #1 \$100199033002
 410 #1 \$1001940629118\$150000\$aRad u knji♦nici\$ntiskana
 građa\$1700#1\$aTadic\$bKatica
 675 ## \$a02(035)
 700 #1 \$3940629016\$aTadic\$bKatica
 801 #0 \$aHR\$bNSK\$cPPIAK
 856 4# \$uhttp://www.ffzg.hr/infoz/biblio/nastava/dz/text/katm

Example 18: Serial Publication on CD-ROM

00797nls0#2200229###450#
 001 CFI0414861
 005 1999052712500200
 100 ## \$a19990527a19979999||y0ITAy01||||ba
 101 |# \$aita
 102 ## \$aIT
 135 ## \$adoug#---mu|||
 200 1# \$aEcolo ♦ \$ela banca dati dei nomi e delle ricerche per
 l'ambiente italiano\$fFondazione Lombardia per l'ambiente
 207 ## \$a1997-
 210 ## \$aMilano\$cLA,\$d[1997]-
 215 ## \$a CD-ROM\$d12 cm
 230 ## \$aDati e programmi per computer
 300 ## \$aAnnuale
 304 ## \$aTit. dell'etichetta
 337 ## \$aRequisiti del sistema: Windows 3.1 o superiore; 8 MB RAM;
 VGA, SuperVGA o compatibili; Mouse Microsoft compatibile; Drive
 CD-ROM
 712 02 \$aFondazione Lombardia per l'ambiente\$3MILV088732
 801 #0 \$aIT\$bBNI\$c19990527\$gRICA
 802 ## \$ad

Notes: 200\$b ISBD(ER) states that the GMD is optional.

Example 19: Electronic map and program

00577nlm0#2200193###450#
 001 IEI0107837
 005 1999060115264400
 100 ## \$a19990601d1998####||y0itay01|||||ba
 101 # \$aita\$aeng
 102 ## \$aUS
 135 ## \$avocga---mu|||
 200 1# \$aAtlante mondiale Microsoft Encarta 1999
 210 ## \$a[Redmond]\$c Microsoft Corporation,\$dc1998
 215 ## \$a2 CD-ROM\$csono, color.\$d12 cm
 230 ## \$aDati cartografici e programmi elettronici
 300 ## \$aSito internet: encarta.msn.com/it/
 304 ## \$aTit. delle fonte interna
 801 #0 \$aIT\$bBNI\$c19990601\$gRICA
 802 ## \$ad

Notes: 200\$b ISBD(ER) states that the GMD is optional.

Example 20: Presentation of the Archive of Republic of Slovenia collections on a CD-ROM

01188nlm0#22002772##450#
 001 COBISS 104325888
 005 19991210
 010 ## \$a961-6137-39-5
 100 ## \$a19991021d1999####k##y0slvy0103####ba
 101 0# \$aslv
 102 ## \$aSI
 135 ## \$adomg#---mumaa |||
 200 0# \$aVodnik po fondih in zbirkah Arhiva Republike Slovenije\$bElektronski vir\$f[glavni
 urednik Vladimir Kolo♦a\$gavtorji uvodnih tekstov Vladimir Zumer ... [et al.]\$gavtorji
 popisov fondov in zbirk Marjeta Adamic ... [et al.]\$gprevod v nem♦cino in angle♦cino A3]
 210 ## \$aLjubljana\$cArhiv Republike Slovenije\$d1999
 215 ## \$a1 optični disk (CD-ROM)\$d12 cm
 337 ## \$aSistemske zahteve: IBM PC AT kompatibilni racunalnik;
 procesor 486 32 MB RAM (64MB za Windows NT); Microsoft Windows 95, 98
 ali Windows NT Workstation operacijski sistem verzija 4 ali kasnej♦a
 601 02 \$aArhiv Slovenije\$xVodniki\$2NUK
 675 ## \$a930.253(497.4 Ljubljana)(086.2.034)
 702 #1 \$aKolo♦a\$bVladimir\$4340
 702 #1 \$aZumer\$bVladimir\$4080
 702 #1 \$aAdamic\$bMarjeta\$4080
 710 02 \$aArhiv Slovenije
 801 #0 \$aSI\$bNUK\$c19991021\$gPPIAK\$2comarc
 801 #2 \$aSI\$bNUK\$c19991021
 801 #3 \$aSI\$bNUK\$c19991210

Notes:

Example 21: An electronic online journal, linked to its printed and CR-ROM versions

01255nl1#2200385###450#
 001 COBISS 105100544
 005 19991210

011 ## \$a1580-2205
100 ## \$a19991203a19909999k##y0slvy0103####ba
101 0# \$aeng
102 ## \$aSI
110 ## \$aaaja|||||||
135 ## \$adrmn#---mumaa
200 1# \$aThe school field\$bElektronski vir\$einternational journal of theory and research in education
205 ## \$a[Online ed.]
207 #0 \$aVol. 1, No 1 (Summer 1990)-
210 ## \$aLjubljana\$bMestni trg 17\$cSlovene Society of Researchers in the School Field\$d[199-]-
230 ## \$aEl. casopis
300 ## \$aNasl. z nasl. zaslona
300 ## \$aOpis vira z dne 3.12.1999
326 ## \$aPolletnik
452 #1 \$1011##\$a0353-6807\$12001#\$aThe school field\$bTiskano besedilo
452 #1 \$1011##\$a1580-2213\$12001#\$aThe school field\$bElektronski vir\$1205##\$a[Compact disk ed.]
530 0# \$aSchool field\$bOnline ed.
531 ## \$aSch. field\$bOnline ed.
606 ## \$a◆olstvo
675 ## \$a37\$vdo 4. izd.
801 #0 \$aSI\$bNUK\$c19991203\$gPPIAK\$2comarc
801 #2 \$aSI\$bNUK\$c19991208
801 #3 \$aSI\$bNUK\$c19991210
802 ## \$a31
856 4# \$uhttp://www.schoolfield.com

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