

# Summary of Processing Changes

**Appendix overview**

Appendix C describes the history of field 049 and of the communication format.

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## C.1 History of Field 049

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### Placement in a bibliographic record

**Before August 20, 1975**, field 049 was displayed at the end of the bibliographic record following the blank, local call number field (09x) and preceding the blank field (590). **On August 20, 1975**, a bibliographic record showed the full MARC format. The system displayed field 049 as the last 0xx field. **After 1990**, the system enforced the position of field 049 as the last 0xx field.

As you can see and will see throughout this section, if you are processing records over a span of time, display and input standards do change.

### Placement in display after editing/adding field 049 and reformatting

**Before August 20, 1975**, if you filled in the system-supplied empty field 049 with a valid 3- or 4-character code and reformatted, the system renumbered the lines and displayed field 049 above the main entry (1xx or 2xx field). If you sent the supplied empty fields 09x and 049 and you did not enter specific line numbers for them, the system displayed field 09x and field 049 as the last 0xx field after the record was reformatted. If no field 049 was sent, field 049 remained empty. It was located at the bottom of the screen.

**On or after August 20, 1975**, field 049 was generally displayed as the last 0xx field following reformatting. Again, **after 1990**, the system enforced the position of field 049 as the last 0xx field.

You could enter other 0xx fields (i.e., 090, 092, etc.) to follow field 049. To have 0xx fields follow field 049, you send field 049 and enter other 0xx field(s) with the line number(s) greater than the field 049 line number. For example, if you display a record, send field 049, and reformat, the empty 09x field displays after field 049 as the last 0xx field. If you then enter and send the 09x field, the 09x field has a line number greater than field 049.

If default 049 is accepted as displayed and not sent, the system displays the default 049 as the last 0xx field. (Default 049 is not stored with the record.) The last 0xx field is generated for display by the system. (Of all the 0xx fields, only 010 and 040 have fixed positions—lines 1 and 2 respectively.)

## C.1 History of Field 049 (continued)

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### Definition of indicators

In *Cataloging on a Cathode Ray Tube Terminal*, the 2 indicator positions are defined. “The interpretation and use of the contents of the 049 field is [sic] governed by its indicators. Both indicators ... will be used. The first indicator controls the printing of holdings information. The second indicator indicates whether the 049 field contains all of the holdings information for this particular title-call number combination.”<sup>1</sup>

*Standards for Input Cataloging* states: “The indicators are not yet operational.”<sup>2</sup>

*On-Line Cataloging* states that for both indicator positions “the Center has defined only zero. ...”<sup>3</sup> Operators were instructed always to use zero for each indicator. However, on page 205 the indicators are not listed for field 049.

*Definition and Use of the 049 Holding Field* lists both indicators as 0 and states: “The system does not require these indicators to be input.”<sup>4</sup>

In *Fixed and Variable Field Tags for Books*, the indicators are listed.<sup>5</sup> They are fully defined. These definitions do not vary substantially from those in *Cataloging on a Cathode Ray Tube Terminal*.<sup>6</sup> The only addition is blank (b) as the default value. Since these indicators were never required, the blank (b) was always possible but just not listed.

### Screen display of indicators

The system initially displayed fill characters in the indicator positions. At that time the presence of a fill character did not indicate a mandatory indicator/character as it does now. **On July 1, 1976**, the display changed. The indicator positions were displayed as blanks (b).

### Default value of indicators

Initially the system supplied zeros (00) as the default characters in the 2 indicator positions if you did not enter these characters before a Produce or Update. **After July 1, 1976**, the system supplied blanks (bb) as the default indicator values.

### Operational status

Neither indicator is operational as defined. The first indicator has never been used to control the printing of holdings information. The second indicator has never had an online function.

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<sup>1</sup> Ohio College Library Center, *Cataloging on a Cathode Ray Tube Terminal* (Columbus, Ohio: Ohio College Library Center, 1971), 25.

<sup>2</sup> Ohio College Library Center, *Standards for Input Cataloging* (Columbus, Ohio: Ohio College Library Center, 1972), 5.

<sup>3</sup> Ohio College Library Center, *On-Line Cataloging*, 40.

<sup>4</sup> Ohio College Library Center, *Definition and Use of the 049 Holding Field* (Columbus, Ohio: Ohio College Library Center, 1974), 1.

<sup>5</sup> OCLC, Inc., *Fixed and Variable Field Tags for Books* (Columbus, Ohio: OCLC, 1979), 50.

<sup>6</sup> See note 1 above.

## C.1 History of Field 049 (continued)

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<b>Repeatability</b>	<b>Until March 5, 1977</b> , field 049 was repeatable. “There must be one 049 field for each call number” ( <i>On-Line Cataloging</i> <sup>1</sup> ). Technical Bulletin 19, Revised, March 1977, listed field 049 as one of the nonrepeatable fields. The system began checking for only one field 049 <b>on March 5, 1977</b> .
<b>Default holding library code</b>	The system displayed the default holding library code in field 049 upon installation of the full MARC record <b>on August 20, 1975</b> <sup>2</sup> . The default 049 was the 4-character code.
<b>Size (3- or 4-character code)</b>	<b>Until July 1, 1975</b> , the holding library code consisted of 3 characters. Then the code was expanded from 3 characters to 4 (see the announcement in <i>OCLC Newsletter</i> ) <sup>3</sup> . The 4-character code was displayed as the default holding library code <b>August 20, 1975</b> .
<b>Card production</b>	Following a Produce, the card production programs print cards for the default holding library if you did not enter another valid holding library code(s) in field 049. This was true even <b>before August 20, 1975</b> when the default holding library code was not displayed.
<b>Record size</b>	The default 4-character holding library code, displayed in field 049 <b>since August 20, 1975</b> , is not stored with the record. It is generated as the last 0xx field for initial displays. Because it is not part of the record, it does not count as one of the possible 50 variable fields. If you send field 049, it counts as one of the 50 variable fields. If the default, the record may appear to have 51 variable fields and still be accepted by the system.
<b>OCLC-MARC Subscription service</b>	For tapes produced <b>after December 31, 1976</b> , the default holding library code appeared in the OCLC-MARC Subscription Service. For tapes produced <b>before December 31, 1976</b> , field 049 appears only if it was entered on the record or if the default 049 (displayed <b>after August 20, 1975</b> ) was sent.
<b>Retrospective OCLC-MARC Project</b>	All records contain field 049 even if you did not enter the field. Field 049 consists of 4 characters (most 3-character codes were converted to 4-character codes). If field 049 contained holding library codes separated by commas, the codes were not converted.

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<sup>1</sup> Ohio College Library Center, *On-Line Cataloging*, 4.0.

<sup>2</sup> August 20, 1975 is an approximate date for the display of a bibliographic record in the full OCLC-MARC format.

<sup>3</sup> Ohio College Library Center, “OCLC to Expand Holdings Symbols for Card Production,” *OCLC Newsletter* 82 (May 28, 1975): 3.

## C.1 History of Field 049 (continued)

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- Produce**                      **Before May 22, 1976**, the system was programmed to print cards only for the leftmost holding library code in the last 049 in a record. If you used the default option, the default holding library code was used to print cards.
- On May 22, 1976**, the All Produce function was implemented for all users. See *OCLC Newsletter*<sup>1</sup> and in Technical Bulletin 8, May 1976.
- Automatic error checking**                      The system began to “check the validity of information in the 049 field.”<sup>2</sup> Before validation was installed, you could enter invalid holding library codes.
- Size expansion**                      The holding library codes were expanded from 3 to 4 characters **on July 1, 1975**.<sup>3</sup>
- OCLC-MARC Subscription service tapes contain only one size holding library code (i.e., either all 3- or all 4-character holding library codes). The only tapes that might have contained a mixture of 3- and 4-character holding library codes were the June 23–July 3, 1975 biweekly tape and the June 30–July 11, 1975 weekly (2 weekly runs). Since weekly and biweekly tapes are not usually stockpiled, only one size holding library code should appear on any tape.
- However, if some of these tapes were stockpiled and processed, double-check them for the holding library code. If both 3- and 4-character codes, the size depends on the date of card/record production, **not** on the date of the tape production.
- Default holding library code in tapes**                      The default holding library code appeared for tapes produced **after December 31, 1976**. For quarterly and semiannual subscriptions, default holding library codes appeared automatically in tapes for the period ending January 2, 1977 and for monthly (4-week) subscriptions for the period ending January 16, 1977.
- The multi-institutional tape option was originally scheduled for July 5, 1976. Between this time and implementation **on December 31, 1976**, OCLC sent multi-institutional subscribers a separate tape for each institution included in their multi-institutional order. These tapes do not include the default holding library code (default 049).

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<sup>1</sup> Ohio College Library Center, “Center Implements All Produce Function,” *OCLC Newsletter* 99 (May 28, 1976): 1.

<sup>2</sup> Ohio College Library Center, “Work Schedules,” *Newsletter—Ohio College Library Center* 50 (May 8, 1972): 1.

<sup>3</sup> Ohio College Library Center, “OCLC to Expand Holding Symbols,” 3.

## C.1 History of Field 049 (continued)

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### Chronology of field 049

Date	Description
May 1972	Automatic error checking of field 049
July 1975	Holding library codes change from 3 to 4 characters
August 1975	Full MARC record display of default holding library
May 1976	All Produce
July 1976	Indicators default to b
December 1976	Default holding library code appears in OCLC-MARC Subscription Service tapes
March 1977	Field 049 nonrepeatable

## C.2 History of the Communication Format

Date	Title	Content and/or Notes
<b>May 1974</b>	<i>OCLC-MARC Distribution Service Specifications for Magnetic Tapes Containing Catalog Records for Monographs and Serials</i> , First edition	Described processing OCLC-MARC tapes. Data set identifier: Z39.2-69MARC-OCLC. Field 049 was present in the tape record only if the institution Sent the field before entering a Produce or Update command. If no field 049 was present in the tape record, the transaction was intended for the institution s default holding library.
<b>July 1975</b>		Field 049 codes changed from 3 to 4 characters.
<b>August 1975</b>		Field 040 changed from text to 3-character code.
<b>March 1976</b>	<i>OCLC-MARC Distribution Service Specifications for Magnetic Tapes Containing Catalog Records for Monographs and Serials</i> , First edition, <i>Revision Notice No. 1</i>	Described Leader Bytes 18 (Descriptive Cataloging Form Code) and 22 (Transaction Type Code). To accommodate Leader Byte 18, OCLC moved the Local Status Code to Byte 22 and changed its name to Transaction Type Code. OCLC also defined a new Transaction Type Code: 50 for the All Produce.  These changes were effective for the weekly and biweekly tapes in March 1976 and for the monthly tapes in April 1976. A monthly tape contained records for a calendar month.
<b>June 1976</b>	<i>Network Memorandum No. 11</i>	Described additional tape service options effective July 1976.  Quarterly (13 weeks) and semiannual (26 weeks) production frequencies were added. The monthly frequency changed from a calendar month to a 4-week month.  The multi-institution tape option was not implemented beginning July 1976 for monthly and quarterly subscribers. For multi-institution subscribers, OCLC produced single institution tapes and charged subscribers as if they had received multi-institution tapes. This applied for the monthly tapes produced through December 19, 1976 and the quarterly tapes for July 6 October 3, 1976.
<b>December 1976</b>	<i>OCLC-MARC Subscription Service Documentation</i> , Second edition	Incorporated data for all the MARC formats. Each format was presented separately with control fields for all formats in one sequence and variable fields in another.  The data set identifier was changed to: Z39.2-71MARC-OCLC.
<b>January 1977</b>		Changes announced in December 1976 were implemented.  The multi-institution tape option was implemented for quarterly and semiannual frequencies the week ending January 2, 1977 and for monthly (4-week) frequency the week ending January 16, 1977. The first multi-institution tapes produced were for the following periods:  Monthly:           December 20, 1976 January 15, 1977 Quarterly:        October 4 December 30, 1976 Semiannual:      July 6 December 30, 1976  All records on tape contained field 049 whether or not the field was Sent. This was a requirement for successful implementation of the multi-institution option.

## C.2 History of the Communication Format (continued)

Date	Title	Content and/or Notes
<p>May 1975 April 1978</p>		<p>During this period it was possible to Produce or Update with Unknown (rather than a control number) in the OCLC control number position of the fixed field display.</p> <p>This occurred when a user entered a reformat command immediately after saving a record with New in the control number position. The record displayed after the reformat command was no longer associated with the saved record. Unknown appeared in the control number position. (Technical Bulletin 39, May 1978).</p> <p>When a user entered Produce or Update on an Unknown record, the system assigned a control number to the record. The number #3741824 was the same for all records. Records were not added to the Online Union Catalog, but were recorded on the daily journal tapes and thereby selected for tape subscriptions. Field 001 appeared as ocl73741824.</p> <p>If you encounter ocl73741824 during processing of the tapes:</p> <p>The associated record probably represents Produce or Update on an Unknown since few institutions have attached their holdings to the Online Union Catalog record #3741824.</p> <p>A later occurrence of the number does not necessarily, replace an earlier one since a different record may be associated with each numeric occurrence.</p>
<p>April 1978</p>	<p><i>OCLC-MARC Subscription Service Documentation</i>, Third edition</p>	<p>Presented information regarding the communication format in a composite tabular form.</p> <p>This edition was used to process RETROARC tapes. RETROARC tape production began in September 1979 and ended in December 1980.</p>
<p>September 1979</p>	<p><i>Technical Bulletin 80</i></p>	<p>Described the implementation of subfields l and o in field 049 and field 949 for local processing of tapes.</p>
<p>June 1980</p>		<p>Bytes 12 17 were validated in field 001 to record the date of record use (effective for records used on or after June 30, 1980). Before June 30, the date of record use was not recorded.</p>
<p>January 1981</p>	<p><i>OCLC-MARC Subscription Service Documentation</i>, Fourth edition</p>	
<p>June 1981</p>		<p>The control number identifier in field 001 was changed to accommodate an 8-digit OCLC Control Number. For tapes produced before June 28, 1981, the control number identifier is ocl7 in bytes 0 3. For tapes produced on and after June 28, 1981, the identifier is ocm in bytes 0 2.</p>
<p>July 1981</p>	<p><i>Memo and Technical Bulletin 107</i></p>	
<p>August 1981</p>	<p><i>Memo and Technical Bulletins 108 and 109</i></p>	
<p>August 1981</p>		<p>Field 007 changed. Before this date field 007 was valid for only audiovisual materials. After August 30, 1981, the <i>generic tree</i> 007 was valid in all formats.</p>
<p>October 1981</p>	<p><i>OCLC-MARC Subscription Service Documentation</i>, Fourth edition, <i>Revision Notice No. 1</i></p>	<p>Incorporated the changes announced in Technical Bulletins 107, 108, 109, and 112. (Technical Bulletin 112 was not distributed specifically to OCLC-MARC tape subscribers.) A replacement page for the field 001 change was included.</p>

## C.2 History of the Communication Format (continued)

Date	Title	Content and/or Notes
December 1981	<i>OCLC-MARC Subscription Service Documentation</i> , Fourth edition, <i>Revision Notice No. 2</i>	Incorporated the changes announced in Revision Notice No. 1.
1982		During 1982, field 010 (subfield z) was copied to tape incorrectly. This occurred when there was a subfield z but no subfield a. The data from subfield z could not be reconstructed from data on the tape.
March 1982	<i>OCLC-MARC Subscription Service Documentation</i> , Fourth edition, <i>Revision Notice No. 3</i>	Incorporated the changes announced in Technical Bulletin 115, Revised.
October 1982	<i>OCLC-MARC Subscription Service Documentation</i> , Fourth edition, <i>Revision Notice No. 4</i>	Described changes based on Update 4 (September 1981) to <i>MARC Formats for Bibliographic Data</i> . Appendixes G and H were issued.
April 1983	<i>OCLC-MARC Subscription Service Documentation</i> , Fourth edition, <i>Revision Notice No. 5</i>	Described the movement of the date of latest transaction from field 001 to new field 005.
June 1983		The date of the latest transaction moved from field 001 to field 005. This change affected all tapes produced after June 26, 1983.
December 1983	<i>OCLC-MARC Subscription Service Documentation</i> , Fourth edition, <i>Revision Notice No. 6</i>	Described changes based on Updates 5, 6, and 7 to <i>MARC Formats for Bibliographic Data</i> and in Revision Notice No. 5.
March 1984	<i>OCLC-MARC Subscription Service Documentation</i> , Fourth edition, <i>Revision Notice No. 7</i>	Described changes based on Update 8 to <i>MARC Formats for Bibliographic Data</i> .
September 1984	<i>OCLC-MARC Tape Format</i> , Fifth edition	Name change resulted from the inclusion of Serials Union List tapes. Described changes to the machine-readable data files format (renamed computer files) and to the manuscripts format (renamed archive and manuscript control).
April 1985	<i>OCLC-MARC Tape Format</i> , Fifth edition, <i>Revision No. 1</i>	Described changes to developing holdings tape alterations.
April 1985		Codes invalidated in September 1984 were deleted.
July 1985	<i>Tape Format Change Notice No. 1</i>	New series produced designed to describe changes to be made to <i>Tape Format</i> . Described changes based on Updates 9, 10, and 11 to <i>MARC Formats for Bibliographic Data</i> .
September 1985		Changes announced in July 1985 were implemented. Invalid codes were not deleted.
October 1985		Codes invalidated in September 1985 were deleted.
November 1985	<i>OCLC-MARC Tape Format</i> , Fifth edition, <i>Revision No. 2</i>	Incorporated changes announced in Tape Format Change Notice No. 1.
February 1986	<i>Tape Format Change Notice No. 2</i>	Described Chinese, Japanese, and Korean (OCLC CJK350 ) characters on tapes. CJK characters appear in the new field 880 that is linked to other fields by the new subfield 6.
May 1986		The first records containing Chinese, Japanese, and Korean characters in the CJK350 character set were entered into the Online Union Catalog. The CJK350 character set is described.

## C.2 History of the Communication Format (continued)

Date	Title	Content and Note
June 1986	<i>Tape Format Change Notice No. 3</i>	Described changes based on Update 12 to <i>MARC Formats for Bibliographic Data</i> .
July 1986		Changes announced in June 1986 were implemented. Some invalidated codes were deleted.
September 1986	<i>OCLC-MARC Tape Format, Fifth edition, Revision No. 3</i>	Described changes announced in Tape Format Change Notices Nos. 2 and 3 and based on Update No. 13 to <i>MARC Formats for Bibliographic Data</i> .
December 1986		The first indicator value 0 in field 520 was validated in all formats. Field 850 was made valid for Books, Audiovisual Media, Archive and Manuscripts Control, Scores, Recordings, and Computer Files. OCLC made the fields valid before their announcement to accommodate records coming to OCLC on tape. The changes were later announced in Tape Format Change Notice No. 4.
December 1986 April 1987		Between December 1986 and April 1987, field 850 may appear in tapes for non-serial records. For tapes created outside that period and for all serial records, field 850 appears only on tapes sent to the Library of Congress.
February 1987	<i>Tape Format Change Notice No. 4</i>	Described changes based on Update 14 to <i>MARC Formats for Bibliographic Data</i> .
April 1987		Changes announced in February 1987 were implemented. No invalidated codes were deleted.
August 1987	<i>Technical Bulletin 172</i>	Announced OCLC's review of tags, subfields, and code values.
March 1988	<i>Tape Format Change Notice No. 5</i>	Described changes based on Update 15 to <i>MARC Formats for Bibliographic Data</i> .
April 1988		Changes announced in March 1988 were implemented.
October 1988	<i>Tape Format Change Notice No. 6</i>	Described changes based on <i>USMARC Format for Bibliographic Data: Including Guidelines for Content Designation</i> .
November 1988	<i>Tape Format Change Notice No. 7</i>	Described changes based on a subject heading correction project.
December 1988		Changes announced in October and November 1988 were implemented.
March 1989	<i>Tape Format Change Notice No. 8</i>	Described changes based on Update 1 to <i>USMARC Format for Bibliographic Data: Including Guidelines for Content Designation</i> .
June 1989		Changes announced in March 1989 were implemented.
July 1989	<i>OCLC-MARC Tape Format, Second edition</i>	Incorporated changes announced in Tape Format Change Notices Nos. 4-7 and in several Technical Bulletins.
December 1989	<i>OCLC-MARC Tape Format, Second edition, Revision 1</i>	Incorporated changes announced in Tape Format Change Notice No. 8.
April 1990	<i>Tape Format Change Notice No. 9</i>	Described changes based on Update 2 to <i>USMARC Format for Bibliographic Data: Including Guidelines for Content Designation</i> .
June 1990		Changes announced in April 1990 were implemented.
November 1990	<i>OCLC-MARC Tape and Export Record Formats</i>	Name change. Incorporated changes announced in Tape Format Change Notice No. 9 and information regarding Authority Data.
June 1991	<i>Tape and Export Record Formats Change Notice No. 1</i>	Described changes based on Update 3 to <i>USMARC Format for Bibliographic Data: Including Guidelines for Content Designation</i> .
September 1991		Changes announced in June 1991 were implemented.

## C.2 History of the Communication Format (continued)

Date	Title	Content and Note
July 1992	<i>Tape and Export Record Formats Change Notice No. 2</i>	Described changes based on Updates 4 to <i>USMARC Format for Bibliographic Data: Including Guidelines for Content Designation and USMARC Format for Authority Data</i> .
October 1992		Changes announced in July 1992 were implemented.
November 1993	<i>OCLC-MARC Tape and Export Formats, Revision 1</i>	Incorporated changes announced in Tape and Export Record Formats Change Notice Nos. 1 2.
October 1994	<i>Tape and Export Record Formats Change Notice No. 3</i>	Described changes pertinent to the implementation of PromptCat.
November 1994	<i>Tape and Export Record Formats Change Notice No. 4</i>	Described changes in OCLC-MARC tape and record formats pertinent to the implementation of Format Integration Phase 1.
January 1995		Changes announced in November 1994 were implemented.
April 1995		Changes announced in October 1994 (Tape and Export Record Formats Change Notice No. 3) were implemented.
October 1995	<i>Tape and Export Record Formats Change Notice No. 5</i>	Described Harvard database record specifications.
November 1995		Changes announced in October 1995 were implemented.
January 1996	<i>Tape and Export Record Formats Change Notice No. 6</i>	Described changes in OCLC-MARC tape and record formats pertinent to the implementation of Format Integration Phase 2.
March 1996		Changes announced in January 1996 were implemented.
May 1996	<i>Tape and Export Record Formats Change Notice No. 7</i>	Described OCLC CatCD for Windows original bibliographic cataloging record specifications.
May 1996		Changes announced in May 1996 were implemented.
September 1998	<i>Tape and Export Record Formats Change Notice No. 8</i>	Described changes based on Updates 1, 2, and 3 to <i>USMARC Format for Bibliographic Data</i> .
October 1998		Changes announced in September 1998 were implemented.
May 1999	<i>Tape and Export Record Formats Change Notice No. 9</i>	Described changes in OCLC bibliographic records pertinent to the implementation of field 994.
June 1999		Changes announced in May 1999 were implemented.
January 2000		Tape and Export Record Formats Change Notice Series discontinued.
March 2000	<i>Technical Bulletin 236</i>	Described changes based on Updates 1, 2, and 3 to <i>USMARC Format for Bibliographic Data, MARC 21 Format for Bibliographic Data, and USMARC Code List</i> documents.
April, May, and December 2000		Changes announced in March 2000 were implemented.
May 2000	<i>Technical Bulletin 238</i>	Described the OCLC Arabic Cataloging Pilot project and the addition of Arabic data to records in WorldCat (the OCLC Online Union Catalog).
June 2000		Changes announced in May 2000 were implemented.
June 2000	<i>Technical Bulletin 239</i>	Described how the implementation of the Cooperative Online Resource Catalog (CORC) affects the OCLC Cataloging service, OCLC-MARC records, and other OCLC services.
July 2000		Changes announced in June 2000 were implemented.

## C.2 History of the Communication Format (continued)

Date	Title	Content and Note
August 2000	<i>Technical Bulletin 237</i>	Described the coding change for multiple-surname headings as a result of changes to <i>MARC 21 Format for Bibliographic Data</i> and <i>USMARC Format for Authority Data</i> . <b>Note:</b> Bibliographic records in WorldCat were corrected through database scans completed in April 2000. Authority records were corrected in the first half of 2000.
August 2000	<i>Technical Bulletin 240</i>	Described the OCLC conversion of transliterated Chinese characters in OCLC-MARC records from the Wade-Giles to the pinyin system. Also defined the conversion markers for bibliographic records (field 987, Local Romanization/Conversion History) and for authority records (field 008/07, Romanization scheme).
August, September, and October 2000		Changes announced in August 2000 were implemented.
November 2000	<i>Technical Bulletin 241</i>	Described the changes to the national library control number and the effects on OCLC products and services.
December 2000		Changes announced in November 2000 were implemented.
July 2001	<i>Technical Bulletin 244</i>	Described changes based on Update 1 to <i>MARC 21 Format for Bibliographic Data</i> , Update 1 to <i>MARC 21 Format for Holdings Data</i> , Update 1 to <i>MARC 21 Format for Authority Data</i> , and <i>MARC Code List</i> documents.
August 2001		Changes announced in July 2001 were implemented.
November 2002	<i>Technical Bulletin 247</i>	Described changes based on Update 2 to <i>MARC 21 Format for Bibliographic Data</i> , MARC 21 Bibliographic and Authority New Data Elements Technical Notice, and MARC Code List Technical Notices and Updates.
December 2002		Changes announced in November 2002 were implemented.
December 2002		Incorporated tape cartridge specifications into Chapter 6.
April 2003	<i>Technical Bulletin 249</i>	Described changes based on Update 3 to <i>MARC 21 Format for Bibliographic Data</i> , Update 3 to <i>MARC 21 Format for Authority Data</i> , and MARC Code List Technical Notices.
May 2003		Changes announced in April 2003 were implemented.
May 2006	<i>Technical Bulletin 252</i>	Described changes based on Updates 2, 3, 4, and 5 to <i>MARC 21 Format for Bibliographic Data</i> , Updates 4 and 5 to <i>MARC 21 Format for Authority Data</i> , and MARC Code List Technical Notices.
June 2006		Changes announced in May 2006 were implemented.
September 2006	<i>Technical Bulletin 253</i>	Described expansion of ISBN from ten to thirteen digits, the expansion of the OCLC number from eight to nine digits, and a change to the 007 field.
November 2006		Changes announced in September 2006 were implemented.
May 2007	<i>Technical Bulletin 254</i>	Described changes based on Update 6 to <i>MARC 21 Format for Bibliographic Data</i> and MARC Code List Technical Notices, the changes needed to integrate the RLG Union Catalog into WorldCat, especially institution records, and other changes.
May 2007		Changes announced in May 2007 were implemented.

## C.2 History of the Communication Format (continued)

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Date	Title	Content and Note
<b>May 2008</b>	<i>Technical Bulletin 255</i>	Described changes based on Update 7 to <i>MARC 21 Format for Bibliographic Data</i> , Update 7 to <i>MARC 21 Format for Authority Data</i> , Update 7 to <i>MARC 21 Format for Holdings Data</i> , changes derived from ISO 639 Joint Advisory Committee announcements, and MARC Code List Technical Notices.
<b>June 2008</b>		Changes announced in May 2008 were implemented.
<b>July 2008</b>	<i>Technical Bulletin 256</i>	Describes the OCLC guidelines for abbreviated-level (encoding-level 3) records
<b>July 2008</b>		Changes announced in July 2008 were implemented.

## C.3 History of the OCLC Number

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### Scope

This appendix describes briefly the various forms of OCLC numbers that OCLC has output in OCLC-MARC via subscription and export from various OCLC cataloging services.

OCLC has distributed other records with different kinds of control numbers. The records below are not part of this appendix because they are not WorldCat records.

Code	Record type
oca	OCLC-MARC authority records
bip (obsolete)	Book-in-Print database records
ccd (obsolete)	CatCD original record (both bibliographic and authority)
har (obsolete)	Harvard database record
pct	PromptCat data record
pks (obsolete)	Prism Keying Service record

### Records output prior to June 28, 1981

Prior to June 28, 1981, the OCLC number was distributed in field 001 with the following structure:

Tag	Byte	Value	Definition
001			Control Number (NR)
	00-03	ocl7	OCLC identifier
	11		Blank

### Example

001 ocl70012345

### Note: transaction date

Between June 30, 1980 and June 25, 1983, all output records included the transaction date following the control number in field 001, separated by a blank. Beginning June 26, 1983, the transaction date was moved to field 005 and no longer put in field 001.

### Example

001 2345 800630

## C.3 History of the OCLC Number (continued)

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### Records output between June 28, 1981 and the 100 millionth record in WorldCat

Includes all records output regardless of when the library updated or added the record. Records produced prior to June 28, 1981 but output after that date have the new structure:

Tag	Byte	Value	Definition
001			Control Number (NR)
	00-02	ocm	OCLC identifier
	11		Blank

**Note:** See Note: transaction date above.

Date	Example field
Prior to June 28, 1981	001 ocm0012345 800630
After June 28, 1981	001 ocm0012345

### Records output after the 100 millionth record in WorldCat

If the OCLC number is greater than 100000000, the following structure will be present:

Tag	Byte	Value	Definition
001			Control Number (NR)
	00-02	ocn	OCLC identifier

#### Example

001 ocn198765401

### Cross reference field

Beginning in December 1979, for every record that is merged to another record, a field 019 (OCLC control number cross-reference) is created. It is added to the retained record and contains the OCLC number of the deleted record. For more information, see Bibliographic Formats and Standards, field 019.

#### Example

001 ‡a9849497‡a10625879