

C3 **Library of Congress Control Number (LCCN)--
Restructuring to Accommodate Century Change**

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C3.1 BACKGROUND

The Library of Congress began to print catalog cards in 1898 and began to distribute them in 1901. The Library of Congress Card Number was the number used to identify and control catalog cards. With the development of the MARC format and the first distribution of machine-readable records for book materials in the late 1960s, the name of the LCCN was changed to Library of Congress Control Number. LCCNs are used both for authority and bibliographic records. The components of LCCNs consist of positions allocated for a prefix, a year, a serial number, and, in the machine-readable form under the old structure, a "trailing blank."

C3.1.1 MARC 21 Format

In the MARC 21 format structure for LCCNs, positions are allocated to accommodate any prefixes at the beginning of a number, a year, a "serial" number, i.e., any particular unique number within a specified year, and, under the old structure, a position for a "supplement number" (never actively used but always accounted for and sometimes referred to as the "trailing blank"). The overall structure can be represented as follows: pppYYSSSSSS# where

p = a position for possible prefix
Y = digit for last two digits of a particular year
(there are exceptions to these digits equating to a year; for bibliographic records created between December 1, 1968, and 1972 the numbers were called "7 series" and incorporated a check digit (cf. Cataloging Service, bulletin 85, p. 3); for name authorities, "n42" and "n50" were used for retrospective projects)
S = digits of the serial number portion
= the "trailing blank"

Twelve character positions are allocated for each instance of an LCCN, whether an active one or a canceled/invalid one. Each instance of an LCCN is represented uniformly by 12 character positions. To obtain this uniformity blanks are used in any position allocated for a prefix when no prefix is used or when a prefix that is used contains fewer than three characters. The serial number must ALWAYS consist of six digits. If the number does not, zeroes (called "leading zeroes") must be added after the YY portion and preceding the actual digits that constitute the number to make a total of six digits. For example, 98-1 is represented in machine-readable form as ###9800001# (where # = a blank).

Note: Hyphens have commonly been used over the life of the LCCN to distinguish, primarily for display purposes, the year portion from that of the serial number. This character, however, has never been included in the MARC 21 representation of the actual data in the machine-readable record.

Two character positions were reserved to represent the last two digits of the year portion

of the LCCN, e.g., 98-1. As the millennium approached, the use of two positions for year made it impossible to distinguish between numbers assigned in different centuries, e.g., 98-1 ipso facto does not indicate whether the year relates to 1898 or 1998. After considerable study of the matter, the decision was made that the best means of distinguishing the year portion of LCCNs was to restructure the LCCN and allocate four digits for the year portion. It was possible to do this and still retain representation of each instance of an LCCN in 12 character positions by reducing the positions allocated to prefixes from three to two and by redirecting use of the “trailing blank” for the last digit of the serial portion of the number:

old structure: ###00008000#
new structure: ##2001008000

See DCM C3.2 and C3.3 below for a more detailed description of each structure. Note that LCCNs assigned under the old structure will not be changed to the new one. This means that any one instance of field 010 (Library of Congress Control Number) that includes a canceled/invalid LCCN may contain LCCNs in both the old and new structures.

C3.1.2 LCCNs For 1998, 1999, 2000

Because it was not possible to begin using the restructured LCCN until 2001, there is some ambiguity between LCCNs assigned to bibliographic records in 1898, 1899, 1900 and 1998, 1999, and 2000 respectively. To ensure that LCCNs assigned in 1998, 1999, and 2000 did not overlap with those assigned in 1898, 1899, and 1900, the beginning numbers assigned in 1998, 1999, and 2000 were numbers that had not been assigned in 1898, 1898, 1900:

Year	First LCCN Assigned
1998	98003000
1999	99006000
2000	00008000

C3.2 OLD STRUCTURE

C3.2.1 Description

The following shows in detail the allocation of positions in old-structure LCCNs:

Element	Length	Positions
Alphabetic Prefix	3	00-02
Year	2	03-04
Serial Number	6	05-10
Supplement Number	1	11

The uniqueness of the LCCN is determined by the first 11 positions (positions 00-10). This means that use of a prefix makes a number unique, i.e., n##99000001# and no#99000001# are conceptually unique numbers and are so treated in the LC ILS (but not in some other systems). The Supplement Number (“trailing blank”) has never been used by the Library of Congress and this position is always blank. Prior to 1999 the Supplement Number could have been followed by two kinds of variable length data known as Suffix/Alphabetic Identifier and Revision Date. Each Suffix/Alphabetic Identifier was preceded by a slash as was Revision Date. If there was no Suffix/Alphabetic Identifier, the Revision Date was preceded by two slashes. Use of Suffix/Alphabetic Identifier and Revision Date was discontinued beginning in January 1999. These data were not migrated when the LC ILS was implemented in August 1999.

Examples: ###95156543#
 ###94014580#/AC/r95
 ###79310919#//r86
 gm#71005810#

 n##00123456#
 nb#00123456#
 no#00123456#
 nr#00123456#

 sh#00123456#
 sp#00123456#

C3.2.2 **Input of Old-Structure Numbers In The ILS**

ALL old-structure LCCNs input into the LC ILS must fit the pattern described above in DCM C3.2.1 wherever an LCCN is used (010 subfield \$a; 010 subfield \$z; subfield \$w in linking fields). For example, the form for a canceled number is the same as that for an active number (but the SUBFIELD is different): 010##\$an##99000010#\$zn##99000001#.

Note particularly that the appropriate number of blanks in the prefix positions and the TRAILING BLANK must ALWAYS be input. Too few or too many can cause problems. If the structure of the LCCN is not precisely that described above, it can interfere with retrieval of the record by LCCN and will also prevent distribution of the record from CDS. The surest means of ensuring the integrity of any LCCN input in field 010 is to use the Validator program (cf. Bibliographic Workflow Training Document 33).

C3.3 NEW STRUCTURE

C.3.3.1 **Description**

Under the new structure of the LCCN, implemented January 2, 2001, the prefix portion is reduced to two positions, and the year portion is expanded to four positions (e.g., ##2001000001). There

is no longer a position defined for "Supplement Number." The following shows in detail the allocation of positions in new-structure LCCNs:

Element	Length	Positions
Alphabetic Prefix	2	00-01
Year	4	02-05
Serial Number	6	06-11

The uniqueness of the LCCN is determined by all 12 positions (positions 00-11). This means that use of a prefix makes a number unique, i.e., n#2001000001 and no2001000001 are conceptually unique numbers and are so treated in the LC ILS (but not in some other systems).

Examples: ##2005256543
 ##2003004580
 mm2001084800

 n#2001123456
 nb2001123456
 no2001123456
 nr2001123456

 sh2001123456
 sp2001123456

C3.3.2 **Input of New-Structure Numbers In The ILS**

ALL new-structure LCCNs input into the LC ILS must fit the pattern described above in DCM C3.3.1 wherever an LCCN is used (010 subfield \$a; 010 subfield \$z; subfield \$w in linking fields). For example, the form for a canceled number is the same as that for an active number (but the SUBFIELD is different): 010##\$an#2001000155\$zn#2001000001.

Note particularly that the appropriate number of blanks in the prefix positions must ALWAYS be input. Too few or too many can cause problems. If the structure of the LCCN is not precisely that described above, it can interfere with retrieval of the record by LCCN and will also prevent distribution of the record from CDS. The surest means of ensuring the integrity of any LCCN input in field 010 is to use the Validator program (cf. Bibliographic Workflow Training Document 33).

The barcodes provided staff for scanning the LCCN are intended for use in the 010 \$a subfield and take into account the conventions described above. Staff are STRONGLY urged to use the LCCN barcode and scan it in with the barcode scanners provided. The LCCN barcodes take into account prefixes when they are used, e.g., in authority records: n#2001000001 or sp2001000001; in bibliographic records: mm2001084800 (a number for a bibliographic record for manuscript material). They take into account the requisite number of blanks preceding the number when a prefix is not present

or is present but is a single alphabetic character, and they supply “leading zeroes” in the serial portion of the number.

C4 MIXTURE OF OLD AND NEW STRUCTURE LCCNs

C.4.1 General

As indicated in DCM C.3.1.1 above, old-structure LCCNs are not being changed to the new structure. Therefore, it will be possible to have a mixture of old- and new-structure LCCNs in the same field, particularly field 010. When this occurs, the conventions of both structures must be observed. Perhaps the trickiest ones relate to the positions for prefixes in both structures and the position for the “trailing blank” in the old structure. The following examples illustrate some of these mixtures:

```
Bib. records:    010 ## $a ##2001000010 $z ###99000045#
                  010 ## $a ###99000045# $z ##2001000010
                  010 ## $a ##2001000010 $z sa#89000045# $z a##45123456#

Name auth.:     010 ## $a n#2001000010 $z n##99000001#
                  010 ## $a no#99000234# $z nr2001000555 $z n##99001234#

Subj. auth.:    010 ## $a sp#99000001# $z sp2001000012
```

C.4.2 Validator Program

The Validator Program accommodates the four-digit year LCCN. Note, however, that when the program is run against a record that contains a malformed LCCN in field 010, the program may over-report the error, i.e., there may be multiple messages applicable to the same malformed LCCN, and some of those message may apply to a structure different from that of the intended structure. This occurs because there are circumstances under which the program identifies a malformed LCCN but it cannot determine which structure was intended. In such cases, closely examine (or re-scan) the LCCN to determine the error messages that are appropriate and ignore the others.

C.5 SEARCHING

Searching LCCNs *per se* is not changed as the result of implementing the four-digit year LCCN. There are just two more digits that need to be input at the time of the search.

C.6 SUMMARY OF CHANGES IN NEW STRUCTURE

Under the four-digit year LCCN, the data constituting the LCCN have been shifted such that

- 1) the positions allocated to prefixes have been reduced from three to two;
- 2) the positions allocated to year have been expanded from two to four;
- 3) there is no longer a “trailing blank” at the end of the number.