

UNDERSTANDING THE STRUCTURE OF MARC

From: *Understanding MARC Bibliographic: Machine-Readable Cataloging*

<http://lcweb.loc.gov/marc/umb/um11to12.html> MARC 21 communications format: The block of data below is what the programmer sees when he looks at the contents of a MARC tape or disk. The tags do not appear before the fields, but in a directory to the data tells which tags (underline added here) should be used and at which position in the character string each field starts (where field is stored).

```
01041cam 2200265 a 4500
001002000000000300040002000050017000240008004100041010002400082020000250010602000.
4001310400018001750050002400193008200180021710000320023524500870026724600360035.
25000120039026000370040230000290043950000420046852002200051065000330073065000:
200763^###89048230#/AC/r91^DLC^19911106082
810.9^891101s1990####maua###j#####000#0#eng##^##$a###89048230#/AC/r91^##$a03:
6107514 :$c$12.95^##$a0316107506 (pbk.) :$c$5.95 ($6.95
Can.)^##$aDLC$cDLC$dDLC^00$aGV943.25$b.B74 1990^00$a796.334/2$220^10$aBrenner
Richard J.,$d1941-^10$aMake the team.$pSoccer :$ba heads up guide to super
soccer! /$cRichard J. Brenner.^30$aHeads up guide to super soccer.^##$alst
ed.^##$aBoston :$bLittle, Brown,$cc1990.^##$a127 p. :$bill. ;$c19 cm.^##$a"A
Sports illustrated for kids book."^##$aInstructions for improving soccer
skills. Discusses dribbling, heading, playmaking, defense, conditioning,
mental attitude, how to handle problems with coaches, parents, and other
players, and the history of soccer.^#0$aSoccer$vJuvenile
literature.^#1$aSoccer.^\  

```

Cracking the code, or, Interpreting the directory: Usually, only the computer programmer and the computer come into contact with the record in MARC 21 communications format.

The first 24 positions are the leader. In this example the leader fills approximately 1/3 of the first line and ends with "4500." Immediately following the leader, the directory begins. Tags have been underlined in this example. Each individual tag directory is 12 characters long. The first tag is 001. Following each tag, the next four positions show the length of the field. The data in the 001 field (control number) in this record is 20 characters long. The next 5 positions tell the starting point for this field within the data string that follows the directory. The 001 field begins at the 00000 position (the first position is position 0). The next tag is 003, which is 4 characters long and begins at the 20th position (the length of the previous position -- 20 -- added to its starting spot -- 00000 -- equals 20). The next tag is 005. It is 17 characters long and begins at the 24th spot (4 + 20 = 24).

This directory tells us:

Tag	Length	Starts at	Tag	Length	Starts at
001	0020	00000	100	0032	00235
003	0004	00020	245	0087	00267
005	0017	00024	246	0036	00354
008	0041	00041	250	0012	00390
010	0024	00082	260	0037	00402
020	0025	00106	300	0029	00439
020	0044	00131	500	0042	00468
040	0018	00175	520	0220	00510
050	0024	00193	650	0033	00730
082	0018	00217	650	0012	00763

Field terminators (displayed as a ^ in this example) mark the end of the directory and the end of each field that follows. Notice that the sum of the 2nd and 3rd column in any row equals the number in the 3rd column in the next row. The starting point of one field plus its length equals the starting position of the next field. This can be verified by counting the character positions within the data, remember that spaces count, as do the field terminators (^). (Two character positions are always reserved for indicators at the beginning of a field.) A record terminator (displayed as a \ in this example) ends each bibliographic record.