# Modulo 43 Barcodes

Modulo 43 is an extension of the Code 39 barcode symbology.

### How it works

- Each character of the barcode in turn is looked up in the following string “0123456789ABCDEFGHIJKLMNOPQRSTUVWXYZ-. $/+%”
- When the character is found the offset of that character is added to a running total
- At the end of the string the subtotal is divided by 43
- The offset of the remainder of the division is then looked up in the search string and appended to the barcode

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 00 | 0 | 11 | B | 22 | M | 33 | X |
| 01 | 1 | 12 | C | 23 | N | 34 | Y |
| 02 | 2 | 13 | D | 24 | O | 35 | Z |
| 03 | 3 | 14 | E | 25 | P | 36 | - |
| 04 | 4 | 15 | F | 26 | Q | 37 | . |
| 05 | 5 | 16 | G | 27 | R | 38 | space |
| 06 | 6 | 17 | H | 28 | S | 39 | $ |
| 07 | 7 | 18 | I | 29 | T | 40 | / |
| 08 | 8 | 19 | J | 30 | U | 41 | + |
| 09 | 9 | 20 | K | 31 | V | 42 | % |
| 10 | 10 | 21 | L | 32 | W | | |

### Example

- The barcode “000000” is made up of zeros. As the zero is character 1 of the search string the subtotal would be 1+1+1+1+1+1=6.
- The subtotal divided by 43 gives a remainder of 6.
- Character 6 in the search string is the number 5 character.
- So a modulo 43 barcode with value “000000” would be “0000005”

### How TapeTrack caters for Module 43

If your tape library consists only of media volumes that use the Modulo 43 check digit the simplest approach would be to create a barcode definition that says (presuming all of your barcodes have 6 digits) the volume serial portion of the barcode is made up of digits 1-6 of what is scanned.

In reality things are probably not going to be that simple. So if you have some barcodes with Modulo 43 and some without this is how TapeTrack manages them:

### See Also

TapeTrack Barcode Parsing

From:
https://docs.tapetrack.com/ - **TapeTrack Documentation**

Permanent link:
**https://docs.tapetrack.com/modulo43-barcodes?rev=1516060618**

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