

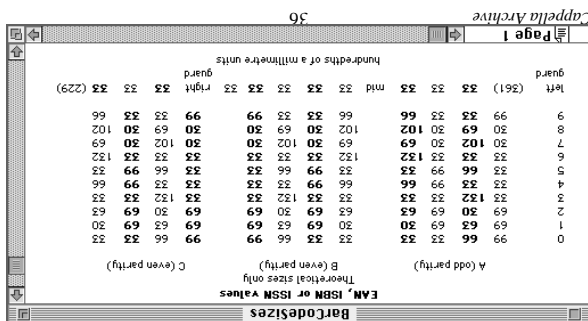
I have made a PostScript Type 3 font to create ISBN barcodes. The font uses the ordinary numeric keys for the right hand set C; in combination with Option (Alt) for the odd set A; and with Shift for the even set B. This is not such a handicap as it might seem. The left hand ABBA six number sequence is usually a permanent fixture for small publishers, and can be saved in the Scrapbook and copied when required. We then use the normal unshifted keyboard numbers to alter the C set for the right hand digits of each different publication. Whilst the thicknesses of the black bars are more or less the same as the theoretical widths, the white spacings are slightly different in many cases. In fact, I found that the only way to establish the correct distances was by a trial and error comparison with existing ISBN codes.

The commands T and t provide the lengths of the stripes of the guards and the numbers respectively, whilst the letters L, C and R represent the left, centre and right hand guard markings. Strictly speaking, the middle guard, C, ought to have a metric width of its own, as it is narrower than all the others, but we can solve that problem by using an mmove. Accordingly, it must be placed at the end of the first six numbers, not the beginning of the right hand group.

Don't worry if your Option (Alt) and number combination produces different on-screen characters from those shown. However, to avoid including any spaces after the left guard or before the right hand one. It has not been possible to typeset the backslashed parentheses ((\)) for the shifted numbers B9 and B0 in the font file overleaf. This is because a single parenthesis inside paired parentheses, gives the PostScript themselves inside paired parentheses, gives the PostScript interpreter indigestion.

You must insert the correct backslashed parentheses like those shown above into B9 and B0 and also in the dem barproc at the end or if used in any barcode you may create yourself.

Making a barcode font



The scanning light pen is woken up by a left hand marker, called a guard; recognises the second group of six by a centre marker, and finishes counting with a right hand stop guard. There is a minimum area of white space before and after the guards, as shown by the numbers in brackets in the illustration, and the centre marker is narrower than the other two.

In theory, each coded number is 2.31 millimetres wide and has two white and two black stripes placed in an alternating pattern. The stripes tend to be a multiple of a third of a millimetre in width, although 1, 2, 7 and 8 have exceptions.

The overall dimensions of an ISBN or ISSN code at 100% should be 26.73 mm wide and 21.64 mm high. This may be scaled to any size between 80% and 200% and optional corner marks and light margin indicators < > are sometimes used to indicate the boundaries of the scannable area. The widths of the different parties shown below are theoretical sizes and the light values seem to vary in practice.

A thirty-third unit movement of the scanner represents a single binary bit of either a white 0 or a black 1, so the number A0 shown as 99 66 33 33 is read as the seven bit binary number 0001101. The scanner can work out its own eighth bit for every seven scanned, so it knows that the next sequence is a new number and does not get itself into a muddle with the following digits.

cut after printing both sides



Copy this Resource by selecting all text from the %!PS header to the %%EOF and paste into a text editor. Remove any unnecessary text, folding instructions, page numbers, or Cappella footers, and make sure no % commented lines are broken.

To proof the file, uncheck the two % marks in front of translate and showpage. Download the file using the Adobe PSprinter or Apple LaserWriter Utility, or use Adobe Acrobat to distill as a PDF file for proofing on-screen or printing on an inkjet. Step and repeat translations may be devised to print multiples of the same barcode on an adhesive sheet.

For a first attempt, use these instructions to confirm the check digit of an existing barcode. Then alter the barproc figures in the resource to suit your chosen sample and compare with the original after printing. A friendly bookstore scan should confirm the accuracy of any barcodes you may create.

To make an EPS, Mac owners should change the FileType from TEXT to EPSF using a utility such as TypeStyler or Creator Changer. PC users need to give the file an .EPS extension. A rectangular box will show the position of the image when imported as an EPS barcode into a DTP application for a paperback cover or a dustjacket. Check with a % mark the showpage and translation lines.

Aspiring publishers, wishing to augment the fifteen hundred or so books published in the United Kingdom every week, are reminded that ISBN numbers are allocated by The Standard Book Numbering Agency Ltd., of 12 Dyott Street, London, WC1A 1DF. All titles must be registered at least three months before publication with Whitaker's Booklisting Services, who are at the same address. Under English law, five copies of each publication should be sent to the Legal Deposit Agent for the copyright libraries, and another copy to the British Library.

I would like to thank Barcodes Ltd. of Vale Road, Portsedale, East Sussex, BN4 1GD, for their kindness in providing much helpful information and advice on barcodes and their interpretation.

Making ISBN Barcodes

A TINYHELP
for Self-Printing Books

Compiled by
David Byram-Wigfield

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Anyone printing registered titles may be sometimes asked to provide a book barcode on the cover or dustjacket for point-of-sale identification. This TinyHelp describes how to calculate the check digit and the barcode parity for an authorized ISBN. A Direct PostScript barcode program is provided for laser printing barcode labels or as an EPS file for importing into DTP applications.

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