

Free Barcode Fonts for Mac®

ConnectCode Free Barcode Fonts for Mac®

<http://barcoderesource.com/freemacbarcodefontsoftware.shtml>

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1. CONNECTCODE - FREE BARCODE FONT

ConnectCode Free Barcode Font is a professional True Type (TTF) Barcode Font that is designed for use in modern operating systems. It allows you to create barcodes by selecting a font in your favourite text editor.

Barcodes Supported

- Code 39
- Industrial 2of5
- POSTNET

1.1 What is a Barcode?

A barcode is basically a series of parallel alternating black and white patterns that represents a sequence of numbers or characters. For example, the following barcode represents the number "1234".

This image, when tagged on physical items, can be used with hardware like barcode scanners to improve the productivity of an organization. For example, an organization can tag all its inventory with a barcode. When the inventory items are shifted out, the barcode is scanned and the number it represents is stored in an application database. This allows the physical inventory of an organization to be tracked easily and efficiently.

A supermarket uses a barcode to identify each of the items sold. When the barcode is scanned over the counter, the price of the item is retrieved from the application database. This allows purchases to be made quickly and easily.

1.2 What is a Font?

A font is an organized collection of text characters. A font in general defines the shape, size, pitch and spacing of text characters.

1.3 Why use a Barcode Font?

A Barcode Font is a specially designed font that allows you to specify and generate barcodes on normal text characters. It is extremely easy to use. You can just install the font, load up your text editor to create the barcodes. Most computer applications today that support text allow you to choose from among many fonts.

1.4 Why use ConnectCode?

It is important to choose a barcode font carefully. There are many barcode fonts offered in the industry. They come in a variety of sizes and prices. The following are factors we strongly advise you to look at before purchasing one.

- **Industry Specifications Adherence** - One of the most important factors for choosing a barcode font is that it adheres to industry specifications. For example, the following properties will need to be considered carefully.
 - Thick bar width
 - Thin bar width
 - Barcode ratio
 - Barcode density

This is to ensure that the barcode created is highly scannable. Ever wondered why the scanning of barcode in some supermarkets looks so difficult and takes so long? The main reason is the barcode has not been created properly and causes the barcode scanners to take a longer time to process.

The ConnectCode Barcode Font has been created and tested vigorously by a team with many years of experience in the Auto-ID and IT industry. It takes into consideration all the above mentioned properties and is definitely one of the best barcode font around.

- **Simplicity** - Ease of use has always been an important consideration in ConnetCode. Some barcode font in the industry requires a complicated encoder application that generates mystic numbers and alphabets for the specification of the barcode.

ConnectCode Barcode Fonts have been designed in such a way that a user can specify a barcode by keying in the characters directly as much as possible.

2. INSTALLING THE FONTS

2.1 Installing the fonts on Macintosh OS X® (Mac OS X®)

1. First, you will need to close any open applications. The new fonts do not appear in the application if you install them while the application is open.
2. Copy and paste the TrueType Font files (**ConnectCodePostnet.ttf** , **ConnectCodeIND2of5.ttf** and **ConnectCode39.ttf**) to the Library/Fonts folder.
3. Restart the application and the fonts should appear in the font menu.

3. Code 39 Barcode

Code 39 barcode is one of the earliest and most widely used barcode. It is a variable length barcode, which means that you will be able to encode any number of characters in the barcode. It supports alphanumeric characters and is used in a wide variety of applications.

If you have a need for using barcodes in your organization and do not want to get into the details, Code 39 is one of the recommended barcodes.

Code 39 barcodes begin and end with the '*' character. This character is also called the start/stop character. Code 39 is typically not used with a check character and is thus one of the barcodes that you will be able to use easily without an Encoder. A modulo 43 check character is available for use if security is required.

3.1 Code 39 ASCII Barcode

Although the Code 39 barcode only supports 43 characters, it is possible to employ a substitution mechanism based on industry specifications to encode all the 128 ASCII characters. The Code 39 barcode that employs this mechanism is known as the Code 39 Extended barcode or Code 39 ASCII barcode.

3.2 Font Names and Sizes

The following fonts are available in the ConnectCode Code 39 free barcode font package.

- CCode39

3.3 Character Mappings

All characters supported by the barcode are as shown below. All of them have a simple a direct mapping.

Data Character	Barcode Font Character	Code39 Value
'0'	'0'	0
'1'	'1'	1
'2'	'2'	2
'3'	'3'	3
'4'	'4'	4
'5'	'5'	5
'6'	'6'	6
'7'	'7'	7
'8'	'8'	8
'9'	'9'	9
'A'	'A'	10
'B'	'B'	11
'C'	'C'	12
'D'	'D'	13
'E'	'E'	14
'F'	'F'	15
'G'	'G'	16
'H'	'H'	17
'I'	'I'	18

'J'	'J'	19
'K'	'K'	20
'L'	'L'	21
'M'	'M'	22
'N'	'N'	23
'O'	'O'	24
'P'	'P'	25
'Q'	'Q'	26
'R'	'R'	27
'S'	'S'	28
'T'	'T'	29
'U'	'U'	30
'V'	'V'	31
'W'	'W'	32
'X'	'X'	33
'Y'	'Y'	34
'Z'	'Z'	35
'_'	'_'	36
'.'	'.'	37
' '(space)	' '(space)	38
'\$'	'\$'	39
'/'	'/'	40
'+'	'+'	41
'%'	'%'	42
'*'	'*' (Start/Stop Character)	

3.4 Using the Code 39 barcode font

For example, to encode the data "123456", you can key in the following in your text editor and choose the Code 39 barcode font.

Input: *123456*

Output:



For example, to encode the data "45346345", you can key in the following in your text editor and choose the Code 39 barcode font.

Manual Input: *45346345*

Output:



3.5 Calculation of Code39 Modulo 43 Check Character

If you will like to have a check character for security, you can use the Modulo 43 Check Character. This is typically not required though. For example if the data "1234" is to be encoded as a barcode. The check character is calculated as follows.

ASCII Characters	1	2	3	4
Code 39 Values	1	2	3	4
Sum :	1 + 2 + 3 + 4 = 10			
Modulo 43 :	10 % 43 = 10 (which maps to the character 'A')			

The characters "*1234A*" can then be keyed in to the text editor with the appropriate font selected to generate a Code 39 barcode with check characters.

4. Industrial 2of5 Barcode

The Industrial 2of5 barcode is used for encoding numbers. It is called 2of5 because the barcode is always encoded with 2 wide bars and 3 narrow bars (total of 5 bars). Each of the bars is separated by a narrow space.

4.1 Font Names and Sizes

The following fonts are available in the ConnectCode Industrial 2of5 free barcode font package.

- CCodeIND2of5

4.2 Character Mappings

All characters supported by the barcode are as shown below. All of them have a simple a direct mapping.

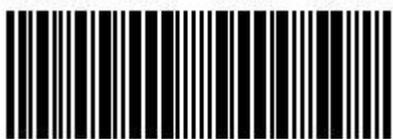
Data Character	Barcode Font Character
Start Character	'{'
Stop Character	'}'
0	'0'
1	'1'
2	'2'
3	'3'
4	'4'
5	'5'
6	'6'
7	'7'
8	'8'
9	'9'

4.3 Using the Industrial 2of5 barcode font

For example, to encode the data "123456", you can key in the following in your text editor and choose the CCode_Ind2of5 barcode font.

Manual Input: {123456}

Output:



For example, to encode the data "56789", you can key in the following in your text editor and choose the CCode_Ind2of5 barcode font.

Manual Input: {56789}

Output:



4.4 Calculation of Industrial 2of5 Check Digit

The Check Digit is also optional but you can adopt the following algorithm if you will like to add security to your barcodes. For example if the data "12345" is to be encoded as a barcode. The check digit is calculated as follows.

Data	1	2	3	4	5
Starting from the last digit, multiply by 3 followed by 1.					
	*3	*1	*3	*1	*3
Sum :	$(1*3) + (2*1) + (3*3) + (4*1) + (5*3) = 33$				
If Sum Modulo 10 equals 0, the result is 0. Otherwise the result is $10 - (\text{Sum Modulo } 10)$					
Modulo 10 :	$10 - (33 \% 10) = 7$				
Data to be encoded	123457				
Mapping	"123457"				

The characters "{123457}" can then be keyed in to the text editor with the appropriate font selected to generate a Industrial 2of5 barcode with check digit.

For example, to encode the data "123456789", you can key in the following in your text editor and choose the CCodePostnet barcode font.

Manual Input: {1234567895}

Output:



The last digit '5' is the check digit. See the Calculation of the Postnet Check Digit section for more information.

5.4 Calculation of Postnet Check Digit

The Check Digit in Postnet is mandatory. For example if the data "12345" is to be encoded as a barcode. The check digit is calculated as follows.

Data	1	2	3	4	5
Sum :	1 + 2 + 3 + 4 + 5 = 15				
If Sum Modulo 10 equals 0, the result is 0. Otherwise the result is 10 - (Sum Modulo 10)					
Modulo 10 :	10 - (15 % 10) = 5				
Data to be encoded	123455				
Add Start/Stop characters	{123455}				

The characters "{123455}" can then be keyed in to the text editor with the appropriate font selected to generate a Postnet barcode with check digit.

6. ConnectCode Free Barcode Font License

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