

ConnectCode Barcode Software

Barcode XCFramework

<https://www.barcoderesource.com/barcodesoftwaremac.shtml>

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Table of Contents

1.	ConnectCode Barcode XCFramework	1-1
1.1	Barcode XCFramework API and Fonts	1-2
1.1.1	Code 39.....	1-3
1.1.2	Code 39 ASCII	1-4
1.1.3	Code 128 Auto	1-5
1.1.4	Code 128 A	1-6
1.1.5	Code 128 B	1-7
1.1.6	Code 128 C.....	1-8
1.1.7	UCCEAN (GS1 128)	1-9
1.1.8	Code 93.....	1-10
1.1.9	Codabar	1-11
1.1.10	EAN13.....	1-12
1.1.11	EAN8.....	1-14
1.1.12	UPCA	1-15
1.1.13	UPCE	1-16
1.1.14	EXT2	1-17
1.1.15	EXT5	1-18
1.1.16	I2of5	1-19
1.1.17	ITF14.....	1-20
1.1.18	Industrial 2 of 5.....	1-21
1.1.19	Modified Plessey	1-22
1.1.20	POSTNET	1-23
1.1.21	GS1 Databar 14	1-24

1. ConnectCode Barcode XCFramework

ConnectCode Barcode Software provides a barcode XCFramework and Open Type barcode fonts to help you (as developers) create ISO/GS1/ANSI compliant barcodes in your Mac/iOS apps. The barcode XCFramework encodes the input data, and generates all necessary check characters and start/stop characters to ensure compliance with the industry specifications. The output of the XCFramework library - when applied with a barcode font - gives you a barcode that adheres to the strictest requirements of the auto-id industry.

1.1 Barcode XCFramework API and Fonts

The following is a ContentView.swift sample of how to generate a Code128 Auto barcode in a Mac App using the Barcode XCFramework and ConnectCode Barcode Fonts. A complete tutorial on how to do this is available at

https://www.barcoderesource.com/barcode_xcframework.shtml

```
import macOSBarcodeFramework

struct ContentView: View {
    var body: some View {

        VStack{
            Text(barcode)
                .font(Font.custom("CCode128_S3", size: 24))
                .foregroundColor(Color.black)
            Text(barcodeHumanReadableText)
                .font(.system(size: 18))
                .fontWeight(.light)
                .foregroundColor(Color.black)
        }.frame(width:400,height:300).background(Color.white)

    }
    var barcode=""
    var barcodeHumanReadableText=""

    init()
    {
        var code128Barcode = Code128Auto("12345678")
        barcode = code128Barcode.encode()
        barcodeHumanReadableText=code128Barcode.getHumanReadableText()
    }
}
```

The subsequent sections illustrate how to generate different barcodes by using different barcode fonts and Swift Structs from the XCFramework.

1.1.1 Code 39

```
//Param 2 : 1 for check digit, 0 otherwise
var code39Barcode = Code39("12345678",1)
barcode = code39Barcode.encode()
barcodeHumanReadableText= code39Barcode.getHumanReadableText()
```

1.1.1.1 Fonts

The Code 39 barcode can use the following fonts:

- CCode39_S1
- CCode39_S2
- CCode39_S3
- CCode39_S4
- CCode39_S5
- CCode39_S6
- CCode39_S7
- CCode39_HS3 – With Human Readable Text

1.1.2 Code 39 ASCII

```
//Param 2 : 1 for check digit, 0 otherwise
var code39Barcode = Code39ASCII("12345678",1)
barcode = code39Barcode.encode()
barcodeHumanReadableText= code39Barcode.getHumanReadableText()
```

1.1.2.1 Fonts

The Code 39 ASCII barcode can use the following fonts:

- CCode39_S1
- CCode39_S2
- CCode39_S3
- CCode39_S4
- CCode39_S5
- CCode39_S6
- CCode39_S7
- CCode39_HS3 – With Human Readable Text

1.1.3 Code 128 Auto

```
var code128Barcode = Code128Auto("12345678")
barcode = code128Barcode.encode()
barcodeHumanReadableText= code128Barcode.getHumanReadableText()
```

1.1.3.1 Fonts

The Code 128 Auto barcode can use the following fonts:

- CCode128_S1
- CCode128_S2
- CCode128_S3
- CCode128_S4
- CCode128_S5
- CCode128_S6
- CCode128_S7

1.1.4 Code 128 A

```
var code128Barcode = Code128A("12345678")
barcode = code128Barcode.encode()
barcodeHumanReadableText= code128Barcode.getHumanReadableText()
```

1.1.4.1 Fonts

The Code 128 A barcode can use the following fonts:

- CCode128_S1
- CCode128_S2
- CCode128_S3
- CCode128_S4
- CCode128_S5
- CCode128_S6
- CCode128_S7

1.1.5 Code 128 B

```
var code128Barcode = Code128B("12345678")
barcode = code128Barcode.encode()
barcodeHumanReadableText= code128Barcode.getHumanReadableText()
```

1.1.5.1 Fonts

The Code 128 B barcode can use the following fonts:

- CCode128_S1
- CCode128_S2
- CCode128_S3
- CCode128_S4
- CCode128_S5
- CCode128_S6
- CCode128_S7
- CCode128**B**_HS3 – With Human Readable Text

1.1.6 Code 128 C

```
var code128Barcode = Code128C("12345678")
barcode = code128Barcode.encode()
barcodeHumanReadableText= code128Barcode.getHumanReadableText()
```

1.1.6.1 Fonts

The Code 128 C barcode can use the following fonts:

- CCode128_S1
- CCode128_S2
- CCode128_S3
- CCode128_S4
- CCode128_S5
- CCode128_S6
- CCode128_S7

1.1.7 UCCEAN (GS1 128)

```
var uccean = UCCEAN("(10)12345678")
barcode = uccean.encode()
barcodeHumanReadableText= uccean.getHumanReadableText()
```

1.1.7.1 Fonts

The UCCEAN (GS1 128) barcode can use the following fonts:

- CCode128_S1
- CCode128_S2
- CCode128_S3
- CCode128_S4
- CCode128_S5
- CCode128_S6
- CCode128_S7

1.1.8 Code 93

```
//Param 2 : 1 for check digit, 0 otherwise  
var code93Barcode = Code93ASCII("12345678",1)  
barcode = code93Barcode.encode()  
barcodeHumanReadableText= code93Barcode.getHumanReadableText()
```

1.1.8.1 Fonts

The Code 93 barcode can use the following fonts:

- CCode93_S1
- CCode93_S2
- CCode93_S3
- CCode93_S4
- CCode93_S5
- CCode93_S6
- CCode93_S7

1.1.9 Codabar

```
var codabar = Codabar("12345678")
barcode = codabar.encode()
barcodeHumanReadableText= codabar.getHumanReadableText()
```

1.1.9.1 Fonts

The Rational Codabar barcode can use the following fonts:

- CCodeCodabar_S1
- CCodeCodabar_S2
- CCodeCodabar_S3
- CCodeCodabar_S4
- CCodeCodabar_S5
- CCodeCodabar_S6
- CCodeCodabar_S7

1.1.10 EAN13

Standard Style

```
//Param 2 : 1 for Extended Style, 0 for Standard Style  
var ean13Barcode = EAN13("12345678",0)  
barcode = ean13Barcode.encode()  
barcodeHumanReadableText= ean13Barcode.getHumanReadableText()
```

Extended Style

```
//Param 2 : 1 for Extended Style, 0 for Standard Style  
var ean13Barcode = EAN13("12345678",1)  
barcode = ean13Barcode.encode()
```

THE UPC/EAN barcode font supports human readable text embedded in an extended style manner as shown below. To generate an output string that produces the barcode below, simply provide the value "1" for the Extended Style parameter.



1.1.10.1 Fonts

The EAN13 barcode can use the following fonts:

Without Human Readable Text (Standard Style)

- CCodeUPCEAN_S1
- CCodeUPCEAN_S2
- CCodeUPCEAN_S3
- CCodeUPCEAN_S4
- CCodeUPCEAN_S5
- CCodeUPCEAN_S6
- CCodeUPCEAN_S7

With Human Readable Text at the Bottom of the barcode (For Extended Style)

Serif	Sans	Blank
CCodeUPCEAN_HRBS1	CCodeUPCEANA_HRBS1	CCodeUPCEANB_HRBS1
CCodeUPCEAN_HRBS2	CCodeUPCEANA_HRBS2	CCodeUPCEANB_HRBS2
CCodeUPCEAN_HRBS3	CCodeUPCEANA_HRBS3	CCodeUPCEANB_HRBS3
CCodeUPCEAN_HRBS4	CCodeUPCEANA_HRBS4	CCodeUPCEANB_HRBS4
CCodeUPCEAN_HRBS5	CCodeUPCEANA_HRBS5	CCodeUPCEANB_HRBS5
CCodeUPCEAN_HRBS6	CCodeUPCEANA_HRBS6	CCodeUPCEANB_HRBS6
CCodeUPCEAN_HRBS7	CCodeUPCEANA_HRBS7	CCodeUPCEANB_HRBS7

With Human Readable Text at the Top of the barcode (typically only used by EXT2/EXT5. For this barcode, only 3 font sizes are supported.)

- CCodeUPCEAN_HRTS1
- CCodeUPCEAN_HRTS2
- CCodeUPCEAN_HRTS3

1.1.11 EAN8

Standard Style

```
//Param 2 : 1 for Extended Style, 0 for Standard Style  
var ean8Barcode = EAN8("12345678",0)  
barcode = ean8Barcode.encode()  
barcodeHumanReadableText= ean8Barcode.getHumanReadableText()
```

Extended Style

```
//Param 2 : 1 for Extended Style, 0 for Standard Style  
var ean8Barcode = EAN8("12345678",1)  
barcode = ean8Barcode.encode()
```

1.1.11.1 Fonts

The EAN8 barcode can use the following fonts:

Without Human Readable Text (Standard Style)

- CCodeUPCEAN_S1
- CCodeUPCEAN_S2
- CCodeUPCEAN_S3
- CCodeUPCEAN_S4
- CCodeUPCEAN_S5
- CCodeUPCEAN_S6
- CCodeUPCEAN_S7

With Human Readable Text at the Bottom of the barcode (For Extended Style)

Serif	Sans	Blank
CCodeUPCEAN_HRBS1	CCodeUPCEANA_HRBS1	CCodeUPCEANB_HRBS1
CCodeUPCEAN_HRBS2	CCodeUPCEANA_HRBS2	CCodeUPCEANB_HRBS2
CCodeUPCEAN_HRBS3	CCodeUPCEANA_HRBS3	CCodeUPCEANB_HRBS3
CCodeUPCEAN_HRBS4	CCodeUPCEANA_HRBS4	CCodeUPCEANB_HRBS4
CCodeUPCEAN_HRBS5	CCodeUPCEANA_HRBS5	CCodeUPCEANB_HRBS5
CCodeUPCEAN_HRBS6	CCodeUPCEANA_HRBS6	CCodeUPCEANB_HRBS6
CCodeUPCEAN_HRBS7	CCodeUPCEANA_HRBS7	CCodeUPCEANB_HRBS7

With Human Readable Text at the Top of the barcode (typically only used by EXT2/EXT5. For this barcode, only 3 font sizes are supported.)

- CCodeUPCEAN_HRTS1
- CCodeUPCEAN_HRTS2
- CCodeUPCEAN_HRTS3

1.1.12 UPCA

Standard Style

```
//Param 2 : 1 for Extended Style, 0 for Standard Style
var upcaBarcode = UPCA("12345678",0)
barcode = upcaBarcode.encode()
barcodeHumanReadableText= upcaBarcode.getHumanReadableText()
```

Extended Style

```
//Param 2 : 1 for Extended Style, 0 for Standard Style
var upcaBarcode = UPCA("12345678",1)
barcode = upcaBarcode.encode()
```

1.1.12.1 Fonts

The UPCA barcode can use the following fonts:

Without Human Readable Text

- CCodeUPCEAN_S1
- CCodeUPCEAN_S2
- CCodeUPCEAN_S3
- CCodeUPCEAN_S4
- CCodeUPCEAN_S5
- CCodeUPCEAN_S6
- CCodeUPCEAN_S7

With Human Readable Text at the Bottom of the barcode (For Extended Style)

Serif	Sans	Blank
CCodeUPCEAN_HRBS1	CCodeUPCEANA_HRBS1	CCodeUPCEANB_HRBS1
CCodeUPCEAN_HRBS2	CCodeUPCEANA_HRBS2	CCodeUPCEANB_HRBS2
CCodeUPCEAN_HRBS3	CCodeUPCEANA_HRBS3	CCodeUPCEANB_HRBS3
CCodeUPCEAN_HRBS4	CCodeUPCEANA_HRBS4	CCodeUPCEANB_HRBS4
CCodeUPCEAN_HRBS5	CCodeUPCEANA_HRBS5	CCodeUPCEANB_HRBS5
CCodeUPCEAN_HRBS6	CCodeUPCEANA_HRBS6	CCodeUPCEANB_HRBS6
CCodeUPCEAN_HRBS7	CCodeUPCEANA_HRBS7	CCodeUPCEANB_HRBS7

With Human Readable Text at the Top of the barcode (typically only used by EXT2/EXT5. For this barcode, only 3 font sizes are supported.)

- CCodeUPCEAN_HRTS1
- CCodeUPCEAN_HRTS2
- CCodeUPCEAN_HRTS3

1.1.13 UPCE

Standard Style

```
//Param 2 : 1 for Extended Style, 0 for Standard Style
var upceBarcode = UPCE("12345678",0)
barcode = upceBarcode.encode()
barcodeHumanReadableText= upcaBarcode.getHumanReadableText()
```

Extended Style

```
//Param 2 : 1 for Extended Style, 0 for Standard Style
var upceBarcode = UPCE("12345678",1)
barcode = upceBarcode.encode()
```

1.1.13.1 Fonts

The UPCE barcode can use the following fonts:

Without Human Readable Text

- CCodeUPCEAN_S1
- CCodeUPCEAN_S2
- CCodeUPCEAN_S3
- CCodeUPCEAN_S4
- CCodeUPCEAN_S5
- CCodeUPCEAN_S6
- CCodeUPCEAN_S7

With Human Readable Text at the Bottom of the barcode (For Extended Style)

Serif	Sans	Blank
CCodeUPCEAN_HRBS1	CCodeUPCEANA_HRBS1	CCodeUPCEANB_HRBS1
CCodeUPCEAN_HRBS2	CCodeUPCEANA_HRBS2	CCodeUPCEANB_HRBS2
CCodeUPCEAN_HRBS3	CCodeUPCEANA_HRBS3	CCodeUPCEANB_HRBS3
CCodeUPCEAN_HRBS4	CCodeUPCEANA_HRBS4	CCodeUPCEANB_HRBS4
CCodeUPCEAN_HRBS5	CCodeUPCEANA_HRBS5	CCodeUPCEANB_HRBS5
CCodeUPCEAN_HRBS6	CCodeUPCEANA_HRBS6	CCodeUPCEANB_HRBS6
CCodeUPCEAN_HRBS7	CCodeUPCEANA_HRBS7	CCodeUPCEANB_HRBS7

With Human Readable Text at the Top of the barcode (typically only used by EXT2/EXT5. For this barcode, only 3 font sizes are supported.)

- CCodeUPCEAN_HRTS1
- CCodeUPCEAN_HRTS2
- CCodeUPCEAN_HRTS3

1.1.14 EXT2

```
var ext2Barcode = EXT2("12")
barcode = ext2Barcode.encode()
barcodeHumanReadableText= ext2Barcode.getHumanReadableText()
```

1.1.14.1 Fonts

The EXT2 barcode can use the following fonts:

Without Human Readable Text

- CCodeUPCEAN_S1
- CCodeUPCEAN_S2
- CCodeUPCEAN_S3
- CCodeUPCEAN_S4
- CCodeUPCEAN_S5
- CCodeUPCEAN_S6
- CCodeUPCEAN_S7

With Human Readable Text at the Bottom of the barcode (For Extended Style)

Serif	Sans	Blank
CCodeUPCEAN_HRBS1	CCodeUPCEANA_HRBS1	CCodeUPCEANB_HRBS1
CCodeUPCEAN_HRBS2	CCodeUPCEANA_HRBS2	CCodeUPCEANB_HRBS2
CCodeUPCEAN_HRBS3	CCodeUPCEANA_HRBS3	CCodeUPCEANB_HRBS3
CCodeUPCEAN_HRBS4	CCodeUPCEANA_HRBS4	CCodeUPCEANB_HRBS4
CCodeUPCEAN_HRBS5	CCodeUPCEANA_HRBS5	CCodeUPCEANB_HRBS5
CCodeUPCEAN_HRBS6	CCodeUPCEANA_HRBS6	CCodeUPCEANB_HRBS6
CCodeUPCEAN_HRBS7	CCodeUPCEANA_HRBS7	CCodeUPCEANB_HRBS7

With Human Readable Text at the Top of the barcode (typically only used by EXT2/EXT5. For this barcode, only 3 font sizes are supported.)

- CCodeUPCEAN_HRTS1
- CCodeUPCEAN_HRTS2
- CCodeUPCEAN_HRTS3

1.1.15 EXT5

```
var ext5Barcode = EXT5("12345")
barcode = ext5Barcode.encode()
barcodeHumanReadableText= ext5Barcode.getHumanReadableText()
```

1.1.15.1 Fonts

The EXT5 barcode can use the following fonts:

Without Human Readable Text

- CCodeUPCEAN_S1
- CCodeUPCEAN_S2
- CCodeUPCEAN_S3
- CCodeUPCEAN_S4
- CCodeUPCEAN_S5
- CCodeUPCEAN_S6
- CCodeUPCEAN_S7

With Human Readable Text at the Bottom of the barcode (For Extended Style)

Serif	Sans	Blank
CCodeUPCEAN_HRBS1	CCodeUPCEANA_HRBS1	CCodeUPCEANB_HRBS1
CCodeUPCEAN_HRBS2	CCodeUPCEANA_HRBS2	CCodeUPCEANB_HRBS2
CCodeUPCEAN_HRBS3	CCodeUPCEANA_HRBS3	CCodeUPCEANB_HRBS3
CCodeUPCEAN_HRBS4	CCodeUPCEANA_HRBS4	CCodeUPCEANB_HRBS4
CCodeUPCEAN_HRBS5	CCodeUPCEANA_HRBS5	CCodeUPCEANB_HRBS5
CCodeUPCEAN_HRBS6	CCodeUPCEANA_HRBS6	CCodeUPCEANB_HRBS6
CCodeUPCEAN_HRBS7	CCodeUPCEANA_HRBS7	CCodeUPCEANB_HRBS7

With Human Readable Text at the Top of the barcode (typically only used by EXT2/EXT5. For this barcode, only 3 font sizes are supported.)

- CCodeUPCEAN_HRTS1
- CCodeUPCEAN_HRTS2
- CCodeUPCEAN_HRTS3

1.1.16 I2of5

```
//1 for check digit, 0 otherwise
var i2of5Barcode = I2of5("12345678",1)
barcode = i2of5Barcode.encode()
barcodeHumanReadableText= i2of5Barcode.getHumanReadableText()
```

1.1.16.1 Fonts

The I2of5 barcode can use the following fonts:

- CCodeI2of5_S1
- CCodeI2of5_S2
- CCodeI2of5_S3
- CCodeI2of5_S4
- CCodeI2of5_S5
- CCodeI2of5_S6
- CCodeI2of5_S7
- CCodeI2of5_HS3 - With Human Readable Text

1.1.17 ITF14

```
//Param 2 : 1 for check digit, 0 otherwise
//Param 3 : 1 for Rectangle Bearers Bar, 0 for Top/Bottom Bearers Bar
var itf14Barcode = ITF14("12345678",1,0)
barcode = itf14Barcode.encode()
barcodeHumanReadableText= itf14Barcode.getHumanReadableText()
```

The bearers bar of the ITF14 barcode is specified in the third parameter as shown above. A value of "0" will generate a barcode on the left, as shown below, while a value of "1" will generate a barcode on the right with rectangle bearers bar.



1.1.17.1 Fonts

The ITF14 barcode can use the following fonts:

- CCodeITF_S1
- CCodeITF_S2
- CCodeITF_S3
- CCodeITF_S4
- CCodeITF_S5
- CCodeITF_S6
- CCodeITF_S7

1.1.18 Industrial 2 of 5

```
//Param 2 : 1 for Check Digit, 0 otherwise
var industrial2of5Barcode = Industrial2of5("12345678",1)
barcode = industrial2of5Barcode.encode()
barcodeHumanReadableText= industrial2of5Barcode.getHumanReadableText()
```

1.1.18.1 Fonts

The Industrial 2 of 5 barcode can use the following fonts:

- CCodeIND2of5_S1
- CCodeIND2of5_S2
- CCodeIND2of5_S3
- CCodeIND2of5_S4
- CCodeIND2of5_S5
- CCodeIND2of5_S6
- CCodeIND2of5_S7

1.1.19 Modified Plessey

```
//Param 2 : 1 for Check Digit, 0 otherwise
var msiBarcode = ModifiedPlessey("12345678",1)
barcode = msiBarcode.encode()
barcodeHumanReadableText= msiBarcode.getHumanReadableText()
```

1.1.19.1 **Fonts**

The Industrial 2 of 5 barcode can use the following fonts:

- CCodeMSI_S1
- CCodeMSI_S2
- CCodeMSI_S3
- CCodeMSI_S4
- CCodeMSI_S5
- CCodeMSI_S6
- CCodeMSI_S7

1.1.20 POSTNET

```
var postnetBarcode = POSTNET("12345678")
barcode = postnetBarcode.encode()
barcodeHumanReadableText= postnetBarcode.getHumanReadableText()
```

1.1.20.1 Fonts

The POSTNET barcode only uses the font below:

- CCodeIPostnet (Font Size 9)

1.1.21 GS1 Databar 14

```
var gs1Databar14Barcode = GS1Databar14("12345678")
barcode = gs1Databar14Barcode.encode()
barcodeHumanReadableText= gs1Databar14Barcode.getHumanReadableText()
```

1.1.21.1 Fonts

The GS1 Databar 14 barcode can use the following fonts:

- CCodeGS1D_S1
- CCodeGS1D_S2
- CCodeGS1D_S3
- CCodeGS1D_S4
- CCodeGS1D_S5
- CCodeGS1D_S6
- CCodeGS1D_S7