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Using BAROLE

To use BAROLE 2.2 you should follow these steps:

The following step (1) is carried out by the setup program, so you should not need to do it unless you installed BAROLE 2.2 using alternative means.

(1)   Register BAROLE with RegEdit.   This is simply achieved by running BAROLE2.EXE.   If successful the main BAROLE application window will appear.   Please also ensure all the OLE 2.01 files are correctly installed in your Windows System directory.   Also ensure that OLE 2.01 has been registered on your machine, by running the file OLE2.REG from the program manager.

NOTE: If you move BAROLE2.EXE to a new location on your disk drive, RegEdit will not be able to find it - so please re-register it using procedure (1) again.

Please also ensure that CTL3D.DLL is in the path.

(2) You can now use BAROLE three different ways:

(2.1)   Run BAROLE2.EXE directly to design and print barcodes.

(2.2)   Run an OLE client application. Select the applications Insert Object option. Select BAROLE 2.2 Barcode Server from the list of OLE names.   If Windows reports that it cannot find BAROLE then please repeat step (1).

(2.3)   From a programming language that supports OLE data automation or DDE. You can use commands to create and manipulate barcode objects.   See Data Automation, and Dynamic Data Exchange

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Registering BAROLE

If you find BAROLE useful and would like to continue using it,   please register it.   You may not use BAROLE for commercial purposes unless you register it.

You may not distribute the registered version of BAROLE, it is for your own use only.

Price Only $160 US per installation.

Please send an international money order, bank cheque,   New Zealand cheque by post.   Or you can fax or email your VISA, Master Card or American Express card details (Name, full card number and expiry date) to the developer.

Please do NOT send company cheques that are drawn on non US banks.

The single user registration fee is US$160 including TAX and postage.   Please use the supplied registration form.

Please note that US$160 is a special offer to Compuserve and internet members.   The normal retail price is more.

If you want to distribute BAROLE with a commercial product please contact the developer.

When you register, you will receive via airmail and/or email: An updated copy of BAROLE that does not add DEMO to the barcode images.
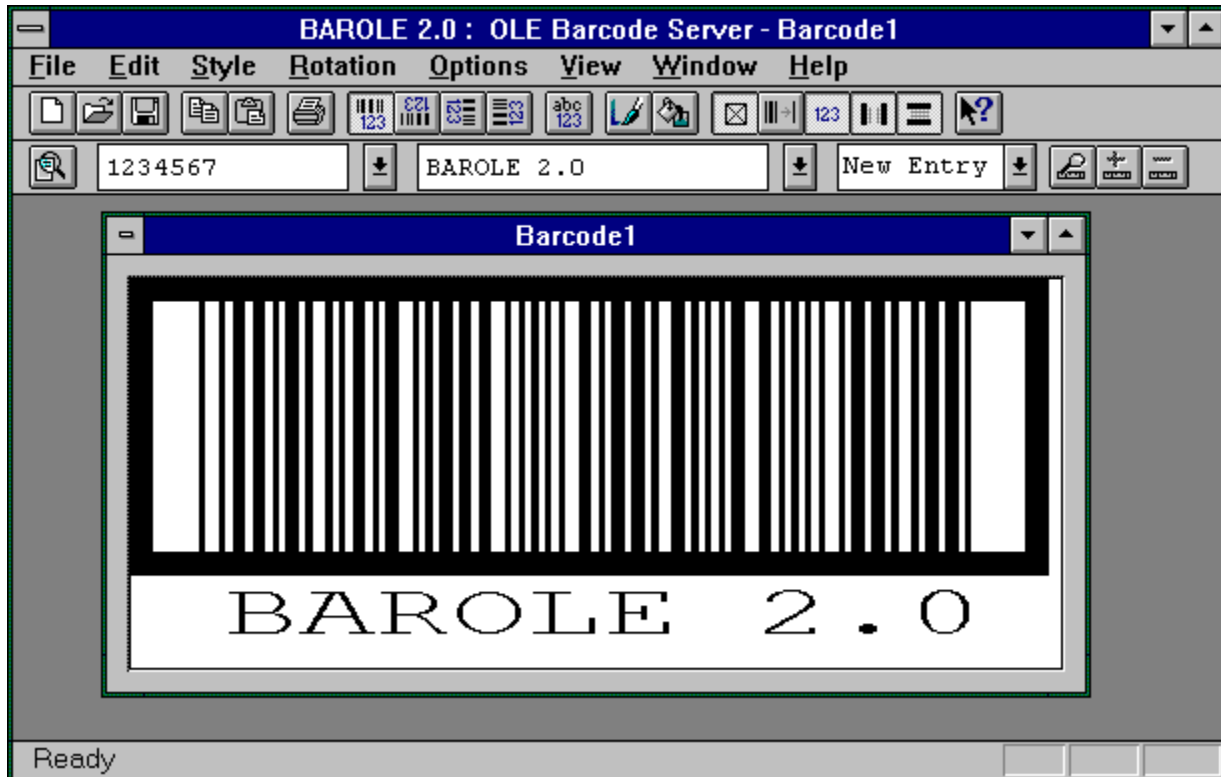
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The BAROLE Main Window

Click on the image for an explanation of each control or area:

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Printing Barcode Labels and Linking Data Files

Procedure:

(1)   Run BAROLE 2.2 directly from the Windows Program Manger.

(2)   Create a barcode or load an existing barcode from disk, and set the style, rotation, font, and colour settings as you want them.

(3)   Apply an appropriate measurement setting to ensure the barcode will be smaller than the physical label size.

(4)   Select the FILE PRINT or FILE PRINT PREVIEW option.

(5)   Adjust the values in the Print Layout Dialog to suit your requirements.   All measurements should be specified in MM units.   Eg: 2.7cm =   27mm.

If your printer cannot print right to the edge of the page, then be sure to enter appropriate values in the Unprintable Page Margin boxes.   Eg: most   HP laserJets have an unprintable margin of 6 mm (6mm is the default setting).

Click on the following Layout Dialog to receive help about each part,
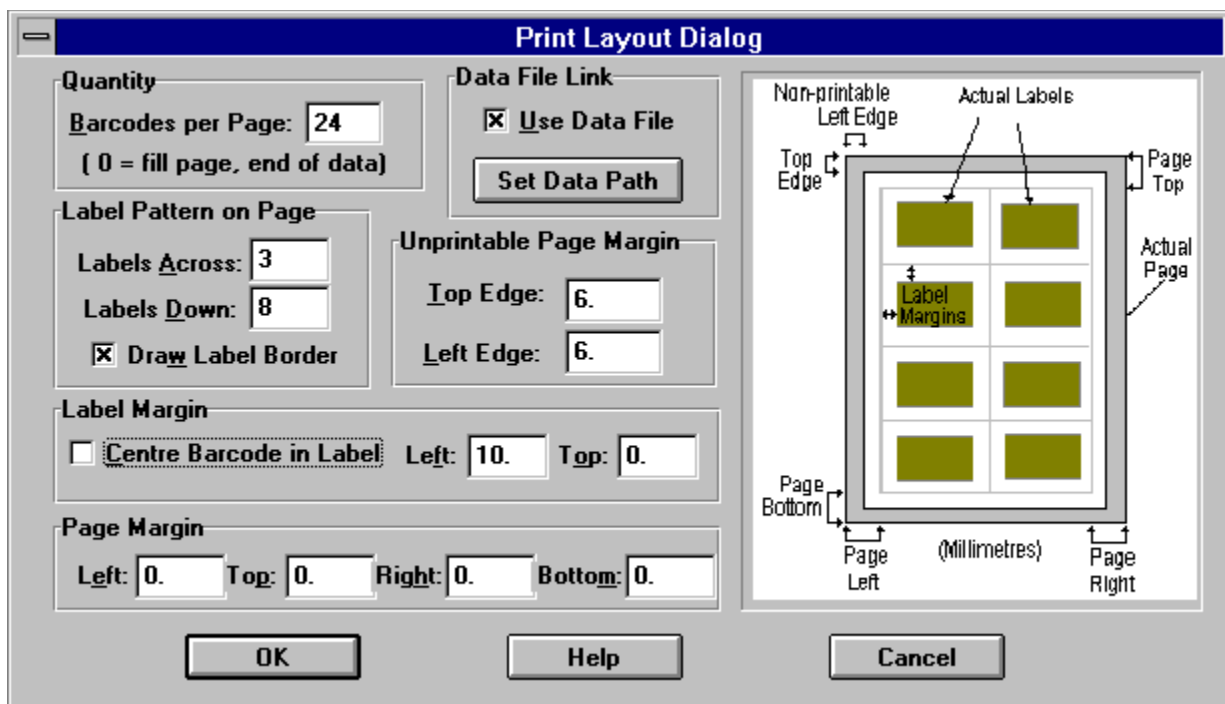
(6)   If you wish to use data in a DOS text file to generate barcodes, then select the Set Data Path button to specify the data file.   Also select the Use Data File checkbox to actually use the data file.   If you do not use a data file, then the current data and text specified in the BAROLE combo boxes will be used for the labels, i.e. all labels will have the same data and text.

The data file should conform to the following layout:

```
data[,text]
data[,text]
data[,text]
data[,text]
data[,text]
```

where [,text] is optional.

For example: the file   products.dat for an EAN 13 barcode style, might contain

9918273762738
9918273736273
9273737288282
9363663627272
9273773773772
etc

You can also specify text, for example:

827377374,Apples
18388,Oranges
382882332,Bananas
766655,Rocks

Note the comma between the data and the text.   Do not place a space between the comma and the text or data unless you want a space to be part of the barcode text or data string.

There are example data files on the installation diskette.

WARNING: If the data specified in a data file is invalid for the chosen style of barcode, then no output may be produced.

Also see: Creating Data Sequence Files

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Barcode Styles

BARCODE.DLL and BAROLE2.EXE Version 2.2 support the following barcode styles:

ITF
Interleaved 2 of 5
Industrial 2 of 5
Codabar
Code B
Code 3 of 9
Code 11
Code 39
Code 93
Code 128
EAN8
EAN13
EAN128
MSI
Telepen Alphanumeric
UPC-A

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Barcode Functions

When you insert a new barcode into a document, BAROLE uses the most recently used options to initialise new barcode.   BAROLE maintains these last used or 'default' settings in the BAROLE2.INI file (located in your Windows directory).

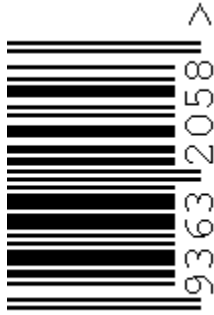BARCODE.DLL and BAROLE2.EXE Version 2.2 support the following barcode functions:

Rotation
Lets you rotate the barcode and text in four directions:

1. Normal

2. Upside Down

3. Rotated to the left

4. Rotated to the right

Custom Text Message

Lets you specify different text to appear with the barcode image.   The custom text message does not alter the data encoded by the barcode.

Show Barcode Text

To hide or show the barcode text or data.

Show Check Digit

Calculates and includes a check digit for a barcode style. See barcode styles to determine which styles require check digits.   You must manually select this option if you require check digits.   It is advisable to leave this option on all the time.

With fixed length barcodes, such as EAN and UPC, the last data digit is replaced by the check digit, therefore you must still enter the correct number of digits.

With variable length barcodes the check digit is added to the end of the encoded data without replacing the last digit.

Not all barcode styles show the check digit in human readable form.   For example, UPC and Code128 do not show the check digit number, whereas EAN8, EAN13 and ITF do.

Show Indicator

Lets you select a custom spacer/indicator character and add it to the barcode.   Normally the spacer character is '>'.   This option does not add data to the barcode.

Show Horizontal and/or Vertical Bearer Bars

Select whether vertical and/or horizontal bearer bars should be shown.   These are usually only used in ITF barcodes.

<div align="center">Horizontal Bearer Bars</div>

93632058

Vertical Bearer Bars

93632058

Both Bearer Bars

93632058

Bar and Background Colour Adjustment

So you can experiment with different colours to suit your printing needs.   You must ensure a high degree of contrast between the bar colour and the background colour.   Select the reset button to return to black on white.

Font Selection

So you can select a suitable font for your printer.   In general you should only use OCR, Arial or Courier True Type fonts.

Font Tweak

Sometimes when manually scaling rotated barcodes in your client application, the barcode text does not scale very well.   Use the font tweak option (value between -30 and 30) to adjust the font until it looks best.   You can also use this option to adjust the font size.   The setting only affects the barcode image in the client application, not the image in the preview window.

Ratio Adjustment

The bar ratio setting should be left on "default" unless you are having problems scanning barcodes.   The other three settings 2:1, 3:1, 4:1 offer incremental increases in the width of thick bars in relation to thin bars.

Measurements

You can use the measurements combo-box to store and restore barcode measurement settings.   To apply a measurement to an existing barcode - simply select a measurement from the combo-box and click the Apply button.   When the client application prints the resulting barcode image, its dimensions will match the width and height settings in millimetres.   The printed dimensions will only be correct if the OLE client application or user does not apply further scaling.   Ensure that the barcode is scaled at 100% in your client application.

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Providing Feedback

If you have any feedback on what you think of BAROLE, please dont hesitate to contact the <u>developer</u>. We would especially like to hear from you if you find bugs or have suggestions for improvements.

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Requesting New Barcode Styles

If you want to use BAROLE but it does not support the barcode styles you want, please let us know.   We will consider adding your styles and sending you a <u>free</u> updated copy (if you are a registered user).   We will normally only add new styles if they are reasonably well known.   However,   if you can provide technical coding information on obscure styles we may be persuaded to add them.

New barcode styles will be available to everyone via updated product versions.

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Registration/Order Form

Please Print or Type Clearly to Enable Fast Dispatch of Your Order.
To get a prinout of this form, select the FILE PRINT TOPIC option in the menu above.
================================

TO: HEX Technology,
POST:

    417 Manchester Street,
    Christchurch 8001,
    New Zealand.

PHONE/FAX: (64) (3) 377-2255
COMPUSERVE: 100241,3550
INTERNET: 100241.3550@COMPUSERVE.COM

PRODUCT: BAROLE Version 2.2

Date:

First Name:

Last Name:

Postal Address:

City:

Post Code:

County:

State:

Phone Number:

FAX Number:

Circle Form of Payment:
   Int. Money Order   NZ Cheque   Credit Card,   Bank Cheque.

Please don't send company cheques in USD that are not also drawn on a US bank.

If Credit Card:
Circle Type of Card: VISA   MasterCard

```
                    AmericanExpress

Name of Card Holder:

Number of Card:

Expiry Date:
```

How would you like BAROLE sent to you:
```
          Post              Email
```

My full CompuServe and/or Internet Mail address is:

How many copies of BAROLE Ver 2.2 do you want:___@US$160 each

Total amount of my order is US$

Comments:

===========================
Send completed form to the <u>developer</u> only.   No other organisation is entitled to receive registration fees for BAROLE.

You must purchase one copy per installation.   If you wish to distribute BAROLE with your application please contact the developer.

* New Zealand customers can send cheque in New Zealand dollars.   If in doubt please send an email or fax message.

Credit card orders in US$ will be converted to NZ dollars on the day we receive your order.

We will endeavour to dispatch your order on the same day we receive it.   We find that it normally takes between 6-9 days to receive orders from Canada/US and European areas.

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Contacting the developer

If you purchased BAROLE through a third party vendor, then please make all enquires to that vendor.

Before contacting the developer with problems please read all documentation and this help file.   The "Frequently Asked Question" (FAQ) section should answer most questions.

HEX Technology
417 Manchester Street
Christchurch 8001
New Zealand.

Phone: (64)   (3)   377-2255
FAX: (64)   (3)   377-2255
CIS: 100241,3550
Internet: 100241.3550@COMPUSERVE.COM

BAROLE - should be pronounced as "BAR - O - LAY". Conjunction of Barcode and OLE

Any application designed to accept OLE "Object-Linking and Embedding" Objects.   Examples of common OLE client applications include: Microsoft Word, Microsoft Write, Microsoft Excel, and WordPerfect.   Common OLE objects include: pictures, sounds, graphs, text documents,   word arts and equations.

In this Combo List enter the numbers and/or letters you want encoded in the barcode.   Data characters will be ignored if they are not supported by the current barcode style.   You can also select from a list of the last 20 data strings used.

In this Combo List enter text to appear with the barcode.   The text is ignored if the barcode style is EAN13, EAN8 or UPC.   You must also have the <u>show text</u> option on.   If you select <No Custom Text> then the barcode data will be shown as text with the barcode picture.

Select the barcode style you want to apply to the current barcode object.

| Interleaved 2 of 5 (ITF) |
| Industrial 2 of 5 |
| EAN 8 |
| EAN 13 |
| EAN 128 |
| UPC-A |
| √ Code 3 of 9 |
| Code 39 |
| Code 93 |
Code 128	Code 128 (Auto Select)
Codabar	Code 128 (Set A Only)
Telepen	Code 128 (Set B Only)
MSI	Code 128 (Set C Only)
Code B
Code 11

Set the direction of the barcode. See barcode functions .

√ **Normal**
Upside Down
Left Rotation
Right Rotation

The File Menu

New	**Ctrl+N**
Open...	Ctrl+O
Save	Ctrl+S
Save As...	
Save As MetaFile (WMF) ...	
Link To Data File...	
Print...	Ctrl+P
Print Preview	
Print Setup...	
1 BARCODE1.BAR	
2 BAR1234.BAR	
3 BARCODE2.BAR	
4 EAN123.BAR	
Exit	

Option Include

√ Check Digits
  Spacer Character
√ Text Beneath

√ Vertical Bearer Bars
√ Horizontal Bearer Bars

Option Measurement

Modify Selected...
Add New...
Delete Selected

Option Font

Style...
Set Font Tweak

Option Ratio

Leave on the default setting, unless you are having trouble scanning barcodes.

√ **Default**
 2:1
 3:1
 4:1

Option Colour
Set the background and bar colours

Set Bar Colour...
Set Background Colour...

The Edit Menu

Copy	Ctrl+C
Paste	Ctrl+V

The Options Menu

Include	▶
Measurements	▶
Font	▶
Ratio	▶
Colour	▶

The View Menu

√ <u>T</u>oolbar
√ Te<u>x</u>t Bar
√ <u>S</u>tatus Bar

<u>R</u>efresh View
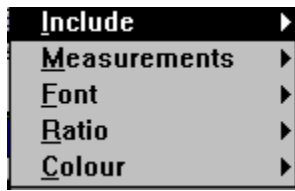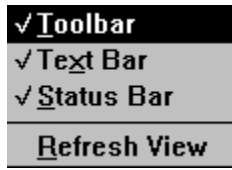
To remove the current measurement setting from the measurement list and from your BAROLE2.INI file. However, the setting may re-appear if you edit an existing barcode object that has the deleted measurement applied.   Also see barcode functions.

Barcode Window.   Contains the current barcode object.   All options you select from the toolbars or menus, will only be applied to this barcode window.

Check this option if you actually want to use the data file to print barcodes.

Click this button to specify a data file that contains numbers and/or text.

To show or hide the barcode text.   Also see <u>barcode functions</u>.

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About BAROLE 2.2

BAROLE is a comprehensive OLE barcode server.   It works by creating OLE objects that can be embedded into any OLE aware document or file.   Because its OLE, you don't need to delete and create a new barcode every time you want to make changes to an existing barcode image.   Unlike normal bitmaps, the data that specifies the barcode, is saved as part of the barcode.   You need only modify the underlying data and the barcode will be automatically redrawn.

BAROLE 2.2 can also be used on its own to design and print barcode labels on any Windows printer. See Printing Labels

Version 2.2 includes many new enhancements, including:
- OLE 2.01 support
- Printing and print preview facilities
- MDI interface
- Adjustable bar ratios
- Saving to WMF files
- DDE / Data Automation

To include bearer bars along the width of the barcode.   Also see <u>barcode functions</u>.

To include bearer bars along the height of the barcode.   Also see <u>barcode functions</u>.

To set a colour for the barcode background.   Default is white.   Setting a dark background may make the barcode unscanable.   Also see barcode functions.

To set the colour of the barcode bars.   The default is black.   Also see <u>barcode functions</u>.

Click HELP to read this help file.   You may also press the F1 key.

This is the measurement list box.   You can select a measurement setting to apply to the current barcode object.   The measurement setting only affects the size of the barcode picture when printing or when displayed in an OLE client application.   Also see barcode functions.

To select a new text font for the current barcode.   Also see <u>barcode functions</u>.

To adjust the font size and position if the barcode text is not correctly positioned after rotation and/or scaling.   Enter a value between -30 and 30.   The preview window is not affected.   BAROLE will automatically apply the new font tweak value to the barcode image in the OLE client application.   This will not alter the preview window. Also see barcode functions.

To adjust the font size and position if the barcode text is not correctly positioned after rotation and/or scaling.   Enter a value between -30 and 30.   The preview window is not affected.   BAROLE will automatically apply the new font tweak value to the barcode image in the OLE client application.   This will not alter the preview window. Also see barcode functions.

Some barcodes have check digits which permit the scanning equipment to determine if the barcode has been scanned correctly.   The check digit is an extra number added to the barcode.   See the specifications for the selected barcode style to determine if you should select check digit or not.   Also see barcode functions.

Select show indicator/spacer if you want the spacer character included with the barcode. Also see barcode functions.

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PLEASE NOTE:
If you suspect you have an illegally copied version of the BAROLE disk, please contact the developer immediately.   Please quote the serial number on the disk (which should also match the serial number in the "About" dialog).   You will be given a FREE registered version, if the person or organisation who made the illegal copy can be contacted by us.   Full confidentiality is assured.

BAROLE2.EXE and BARCODE.DLL are copyright © 1993-1994, HEX Technology,   417 Manchester Street, Christchurch 8001, New Zealand. 1994. All Rights Reserved.

You are not permitted to distribute any part of the registered BAROLE system to any person or anything. You are NOT permitted to make use of the BARCODE.DLL in your own software application unless you have written approval from the <u>developer</u>.

No copyright or ownership of any barcode standard or name is claimed by HEX Technology NZ. However,   you may not use the barcode images produced by BAROLE for commercial or financial purposes unless you personally own a version of BAROLE.

Some barcode names are registered trademarks, eg: Codabar (Welch Allyn Inc.), Code 11, Code 39 (Interface Mechanisms, Inc) Code 2 of 5 (Identicon Inc),   MSI (MSI Inc), Code 128 (Computer Identics Inc).   Others may also be registered trademarks.

Microsoft Word, Microsoft Write, Microsoft Excel and WordPerfect are registered trademarks of their respective owners.

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Disclaimer

BAROLE output has been tested for accuracy. However,   HEX Technology will not accept any responsibility for any direct or indirect losses incurred through use or installation of the BAROLE system. Nor will HEX Technology accept any responsibility for loses of any kind resulting from the use of information contained in this help file or BAROLE documentation.   It is the users responsibility to ensure that barcodes are printed correctly and scan correctly.   Use of BAROLE constitutes acceptance of this disclaimer.   If you are not happy with this then please do not use BAROLE.

Please report any bugs to the developer.

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FAQ - Frequently Asked Questions and Answers

These questions deal with the use of BAROLE only.   Questions about barcodes in general can be answered by consulting appropriate publications or your local product number authority which allocates unique barcode numbers to products in your country.

QUICK FIX STEPS
These steps will help solve most problems:
(1) Ensure you have the check digit option on all the time.
(2) Check the font tweak value is appropriate.
(3) Check that the scaling in client application is at 100% or ensure that the barcode is scaled proportionately.

Here are some general questions and answers:

Q.

When I run BAROLE it complains about not finding a file or component missing!!

A.

Make sure you have BAROLE properly installed.   You require the files:
BAROLE2.EXE,   BAROLE2.HLP, CTL3D.DLL, MFCOLEUI.DLL, BARCODE.DLL to be in the path.
You must also ensure OLE version 2.01 is installed on your machine. If you have a file called "OLE2.DLL" in your windows system directory then you should already have OLE 2.1.   Contact the developer if you have any problems or are unsure.

Q.

Why doesn't BAROLE appear in the list of OLE Object types when I select Insert Object from my word processor?

A.

You have not registered it as an OLE server in Windows.   You can register as a server by simply running BAROLE2.EXE.

Q.

Why do I get a "File not found or moved" error message when I select "BAROLE Barcode Server" from the object list.

A.

You have deleted or moved the BAROLE files. Simply find the BAROLE2.EXE program, or reinstall it, and re-register it as a server by running it.

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Why doesn't the text always appear centred when barcodes are rotated and rescaled ?

A.

This is an acknowledged bug. There is a subtle flaw in the MS Windows text output function that means it incorrectly places text that is both rotated and centred. We have attempted to overcome this problem, and centring is much better than if we used the normal methods. But we cannot totally overcome the problem until Windows is fixed. Microsoft have acknowledged this bug. (PSS ID: Q82932). We will attempt to resolve this problem as soon as we can. But you can avoid this problem by only scaling rotated barcodes proportionately - which is what you should do anyway !!!!

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Why won't my barcode scanner recognise this barcode I just printed ?

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If the scanner is designed to read a certain type of barcode style and it doesnt - the problem could be with the barcode scanner hardware, the barcode itself or with the colour and texture of the paper. To solve this problem follow these steps:

(1) Try rescaling the barcode, smaller and larger until it scans correctly. If the barcode scanner still wont recognise the barcode then there must be a problem with the print quality or format of the barcode data. Check that there is no dirt or marks on the barcode. Check that the scanner visor is clean. Check to make sure you have chosen the right style and entered the correct data. Low resolution (70 dpi - 120 dpi) printing often causes individual bars to be incorrect thicknesses. Where possible use 300 or 360 dpi.. 600 dpi even better although not necessary for barcodes. Try to avoid using dot matrix printers if possible.

If that fails

(2)   Try printing the unrecognised barcode again on plain white paper, using a black bar colour. If it still does not scan then the problem must be with the barcode itself.

If that also fails, try:

(3)   Find an old barcode, of the same type,   that you know should be recognised and test the scanner with it.   If the scanner does not recognise it then there must a problem with the scanner - perhaps the scanner needs to be reprogrammed.

Or:

(4)   Design a barcode using the same data and style as the old barcode used in (3).   If the barcodes have different bar patterns, then perhaps BAROLE is using a different style variant than expected by the scanner or there is a bug in BAROLE.

If you have determined that the problem is with BAROLE, please contact the developer immediately.   You will receive a free update to fix the problem if necessary.

Can I link a database to BAROLE ?

Yes, see Barcode Labels

We also have available a macro for Microsoft Word 6.0 that will convert a text string into a barcode image. This can be very useful for forms etc.   This macro does not use OLE, instead it talks directly with the barcode.dll program itself.

How do I get rid of the word HEX or DEMO printed on all barcodes.

You must have the demonstration version of BAROLE.   When you purchase a copy, the HEX will disappear.

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Why has my version of BAROLE just stopped working.

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Some demonstration versions are designed to expire within a certain period of time.   Please purchase your own copy.

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I'm really not happy with the way the text associated with the barcode is displayed..

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BAROLE must scale the text to fit within the width of the barcode.   If the barcode is very narrow and the text is very long, the text will appear very squashed.   This problem can only be avoided by playing with the font tweak value,   showing less text, or using the client application to display the text instead of BAROLE.   For example,   show the barcode with "Show Text/Data" turned OFF, and type the required text under the barcode image using your word processor or other client application.

More questions and answers will be added to this section in future versions.

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Style: 2 of 5

Numbers	0,1,2,3,4,5,6,7,8,9
Letters	
Symbols	
Special Codes	
Length	Variable
Check digit	No
Bearer bars	N/a
Start/Stop characters	Inserted Automatically

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Style: Interleaved 2 of 5

Numbers	0,1,2,3,4,5,6,7,8,9
Letters	
Symbols	
Special Codes	
Length	Variable but must be even number of digits. Leading 0 added to odd number of data digits. Invalid characters (such as letters) are stripped.
Check digit	Yes - encoded and added to text
Bearer bars	N/a.
Start/Stop characters	Inserted Automatically

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Style: ITF

Is essentially Interleaved 2 of 5 but with horizontal and vertical bearer bars.

Numbers	0,1,2,3,4,5,6,7,8,9
Letters	
Symbols	
Special Codes	
Length	Variable but must be even number of digits. Leading 0 added to odd number of data digits. Invalid characters (such as letters) are stripped.
Check digit	Yes - encoded and added to text
Bearer bars	Yes - both horizontal and vertical bars added automatically regardless of setting.
Start/Stop characters	Inserted Automatically

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Style: Code 39

Numbers	0,1,2,3,4,5,6,7,8,9
Letters	A,B,C,D... Z Uppercase only
Symbols	- . space * $ / + %
Special Codes	
Length	Variable
Check digit	Yes - Select option if you want it. Does not show digit as text.
Bearer bars	N/a
Start/Stop characters	Inserted Automatically

For the full ascii set use these precedence characters:

ASCII	C 39	ASCII	C 39	ASCII	C 39	ASCII	C 39
NULL	%U	SP	Space	@	%V		$W
SOH	$A	!	/A	A	A	a	+A
STX	$B	"	/B	B	B	b	+B
ETX	$C	#	/C	C	C	c	+C
EOT	$D	$	/D	D	D	d	+D
ENQ	$E	%	/E	E	E	e	+E
ACK	$F	&	/F	F	F	f	+F
BEL	$G	!	/G	G	G	g	+G
BS	$H	(	/H	H	H	h	+H
HT	$I	)	/I	I	I	i	+I
LF	$J	*	/J	J	J	j	+J
VT	$k	+	/K	K	K	k	+K
FF	$l	'	/L	L	L	l	+L
CR	$M	-	-	M	M	m	+M
SO	$N	.	.	N	N	n	+N
SI	$O	/	/O	O	O	o	+O
DLE	$P	0	0	P	P	p	+P
DC1	$Q	1	1	Q	Q	q	+Q
DC2	$R	2	2	R	R	r	+R
DC3	$S	3	3	S	S	s	+S
DC4	$T	4	4	T	T	t	+T
NAK	$U	5	5	U	U	u	+U
SYN	$V	6	6	V	V	v	+V
ETB	$W	7	7	W	W	w	+W
CAN	$X	8	8	X	X	x	+X
EM	$Y	9	9	Y	Y	y	+Y
SUB	$Z	:	/Z	Z	Z	z	+Z
ESC	%A	;	%F	[	%K	{	%P
FS	%B	<	%G	\	%L			%Q
GS	%C	=	%H	]	%M	}	%R
RS	%D	>	%I	^	%N	~	%S

US   %E   ?   %J   _   %O   DEL   %T,%X
                                                        %Y,%Z

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Style: Code 93

Numbers	0,1,2,3,4,5,6,7,8,9
Letters	A,B,C,D... Z Uppercase only
Symbols	- . space $ / + %
Special Codes	Precedent characters ($) = &, (%) = ~, (/) = \ , (+) = *
Length	Variable
Check digit	No
Bearer bars	N/a
Start/Stop characters	Inserted Automatically

BAROLE 2.2   May 94

Style: Code 3 of 9

Numbers	0,1,2,3,4,5,6,7,8,9
Letters	A,B,C,D... Z Uppercase only
Symbols	- . space * $ / + %
Special Codes	
Length	Variable
Check digit	No
Bearer bars	No
Start/Stop characters	Inserted Automatically

BAROLE 2.2

May 94

Style: Code 128

In Auto Mode, switching codes are automatically inserted.   Special codes can be entered by enclosing them in ~ characters, for example character   BEL can be coded by entering ~BEL~

You can also select, restricted A, B or C sets for Code 128.

Numbers	0,1,2,3,4,5,6,7,8,9
Letters	A,B,C,D... Z a,b,c,d...z
Symbols	Any
Special Codes	~NUL~ ~SOH~ ~STX~ ~ETX~ ~EOT~ ~END~ ~ACK~
	~BEL~ ~BS~ ~HT~ ~LF~ ~VT~ ~FF~ ~CR~ ~SO~
	~SI~ ~DLE~ ~DC4~ ~DC1~ ~DC2~ ~DC3~ ~NAK~
	~SYN~ ~ETB~ ~CAN~ ~EM~ ~SUB~ ~ESC~ ~FS~
	~GS~ ~RS~ ~US~ ~FNC1~ ~FNC2~ ~SHIFT~ ~FNC3~
	~FNC4~
Length	Variable
Check digit	Yes, encoded in bars but not shown as text
Bearer bars	No
Start/Stop characters	Inserted Automatically

BAROLE 2.2

May 94

Style: Codabar

WARNING: Trap for new users !!   Remember to add your choice of start and stop character codes.
Eg: the code "123456" should be entered as "A123456T".

Numbers	0,1,2,3,4,5,6,7,8,9
Letters	Used as start/stop characters A,B,C,D,T,N,E
Symbols	
Special Codes	
Length	Variable
Check digit	No
Bearer bars	N/a
Start/Stop characters	You must add your choice of start stop characters. If in doubt use A for start and stop eg: set data to A123456A

BAROLE 2.2
May 94

Style: EAN128

Switching codes are automatically inserted. Special codes can be entered by enclosing them in ~ characters, for example character BEL can be coded by entering ~BEL~

Numbers	0,1,2,3,4,5,6,7,8,9
Letters	A,B,C,D... Z a,b,c,d...z
Symbols	Any but not ~ since it is used for special codes
Special Codes	~NUL~ ~SOH~ ~STX~ ~ETX~ ~EOT~ ~END~ ~ACK~
	~BEL~ ~BS~ ~HT~ ~LF~ ~VT~ ~FF~ ~CR~ ~SO~
	~SI~ ~DLE~ ~DC4~ ~DC1~ ~DC2~ ~DC3~ ~NAK~
	~SYN~ ~ETB~ ~CAN~ ~EM~ ~SUB~ ~ESC~ ~FS~
	~GS~ ~RS~ ~US~ ~FNC1~ ~FNC2~ ~SHIFT~ ~FNC3~
	~FNC4~
Length	Variable
Check digit	Yes, encoded in bars but not shown as text
Bearer bars	N/a
Start/Stop characters	Inserted Automatically

BAROLE 2.2

May 94

Style: EAN13

Numbers	0,1,2,3,4,5,6,7,8,9
Letters	
Symbols	
Special Codes	
Length	Fixed at 13 digits. You must enter 13 digits even if auto check digit.
Check digit	Yes - Replaces 13th digit with check digit
Bearer bars	N/a
Start/Stop characters	Automatically added

BAROLE 2.2

May 94

Style: EAN8

Numbers	0,1,2,3,4,5,6,7,8,9
Letters	
Symbols	
Special Codes	
Length	Fixed at 8 digits. You must enter 8 digits even if auto check digit.
Check digit	Yes - Replaces 8th character with check digit
Bearer bars	N/a
Start/Stop characters	Automatically added

BAROLE 2.2

May 94

Style: MSI

Numbers	0,1,2,3,4,5,6,7,8,9
Letters	
Symbols	
Special Codes	
Length	Variable
Check digit	No
Bearer bars	N/a
Start/Stop characters	Automatically added

BAROLE 2.2

May 94

Style: Code 11

Numbers	0,1,2,3,4,5,6,7,8,9
Letters	
Symbols	
Special Codes	
Length	Variable
Check digit	No
Bearer bars	N/a
Start/Stop characters	Inserted Automatically

BAROLE 2.2 May 94

Style: Code B

Numbers	0,1,2,3,4,5,6,7,8,9
Letters	
Symbols	
Special Codes	
Length	Variable
Check digit	No
Bearer bars	N/a
Start/Stop characters	Inserted Automatically

BAROLE 2.2 May 94

Style: Telepen Alphanumeric

Numbers	0,1,2,3,4,5,6,7,8,9
Letters	a -z, A -Z
Symbols	All
Special Codes	
Length	Variable
Check digit	No
Bearer bars	N/a
Start/Stop characters	Inserted Automatically

BAROLE 2.2 May 94

Style: UPC-A

Numbers	0,1,2,3,4,5,6,7,8,9
Letters	
Symbols	
Special Codes	
Length	Fixed at 12. You must enter 12 digits even if auto check digit. The last digit will be replaced.
Check digit	Yes - Replaces 12th digit with check digit
Bearer bars	N/a
Start/Stop characters	Inserted Automatically

To open a barcode (.bar) file from disk.

Create a new barcode object when running BAROLE 2.2 stand alone.   To create a new barcode in an OLE client application, please select the Insert Object function and select BAROLE 2.2 Barcode Server.

To save the current barcode to disk as a .bar file.

To copy the current barcode object to the Windows clipboard.   You can then paste the object into your OLE client application.

To place the barcode previously copied to the clipboard into the current barcode window.

To print the current barcode.

To set the type of barcode rotation.

To redraw the current barcode image.

To add a new measurement setting.

To edit the currently selected measurement setting.

The number of labels down the page.   The height of each label is determined by dividing the available page height by the number of labels down the page.

The number of labels across the page.   The width of each label is determined by dividing the available page width by the number of labels across the page.   The available page width is determined by subtracting the page margins and unprintable margins from the physical page width.

To specify the number of barcodes per page.   Enter 0 to fill the entire page.

To set the page margin.   If the labels you are using go right to the edge of the page, then set all these values to 0.   If you are using labels that are inset from the page boundary then specify the border in millimeters.

Diagram to help understanding of each setting.

Specify the width and height of the non printable border of your printer. For example, most HP printers cannot print widthin 6mm of the page edge.

To specify a margin within each label to offset the barcode image.   You can only set these values if the "center barcode option" is not checked.

To center the barcode image within each label space.   If you select this option, the label margins are ignored.

To draw a rectangle around the boundary of each label.

BAROLE 2.2 May 94

Data Automation

You can create and manipulate BAROLE 2.2 barcode objects using a Windows language that supports OLE 2.1 data automation functions, eg. Visual Basic

The following object variables are available:

Variable	Type	Values
Barcode_Text	String	Any text string
Barcode_Data	String	Any data string
Barcode_Style	Int	(see table below)
Barcode_Direction	Int	(see table below)
Barcode_ShowText	BOOL/Int	TRUE/FALSE
Barcode_ShowHeightBearers	BOOL/Int	TRUE/FALSE
Barcode_ShowWidthBearers	BOOL/Int	TRUE/FALSE
Barcode_ShowSpacer	BOOL/Int	TRUE/FALSE
Barcode_ShowCheckDigit	BOOL/Int	TRUE/FALSE
Barcode_SpacerChar	Int	ASCII Character Int
Barcode_FontFace	String	Font Name
Barcode_FontBold	BOOL/Int	TRUE/FALSE
Barcode_FontItalic	BOOL/Int	TRUE/FALSE
Barcode_BarColour	LONG	RGB Colour value
Barcode_BackgroundColour	LONG	RGB Colour value
Barcode_FontTweak	UINT	Int -30 to 30

The following functions are available:

Update()   Update the barcode object

Barcode Style values:

#define BARCODE_2of5	1
#define BARCODE_2of5_Interleaved	2
#define BARCODE_3of9	3
#define BARCODE_Codabar	4
#define BARCODE_Code39	5
#define BARCODE_Code93	6
#define BARCODE_Code128	7
#define BARCODE_EAN128	9
#define BARCODE_EAN13	10
#define BARCODE_EAN8	11
#define BARCODE_MSI	12
#define BARCODE_ITF	13
#define BARCODE_Code11	14
#define BARCODE_CodeB	15
#define BARCODE_Telepen	16
#define BARCODE_UPC_A	17
#define BARCODE_Code128_A	23
#define BARCODE_Code128_B	24

```
#define BARCODE_Code128_C            25
```

Direction/Rotation values:

```
#define ROTATION_Normal              0
#define ROTATION_UpsideDown          1
#define ROTATION_Left                2
#define ROTATION_Right               3
```

Example Code:

The following code will work with Microsoft Visual Basic,

```
Dim BarObject As Object
Set BarObject = CreateObject("barole2.BarcodeFileType")

BarObject.BARCODE_Style = STYLE_Code128
BarObject.BARCODE_Data = "123456789"
BarObject.BARCODE_Direction = ROTATION_Normal
BarObject.BARCODE_FontFace = "Courier New"
BarObject.BARCODE_FontBold = 1
BarObject.Update
```

For more information about data automation please consult the reference manual for your programming language.

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DDE - Dynamic Data Exchange

You can send DDE commands to the active barcode object in BAROLE 2.2.

DDE can be used to automatically update the OLE object with new data and settings without leaving your client application.   An example using WordBasic is at the end of this section.

The steps you must follow to use DDE are:

1. Activate the OLE object you want to edit using DDE,   you can do this by double clicking on the OLE object or use program source code.

2.   Do a DDEInitiate to BAROLE 2.2 to open a channel
        eg: channel = DDEInitiate("BAROLE2", "System")

3. Execute the commands you want one at a time using the channel

        eg: cmd1$ = "SHOW_TEXT(TRUE)"
                 DDEExecute channel, cmd1$

3.   Finish by calling DDETerminate
        eg: DDETerminate channel

If you need to run BAROLE 2.2 manually using program code, execute BAROLE with the /S parameter to hide the BAROLE Window.   The DDE command Show_Window(FALSE) will do the same, but only after BAROLE has been loaded.

You may also wish to run BAROLE using program code, set up the barcode you want, then call the DDE command to copy the barcode to the clipboard,   close down BAROLE and use program code to paste the barcode into your application.

All BAROLE DDE commands take a single parameter.   The parameters are listed in the table below.

The following commands are available:

Command	Parameter	Description
Update	BOOL	Update the object in the calling client application and redraw barcode with any new settings. Most other commands do not take affect until an Update command is executed.
Rotation	Int	Set the rotation of the barcode. 0 = Normal 1 = Upside Down 2 = Left 3 = Right
Data	String	Set the barcode data string
Text	String	Set the barcode text string
Style	Int	Set the barcode style. See data automation for possible values.

Show_Text	BOOL	Show or hide the barcode text.
Show_Vertical_Bearerbar	BOOL	Show or hide the vertical bearer bars
Show_Horizontal_Bearerbars	BOOL	Show or hide the horizontal bearer bars
Show_Spacer	BOOL	Show or hide the spacer character
Show_CheckDigit	BOOL	Include or Exclude the check digit
Spacer	String	Set the spacer character
Font_Face	String	Set the font face, eg: Arial, Times New Roman
Font_Bold	BOOL	Make the font bold or normal.
Font_Italic	BOOL	Make the font italic or not.
Font_Tweak	Int	Set the font tweak value. -30 to 30
Height_Adjust	Int	Set the height adjustment value -200 to 200
Colour_Bar	LONG	The RGB colour for the bars
Colour_Background	LONG	The RGB colour for the background
Measurement_Height_Flag	BOOL	True = Height measurement is in millimeters False = Height measurement is a percentage
Measurement_Width_Flag	BOOL	True = Width measurement is in millimeters False = Width measurement is in millimeters
Measurement_Width	Int	Width measurement in 100th's of a millimeter eg: 3cm = 3000 maximum 36 cm high
Measurement_Height	Int	Height measurement in 100th's of a millimeter eg: 3.5cm = 3500 maximum 36 cm wide
Data_Path	String	The file name for the data path
Ratio	Int	Set the ratio setting.
Print	BOOL	Print the current barcode setup. TRUE = Don't show the print layout dialog FALSE = Show the print layout dialog The Windows Print Setup dialog will always be shown. Will only work if current object is not running embedded.
Print_Quantity	int	The number of barcodes to print per page
Print_Down	int	The number of barcodes down the page
Print_Across	int	The number of barcodes across the page
Print_Label_LeftMargin	int	Label left margin in 100th of a millimeter.
Print_Label_TopMargin	int	Label top margin in 100th of a millimeter.
Print_Page_LeftMargin	int	Page left margin in 100th of a millimeter.
Print_Page_TopMargin	int	Page top margin in 100th of a millimeter.
Print_Page_RightMargin	int	Page right margin in 100th of a millimeter.
Print_Page_BottomMargin	int	Page bottom margin in 100th of a millimeter.
Print_LeftEdge	int	Page unprintable left margin.. HP laser jet = 6mm -> 600
Print_TopEdge	int	Page unprintable top margin.. HP laser jet = 6mm -> 600
Print_Centre	BOOL	Centre barcodes in label spaces
Print_DrawBox	BOOL	Draw a box around each label space
Clipboard_Copy	Ignored	Copy the current barcode to the clipboard
Clipboard_Paste	Ignored	Paste the barcode in the clipboard into BAROLE
Show_Window	BOOL	Hide or show the BAROLE program window. You can continue to send DDE commands.
New	BOOL	Create a barcode object in BAROLE
Open	String	Open the specified barcode file (.bar)
Measurement_Select	String	Apply the specified measurement setting.

A BOOL value can be: TRUE, T or 1   to turn the command on, or FALSE, F, 0 to turn the command off.

Command names and parameters are NOT case sensitive.

Example:

This example is for WordBasic:

```
Sub MAIN
'If AppIsRunning("BAROLE 2.2") = 0 Then Shell "C:\WINDOWS\OLE\BAROLE2\
BAROLE2.EXE"
channel = DDEInitiate("BAROLE2", "System")

cmd1$ = "SHOW_TEXT(TRUE)"
DDEExecute channel, cmd1$

cmd1$ = "STYLE(10)"
DDEExecute channel, cmd1$

cmd1$ = "ROTATION(0)"
DDEExecute channel, cmd1$

cmd1$ = "DATA(9772255772255)"
DDEExecute channel, cmd1$

cmd1$ = "MEASUREMENT_HEIGHT(2500)"
DDEExecute channel, cmd1$

cmd1$ = "MEASUREMENT_WIDTH(3000)"
DDEExecute channel, cmd1$

cmd1$ = "CLIPBOARD_COPY(TRUE)"
DDEExecute channel, cmd1$

cmd1$ = "UPDATE(TRUE)"
DDEExecute channel, cmd1$

DDETerminate channel
End Sub
```

You only need to set the barcode parameters you want to change.   The settings from the last barcode will be used for any new barcodes.

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Data Sequence File

If you want to print a series of barcodes using a sequence of numbers, you must create a disk file that contains the data to be used.   You can use your normal word processor or text editor to create this file or you can use BAROLE.

Follow these steps:

(1)   Run BAROLE stand-alone.

(2)   Select FILE - NEW

(3)   Select "Barcode Sequence File"

(4)   In the new OPTIONS menu, select "Insert Sequence"

Data Sequence

Data Prefix:	AT
Start At:	1
Increment By:	1
End At:	345
Data Suffix:	XP

[Generate !]   [Help]   [Cancel]

Complete the Data Sequence dialog. and select the Generate button to insert the data sequence into the data document.

For example:

if,

Data Prefix =   TT
Data Suffix = YY
Start At = 99
Increment = 2

The first data string generated will be " TT99YY" , the next will be "TT101YY"

Select FILE - SAVE to save the data file to disk.   All the normal Edit and Search functions are available in the EDIT menu.   You may also print and load data files within BAROLE.

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Measurements

Barcodes can be scaled in two ways:

    (1)   Scaled to exact millimetre width and/or height.
    (2)   Scaled proportionately up or down from the default size.

The best approach, in most cases, is to force the height of barcodes to be a certain height, eg: 10mm, and to scale the width proportionately.   This will give the best scanning results.

From the tool bar, or from the menu, you can edit, add or delete measurement settings.   Measurement settings can be applied to barcodes by selecting the appropriate measurement name in the measurement setting combo box on the second tool bar.

The measurement setting dialog looks like this:

For the width and height settings, if you select the first option, you must enter a units value as a percentage (a number from 1 to 10000) eg: 100 to leave at default size, or 50 to reduce size by half, 200 to double size etc.   If you select the "Measurements in mm's" option then the barcode's width or height will be scaled to the measurement specified.   You can enter up to 2 decimal places.