



Open Date Equipment Ltd.  
Units 9 Puma Trade Park  
Morden Road  
Mitcham  
Surrey. CR4 4DG UK

Tel: - 020 8655 4999  
Fax: - 020 8655 4990  
[www.opendate.co.uk](http://www.opendate.co.uk)

## **“Codesoft 2014 Pro” Overview Manual Thermocode**

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## Foreword

Throughout this document, trademarked names may be used. Rather than put a trademark (™ or ®) symbol in every occurrence of a trademarked name, we state that we are using the names only in an editorial fashion, and to the benefit of the trademark owner, with no intention of infringement.

This manual is only a general overview on setting up the Thermocode Series 2 & IQ range of Thermal transfer printers, so they can be controlled & programmed using the Codesoft software. If you experience any difficulties in setting up your printer, please contact your local supplier.

All Thermocode Series 2 Printers use True type or Bitmap (SFP) fonts that can be downloaded using Codesoft. This enables all types of variable text and counter fields to be created and then controlled from within the printer software.

As well as this user's guide, within the Codesoft software there are comprehensive help menus that also assist in the design of the required formats for printing.

## Codesoft Installation

The Software will be supplied with a dongle, a hardware protection key. That must be installed into a **USB** port. **Codesoft 2014** automatically recognises the hardware key if inserted before the Installation.

The Codesoft CD will automatically load the software and display the dialog boxes shown below.



Follow the instructions as the installation progresses.

The last dialog box click on Finish.



When opening Codesoft, if this Dialog Box appears, the dongle has not been inserted.

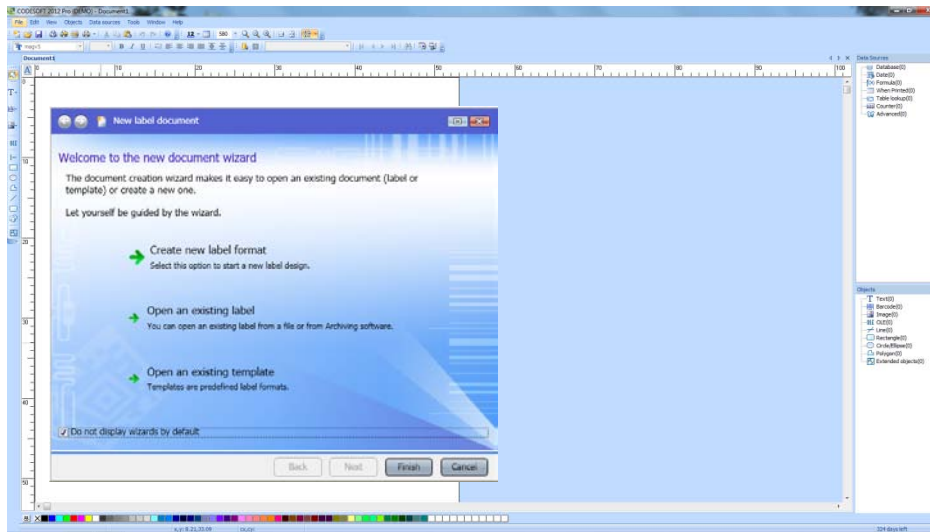


Click on Exit and Insert the hardware key

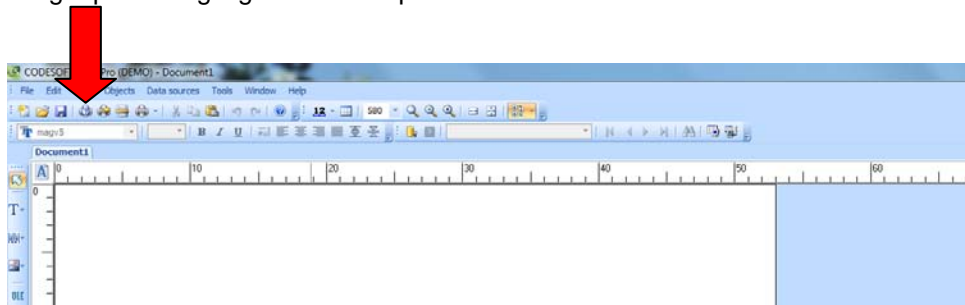
## Printer Set Up

**When the installation is completed open Codesoft 2014**

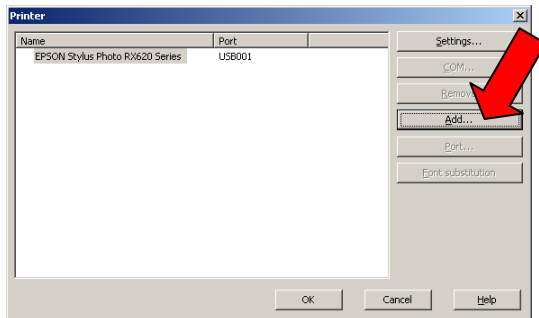
Check the box "Do not display wizards by default" Then click on "**Finish**"



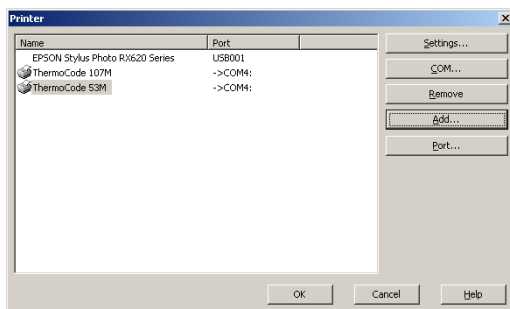
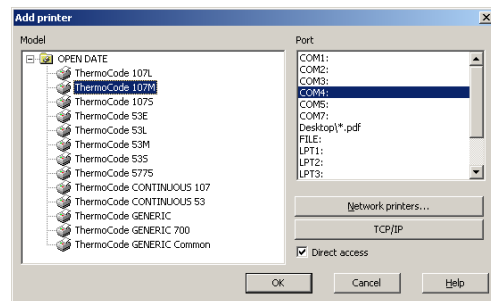
After Codesoft 14 Premier has been installed. You must set up the model of printer being used. Click on the icon button showing a printer highlighted with a question mark.



The dialog box below will appear. Click on "Add"



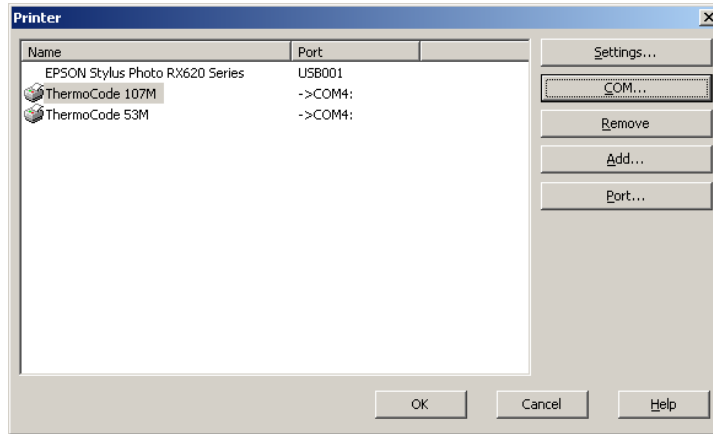
This Dialog Box will appear. Select the "OPEN DATE" directory. Select the communications port your computer uses. Ensure the "Direct access" is ticked.



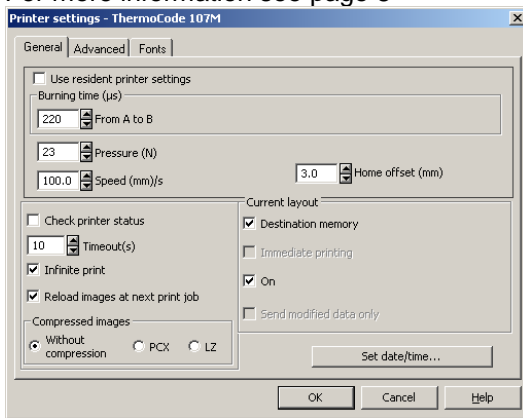
Add the required model printer types

Then Click on "OK" to save the settings

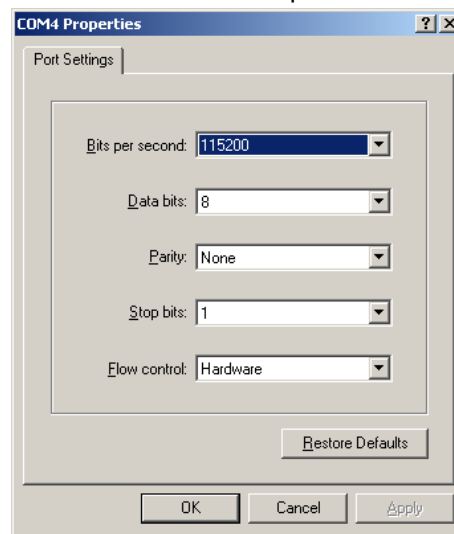
## Printer Set Up Continued



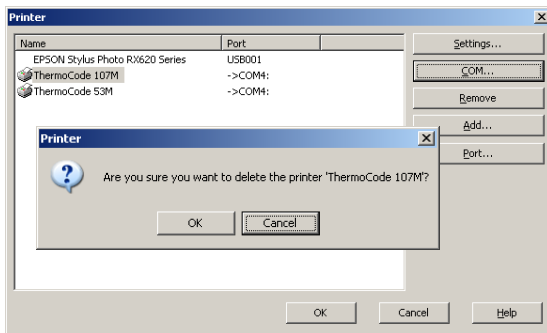
"Settings button" this dialog box appears  
For more information see page 8



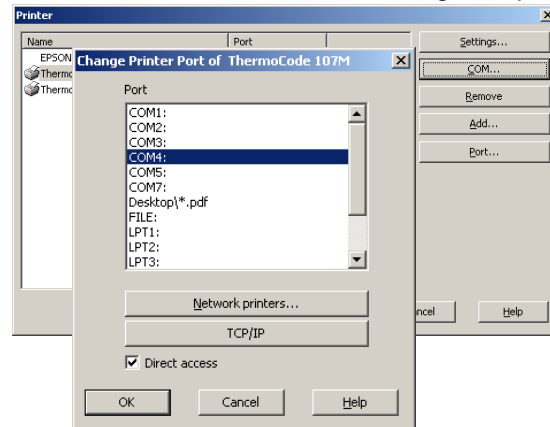
"COM button" Port set up as shown



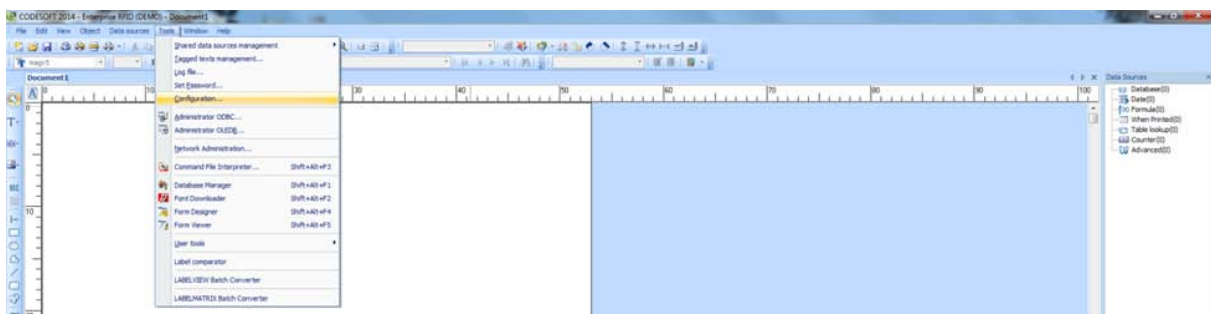
"Remove button" removes Printers



"Port button" allows the user to change the port

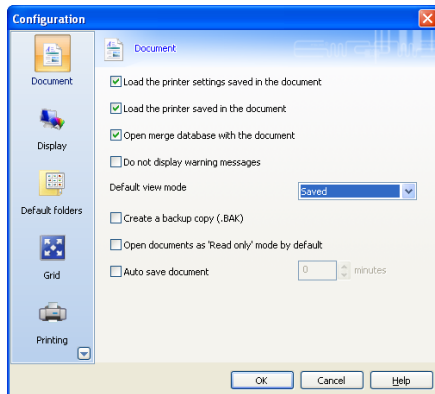


Click on Tools and select Configuration.

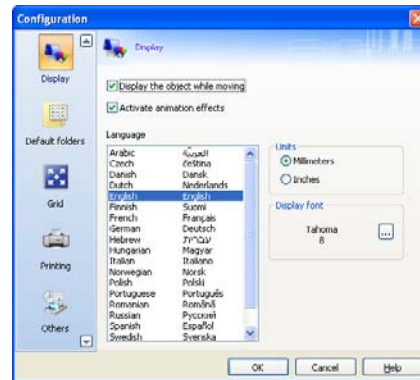


## Printer Set Up Continued

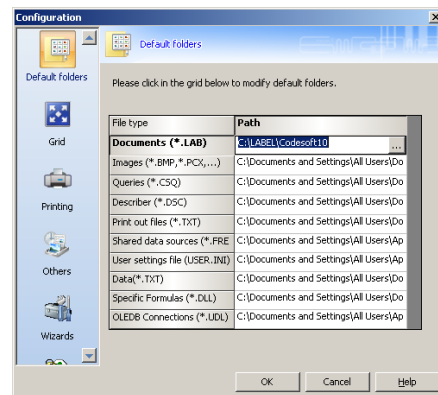
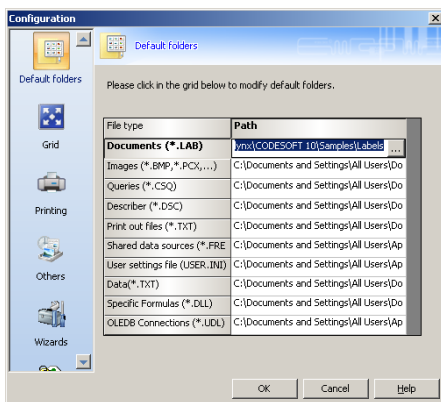
Select by checking the boxes



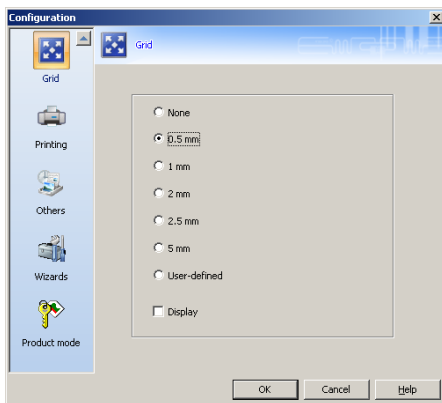
Select the required Language



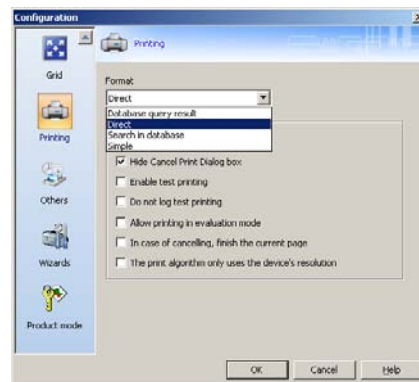
From these dialog boxes you can change the directories



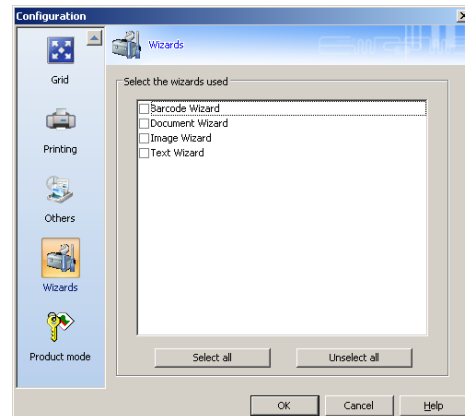
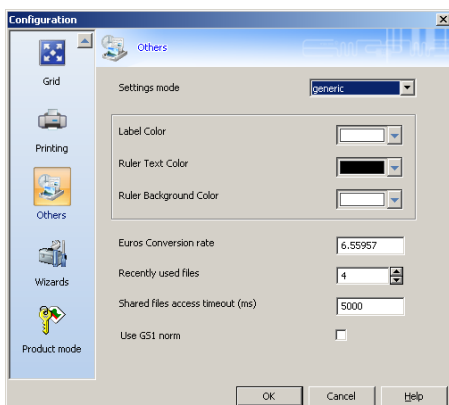
This dialog box allows the user to snap to grid



This configuration is ideal if the user is not running a database.

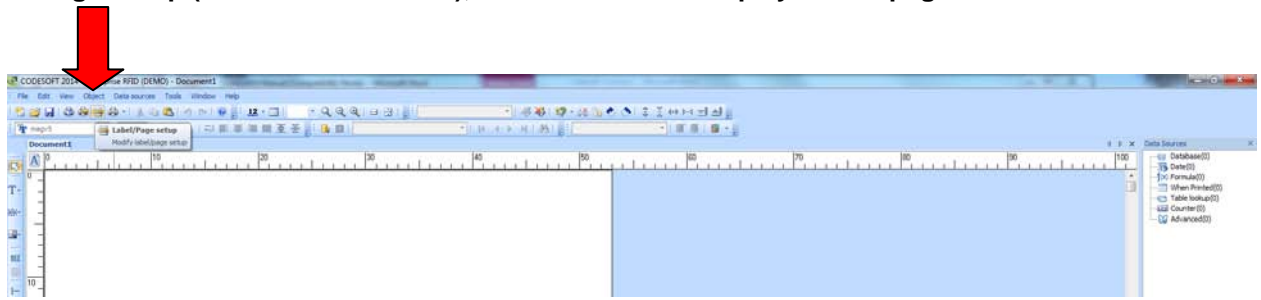


These dialog boxes are set as shown

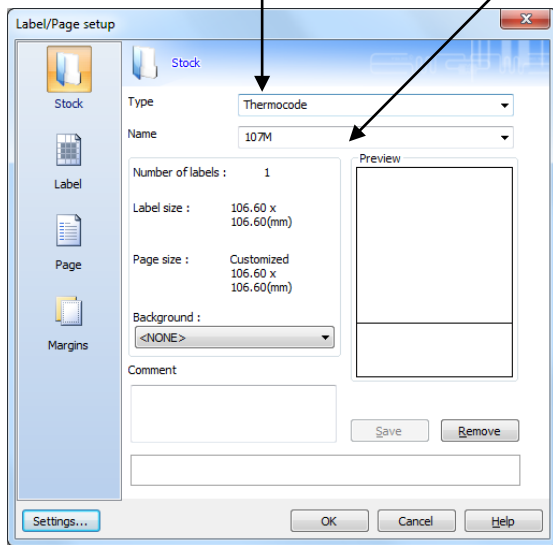


## Page Set Up

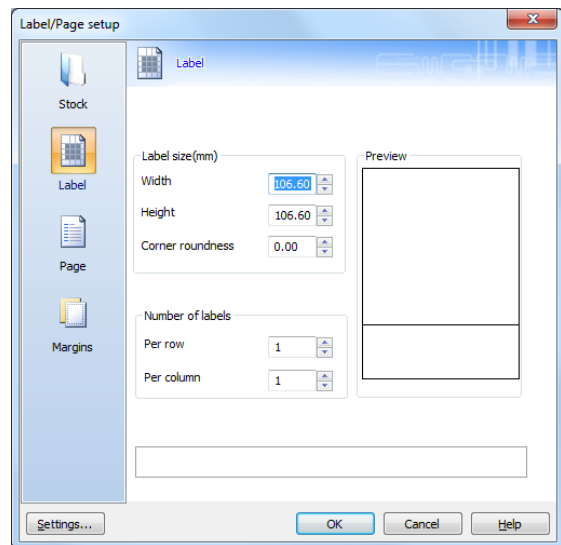
**Page Setup (maximum Print area), Click on the icon displayed as a page with the Ruler.**



This Dialog Box will appear. Ignore the warning message in red and label page size. Enter the Printer Type and the Model name of the Printer. Then Click on “Label”

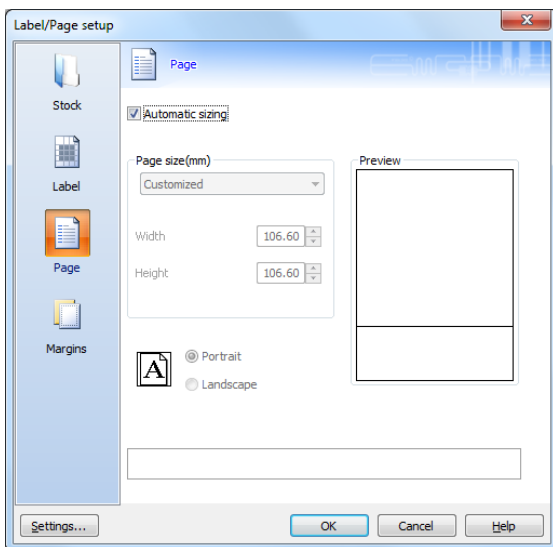


The user can if wished added comments In the Comments box.



The dialog box allows the user to change the print area (width and height) to suit the printer used. Corner roundness, Per row and Per column are set as shown.

Click on “Automatic sizing

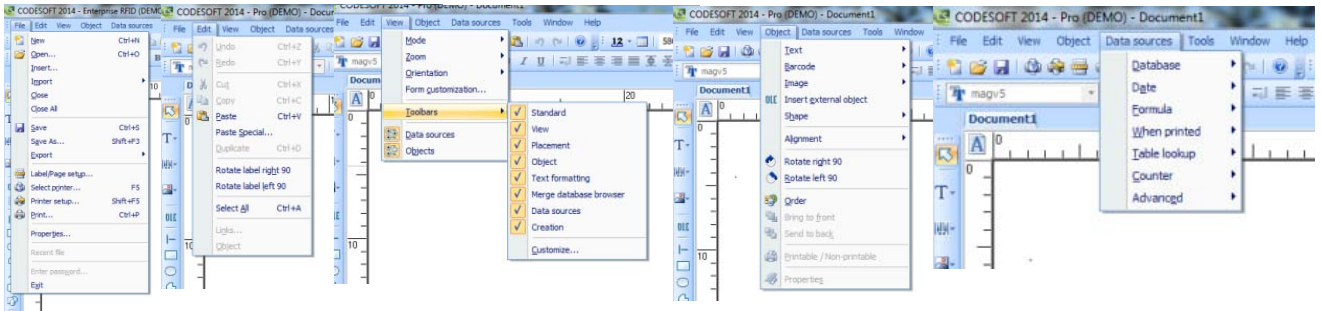


Model	Width (mm)	Height (mm)	Max Length (mm)
53E	53.3	30.0	30.0
53C	53.3	53.3	500
53S	53.3	53.3	53.3
53M	53.3	106.6	106.6
53L	53.3	160.0	160.0
107S	106.6	53.3	53.3
107M	106.6	106.6	106.6
107L	106.6	160.0	160.0
107C	106.6	106.6	250

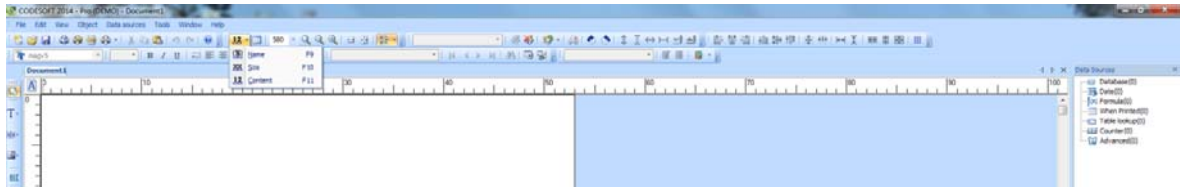
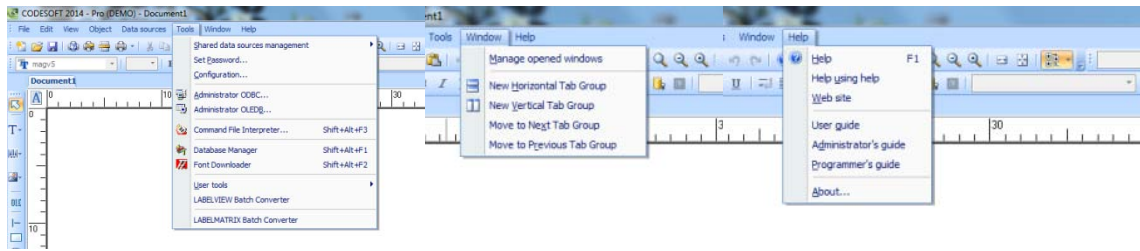
Margins should be set on 0.00 for Left and Top. Click on OK on completion.

## Codesoft Icons

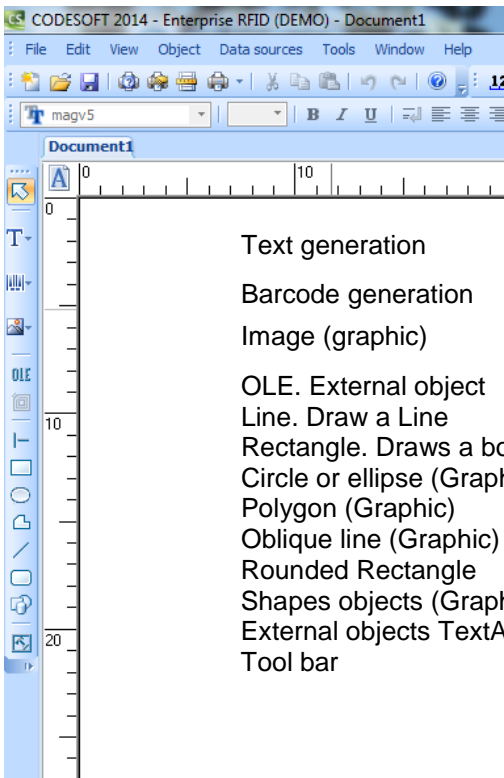
File                      Edit                      View                      Object                      Data sources



Tools                      Window                      Help



### Object selection



- Text generation
- Barcode generation
- Image (graphic)
- OLE. External object
- Line. Draw a Line
- Rectangle. Draws a box
- Circle or ellipse (Graphic)
- Polygon (Graphic)
- Oblique line (Graphic)
- Rounded Rectangle
- Shapes objects (Graphic)
- External objects TextArt (Graphics)
- Tool bar

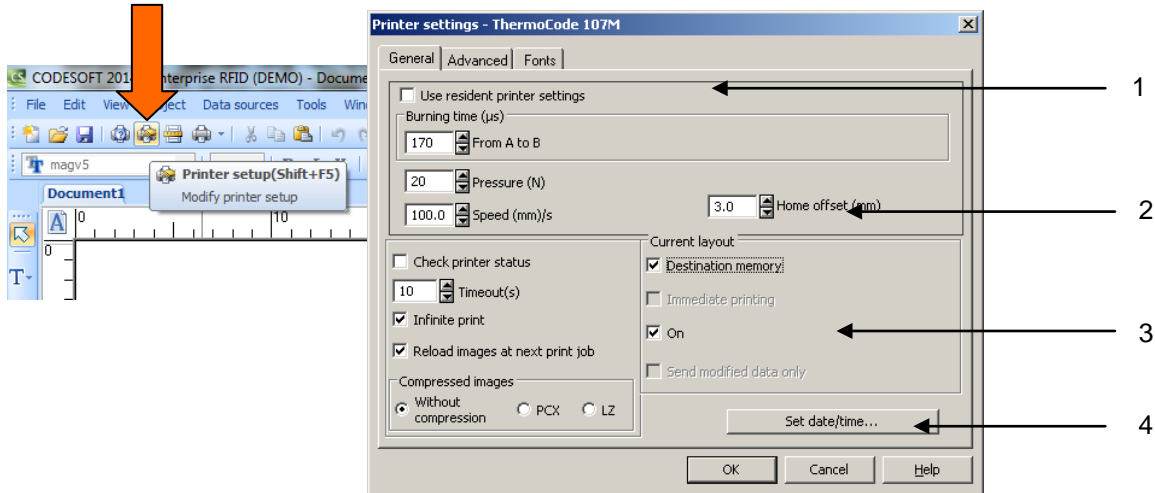
## Printer Settings

### Forward

The printer settings are very important, ensuring that the print quality is optimised for product being printed.

Ideally you should leave the values Burn, Pressure, Speed and Home offset as the defaults that have loaded with the software. Once a test print on the substrate to be printed has been done, fine-tuning of these values can take place to suit your required application.

Click on the icon that shows the printer with the spanner, the printer settings dialog box is then shown.



- 1 **Use resident printer settings:** With this clicked on, no print parameters are sent to the printer with the format design. The printer will then automatically use the default values as set up in "Supervisor" menu of the keypad.
- 2 **Printer Settings:** These are the **Burn, Pressure, Speed** and **Home offset** values that will be sent with the format design, if the "Use resident printer settings" box has not been checked. (Normal operation)
- 3 **Check printer status:** With this box checked, the printer is checked to ensure everything is ok before sending a format etc.

**Timeout (s):** The amount of time in seconds that the printer will be checked (any errors will be displayed).

**Reload images at print time:** After sending a format with variables or graphics, Codesoft does not send these items again, as they are held in the printer file store and memory of Codesoft. If an Initialisation is carried out then sending the format without checking this box will cause an error message to be displayed as Codesoft believes the files are already within the printer. Ticking this box will send the complete format.

**Compressed images:** This allows Graphics to be compressed for high speed loading to the printer and is mainly used when variable graphics are being loaded to the printer from a database. Graphics can be compressed as a: - **PCX** or **LZ**.

**Infinite print:** With this unticked the printer will only print one label.

**Destination memory:** Sends the format to the printer file store only.

**Send modified data only:** Updated information only, not the complete format (after first print).

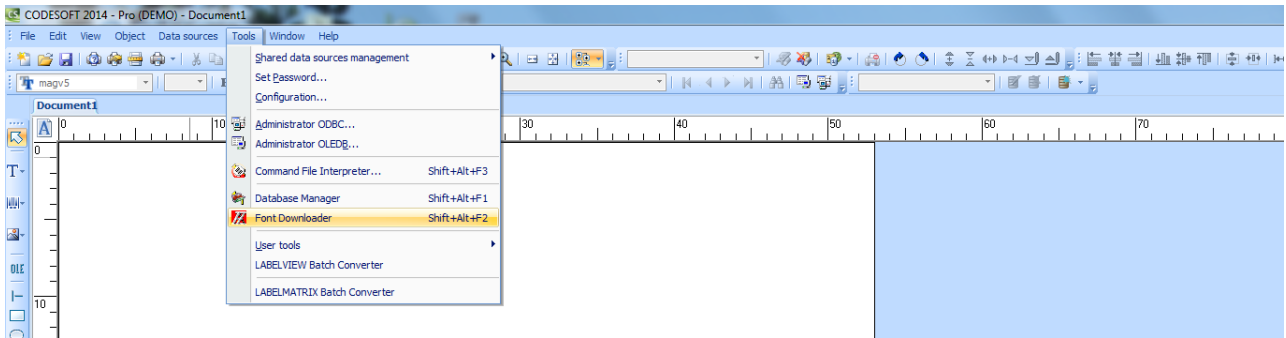
**Immediate printing:** Format is automatically printed as soon as it has downloaded to the printer  
**On:** Send the format to the print head memory and printer file store.

- 4 **Set date/time:** Allows the user to configure the printer date and time to be in synchronisation with the PC, or as the user requires.



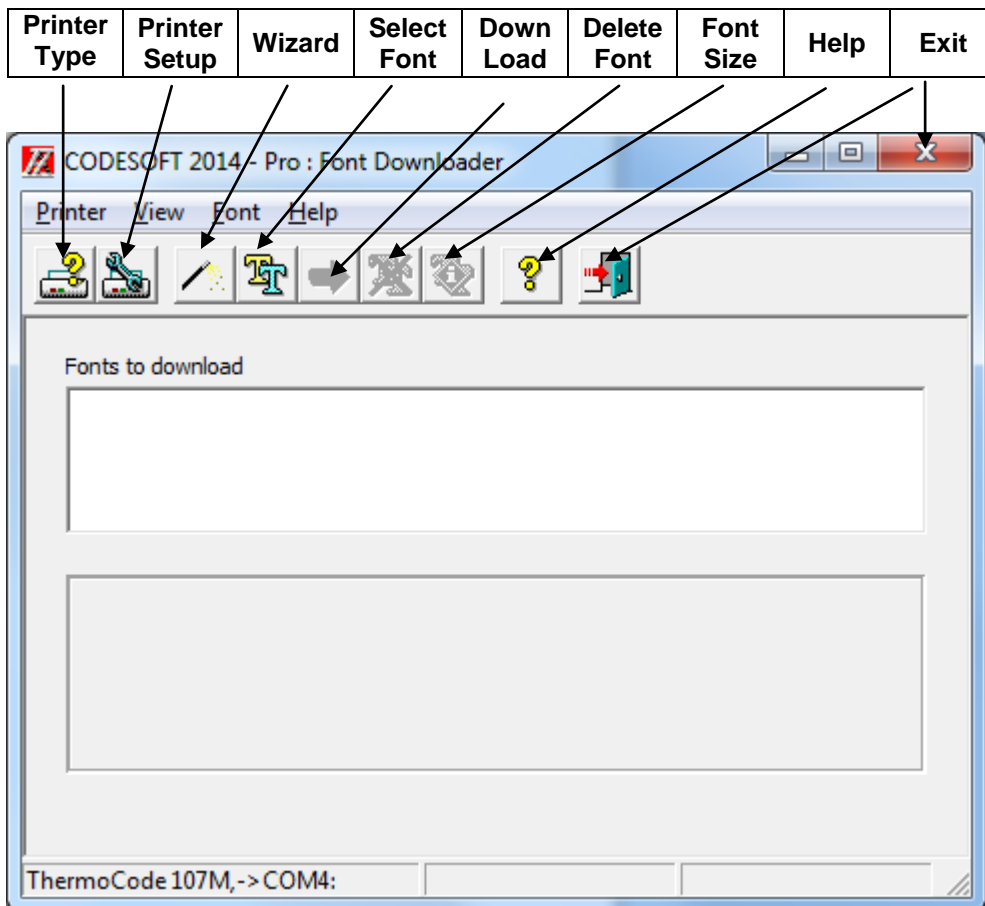
## Downloading True Type Fonts (\*.TTF)

Click on **"Tools"** and then click on **"Font Downloader"**



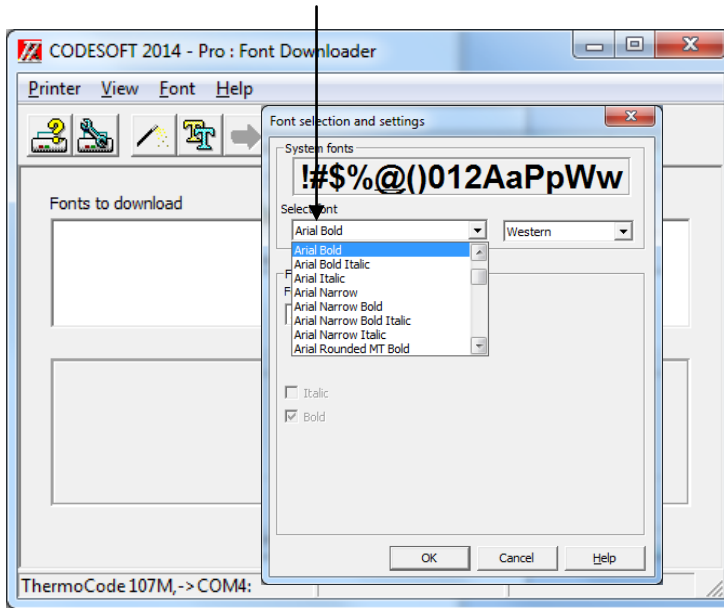
Before downloading any fonts check the size of the font. The maximum sizes is 2 fonts 358Kb, maximum number of 3 to 4 fonts 136Kb. The number of fonts that can be used would be dependent on the number of formats stored in the printer. Smaller fonts are available.

### Font Icon Descriptions.

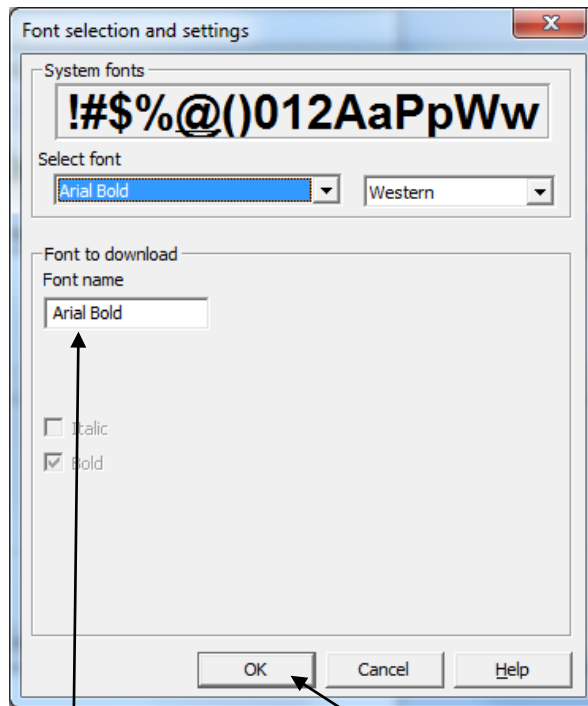


## Downloading True Type Fonts (\*.TTF) continued

1. Click on "Font select", scroll down and search for the font you require.



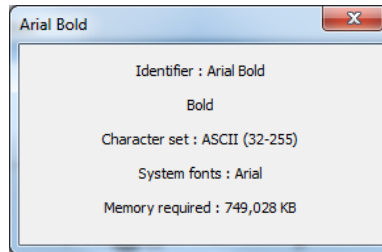
2. In this case Arial Bold. Click on the font.



3. Edit the font name, if required.  
Maximum length up to 10 characters  
Without punctuation
4. Click "OK" when completed.

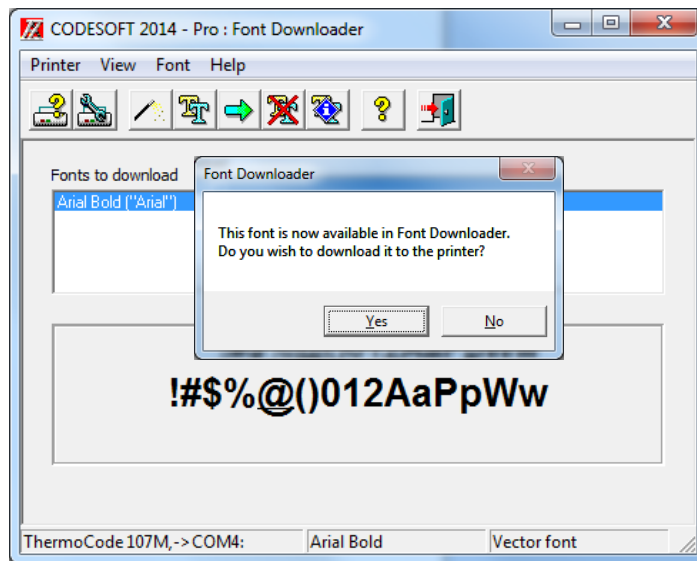
## Downloading True Type Fonts (\*.TTF) continued

Before sending any fonts to the Printer it is strongly recommended to check the font size.



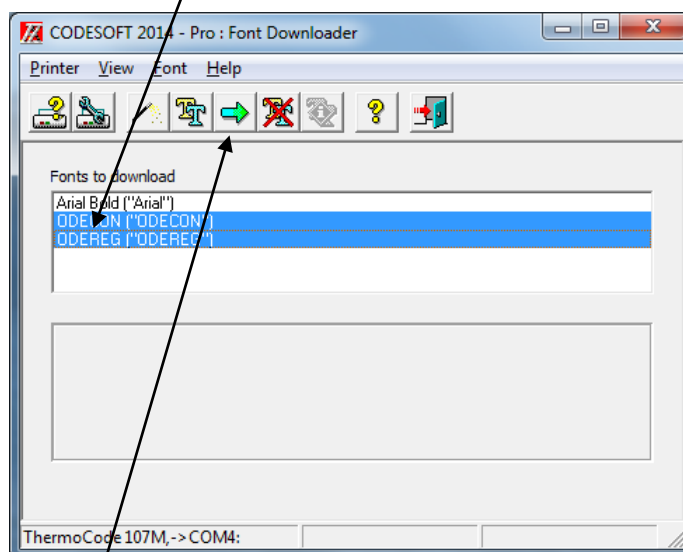
This would cause problems with the Printer and will malfunction as it uses too much memory.

When you select **"Yes"** the font will be downloaded to the printer. It is strongly advised the user checks the font size before being used. At this stage click on **"No"**



Alternatively you may wish to load several different types of fonts, click on **"No"** and see instruction below

Holding the **"shift key"** and the **"down arrow"**, selects all the fonts ready to load to the printer at once.

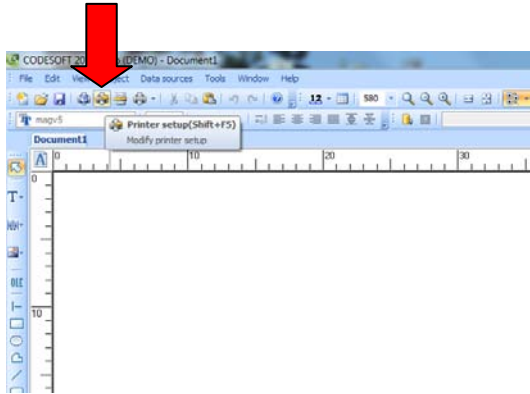


Click on the **"Download Font"** button, this will copy all selected fonts to the printer.

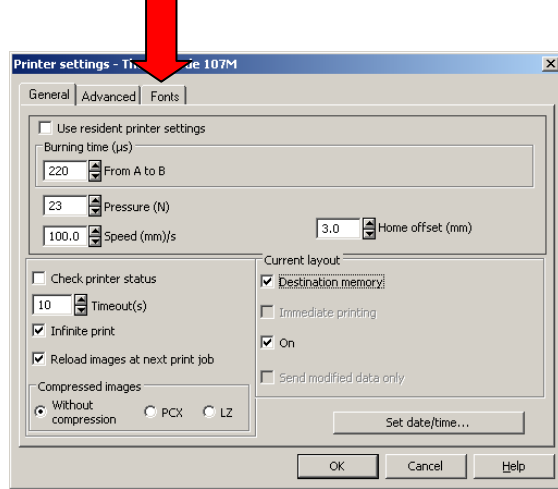
The user is advised to load the small fonts that can be found in RecoverMode. Open Date has a selection of small fonts available.

## Downloading Bitmap Fonts (\*.SFP)

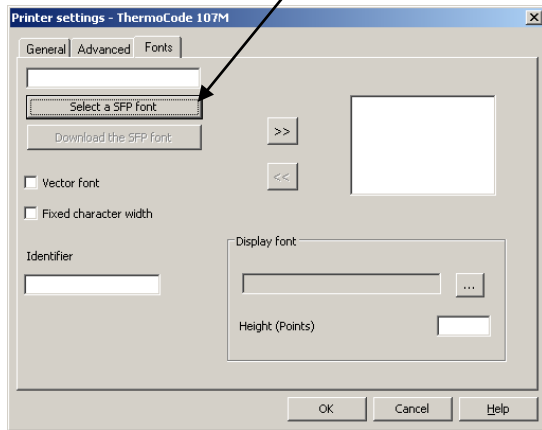
1. Click on "Printer setup"



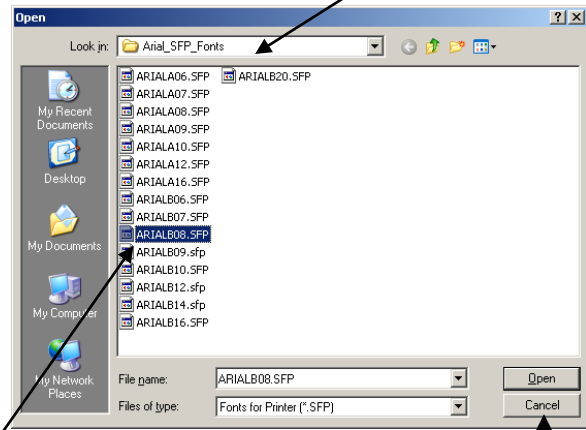
2. This Dialog Box will appear Click on Fonts.



3. Click on "Select a SFP font".



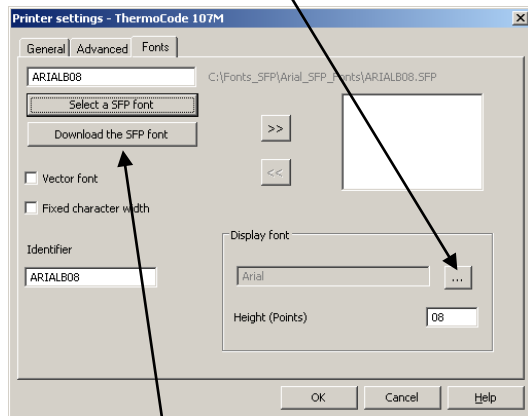
4. Select directory with "\*.sfp" fonts.



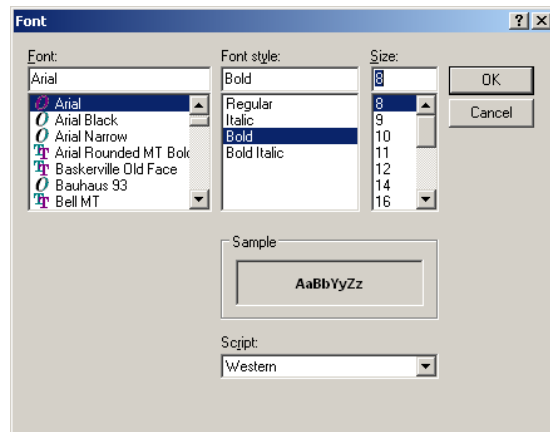
5. "Highlight" the font you wish to use.

6. Then click on "Open"

7. The SFP font is Arial Bold.  
Click on this button



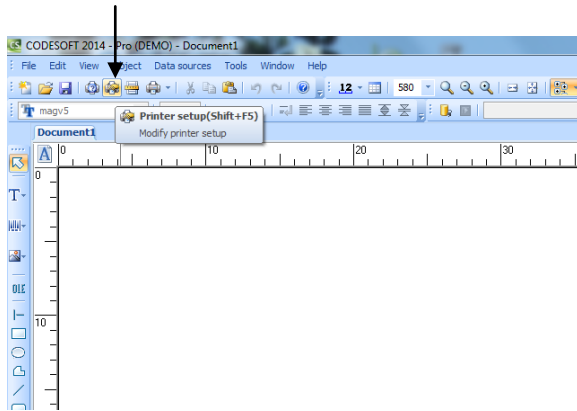
8. This dialog box will appear. Select the font and font style as shown for Arial Bold. This will be used as the display font used by Codesoft, for the format design.



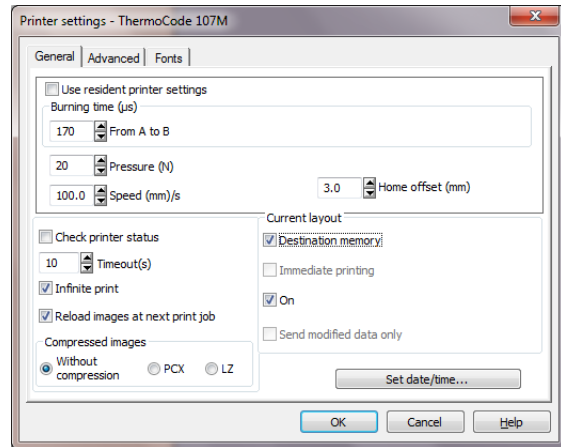
9. Click on "Download the SFP font" to load to the Printer.

## Checking the Fonts Loaded to the Printer

Click on Printer setup

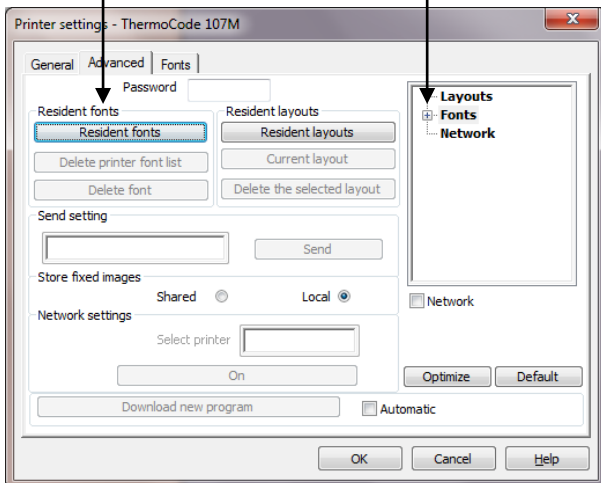


Click on Advanced

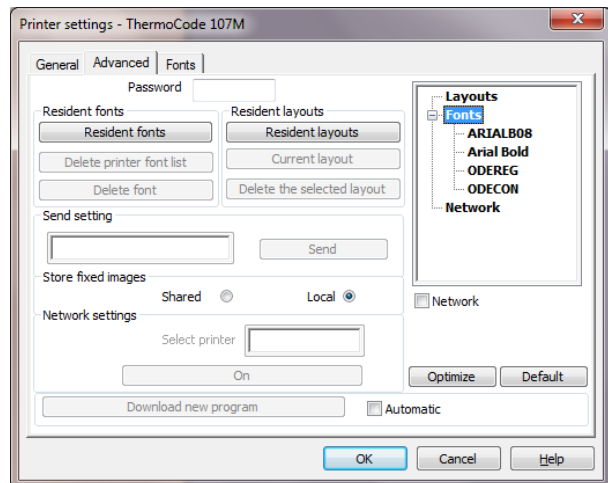


Click on Resident fonts

Click on the +

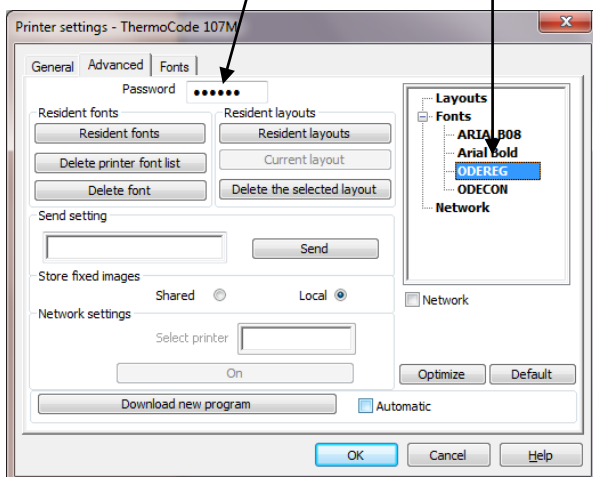


The installed fonts

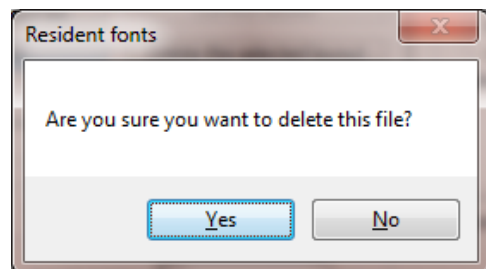


## Deleting a Printer Font

1. Enter the Password (999999) 2. Select the font to be deleted
3. Click on Delete font.



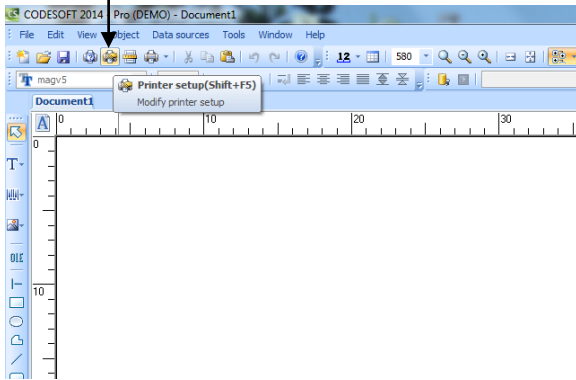
This dialog box will appear. Select Yes to delete the font



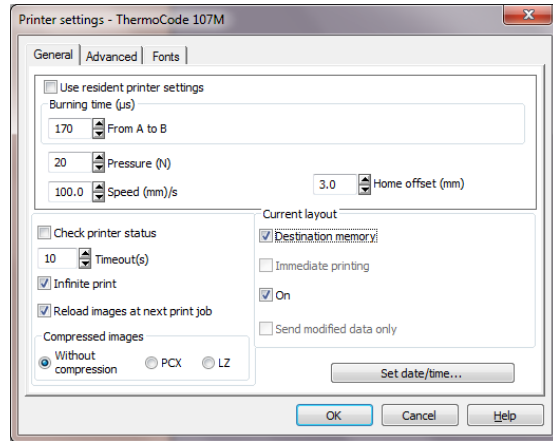
**Note: - All variable printer fields the user must select a printer TTF or SFP font.**

# Checking Formats Loaded to the Printer

Click on Printer setup

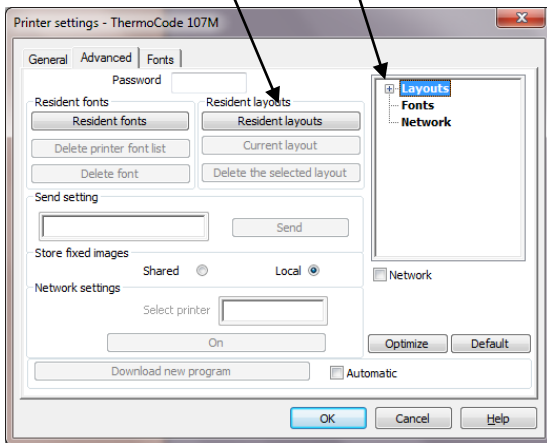


Click on Advanced

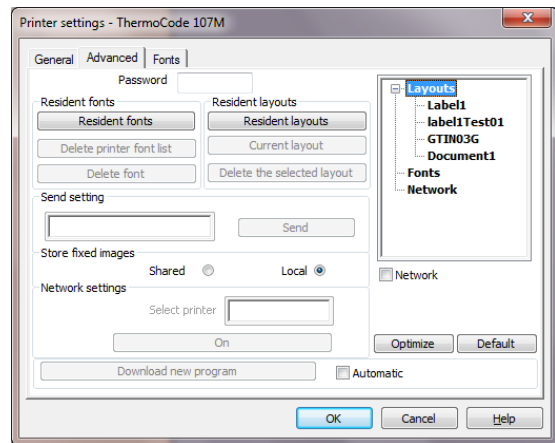


Click on Resident layouts

Click on the +

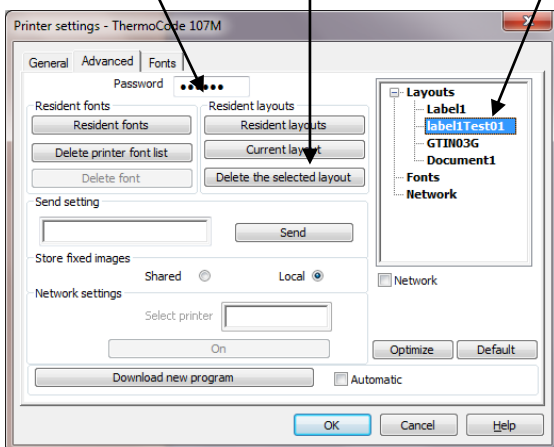


The installed Layout (Formats)

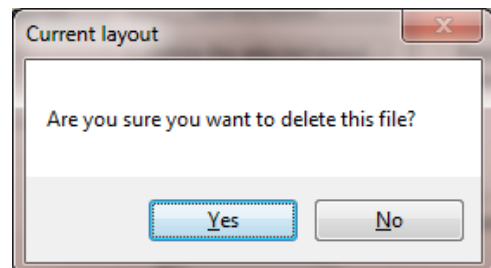


## Deleting a Printer Layout (Format)

1. Enter the Password (999999)
2. Select the layout to be deleted.
3. Click on Delete font.

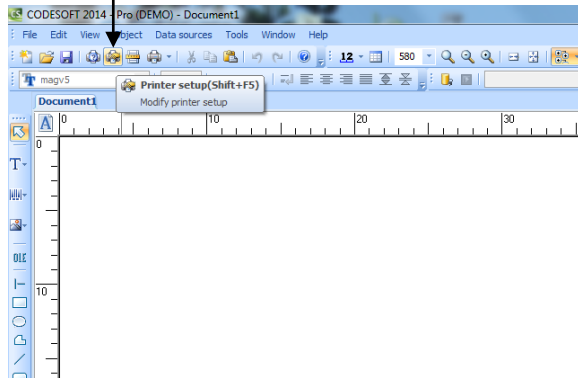


This dialog box will appear. Select Yes to delete the layout (format)

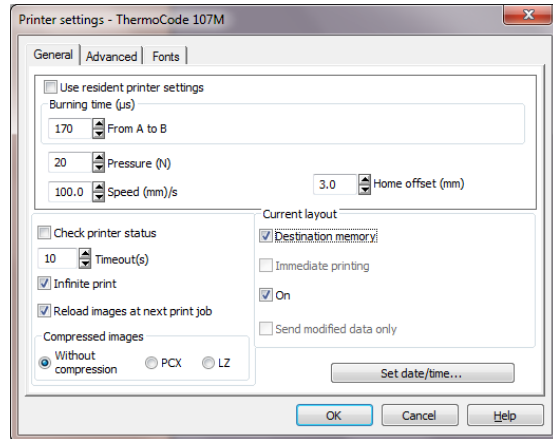


## Load Firmware to the Printer Automatically

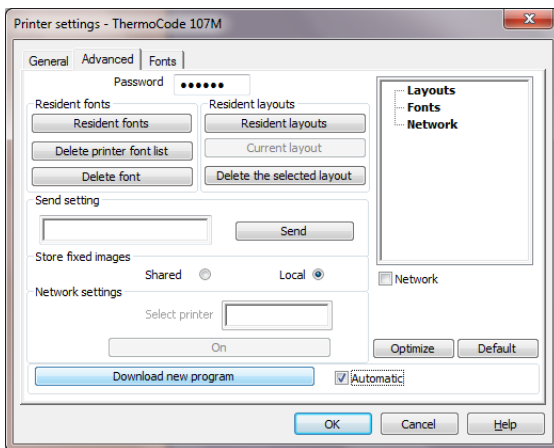
Click on Printer setup



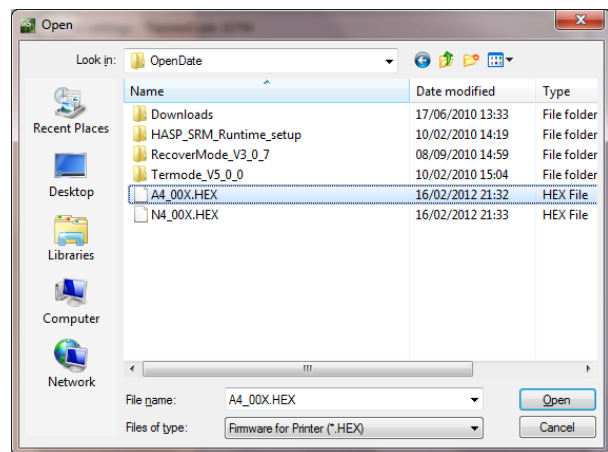
Click on Advanced



1. Enter the password (999999)



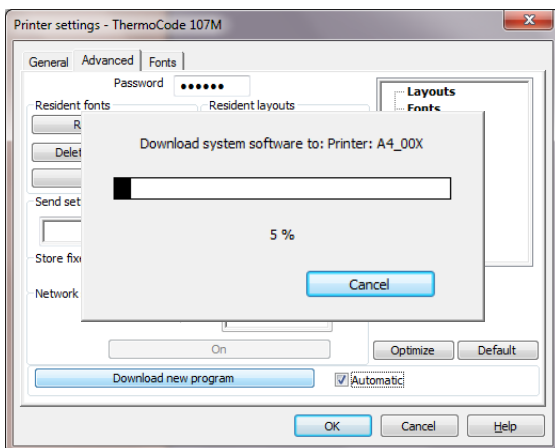
4. Locate the directory with the hex files



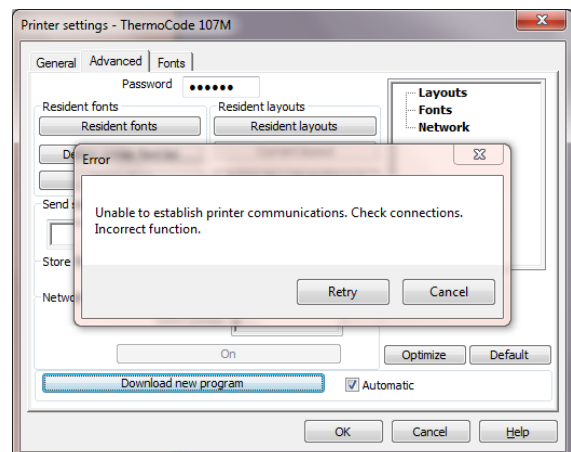
2. Check “Automatic” box  
3. Click on Download new program

5. Select the firmware to be downloaded to the  
6. Printer. Then click on Open

This dialog box appears when the firmware is being downloaded to the printer



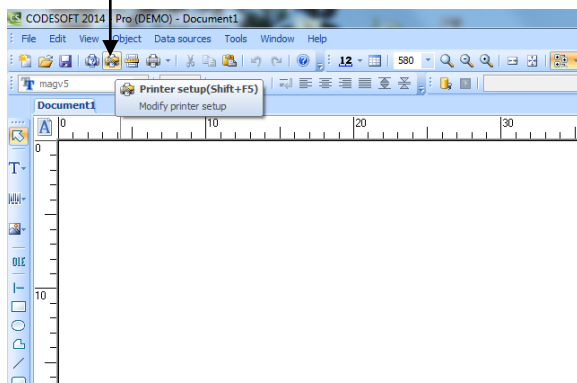
This error will appear if there is no communications



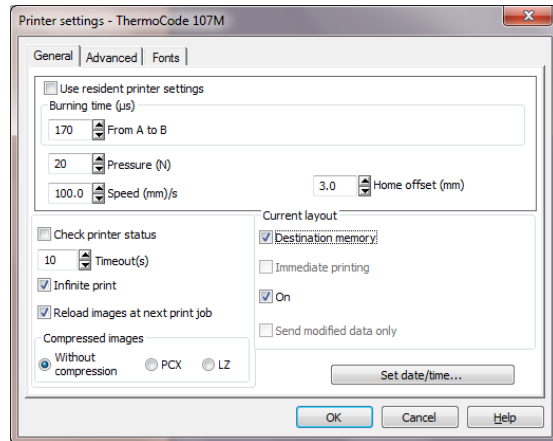
**Note:** - The version of firmware may differ from the version shown on this page.

## Load Firmware to the Printer Manually

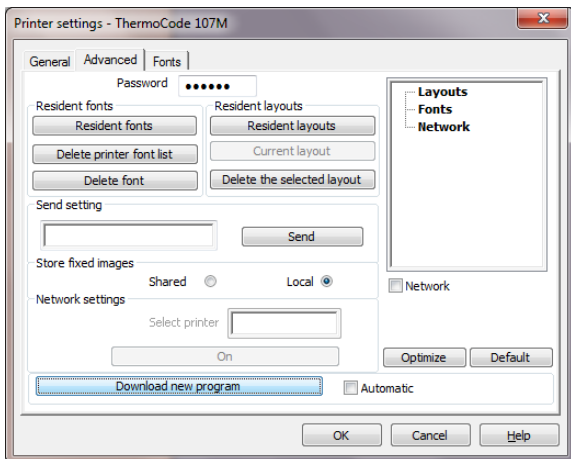
Click on Printer setup



Click on Advanced

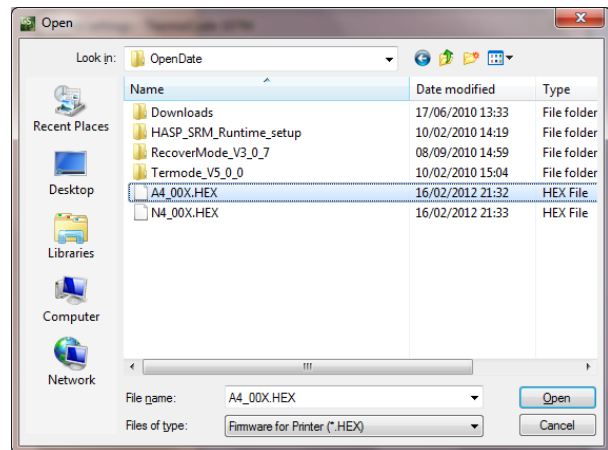


1. Enter the password (999999)



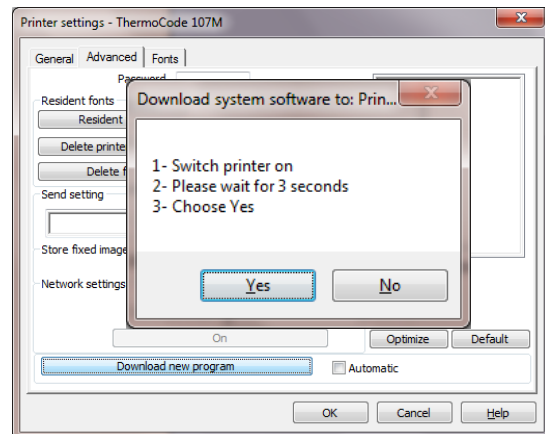
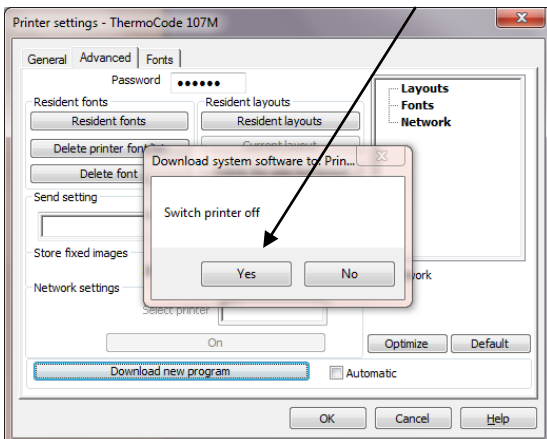
2. **Do Not Check** "Automatic" box  
3. Click on Download new program

4. Locate the directory with the Hex files



5. Select the firmware to be downloaded to the  
6. Printer. Then click on Open

This dialog box appears, Click on Yes and follow the instructions in the following dialog box

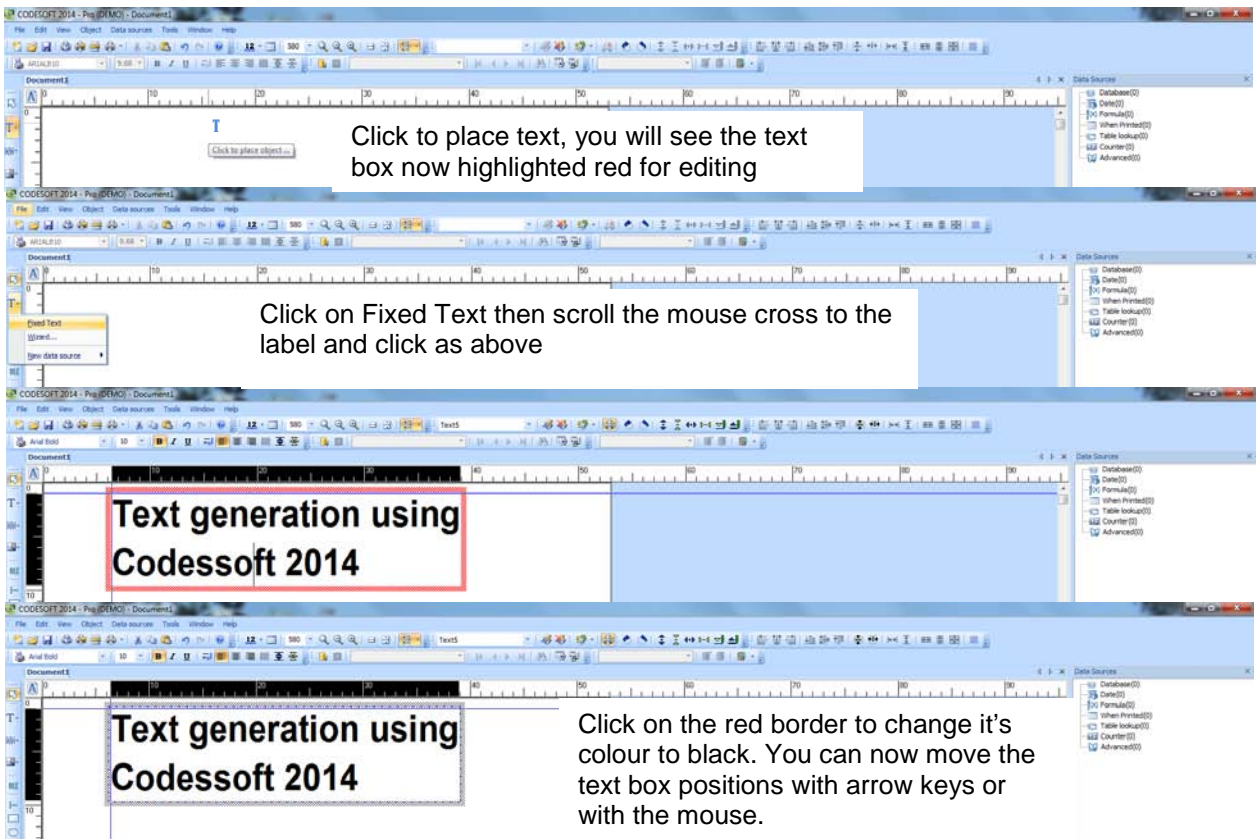


**Note:** - The version of firmware may differ from the version shown on this page.

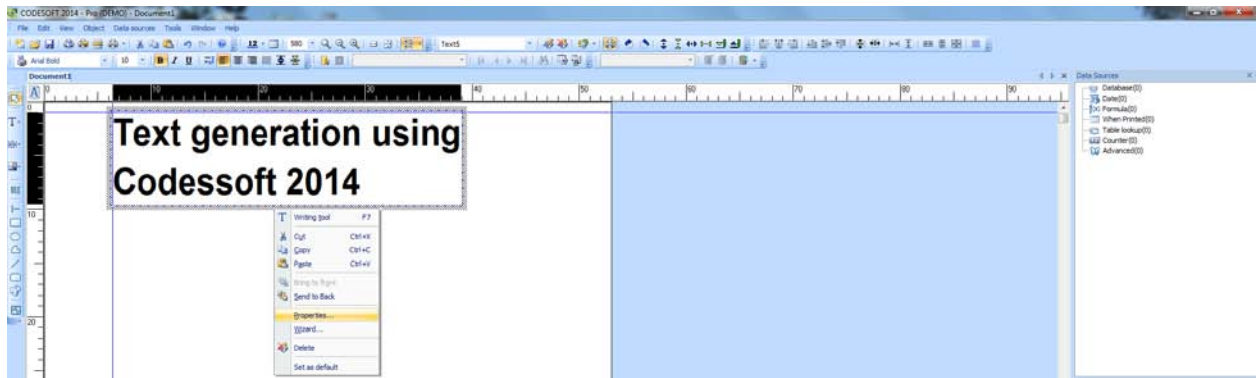


## Text Generation

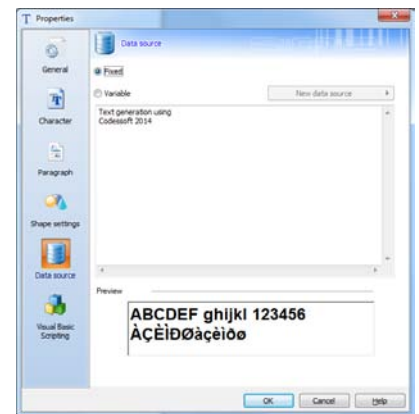
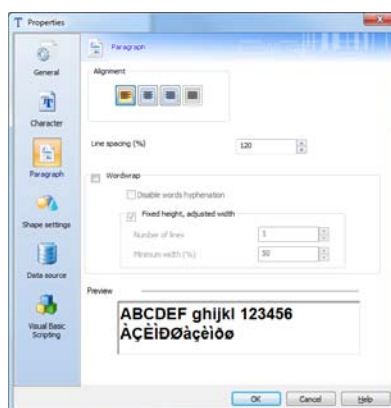
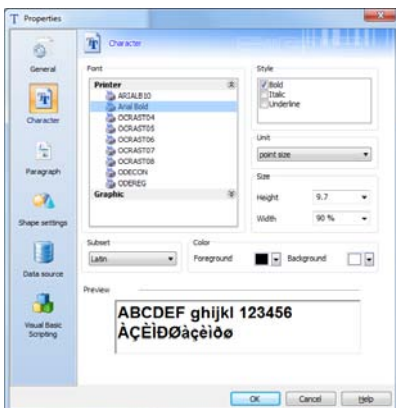
Click on the "T" symbol or use press F7, place the cursor within the print area and click again.



Right click on the text box when this dialog box appears, click on Properties

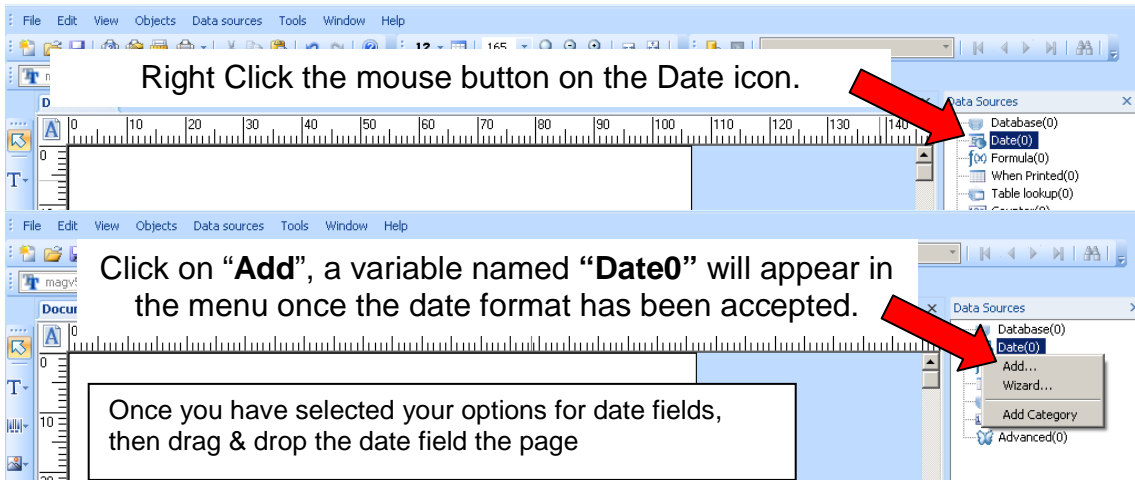


From this Dialog box the user can change the font type and size of the font in millimeters or point line pacing

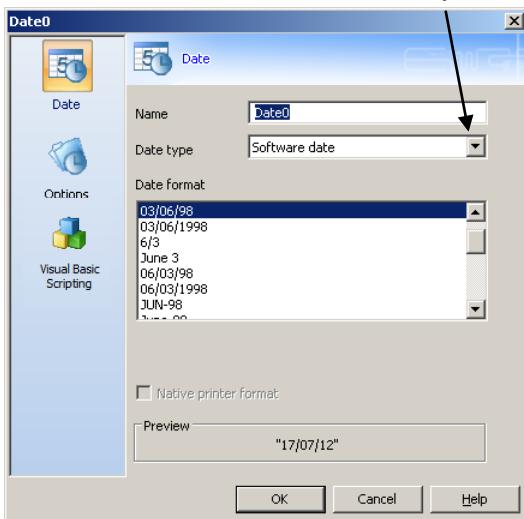


## Creating Automatic Date & Time fields

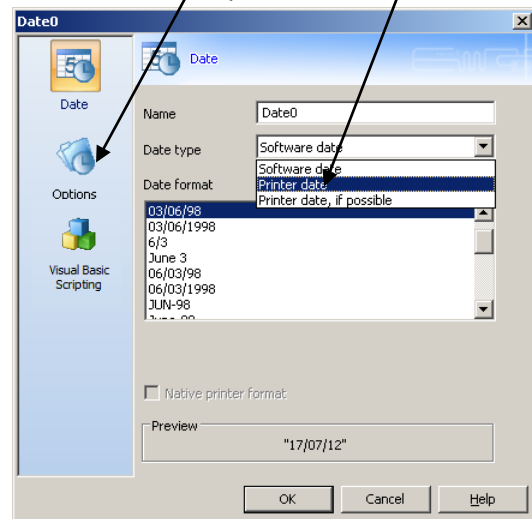
Automatic date fields are text fields that will be automatically updated by the printer. An example of this is a date could have an automatic offset of 5 days. At midnight the date will automatically advance by 1 day, ensuring the customer always has a 5 day offset in the printed date.



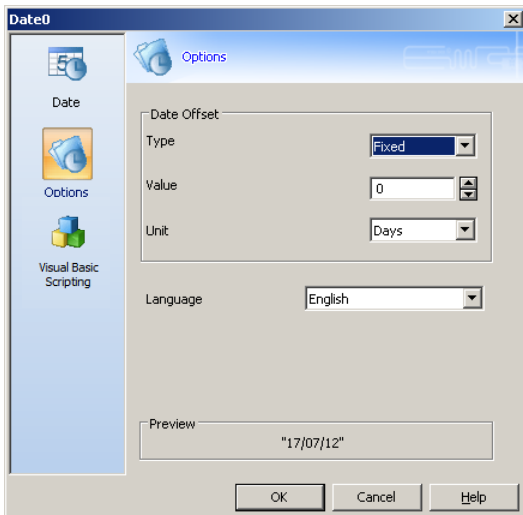
This Dialog Box will appear  
Click on this arrow key



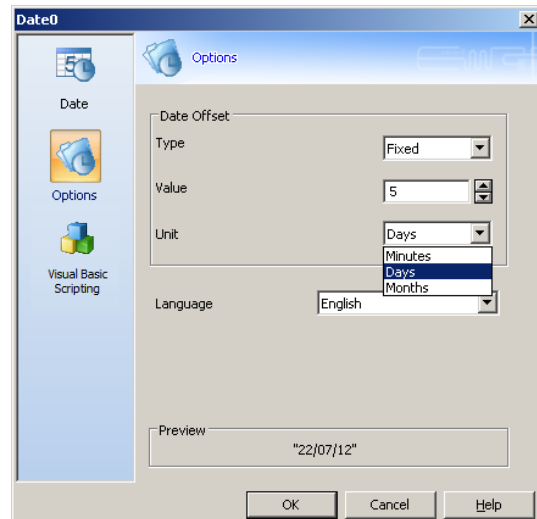
Select Printer date  
Then Click on Options



This dialog box allows the user to select the required offset



A numeric value of 5 = 5 minutes, days or months

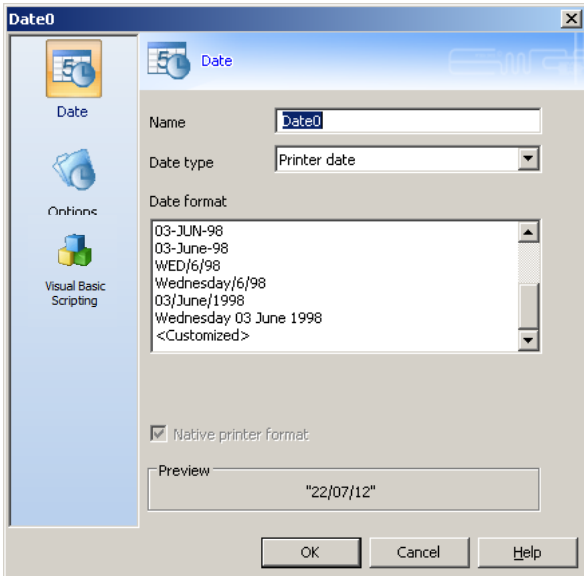


If an offset is required, choose which "unit" of offset is required. (Minutes, Days or Months)  
Select "Day" function within the options dialogue box, if a day offset is required.

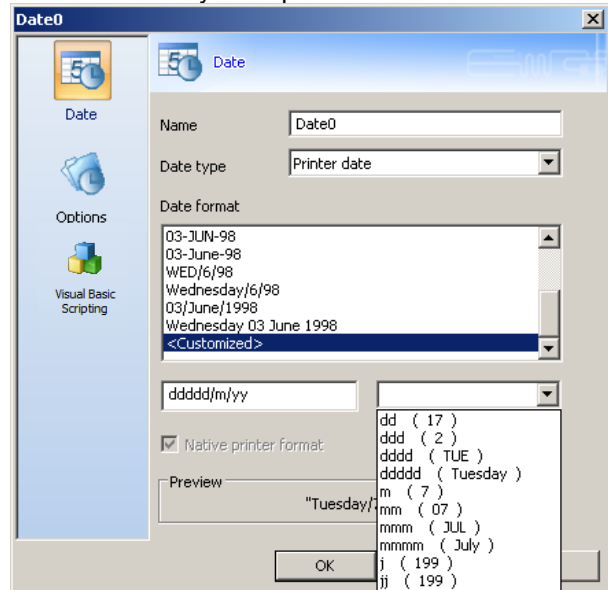
## Creating Automatic Date & Time fields Continued

**WED/6/98 & Wednesday/6/98**, The "6" being the Month of Year will print as Alpha character only.  
 The system variable "SYSMONTH1 A,B,C,D,E,F,G,H,I,J,K,L" "A" being January.

Select the Date format required from the default Dates shown



Or select <Customized> and create the time format you require



**Day of the week**

- dd (11) Day of month, 2 numeric characters
- ddd (1) Day of week as a numeric number Monday = "1"
- dddd (MON) Day of the week, 3 alphabetical "MON"
- ddddd (Monday) Day of the week, alphabetical "Monday"
- j (101) Julian Day of the year, 366 = 29<sup>th</sup> Feb
- jj (101) Julian Day of the year, 366 = 31<sup>st</sup> Dec

**Month of the year**

- m (4) Month single alphabetical character, Jan = "A"
- mm (04) Month 2 numeric character Jan = "01"
- mmm (JAN) Month, 3 alphabetical "JAN"
- mmmm (April) Month, alphabetical "April"

**Year**

- y (2) Year 1 numeric character 2012 = 2
- yy (12) Year 2 numeric characters 2012 = 12
- yyyy (2012) Year 4 numeric characters 2012 = 2012
- ww (02) Week number of year 2 numeric characters

**Time 24 hour**

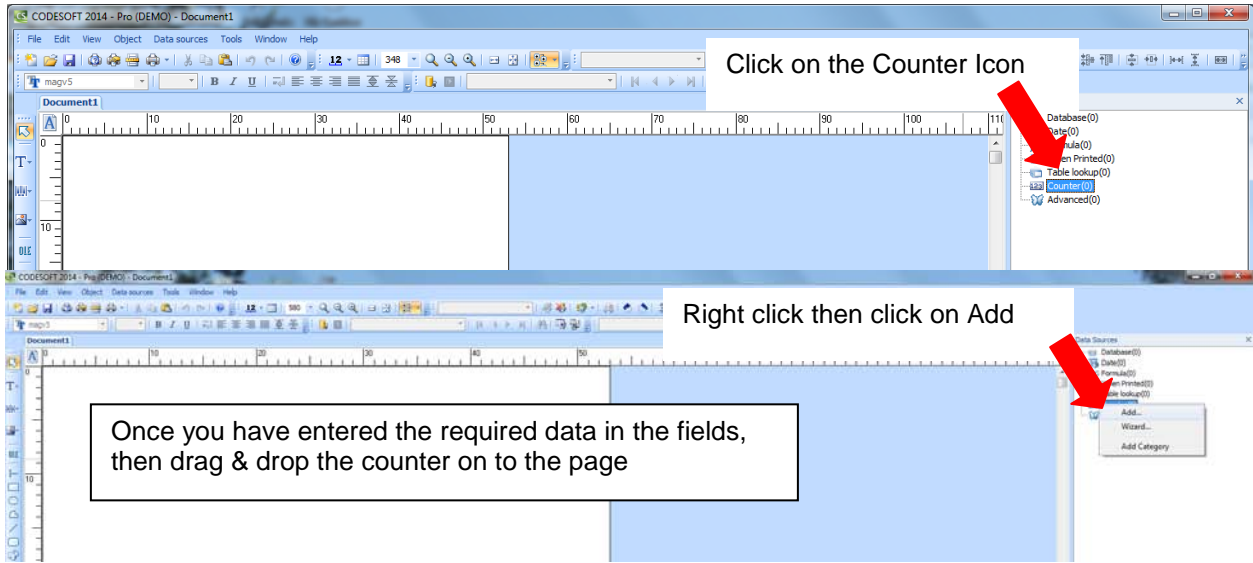
- hh (08) 24 hour time
- nn (37) Minutes
- ss (23) Seconds

**Time 12 hour**

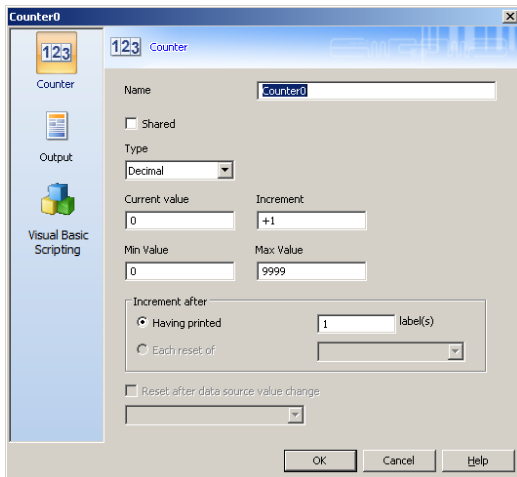
- hhh (8) 12 hour
- nn (37) Minutes am/pm
- AM/PM (am) adds am or pm to the above

## Creating Variable Counter Fields

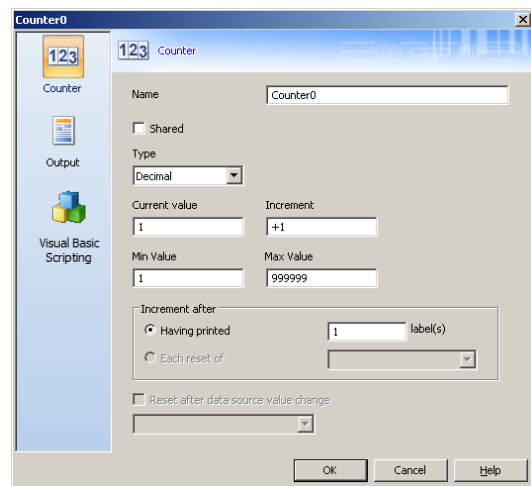
Variable counter fields are created initially in the same way as date fields



This dialog box appears

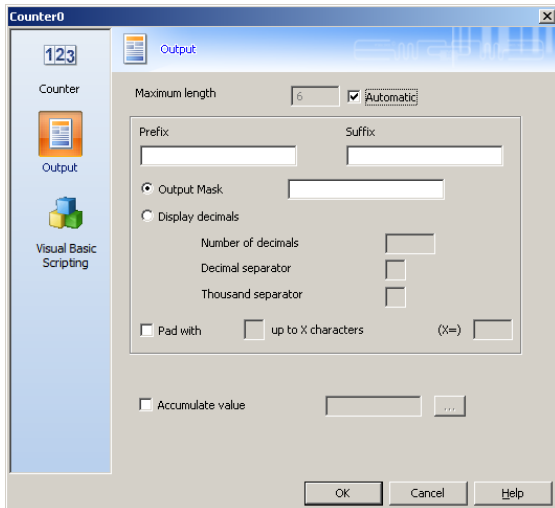


Enter the Current value, Min & Max Value required

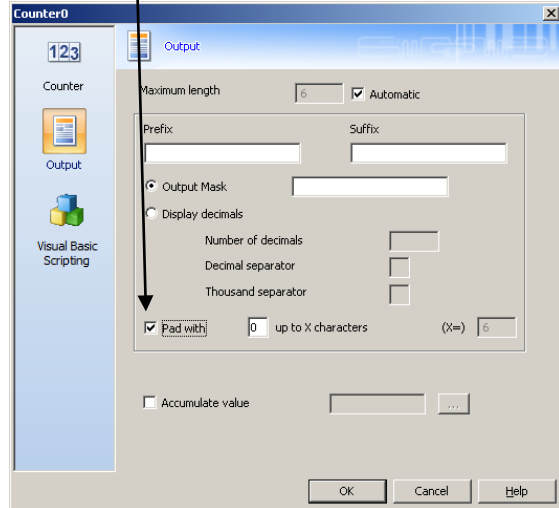


Click on Output

The user can add a Prefix and or Suffix if required

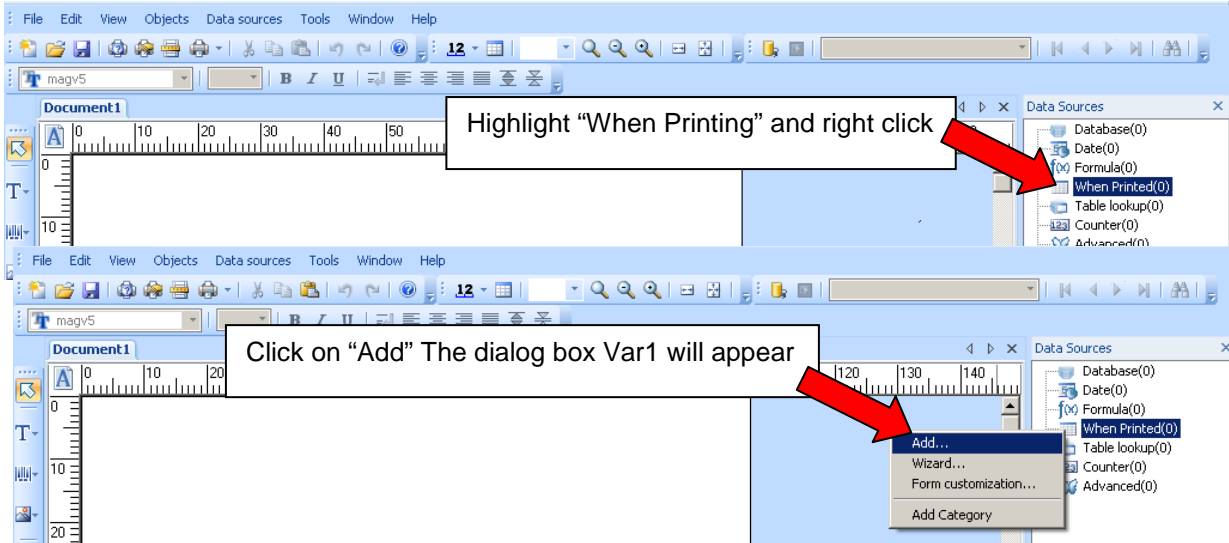


Check "Pad with" The counter fields prints the leading zeros and is a requirement.



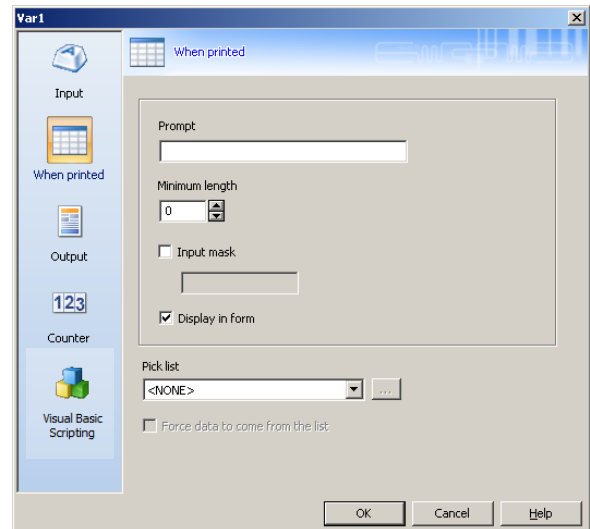
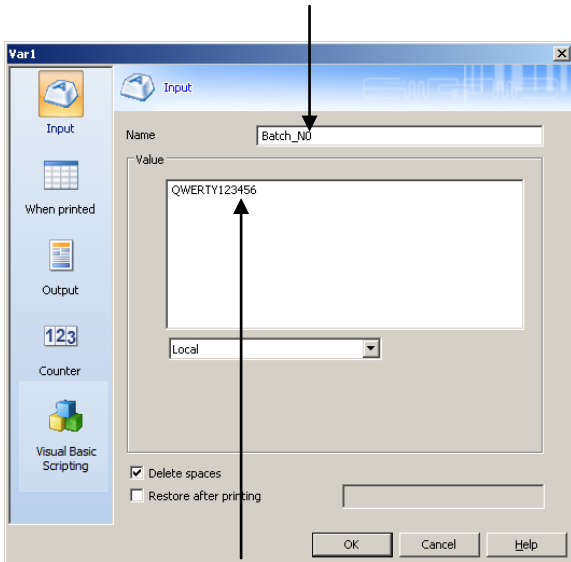
On completion click on OK

## Creating Variable Text Fields



1. The variable name can be a maximum of 9 alphanumeric characters  
Then click on "When printed"

3. Prompt is the same as the Variable name  
Batch\_No Don't use spaces or punctuation  
In the variable name or Variable name

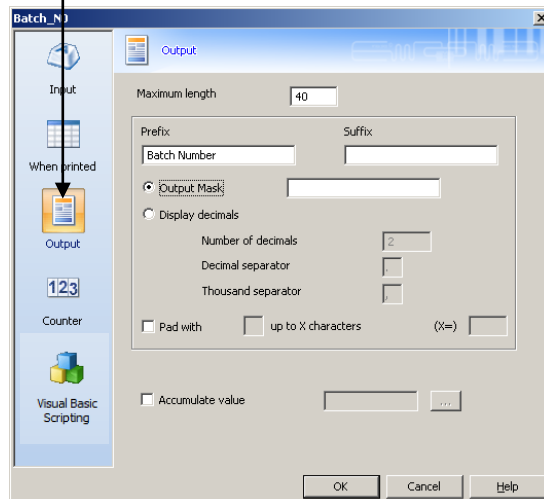


2. Enter the required information. The limit is 40 alphanumeric characters if the user needs to modify the field in the printer's keypad

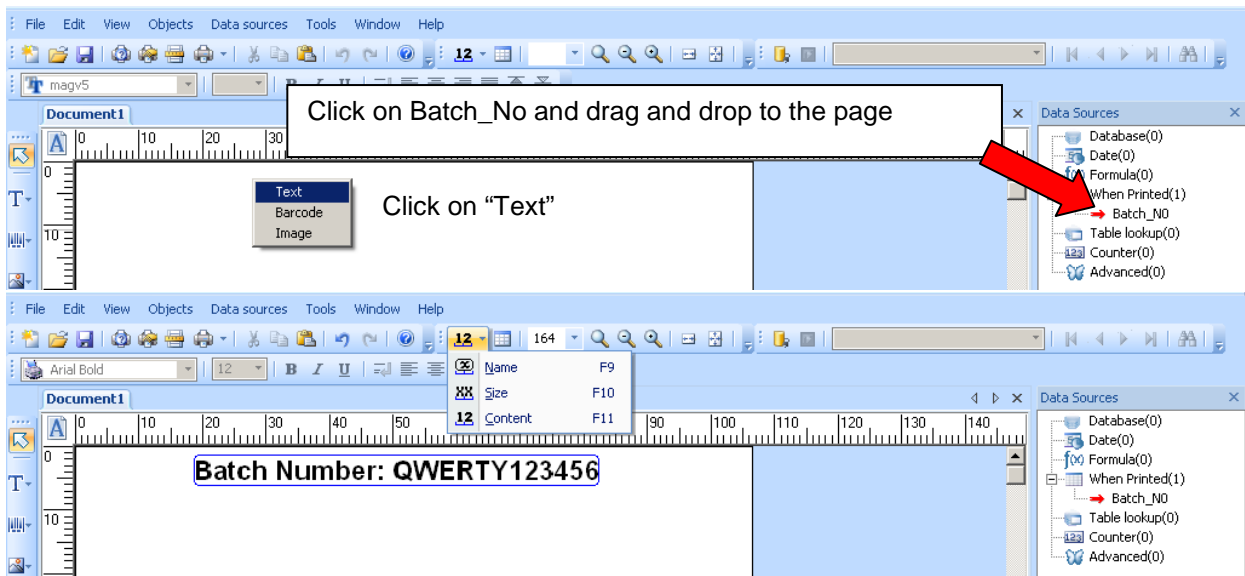
Click on "Output"

Enter the maximum length 40.

The user can enter a Prefix or Suffix  
In the example is Batch Number

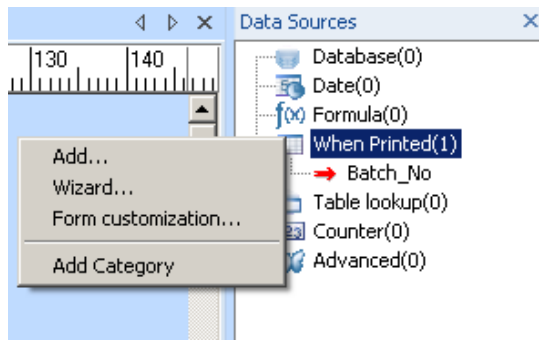


## Creating Variable Text Fields Continued

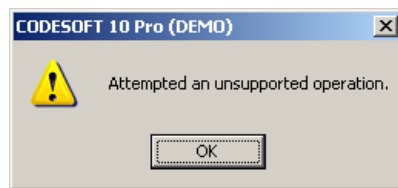


"12" shows the content Batch Number "QWERTY123456" Variable content is 12 characters.  
 "XX" Gives the size in this case would be 40 X's this does not affect the variable length sent to the printer.  
 "X" Is the variable name "Batch\_No"

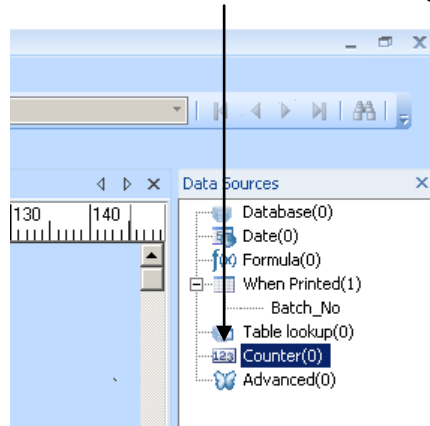
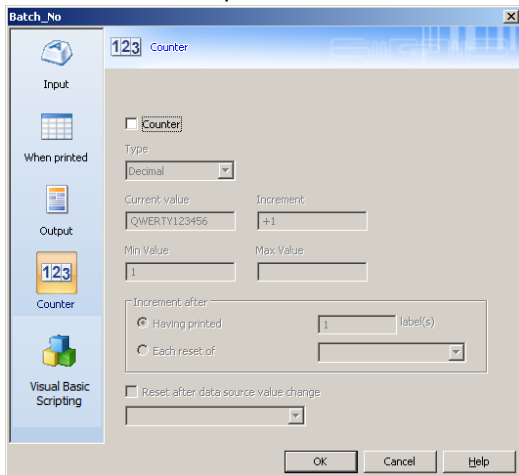
Add to create a variable  
 Individual choice to use the Wizard  
 Form customisation creates an error  
 Add Category adds a folder.



Form Customization error



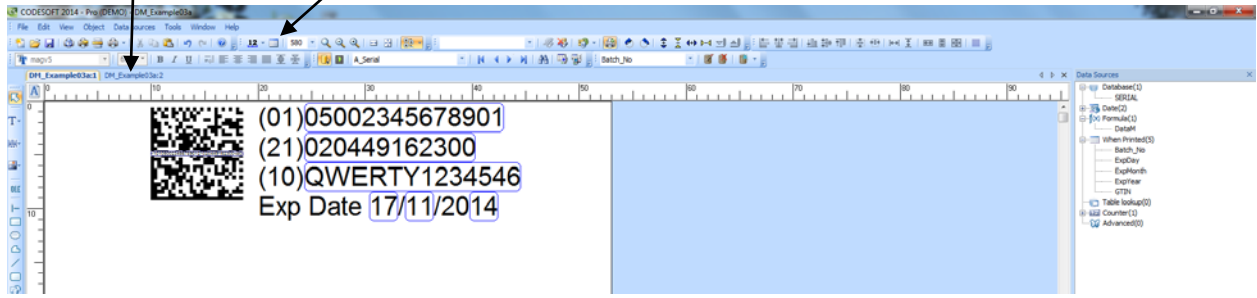
If a Counter is required then the user is strongly advised to use the standard Counter field generator



See Page 22

## Displaying the filler (Variable fields)

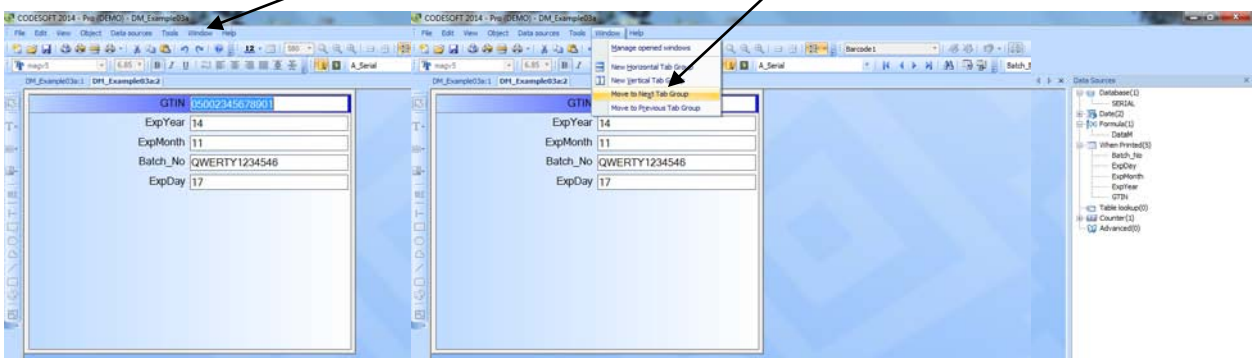
Click Print then click on Form,  
Click on this Tab



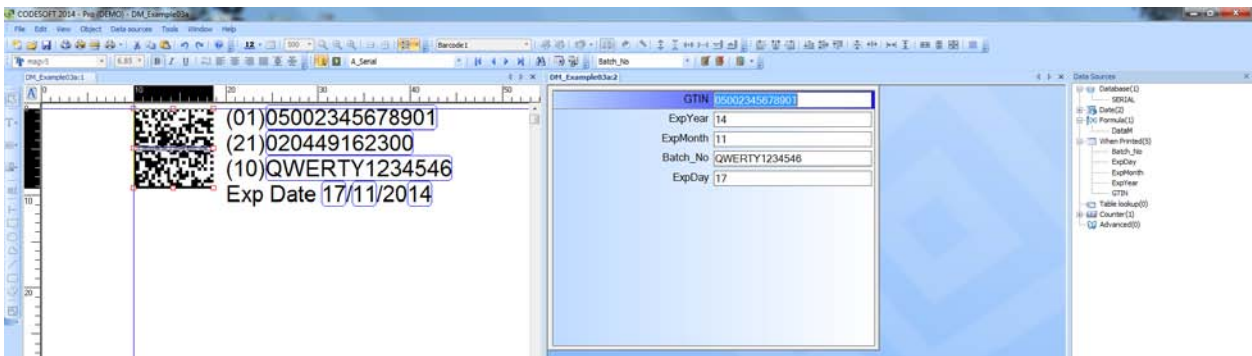
This page is then shown

Click on Window

Click on "New Vertical Tab Group"

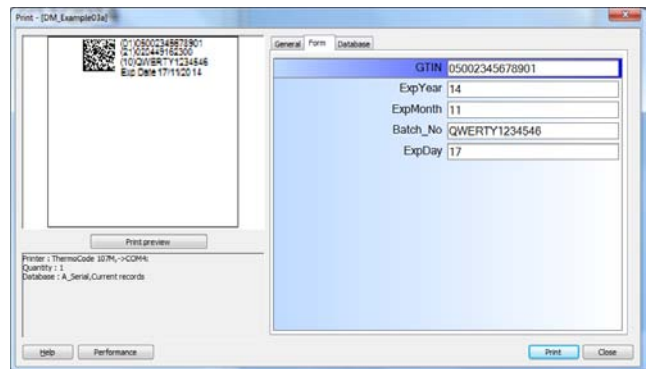
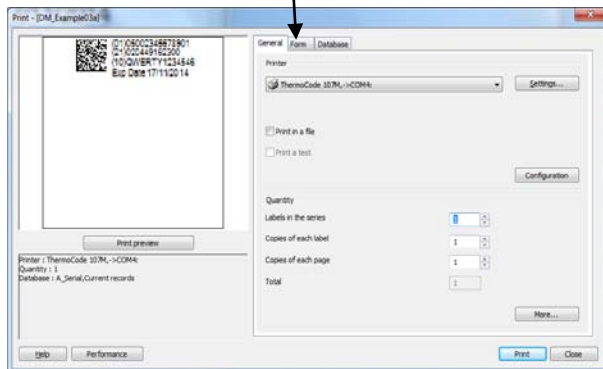


This will then display both windows



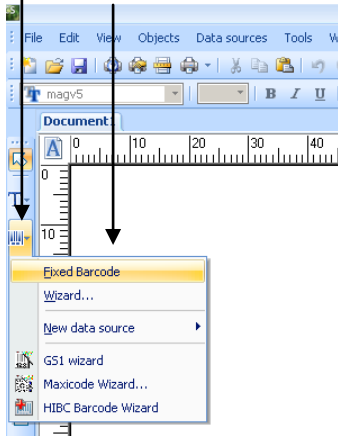
The user if required can change the value sent to the printer

Click on Form

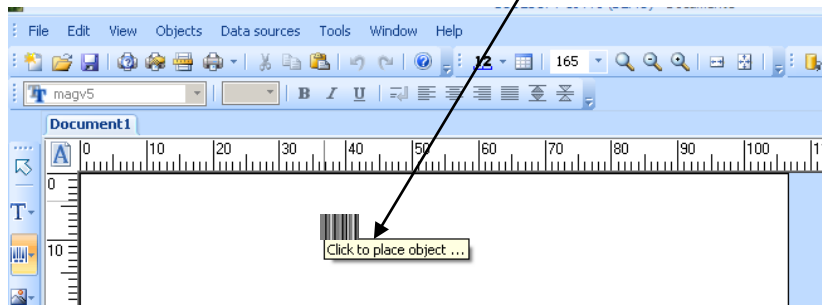


# Barcode Generation

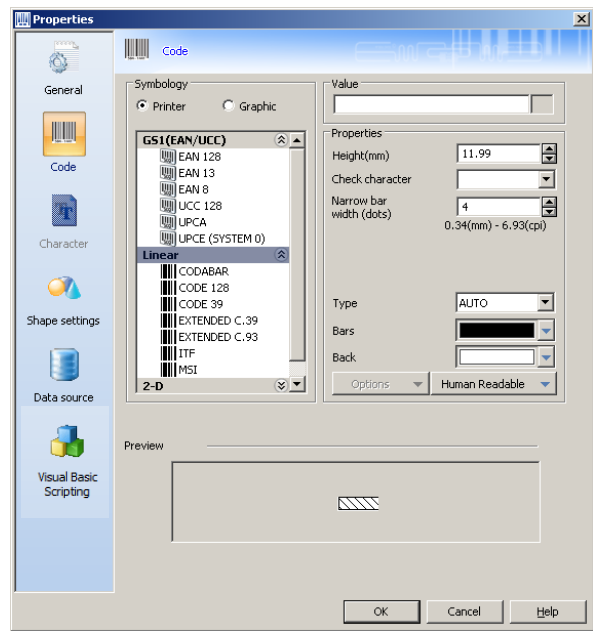
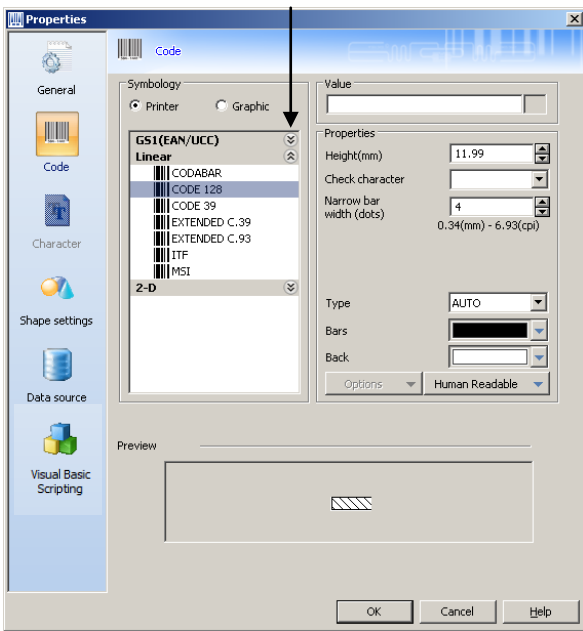
Click on the Barcode Icon  
Fixed Barcode



Slide the mouse to the Page click to place

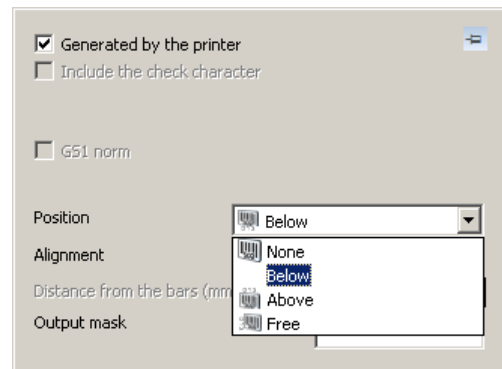
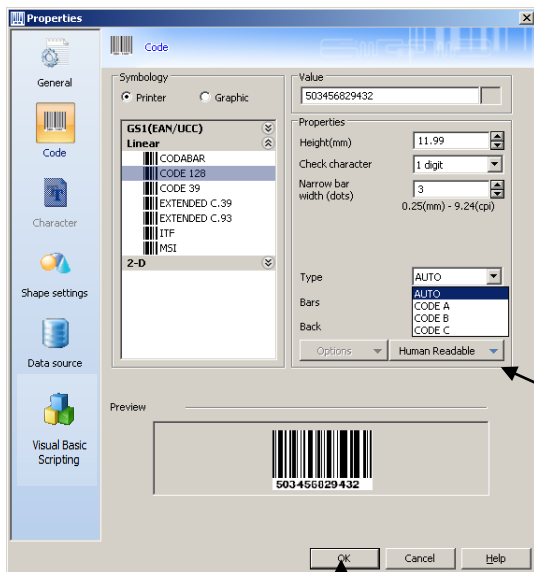


Select the required barcode.  
Click on the chevrons to show the different available printer barcodes



This example is a Code 128  
Enter the required data "Value"  
The narrow bar width of 3  
Code "Type" set to auto

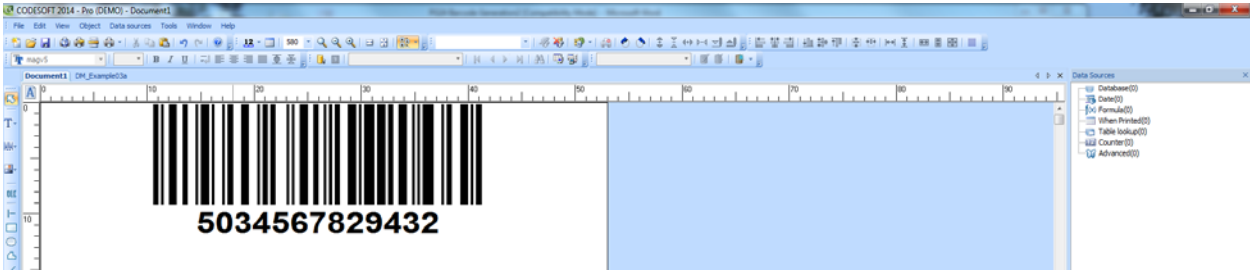
Check Generated by the printer



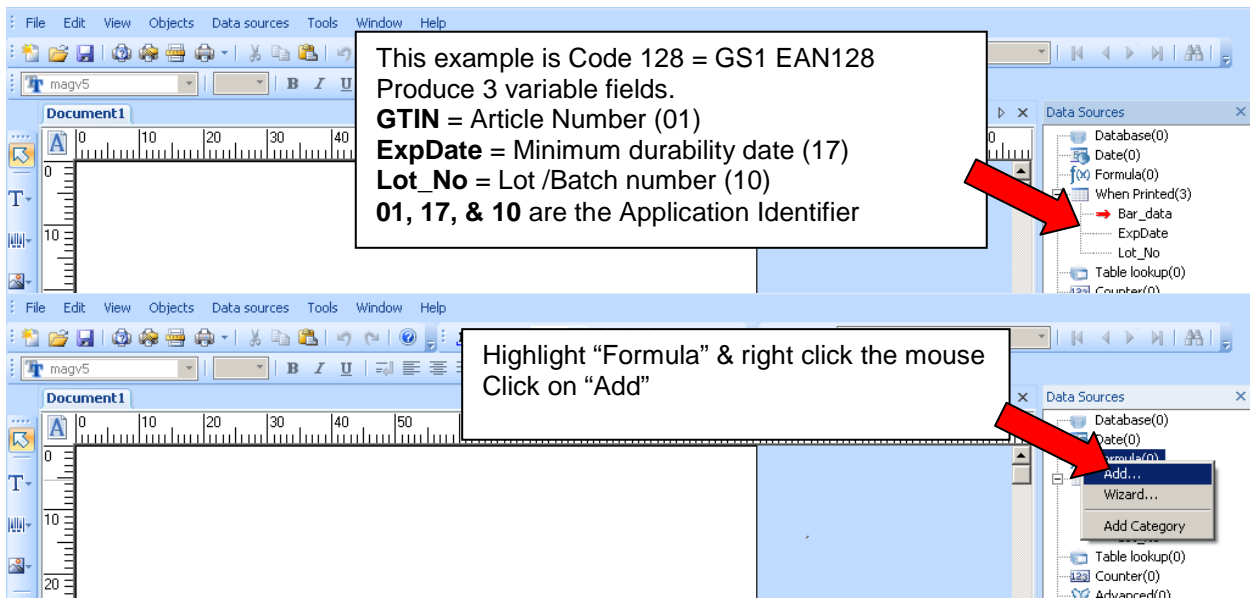
Select "Position" & Alignment of the text  
Click on Human Readable. The above dialog box appears

Click OK on completion



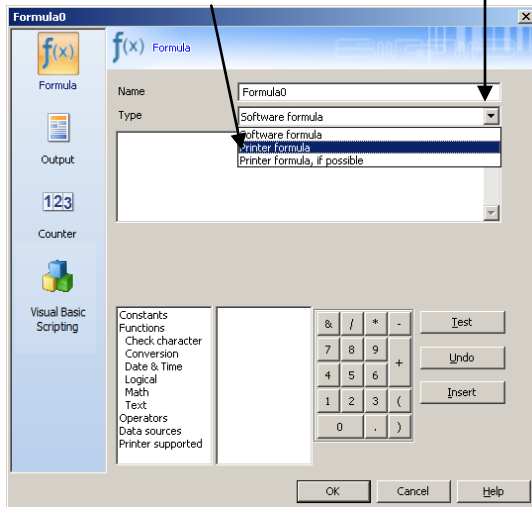


### Barcode Generation with Fixed and Variable Fields

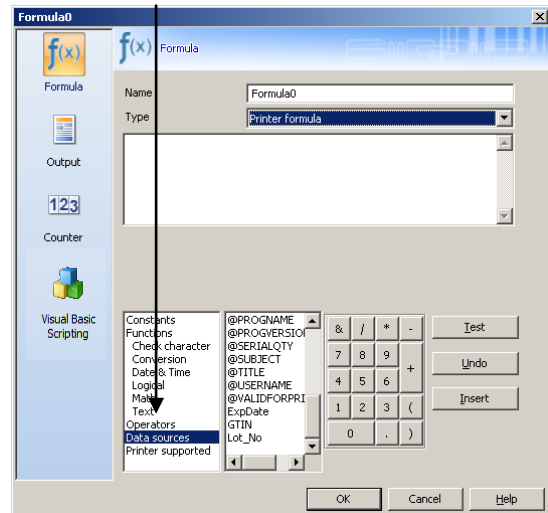


### Barcode Generation Creating a Formula

This dialog will appear Click on this box  
Select Printer formula

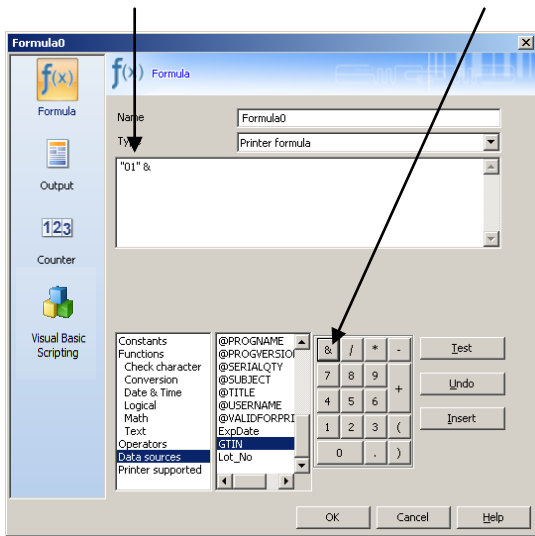


Click on Data sources

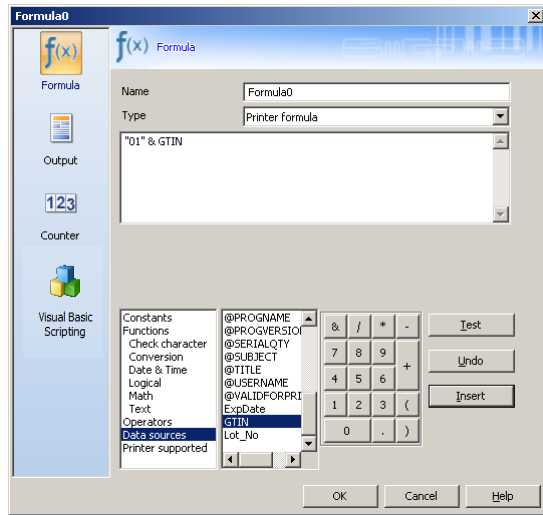


# Barcode Generation Creating a Formula - continued

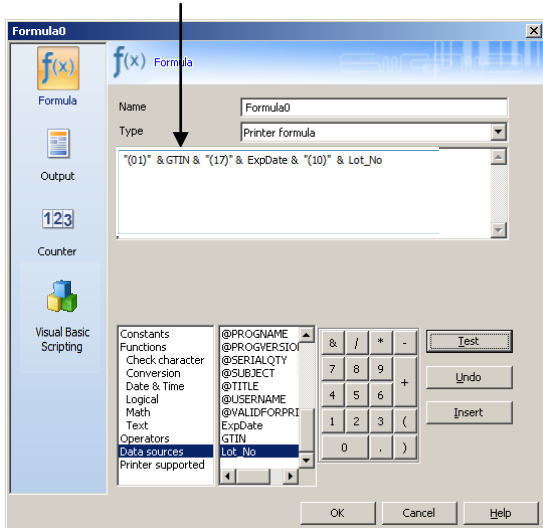
Type in the box "01" and click on the "&" key



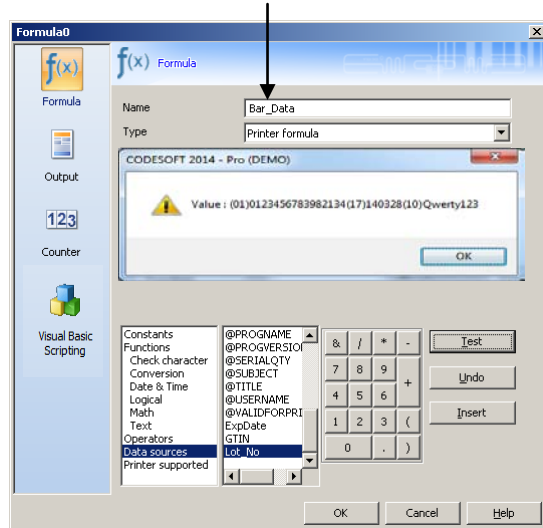
Highlight GTIN variable and click on Insert



The Formula should look like this



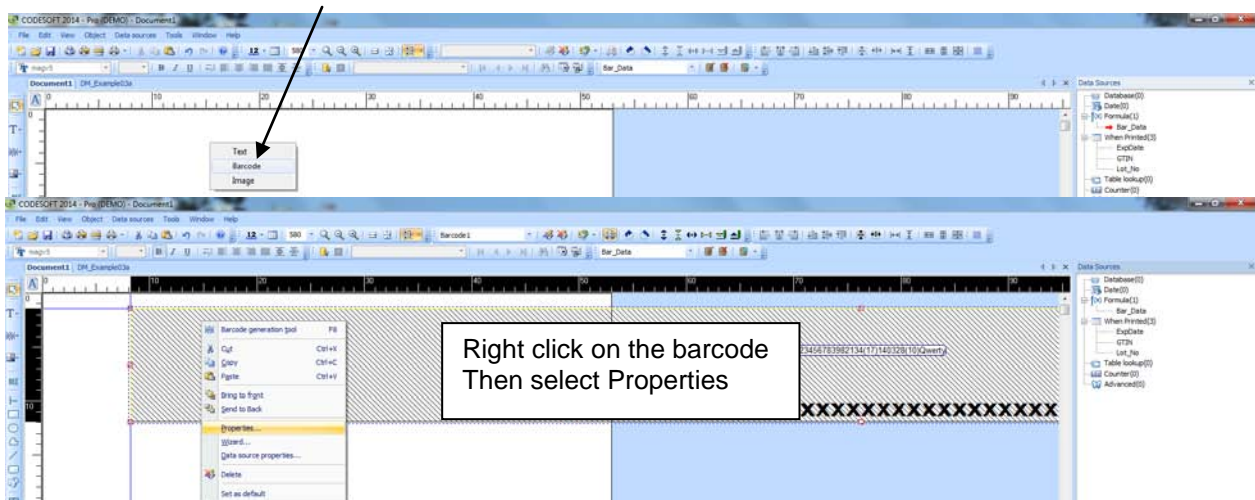
You can change the Name



Click on Output in Maximum length enter 40

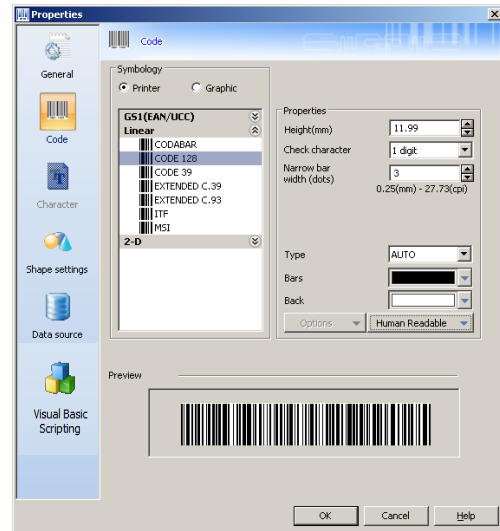
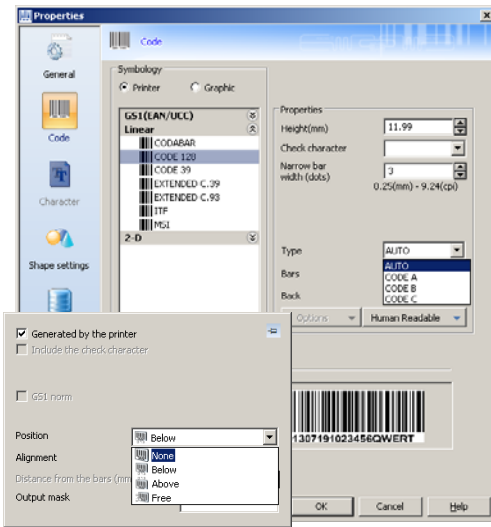
Click on Test shows the content of the Formula

Click on "Bar\_Data" and drag and drop, and then select Barcode



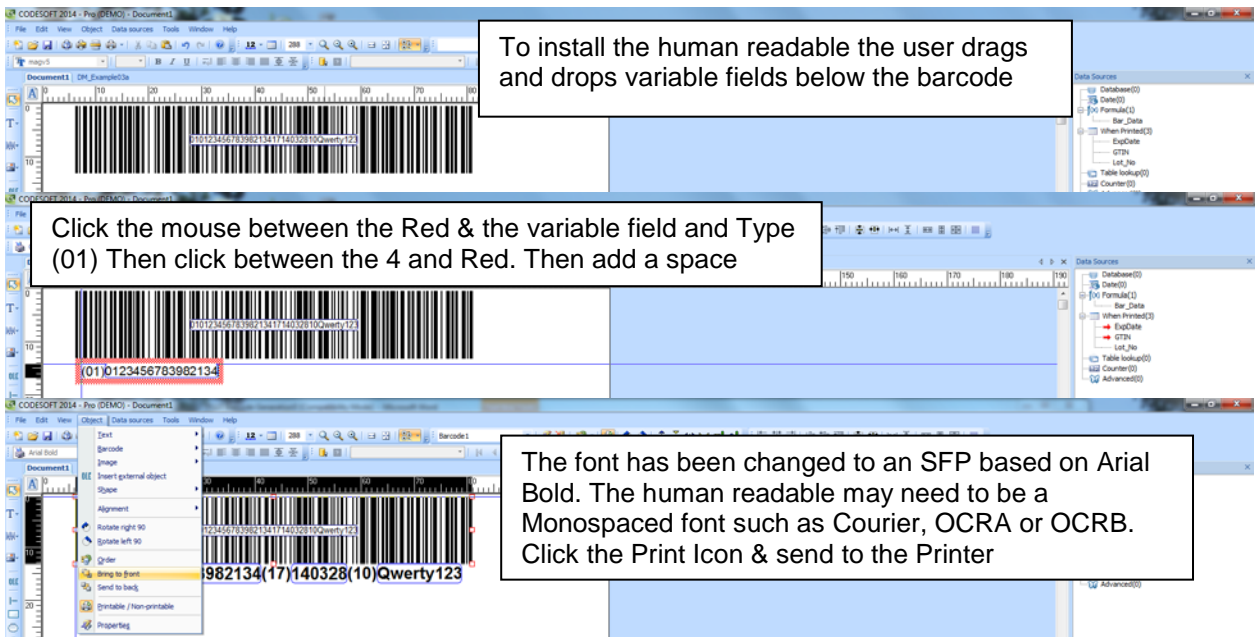
## Barcode Generation Creating a Formula - continued

Select Code 128 & Type should be Auto



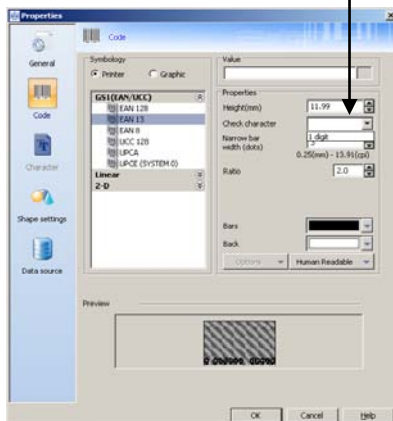
Click on Human Readable

The barcode should like this

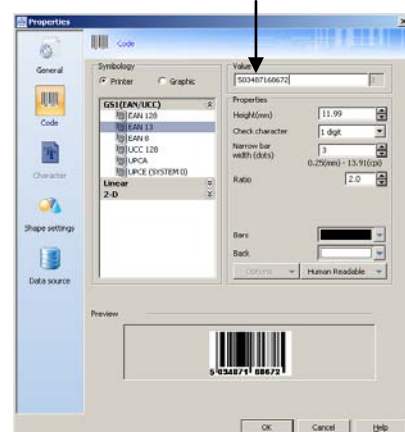


### Generating a GS1 Barcode (EAN/UCC)

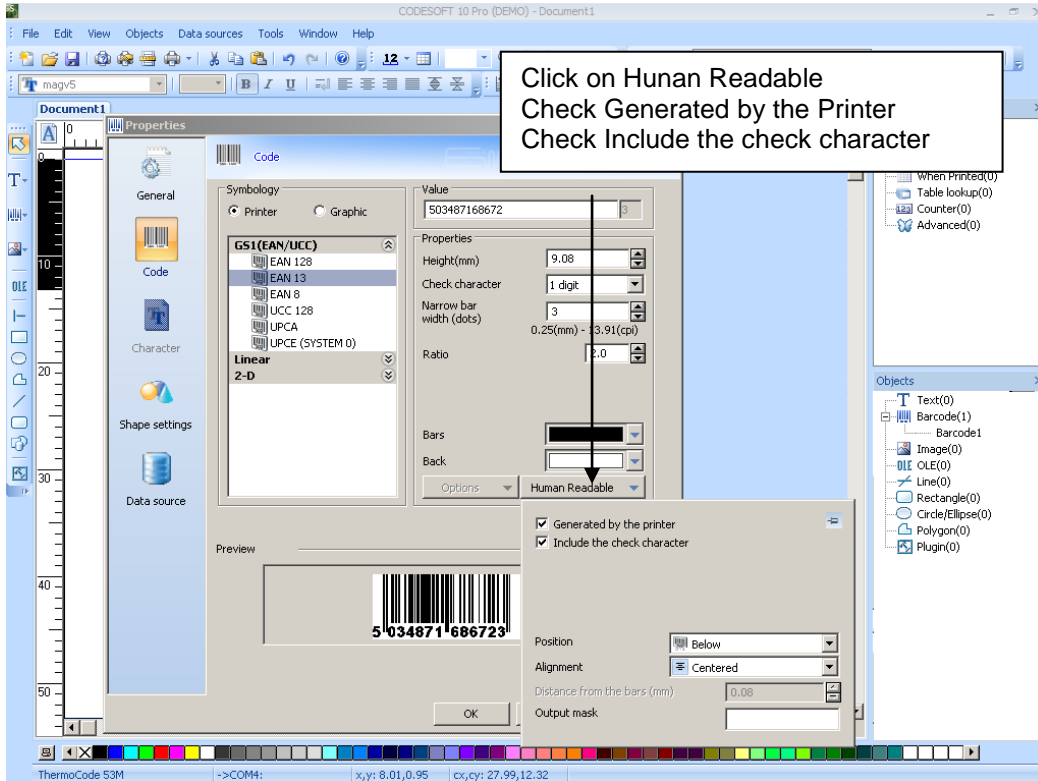
When you open this dialog box  
Click on Check Character



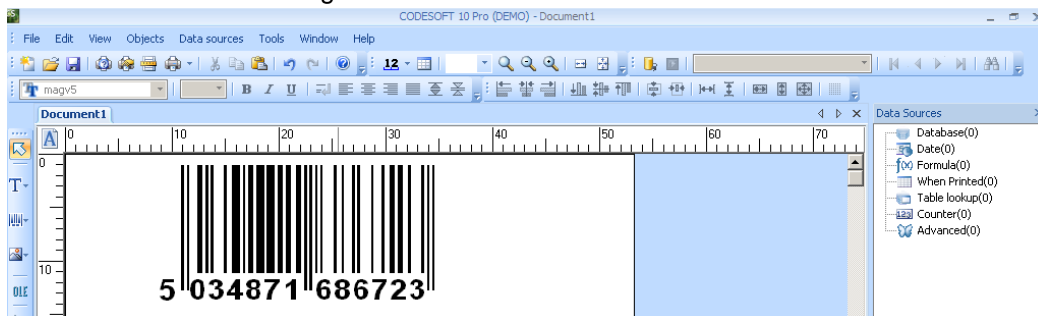
Enter the required Barcode data



## Generating a GS1 Barcode (EAN/UCC)



The resulting EAN13



## Creating a Data Matrix Code (GS1. ECC200)

**No serial Number**

GTIN or CIP    yymmdd    Lot No  
 0103401234567891712062510123QWERTY

**When a Serial number is required**

Serial No. The - = <GS> The may be different depending on the code page.

0103401234567892112220000009-1712062510123QWERTY

The serial number in this example is: - Current Year, Julian Date & counter field followed by {GS}

**Red:** application Identifiers

**Blue:** GS1, GTIN & or CIP codes.

**Only changes with different products types.  
(Can be Fixed or variable within the Printer)**

**Black:** Expiry Date.

The day if not required would be **00**

**Variable field**

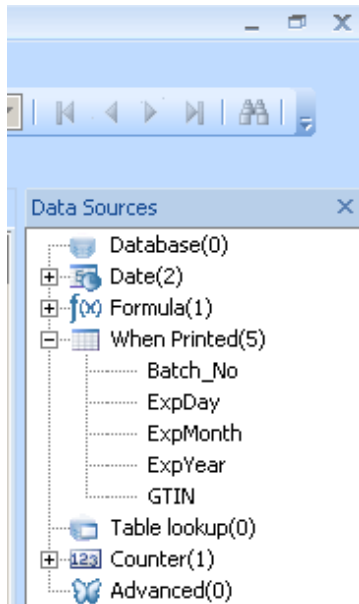
**Green:** Batch/ Lot number.

**Variable field**

Continued on the next page

## Creating a Data Matrix Code

The first requirement is to create the variable fields. In this example are GTIN, ExpDay, ExpMonth, ExpYear and Batch\_No & Batch\_No.

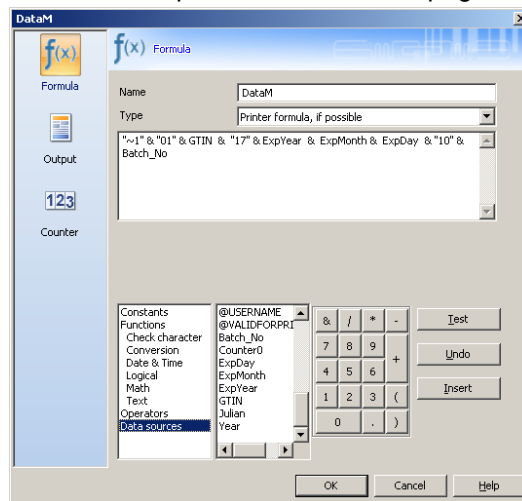


- (01) GTIN or CIP code
- (17) YYMMDD = Maximum Durability date
- (10) Batch or Lot Number

These Variable fields will make up the required Formula to produce the data matrix

Batch\_No = QWE124  
 ExpDay = 13 (if day is not required then enter 00)  
 ExpMonth = 11  
 ExpYear = 13  
 GTIN = 05002345678901

The "~1" = FNC1 with this driver  
 Enter the required data as shown page 27

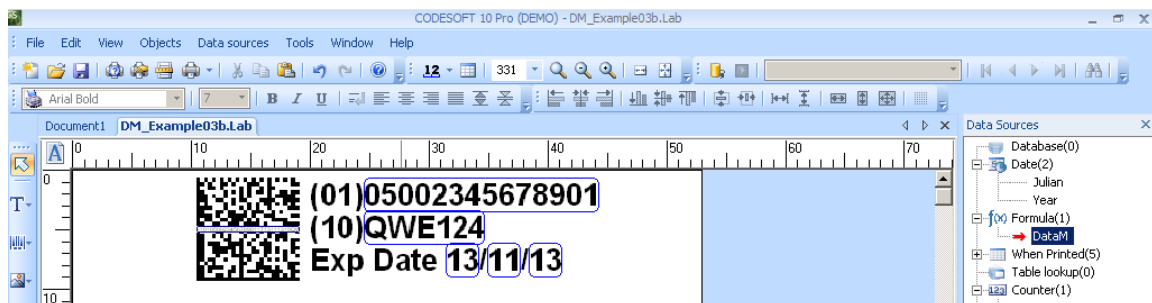


The formulas should look like this

"~1" & "01" & GTIN & "17" & ExpYear & ExpMonth & ExpDay & "10" & Batch\_No

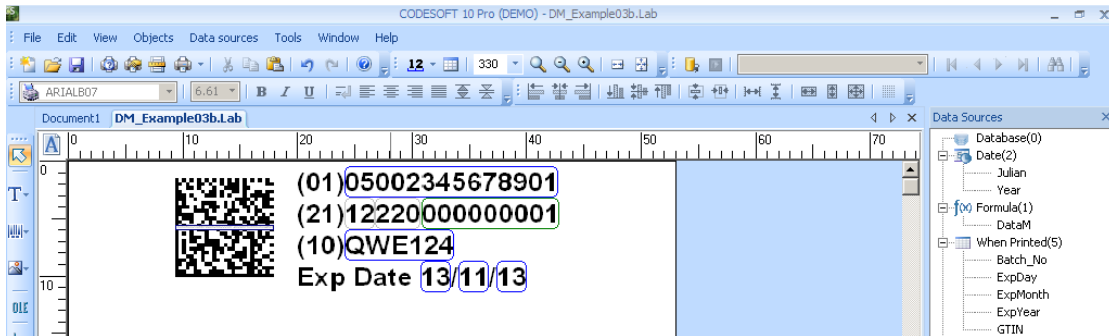
The formula can also be written

"~101" & GTIN & "17" & ExpYear & ExpMonth & ExpDay & "10" & Batch\_No



## Creating a Data Matrix Code

This example includes a serial number made up using printer generated date fields. Year date "YY" Julian date "JJJ" & 9 digit counter

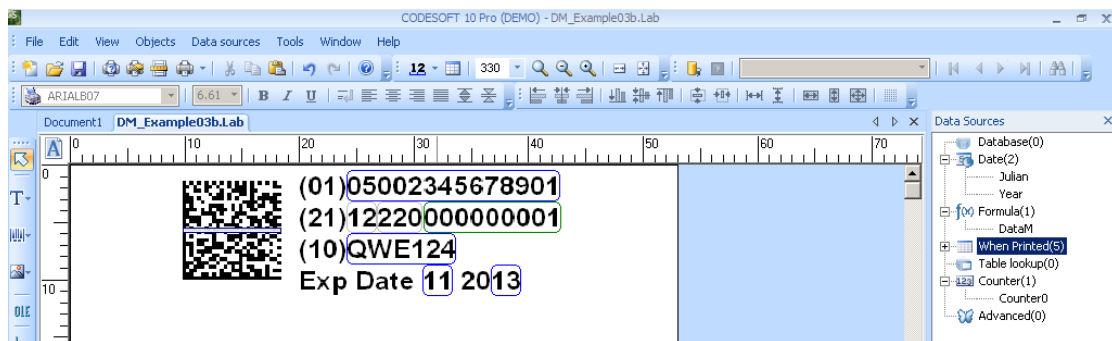


The Formula should look like these examples

"~1" & "01" & GTIN & "21" & Year & Julian & Counter0 & "~d029" & "17" & ExpYear & ExpMonth & ExpDay & "10" & Batch\_No  
 "~101" & GTIN & "21" & Year & Julian & Counter0 & "~d02917" & ExpYear & ExpMonth & ExpDay & "10" & Batch\_No

The tilled and d (~d) allow the user to enter ASCII character as a decimal code. ASCII character 029 = GS  
 The conversion chart being used is ASCII Code page 1252

In this example the Exp date is Month and Year



"~1" & "01" & GTIN & "21" & Year & Julian & Counter0 & "~d029" & "17" & ExpYear & ExpMonth & "00" & "10" & Batch\_No  
 "~101" & GTIN & "21" & Year & Julian & Counter0 & "~d02917" & ExpYear & ExpMonth & "0010" & Batch\_No

**This shows the source code the printer requires too generate the above format**

```

OFDM_Example03b
OPSPED 0100
OPBURN1 0170
OPBURN2 0170
OPPRESSED 20
OPHOMOFF 03.0
OPROTATE 0
OEGTIN 005002345678901
EOBJDT0001 620,0,0,
EOBJDT0002 560,0,0,
OECOUNTER0 40000001,1,1,1,99999999
OEBATCH_NO 0QWE124
OEEXPDAY 013
OEEXPMONTH 011
OEEXPYEAR 013
OTARIALB07 0240003107001(01)
OTARIALB07 0240006407001(21)
OTARIALB07 0240009707001(10)
OTARIALB07 0240013007001Exp Date
OTARIALB07 0401013007001/
OTARIALB07 0441013007001/
OTARIALB07 0290003107001\0GTIN\0
OTARIALB07 0290006407001\0OBJDT0001\0
OTARIALB07 0322006407001\0OBJDT0002\0
OTARIALB07 0370006407001\0COUNTER0\0
OTARIALB07 0290009707001\0BATCH_NO\0
OTARIALB07 0369013007001\0EXPDAY\0
OTARIALB07 0409013007001\0EXPMONTH\0
OTARIALB07 0449013007001\0EXPYEAR\0
OB200113001813100026260104~101\0GTIN\021\0OBJDT0001\0\0OBJDT0002\0\0COUNTER0\0~d02917\0ExpYear\0\0ExpMonth\0
\0ExpDay\010\0Batch_No\0
QQ000000
OK
    
```

## **Open Date Group Companies & Distributors**

### **FRANCE**

OPEN DATE FRANCE

Z.I. D'Attichy

No.8, voie Industrielle

60350 Attichy.

Tel:- +33 (0)3 44 42 94 43

Fax:- +33 (0)3 44 42 17 17

Email:- info@opendatefrance.com

### **GERMANY**

OPEN DATE GmbH

Mittler Stämmig 4

D - 97292 Üttingen

Tel:- +49 (0)9369 9824 0

Fax:- +49 (0)9369 9824 24

Email:- info@opendate.de

### **USA**

OPEN DATE SYSTEMS, INC.

Springfield Road

PO Box 538

Georges Mills

NH 03751-0538.

Tel:- +1 603 763 3444

Fax:- +1 603 763 4222

Email:- info@opendate.com

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