ZebraDesigner™ Pro

Quick Start Guide

© 2005 ZIH Corp.

The copyrights in this manual and the label print engine described therein are owned by Zebra Technologies Corporation. Unauthorized reproduction of this manual or the software in the label print engine may result in imprisonment of up to one year and fines of up to $10,000 (17 U.S.C.506). Copyright violators may be subject to civil liability.

This product may contain ZPL®, ZPL II®, and ZebraLink™ programs; Element Energy Equalizer® Circuit; E3®; and AGFA fonts. Software © ZIH Corp. All rights reserved worldwide.

ZebraLink and all product names and numbers are trademarks, and Zebra, the Zebra logo, ZPL, ZPL II, Element Energy Equalizer Circuit, and E3 Circuit are registered trademarks of ZIH Corp. All rights reserved worldwide.

CG Triumvirate is a trademark of AGFA Monotype Corporation. All rights reserved worldwide. CG Triumvirate™ font © AGFA Monotype Corporation. Intellifont® portion © AGFA Monotype Corporation. All rights reserved worldwide. UFST is a registered trademark of AGFA Monotype Corporation. All rights reserved worldwide.

All other brand names, product names, or trademarks belong to their respective holders.

Customer Order # 13858L-001

Manufacturer Part # 13858L-001 Rev. A

Contents

1. Introduction **3**

1.1 Welcome 3
1.2 ZebraDesigner Pro Software Package 3
1.3 About this Manual 3
1.3.1 Typographical Conventions 4
1.3.2 Software Restrictions 4

2. Installation and Activation **5**

2.1 System and Software Requirements 5
2.2 Installing ZebraDesigner Pro 5
2.2.1 Close all Software Applications 6
2.2.2 Run Installation 6
2.2.3 Define Setup Options 6
2.2.4 Install Printer Driver 7
2.3 Registering ZebraDesigner Pro 7
2.4 ZebraDesigner Pro DEMO Mode 7
2.5 Installing ZebraDesigner Pro Upgrades 8
2.5.1 Install ZebraDesigner Pro Version Upgrade 8
2.5.2 Install ZebraDesigner Edition Upgrade 9

3. Label Design and Printing **10**

3.1 Designing a Basic Label 11
3.1.1 Create a Basic Label 11
3.1.2 Add Variable Fields to a Label 23
3.1.3 Change Common Printer Settings 27
3.2 Linking a Label to Text Databases 28
3.2.1 Connect to a Database 28
3.2.2 Format the Data with the Text File Wizard 29
3.2.3 Place Database Fields on a Label 31
3.2.4 Use Print Preview to Select Data and View a Label 33
3.2.5 Print a Label 34
3.3 Designing an Advanced Label 35
3.3.1 Create a Label with EAN.UCC 128 Compliance 36
3.3.2 Link a Label to Advanced Databases 39

3.3.3 Using Advanced Objects and Data Manipulation 40
3.4 Designing an RFID Smart Label 45
3.4.1 Create RFID Smart Label 45
3.4.2 Encode RF Tag 47
3.5 Storing Fonts to the Printer 49

4. Technical Support **50**

4.1 Online Support 50
4.2 Contact Information 50

1. Introduction

1.1 Welcome

ZebraDesigner is a family of professional labeling software products that brings a complete bar code printing solution and RFID Smart Label printing to desktop users. ZebraDesigner offers an easy-to-use interface and meets any label design and printing requirement for efficient label printing solutions for users in retail, logistics, health care, chemical, automotive and other industries.

ZebraDesigner can be used with any 32-bit Windows operating system: Windows 98 SE, Windows NT 4.0, Windows ME, Windows 2000, Windows XP and Windows Server 2003.

The latest software version is available as a free download on the Zebra Web site at www.zebra.com.

1.2 ZebraDesigner Pro Software Package

Before you start installing ZebraDesigner Pro, check the contents of the package to ensure it is complete. The package must include:

- ZebraDesigner Pro CD
- Registration number on a label (not available with all editions)

Please contact your software vendor if your package is missing any of the items listed.

1.3 About this Manual

The ZebraDesigner Pro Quick Start Guide helps you design and print labels quickly. The ZebraDesigner Quick Start Guide is an excerpt of the complete

ZebraDesigner Pro User Guide that you can obtain on the ZebraDesigner Pro CD or online at www.zebra.com.

1.3.1 Typographical Conventions

- Text that appears in **bold** refers to menu names, file names (**SETUP.EXE),** and buttons (**OK)**. When there is a flow of menu selections they appear with a > separating the different menu choices. For example, **Start > Programs > ZebraDesigner Pro**.
- Text that appears in *italic* refers to confirming actions like *Read only* and locations such as *Folder*.
- Text that appears in **bold Arial** refers to keys from the desktop PC keyboard. For example **Enter**.
- Variables are enclosed in []. For example [variable].
- Text that needs to be typed in appears in *italic*. Or example, type the word *SAMPLE*.

1.3.2 Software Restrictions

All features explained in the Quick Start Guide are available in the ZebraDesigner Pro edition, but some features are not available in the ZebraDesigner edition. Sections discussing features not available with ZebraDesigner displays an alert icon, as follows:

This icon identifies features that are available only in ZebraDesigner Pro.

2. Installation and Activation

2.1 System and Software Requirements

To run ZebraDesigner you need at least the following:

- Pentium-based computer with at least 64 MB of RAM.
- One of these 32-bit Windows operating systems: Microsoft Windows 98 SE, ME, NT, 2000, XP, or 2003.
- Hard disk with 50 to 205 MB of free disk space (depending on the installation options).
- CD-ROM drive.
- Support for OLE DB database drivers. Recent Windows operating systems have included OLE DB database drivers. If your operation system does not have the database support, the installation wizard prompts you to install it.
- Administrator rights to the local computer during installation.

2.2 Installing ZebraDesigner Pro

When you put the ZebraDesigner Pro CD in your CD-ROM drive, the installation/demonstration program automatically starts. You can browse the directory of the CD and look at the brochures, technical documentation, sample files, and other documents.

Note: If you are using Windows NT, 2000, XP, or 2003, you have to log on with Administrator rights to be able to perform installation.

2.2.1 Close all Software Applications

To ensure complete installation of ZebraDesigner Pro , close all open software applications before you start installing ZebraDesigner Pro.

2.2.2 Run Installation

Use the installation wizard to install ZebraDesigner Pro on your desktop PC.

To install the software, do the following:

1. Put the ZebraDesigner Pro CD in your CD-ROM drive. An installation window automatically opens.

Note: If the installation wizard does not start automatically, go to the main CD directory of your ZebraDesigner Pro CD and double-click the file **START.EXE**.

2. Click **Install**. A new window opens showing all ZebraDesigner editions.
3. Click on the version of ZebraDesigner that you want to install, and follow the prompts.

2.2.3 Define Setup Options

To continue installation, do the following:

1. Click the **Next** button.
2. Specify the program group you want to use for ZebraDesigner Pro.
3. Specify if shortcuts to ZebraDesigner Pro should be created on the desktop or in the Quick Launch area.
4. To finish installation, click the **Install** button.
5. After installation you will be asked to install a printer driver. It is necessary to install a ZebraDesigner driver. If you do not install a printer driver while installing the software, you will be asked to install one the first time you run the program.

6. Once the installation is complete, the **Start** menu in Windows shows a new program group for ZebraDesigner Pro that contains shortcuts for all ZebraDesigner Pro applications.

2.2.4 Install Printer Driver

To install the ZebraDesigner printer driver on your computer, do the following:

1. Click **Start > Programs > ZebraDesigner Pro.**
2. In the group ZebraDesigner Pro, click the shortcut **Add printer**.
3. The printer installation wizard starts.
4. Follow the on-screen instructions.

2.3 Registering ZebraDesigner Pro

Activate ZebraDesigner Pro to obtain all features. If you do not complete the activation process, ZebraDesigner Pro only runs in DEMO mode.

Note: ZebraDesigner does not require registration. It is free software, but available with less functionality than ZebraDesigner Pro.

To register the software, do the following:

1. Start ZebraDesigner Pro.
   The *DEMO* dialog box appears.
2. Click the **Register** button.
3. Enter the required information and follow the prompts.

2.4 ZebraDesigner Pro DEMO Mode

ZebraDesigner Pro running in the DEMO mode has limited functionality. The major limitations of the ZebraDesigner Pro DEMO mode are:

- All "e" characters in the text objects are replaced by "Z" characters.
- Graphic images are printed with DEMO text written over them.

You should use the DEMO version only to evaluate the software. Any commercial use of the DEMO software is prohibited. To obtain the full working version of ZebraDesigner Pro, you must purchase and register the software.

2.5 Installing ZebraDesigner Pro Upgrades

You can upgrade ZebraDesigner Pro as follows:

- Upgrade from an older version to the most current one.
- Upgrade from one edition, for example ZebraDesigner, to a more advanced edition, for example ZebraDesigner Pro.

2.5.1 Install ZebraDesigner Pro Version Upgrade

In a ZebraDesigner Pro software version upgrade, you upgrade the older version to the newer version. Before you upgrade ZebraDesigner, make sure you:

- Backup the old ZebraDesigner Pro label (**.lbl**) files.
- Do not remove the existing version from your desktop PC.
- Check what ZebraDesigner edition you have.

Note: To check your ZebraDesigner edition, look at the label on your CD, or open ZebraDesigner and go to **Help/About** in the menu.

To upgrade ZebraDesigner, do the following:

1. Close the ZebraDesigner software on your desktop PC.
2. Put the ZebraDesigner CD in your CD-ROM drive.
3. Install the new version in the same folder where the old version is currently installed. The new version replaces the old one.
4. Follow the prompts.

2.5.2 Install ZebraDesigner Edition Upgrade

When you perform an edition upgrade, you want to upgrade to a more powerful ZebraDesigner edition; for example, upgrade from ZebraDesigner to ZebraDesigner Pro.

To upgrade your ZebraDesigner edition, do the following:

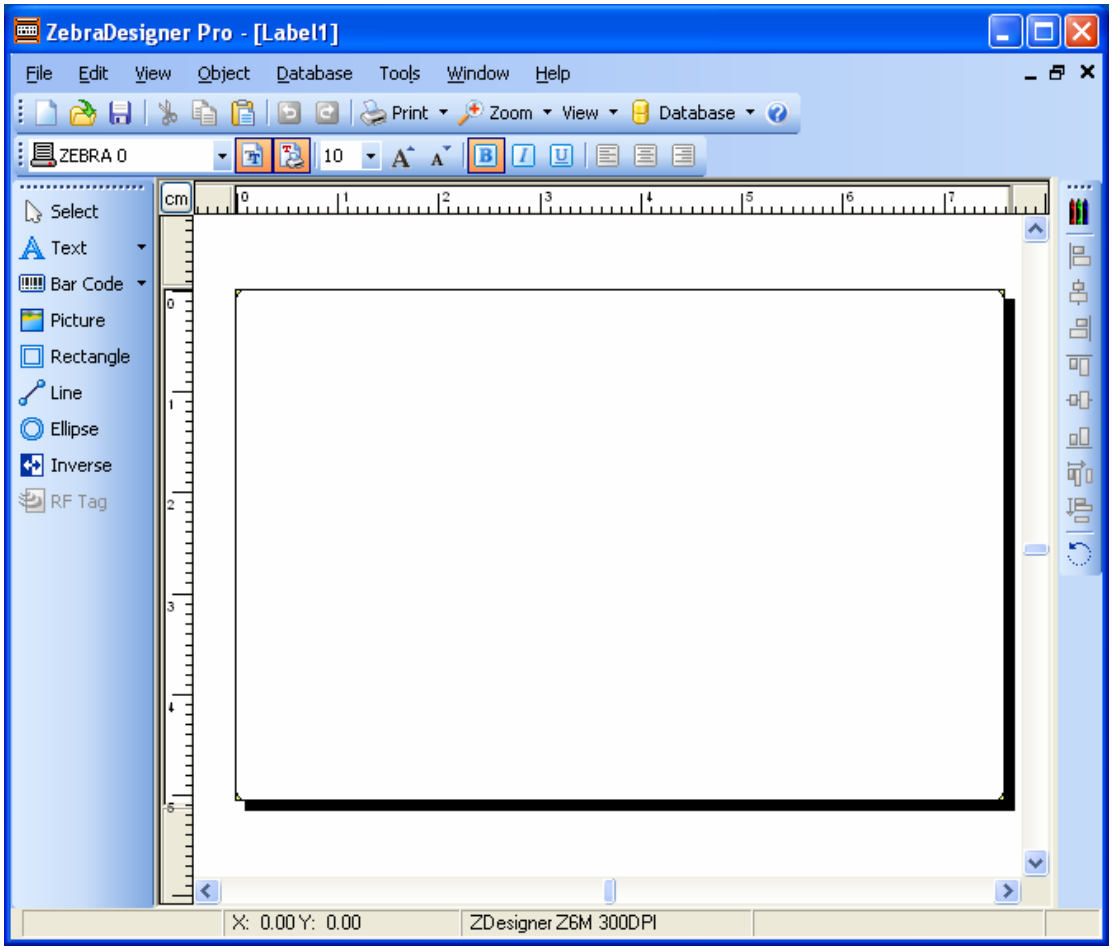
1. Remove the existing edition of ZebraDesigner software.
2. Open **Add or Remove Programs** from Control Panel, select ZebraDesigner from the list and click the **Remove** button.
   During the removal of the old edition, all user files (labels and forms) remain on the hard drive in the *My Documents* folder and be accessible in the new edition.
3. Install the new edition on your computer. Follow the same instructions as for first-time installation. Refer to the chapter **Installing Software** in the ZebraDesigner Pro User Guide.

3. Label Design and Printing

In this chapter you will learn how to design and print labels with ZebraDesigner Pro. All examples assume that you are using a thermal printer and a ZebraDesigner printer driver.

The screenshots in this chapter show the default view on the ZebraDesigner Pro interface. You can change the interface according to your preferences.

To start designing a label, open ZebraDesigner Pro. The figure below shows the default working interface of ZebraDesigner Pro.



ZebraDesigner Pro working window

3.1 Designing a Basic Label

In this section you learn how to design a simple label file with fixed and variable objects. The variable objects can obtain values from several sources. You learn how to:

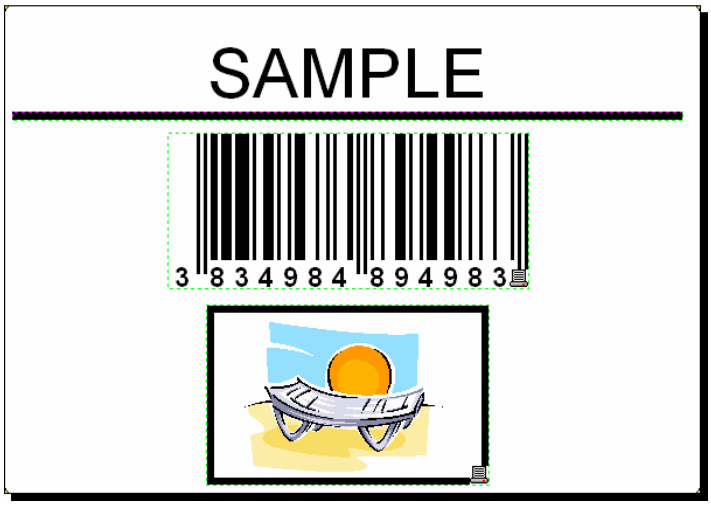
a. Provide object values with a keyboard prompt.

b. Obtain object values from a database.

c. Preview the label on the screen.

d. Print the label.

The label you create looks like this:

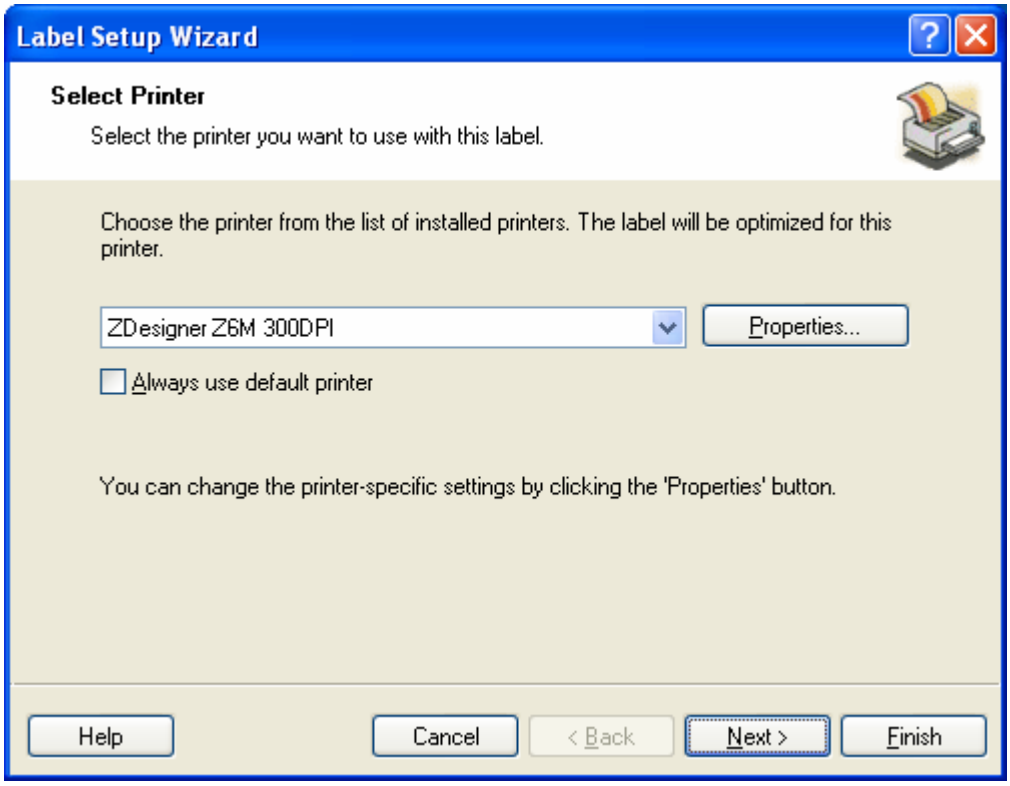


Basic label

3.1.1 Create a Basic Label

To create a basic label, do the following:

1. Open ZebraDesigner Pro.
2. Select **New** in the **File** menu, or click the button in the **Standard** toolbar.
   Each time you create a new label, a Label Setup Wizard starts to help you set up the label and connect to the printer.



Selecting label layout

Note: You can leave the Wizard at any time and accept the default settings for the label by clicking on the **Finish** button.

Select a Printer

1. Select the printer you want to use for label printing.

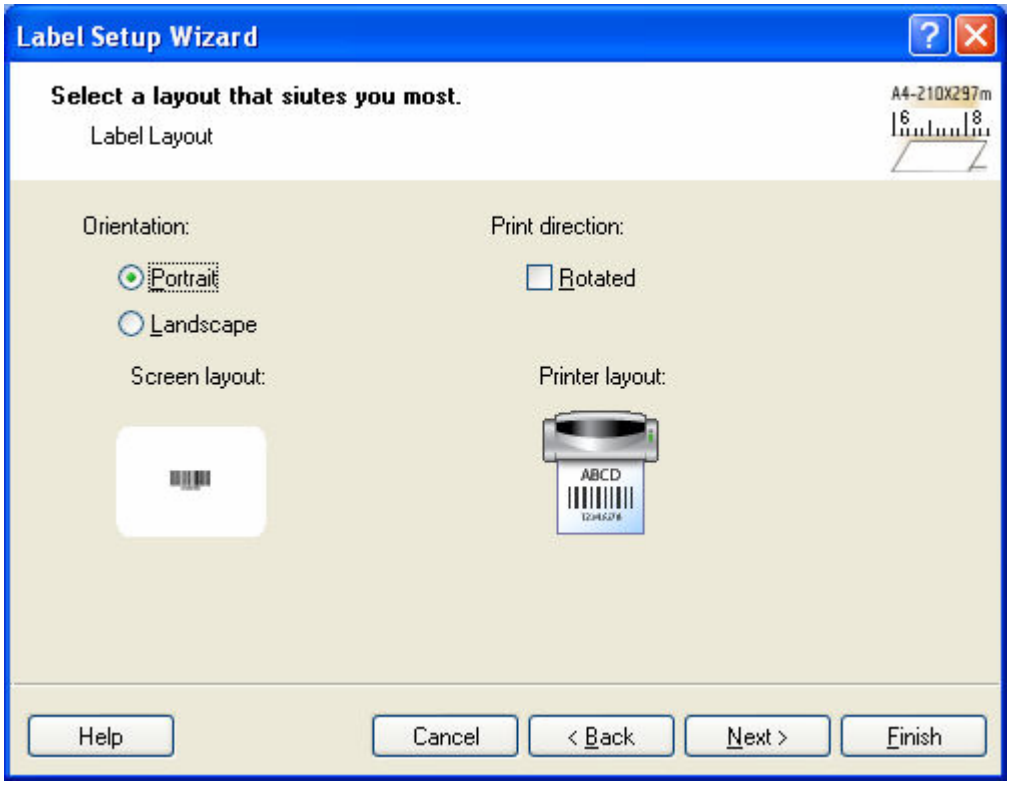
Note: If you don't find your printer on the list, refer to chapter **Install Printer Driver** for installation instructions.

2. Click the **Next** button.

Define Label and Page Dimensions

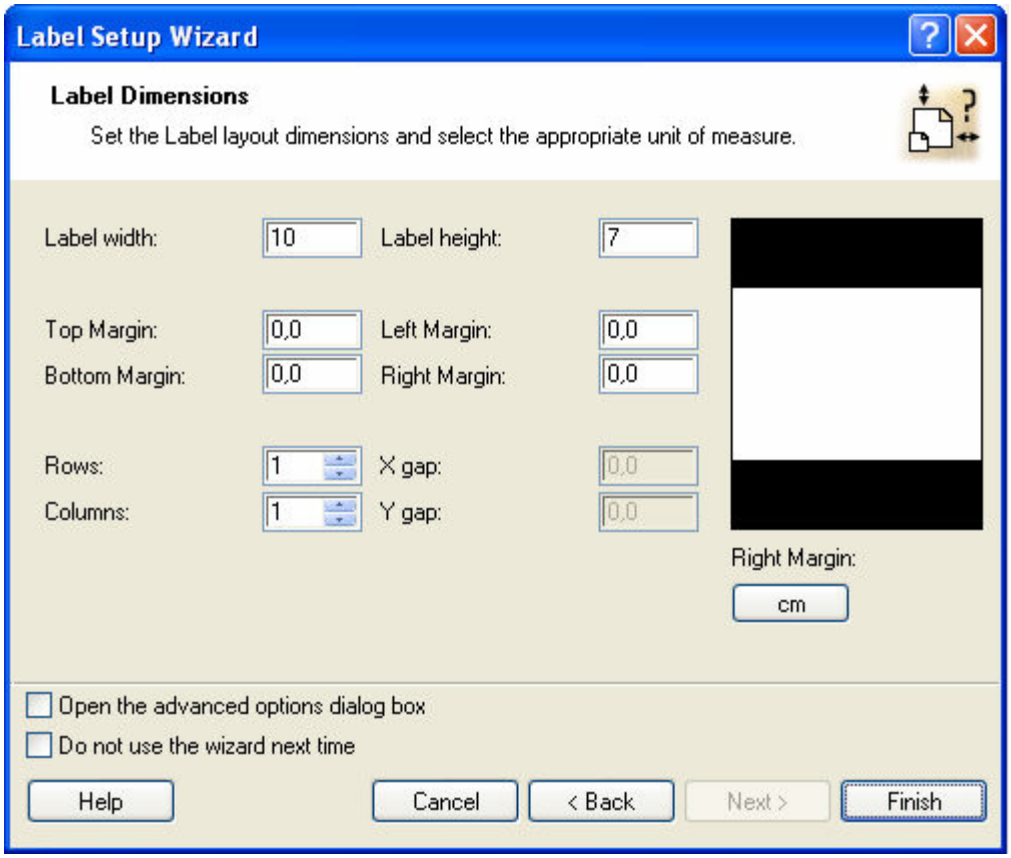
1. If you want to use the label stock, select your choices in the Label Setup Wizard - **Select Stock** window.

2. Click the **Next** button. A new window opens to define the label dimensions manually.
3. Leave the option *Page Size* on 'User defined' default and check **Automatic Sizing**.
4. Click the **Next** button. A new window opens.
5. Select label orientation and print direction.



Selecting label layout

6. Click the **Next** button. A new window opens.
7. Type *10* for label width and *7* for label height.



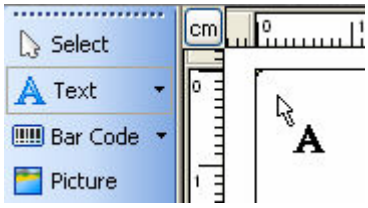
Defining label dimensions

Note: To change the unit of measure from centimeters to inches or other supported units, click the button with unit of measure below the label preview in the dialog box.

8. Click the **Finish** button. A new empty label opens.

Enter Non-Changing Text

1. Click the Text button in the **Toolbox**. The text cursor appears on the screen.

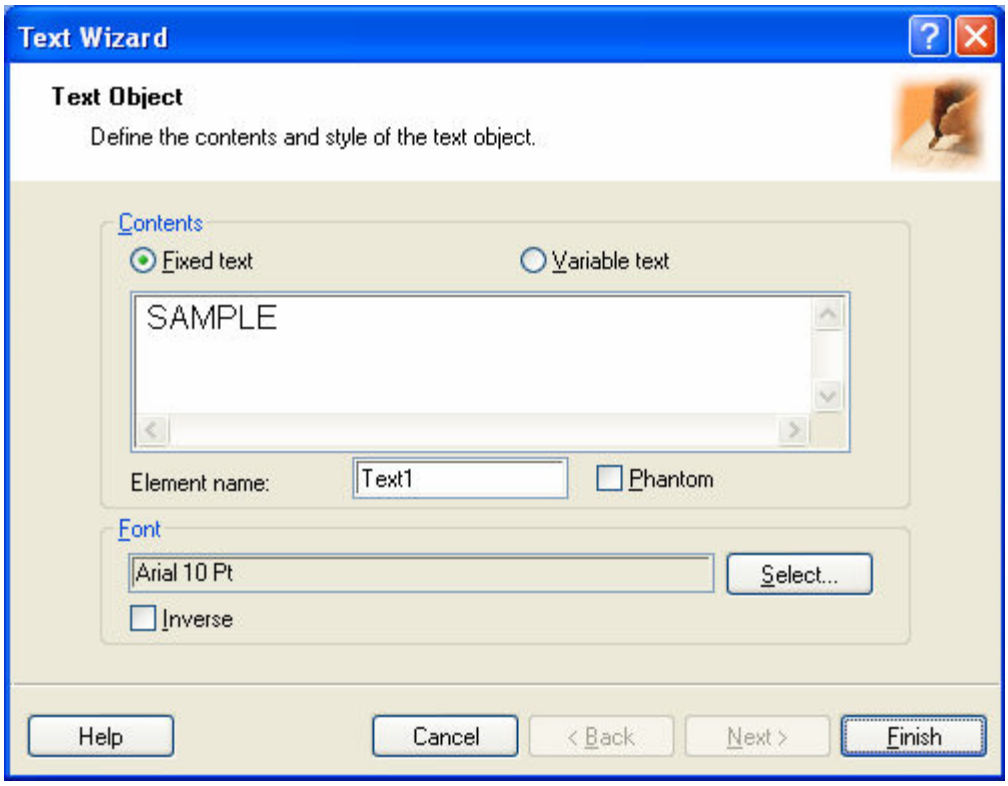


Cursor for text object

2. Move the cursor to the location on the label where you want to place the text object and click the mouse.

   The dialog box with object properties opens.

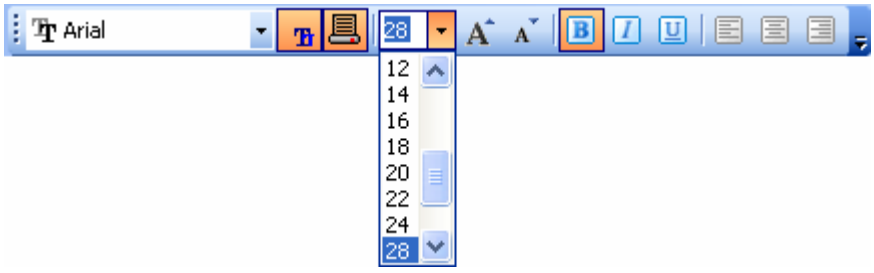
3. Type *SAMPLE* and click the **Finish** button.



Entering content for text object

4. To select the object, click the text object.
5. Change the font for the text object using the **Text** toolbar.

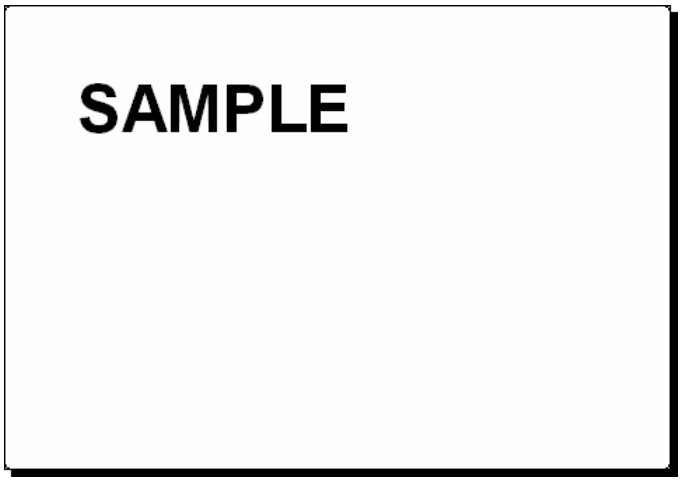
   Choose Arial font, 28 point size and bold style.



Using format options in the text toolbox

6. To change the position and size of the text object, select the text object and drag it with your mouse to the new position.

   The screen should show the following:



The text object is placed on the label

Insert Bar Code

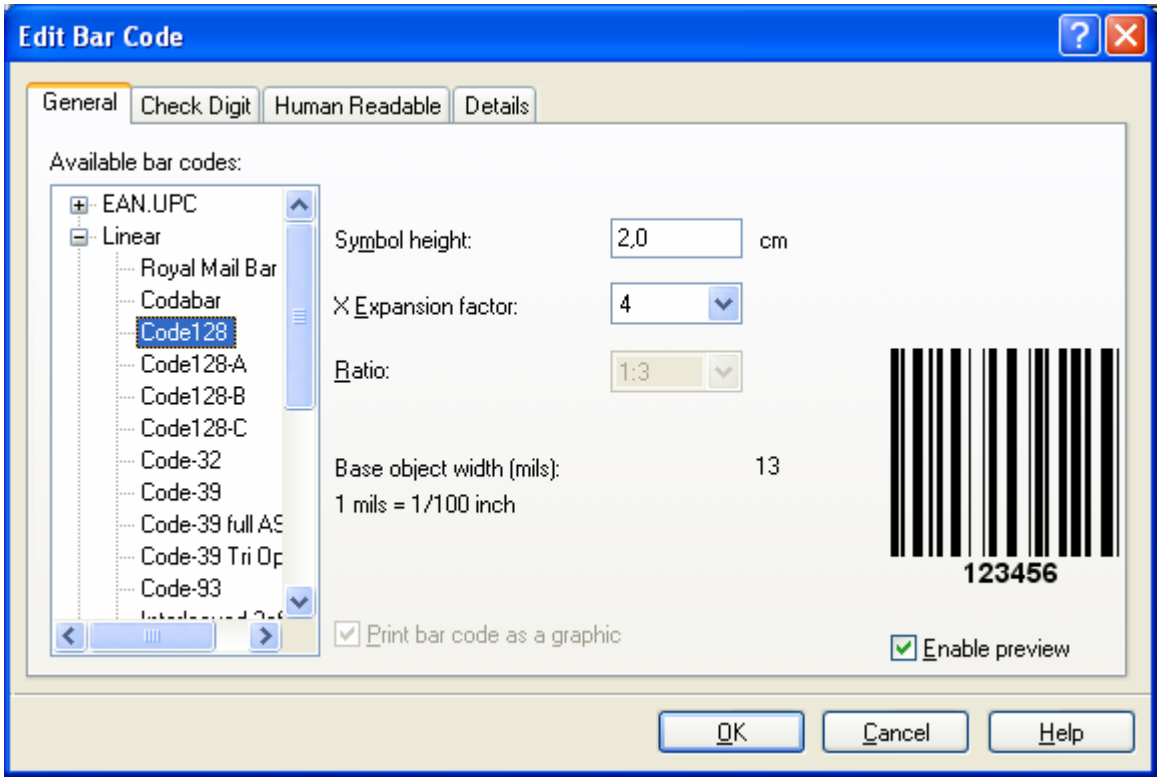
Now you will add a non-changeable Code 128 bar code on the label.

1. To insert the bar code, click the

button in the **Toolbox**.
2. Move the cursor to the desired position on the label and click the mouse button.

   The dialog box with object properties opens.
3. Type the value *1234567890* for the bar code contents.
4. Click the **Define** button.

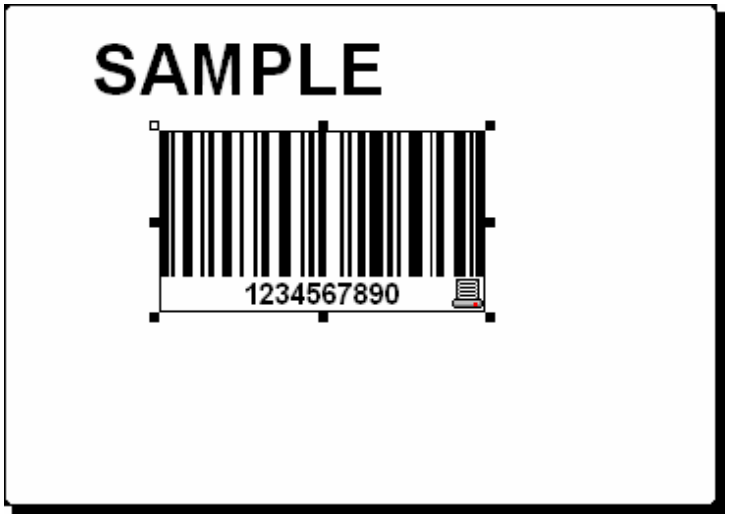
   The *Edit Bar Code* dialog box opens.
5. Select bar code Code 128 and click the **OK** button.



Selecting bar code type

6. Click the **Finish** button to return to the label.
7. Change the position of the bar code by selecting the bar code and dragging it to the desired position.
8. Change the object size by dragging the object handles. The handles are small rectangles surrounding the object when it is selected.

The label should now show the following:



Label with text and bar code objects

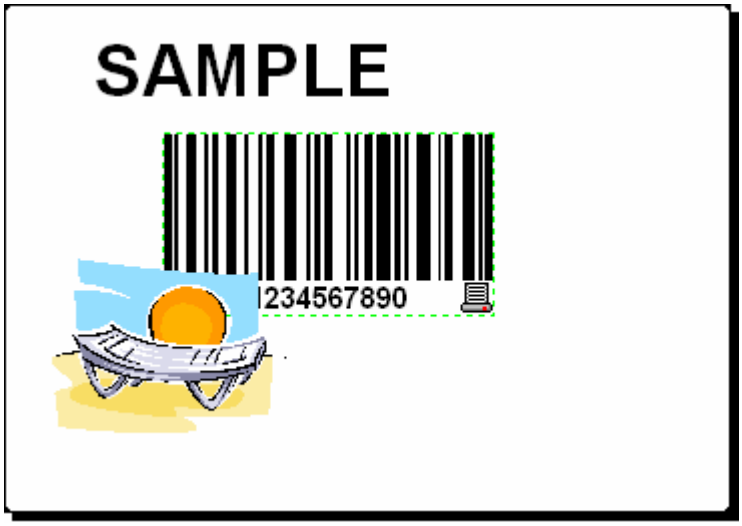
Insert Picture

ZebraDesigner Pro works with BMP, PCX, GIF, WMF, JPEG, and many other popular graphic formats.

1. To insert the picture, click the

button in the **Toolbox**.
2. Move the cursor to the desired position on the label and click the mouse button.
3. The *Open* dialog box opens, allowing you to browse for your picture on your hard drive.
4. Go to the folder *Sample Graphics* and select the picture **LEISURE.WMF**.
5. Click the **Open** button.

The screen should show the following:



Label with text, bar code and picture objects

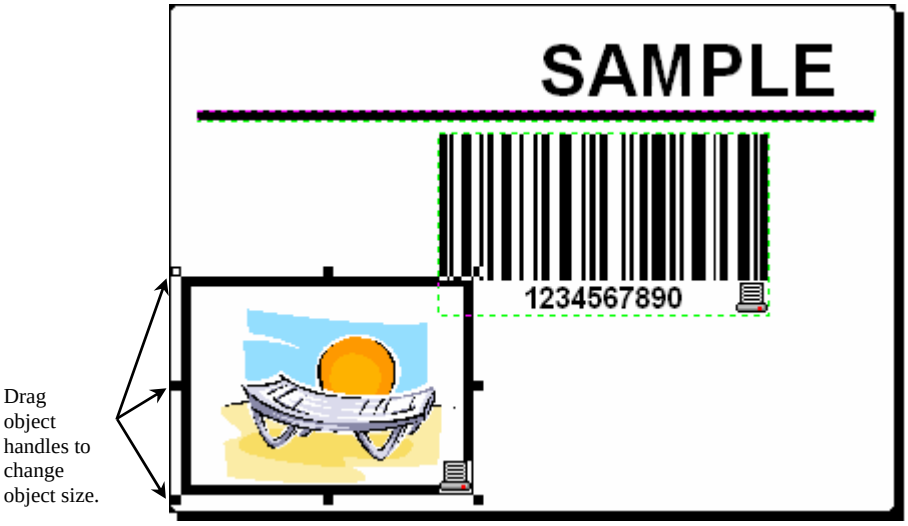
Use Drawing Tools

Now you will insert a line to separate a text object from other objects, and then insert a rectangle around the picture object.

1. Select the Line button from **Toolbox** and move the cursor to the required starting point of the line.
2. Press and hold down the mouse button while drawing the line. Move the mouse to the end position of the line and release the button.

   The Line object is placed on the label.
3. Click the Rectangle button in the **Toolbox** and point the mouse to the upper left corner of the picture.
4. Click and hold the mouse button while you stretch the rectangle to the lower right corner of the picture.
5. To change the thickness of the vertical and horizontal line, double-click on the rectangle object to open its properties. Select the thickness you want and click the **Finish** button.
6. To edit the drawing object, double-click the line or rectangle to open the dialog box with its properties.

The label should show the following:



Label with fixed objects

Use Alignment Tools

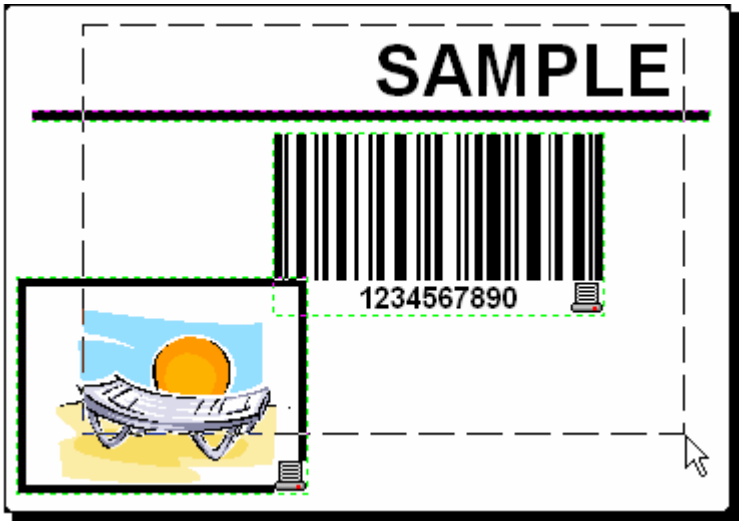
You have placed the objects on the label. Now you want to make sure they are aligned on the horizontal center of the label. You can align objects on the label by using the **Align** toolbar on the right side of the working window.

To align objects on the label, do the following:

1. Select all objects on the label.

Note: The first object you select determines the alignment orientation for all selected objects.

2. Choose a select arrow in the **Toolbox** and draw a frame around all objects to select all objects.



Selecting the objects on the label

3. In the **Align** toolbar on the right, click the button to arrange the objects.

   The selected objects are rearranged and positioned on the horizontal center on the label.

Note: There are also other alignment commands available in the **Align** Toolbar.

Note: You can also align the objects to the label grid. The option *Snap to Grid* is available in the **View** menu.

Save a Label

Always save your label during the design process.

To save a label, do the following:

1. Select the button.
2. Type in the name of the label. For example, type *label* for the name of the label.
3. The name of the label is visible in the program caption.

Name of the label in the program caption

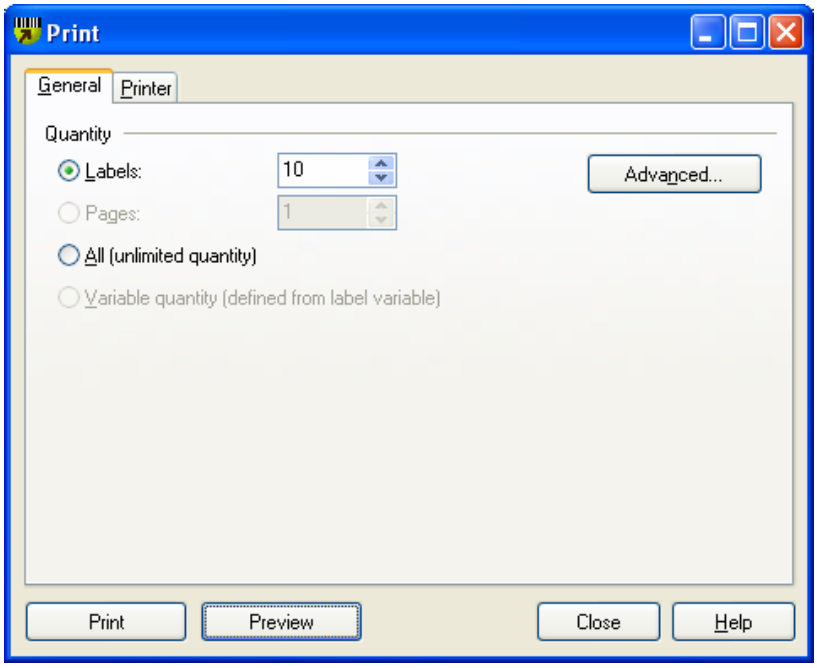
Preview and Print a Label

If you want to print a label, you can use the print preview to simulate a print output. The label preview shows the label on the screen.

Simulate printing 10 labels on the screen to check label layout and printing procedure.

1. Click the

button in the **Standard** Toolbar or select the command **Print** in the **File** menu. The *Print* dialog box appears.



Print / print preview dialog box

2. Enter *10* for *Label Quantity* and click the **Preview** button. ZebraDesigner Pro closes the dialog box and simulate the production for 10 labels on the screen.

Note: You can select between the quantity of the labels and the quantity of the pages. The page can have one or more labels and the labels are

arranged on the page in columns and rows. If you have eight labels on the page, the quantity of ten pages prints 80 labels.

When you are certain that the labels will be printed correctly and the preview shows the correct values, you can proceed to real printing.

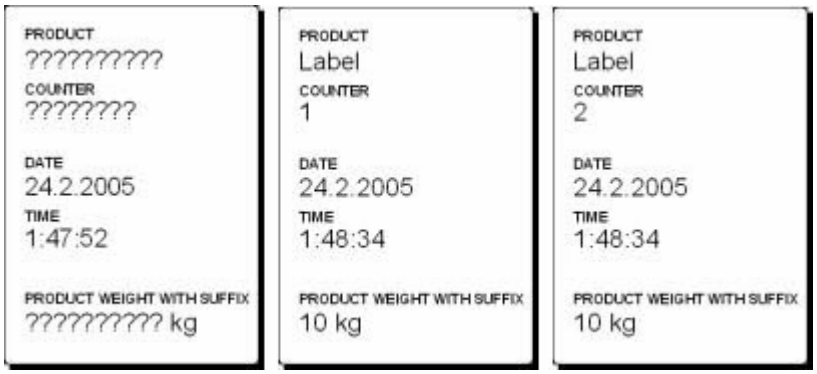
To actually print the labels, do the following:

1. Click the Print button in the **Standard** toolbar.
   The *Print* dialog box appears.
2. Enter *10* for the *Label Quantity* and click the **Print** button.
   Your printer will now print 10 labels.

3.1.2 Add Variable Fields to a Label

You may want to print a label on which the data changes for each label. ZebraDesigner Pro offers different variable fields (counters, date/time fields, operator's input from the keyboard) that you can use with text, graphics, and bar code objects.

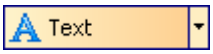
For this example a new label was created. The following steps explain how to create a label that contains a prompted field, a counter, and date/time fields. The captions in the following screenshots were added separately.



The left label shows design mode, the two right labels are two consecutive labels from print preview

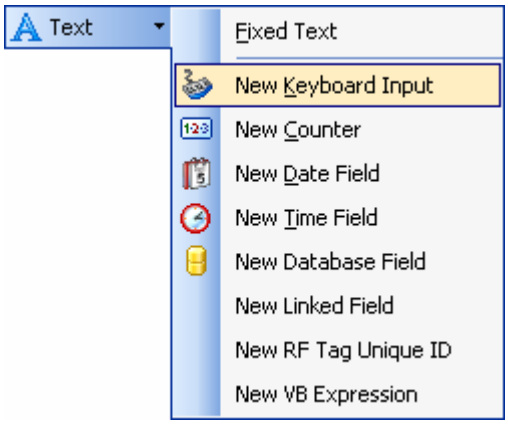
Create Keyboard Entry Variable Fields

The content of a prompted field can be different for every print job. Before you print the label, you enter the value for the field.

1. Click the small arrow next to the 

button in the **Toolbox** to display a list of available variable types.
2. Select **New Keyboard Input** from the list and click the label where you want to position the object.

   A dialog box with the **Variable Wizard** opens.



Creating new keyboard input variable field

3. Type *Enter product name* for the option *Display this text to the print operator*.
4. Click the **Finish** button.

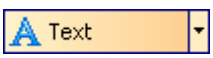
   The cursor changes its shape to an arrow with a text object.
5. Click on the label where you want to position the prompted field.

   The text object is placed on the label and linked to the new variable.

Note: When you print the label, you will be prompted to type the product name, which will be shown in preview on the label and on the printed label.

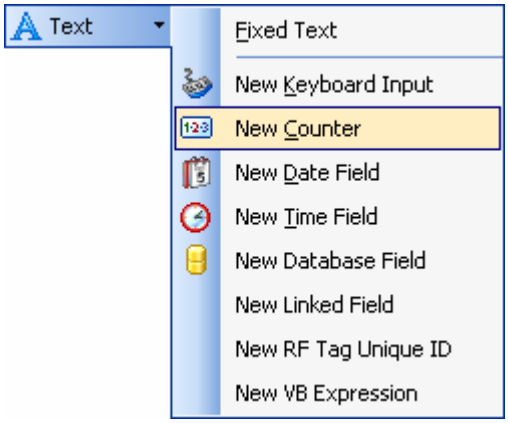
Create Serialized Data Variable Fields

Now create a counter field on the label. The value of that variable field automatically increases by one on every label.

1. Click the small arrow next to the 

button in the **Toolbox** to display a list of available variable types.

2. Select **New Counter** from the list.
   A dialog box with counter properties opens:



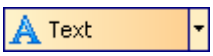
Creating new counter variable field

3. Leave everything as default so that the counter always starts from one and increase by one on each label.
4. Click the **Finish** button.
5. Click the label where the counter should be placed.
   The new variable is linked to the text object on the label.

Note: Typically, the counter increases by one on each label. For example: 1, 2, 3, 4, 5, et cetera. You can also define different incremental steps.

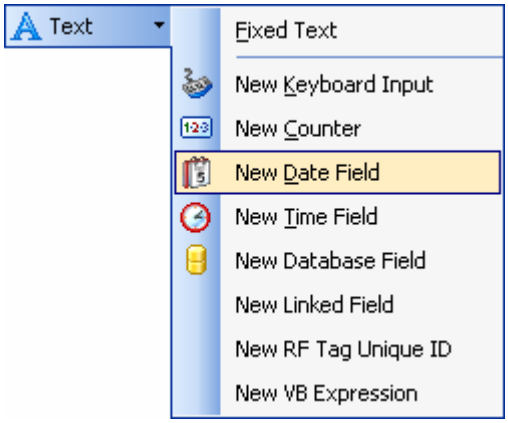
Create Date and Time Variable Fields

Content of the variable field can be filled automatically with the date or time stamp from the computer clock or printer clock (for supported printer models).

1. Click the small arrow next to the 

button in the **Toolbox** to display a list of available variable types.
2. Select **New Date Field** from the list.

A dialog box with date properties opens.



Creating new date variable field

3. Leave everything as default and the date will be used on the label using the format as defined in your Windows operating system.

To place a time stamp on the label, do the following:

1. Click the small arrow next to the

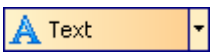
button in the **Toolbox** to display a list of available variable types.
2. Select **New Time Field** from the list.
3. Click the **Finish** button.
4. Click on the label where the time or date field should be placed.

   The new variable is linked to the text object on the label.

The date and time fields are updated when you preview or print the label. In this example, the values will come from the system clock of your computer.

Use Prefix or Suffix Options

You can add a prefix and suffix to each variable field on the label. Both are added to the value when you preview and print the label.

1. Click the small arrow next to the 

button in the **Toolbox** to display a list of available variable types.
2. Select **New Keyboard Input** from the list.

   A dialog box with variable properties will open.

3. Type the text *Enter product weight* for the option *Display this text to the print operator*.
4. Set the allowable characters to digits and click the **Next** button.
5. Enter *kg* for the **Suffix** option.

Defining the variable suffix

6. Click the **Finish** button.
7. Click the label where you want to position the prompted field.
   The text object is placed on the label and linked to the new variable. When you will preview or print the label, the suffix *kg* will be appended to the entered value on the right side.

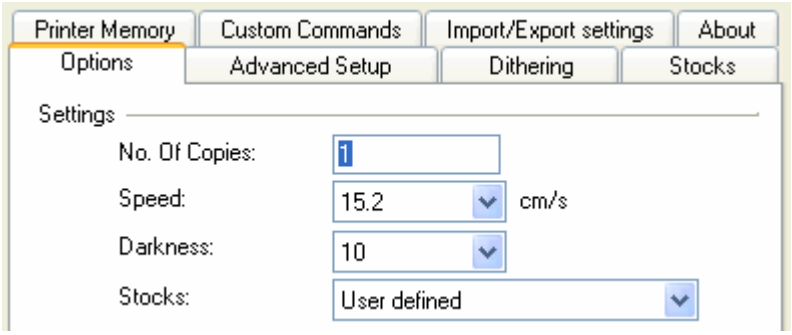
3.1.3 Change Common Printer Settings

When you start designing a label, you tell ZebraDesigner what printer the label will be associated with. Each label file remembers the printer settings for the selected printer driver on the label.

As an example, you will change the printing speed and darkness.

To change the printer settings, do the following:

1. Go to **File > Printer Settings**.
   The window with the printer settings will open.
2. Open the *Options* tab.
3. Change the **Speed** and **Darkness** options.
4. Click the **OK** button.
5. Save the label by clicking the button in the **Standard** toolbar, or selecting the command **Save** in the **File** menu.



Printer driver properties

Note: Any changes in the printer settings dialog box will be saved to the label and applied to future print actions.

You can also change the printer settings right before the label is printed.

1. Select **File > Print**.
2. Go to the *Printer* tab.
   This tab allows you to change the printer just before printing begins, but it also enables you to change common printer settings like speed, darkness and print direction.

Note: Changes to the settings in the *Printer* tab will not be saved in the label but used only at print time.

3.2 Linking a Label to Text Databases

Pro Only

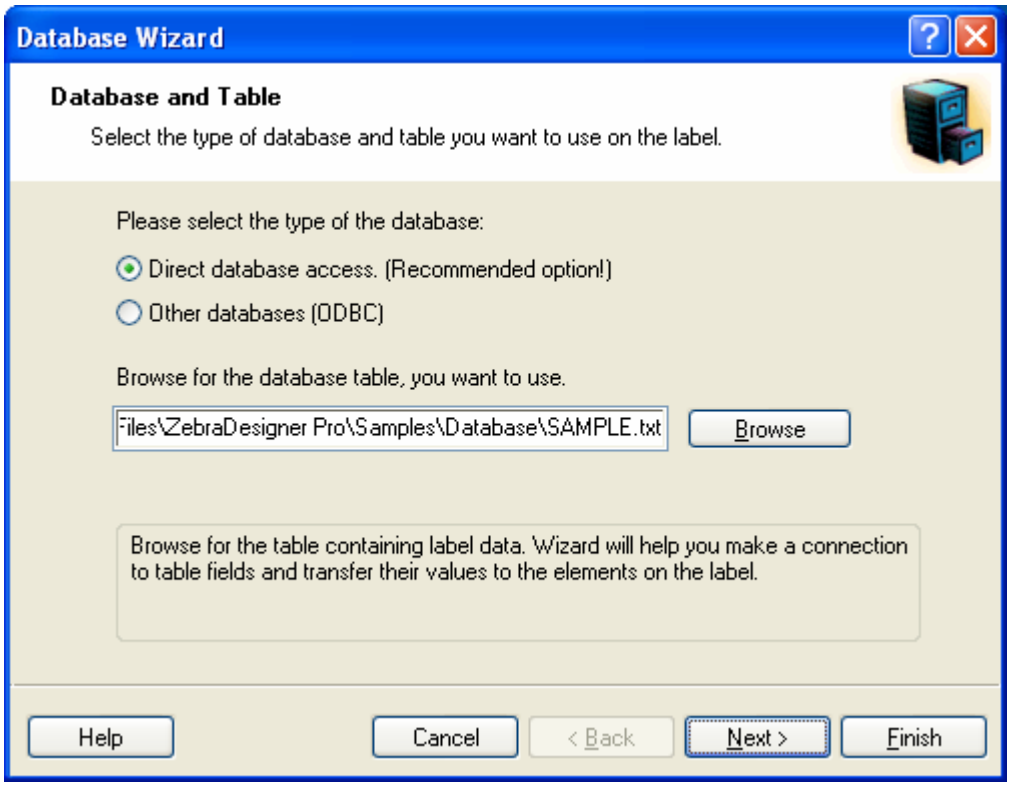
Text databases are text files containing data values that can be used for variable objects on the label. The text database is not a real database. It contains the data values, but lacks the information of the data structure, name of the fields, and maximum lengths of the fields. You have to provide the missing information before ZebraDesigner Pro can use the data from such a text database.

3.2.1 Connect to a Database

ZebraDesigner Pro offers a Database Wizard that guides you through the necessary steps to connect the database to a label.

To connect your label to a database using the Database Wizard, do the following:

1. Click the Database button in the **Standard** Toolbar.
2. Click the **Browse** button and point to the text database **SAMPLE.TXT** in the Samples folder.



Selecting the text database

3. Click the **Next** button.

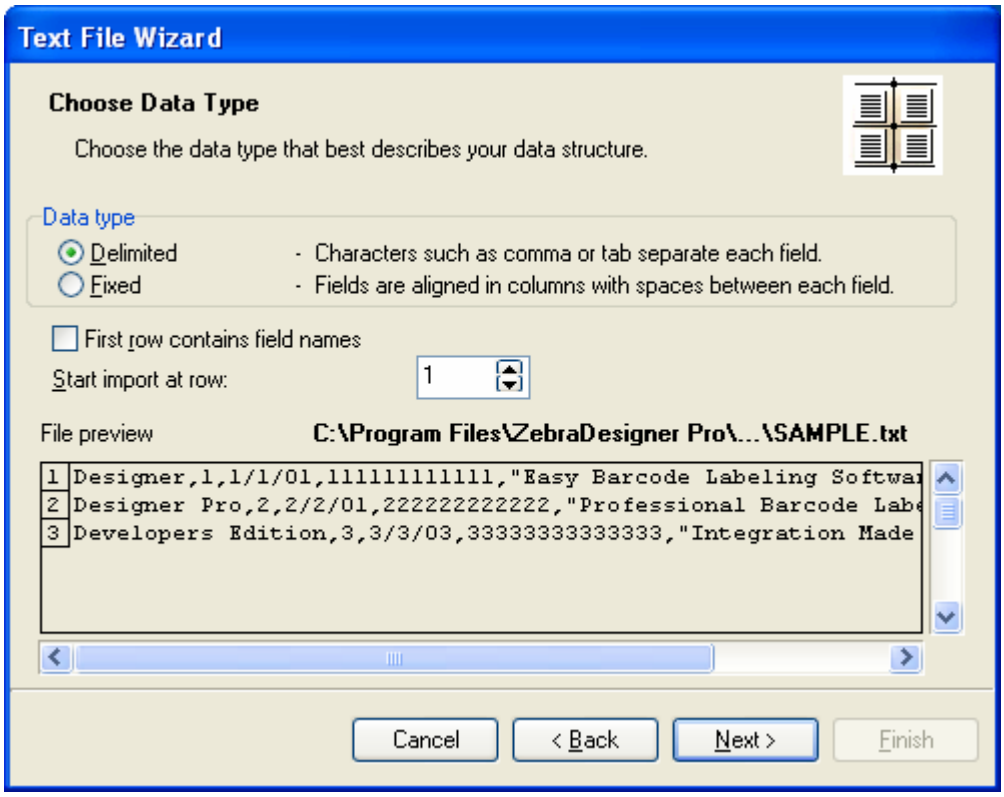
Note: If you connect to the database for the first time, you need to define the database structure. Continue with the next section.

Pro Only

3.2.2 Format the Data with the Text File Wizard

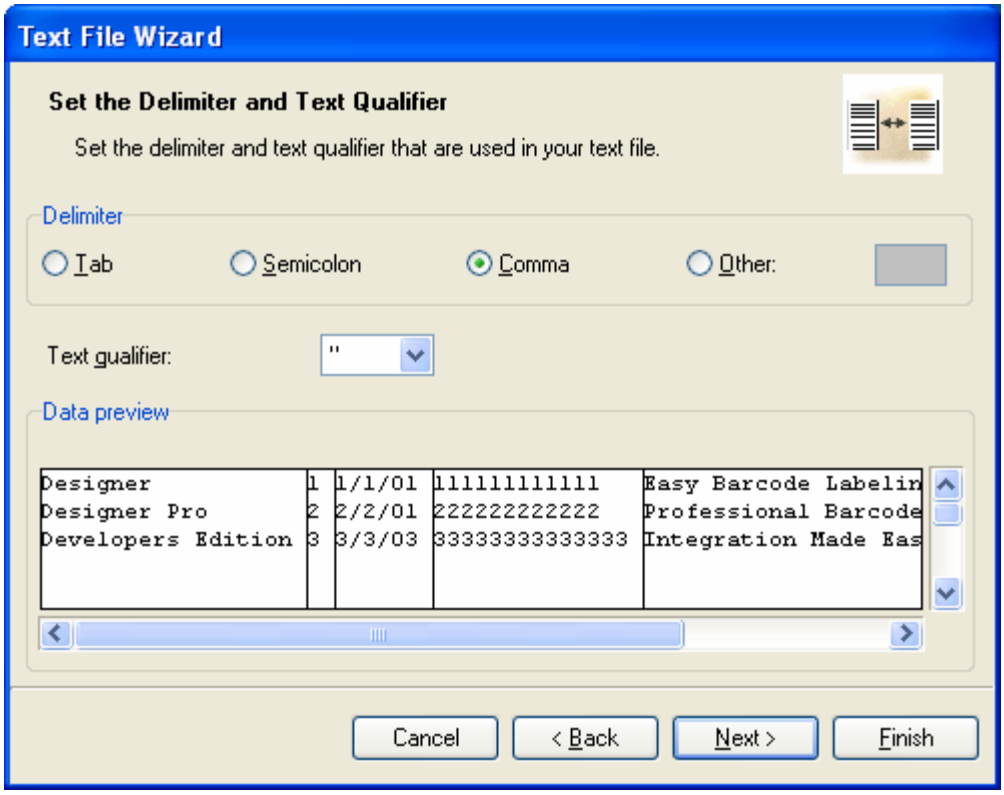
Because the text files do not contain the structural information that databases do, you must define the fields and their data structure. When you use the same text database again, you won't have to define the structure again.

1. Choose the data type for the selected text database. The fields are aligned in columns, so you must select the option **Fixed**.



Defining the type of the text database

2. Click the **Next** button.
3. Define the widths of the individual columns by placing a break line before the second column and before the third column.



Defining the fields in the text database

4. Click the **Next** button.
5. Accept the default field names, and click the **Next** button.

   Review the text database structure. The field names and their maximum lengths are displayed.
6. Click the **Finish** button to close Text File Wizard.

The link to the database has been created and database fields are available on the label.

ZebraDesigner brings you back to the Database Wizard.

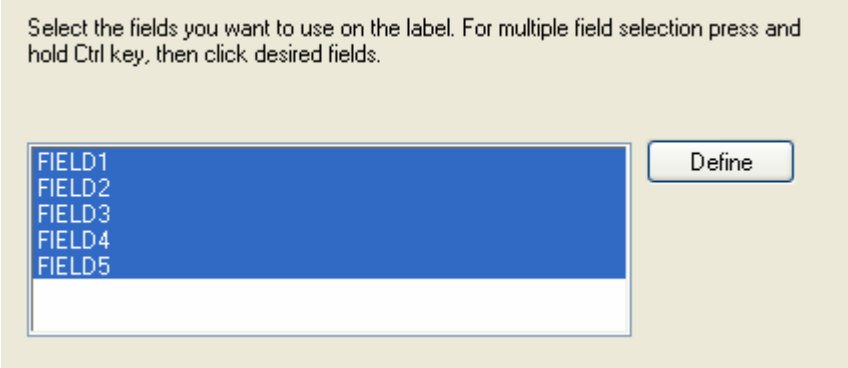
Pro Only

3.2.3 Place Database Fields on a Label

The next step in the Database Wizard opens the dialog box with the list of available fields from the database.

By default, all fields from the database will be used on the label.

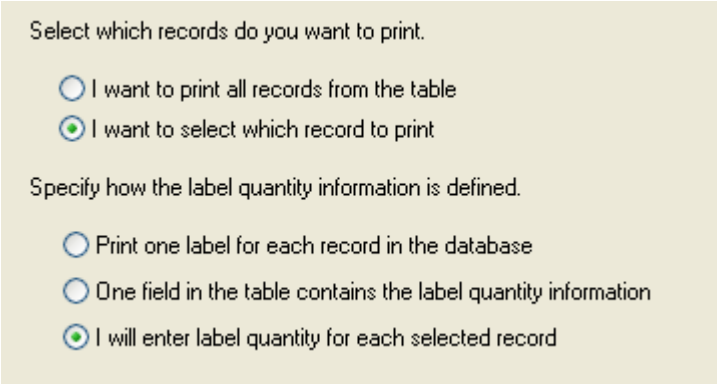
1. Click the **Next** button.



Using all fields in the text database

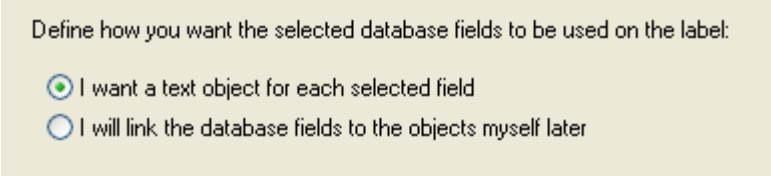
2. Specify what records and how many you want to print:

   Select the options **I want to select which record to print** and **I will enter label quantity for each selected record**. Before printing labels, the table with the records will open and you will be able to select the records you want to print and the quantity of labels for each record.



Specifying which records from the database will be printed and in what quantity

3. Click the **Next** button.
4. Select if the Database Wizard should link all selected fields from the database to the text objects on the label, or if you want to link the fields manually to the label.
5. Click the **Next** button.
6. Select **I want a text object for each selected field,** and click the **Finish** button.



Each field from the database will be linked to a text object

The label will show several text objects. Every field from the database is linked with the text object on the label.

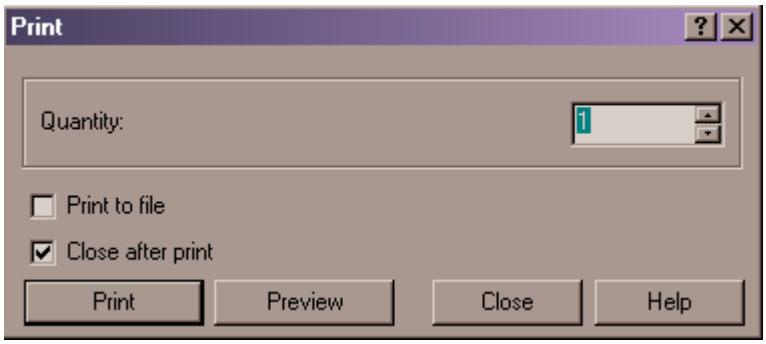
3.2.4 Use Print Preview to Select Data and View a Label

Now you will simulate label printing using print preview:

1. Click the print

button in the **Standard** Toolbar.
2. The *Print* dialog box opens with the Quantity of labels set to **Variable quantity (entered for each database record)**. This setting corresponds to your selection in the Database Wizard when you have selected the options **I want to select which record to print** and **I will enter label quantity for each selected record**.

   Only the records you select will be printed in the defined quantity.



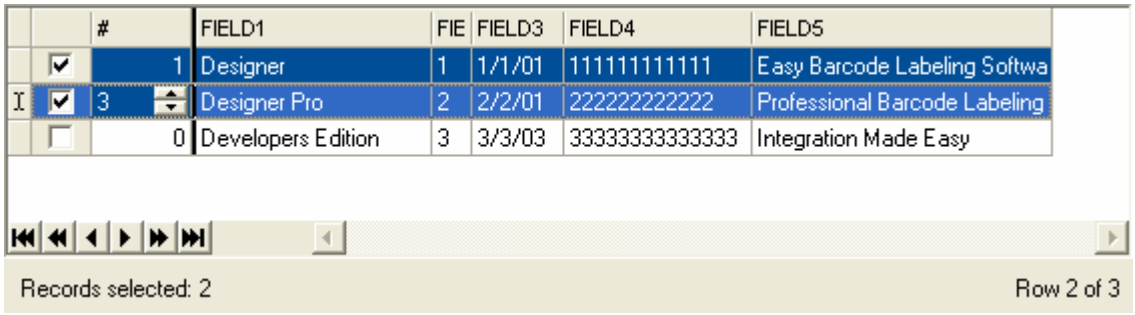
Print / Print preview dialog box

Pro Only

3. To choose which records to print from the database, click the **Select Records** button.

   The *Record Selection* dialog box will open.
4. Select the records from the database you want to print and enter the number of labels you want to print for each selected record.

Pro Only

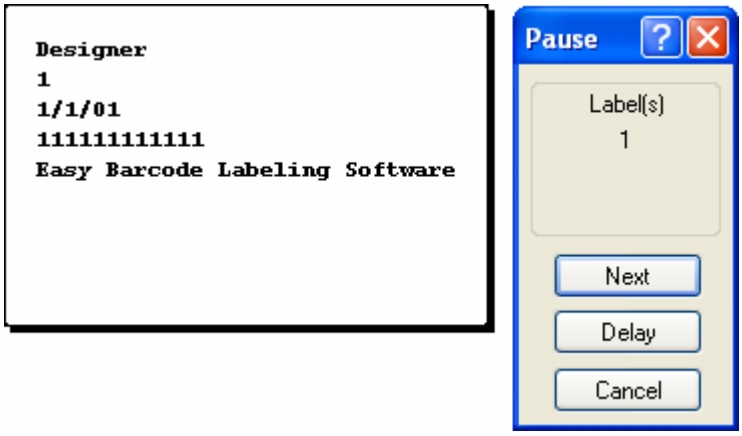


Selecting records and specifying label quantity

5. Click the **OK** button.

   You will return to the *Print* dialog box.

6. Click the **Preview** button. Now you can preview the labels on the screen. Note that the text objects on the label change for each new record.



Preview of the first label in the series

7. Click the **Next** button in the command window to advance to the next label in the series. After you see the last label in the preview series, ZebraDesigner will re-open the *Print* dialog box.

8. Click the **Close** button to close the *Print* dialog box.

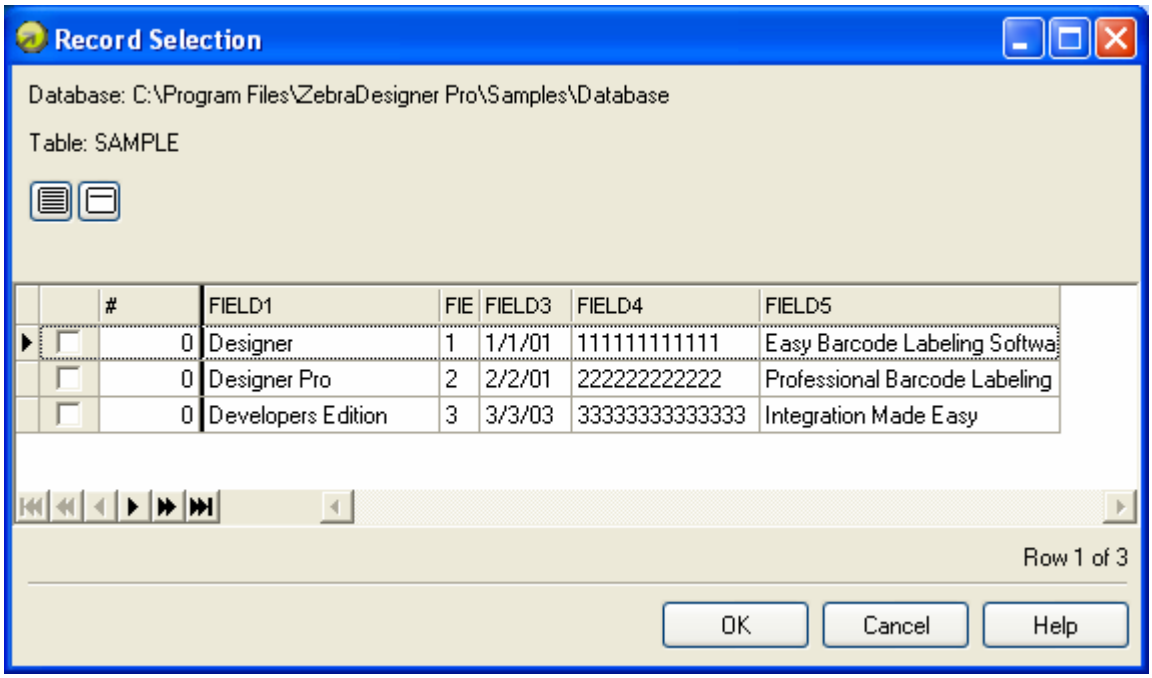
3.2.5 Print a Label

When you are certain that the label design is correct and label preview shows the correct values from the database, you can start sending the labels to the printer.

To print a label, do the following:

1. Click the Print button in the **Standard** Toolbar.
   The *Print* dialog box will open (same as the *Print Preview* dialog box).
2. Click the **Select Records** button, and select the records you want to print and specify the label quantity for each record.

Pro Only



Selecting records and specifying label quantity

3. Click the **OK** button.
4. Click the **Print** button to start printing labels.
5. Click the **Close** button to close the dialog box.

3.3 Designing an Advanced Label

In this section, you will learn how to design a label with advanced features. You will learn how to create a label using:

a. EAN.UCC 128 bar code.

b. Links to advanced databases.

c. Advanced objects and functions.

3.3.1 Create a Label with EAN.UCC 128 Compliance

EAN.UCC 128 compliant bar codes are often used for encoding data into the bar code. ZebraDesigner Pro provides an EAN.UCC 128 Bar Code Wizard that helps you merge the data components (Application Identifiers) into the final bar code.

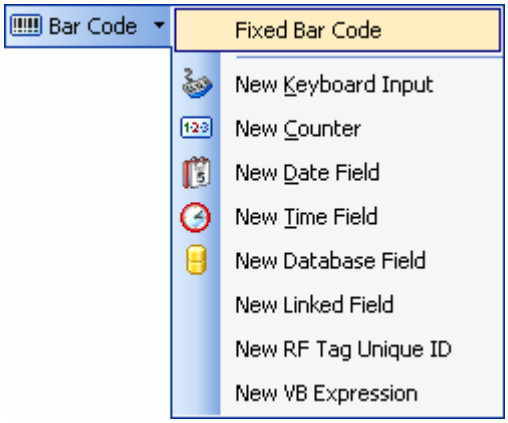
Edit Bar Code EAN.UCC 128

The designed label with EAN.UCC 128 bar code

To define the EAN.UCC 128 bar code, you first select this bar code type and assign a value to it.

1. Click the small arrow button next to the

button in the **Toolbox**.
2. Select Fixed Bar Code in the **Context** menu.
3.



Creating a fixed bar code

4. Move the cursor to the location on the label where you want to place the text object, and click the mouse button.

The wizard with object properties will open.

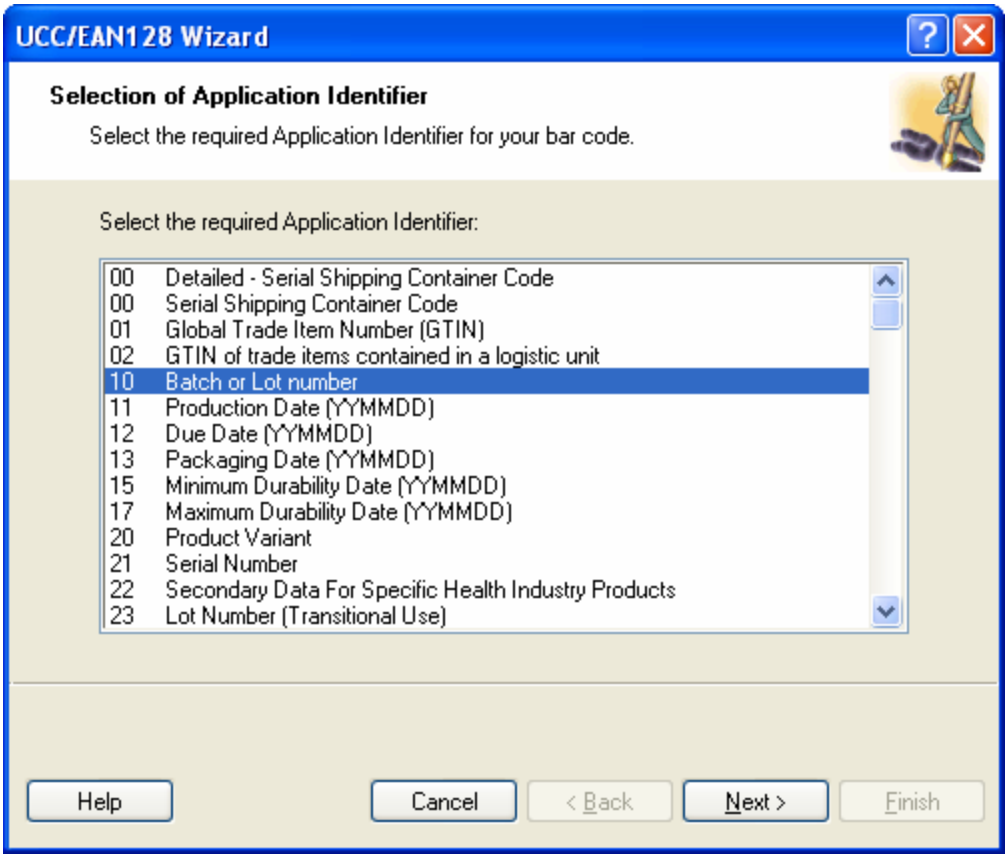
5. Click the **Define** button.
   The *Edit Bar Code* dialog box will open.
6. Expand the group EAN.UPC, and select the bar code EAN.UCC 128.
7. Click **OK** button to go back to the *Bar Code* dialog box.
8. Click the **Next** button.
   The EAN.UCC 128 Wizard will open.

Add Content to EAN.UCC 128 Using EAN.UCC 128 Wizard

Use the EAN.UCC 128 Wizard to help you add the necessary Application Identifiers (AI) in the bar code.

To add content to EAN.UCC 128 using EAN.UCC 128 Wizard, do the following:

1. Select **10 Batch or Lot number**.

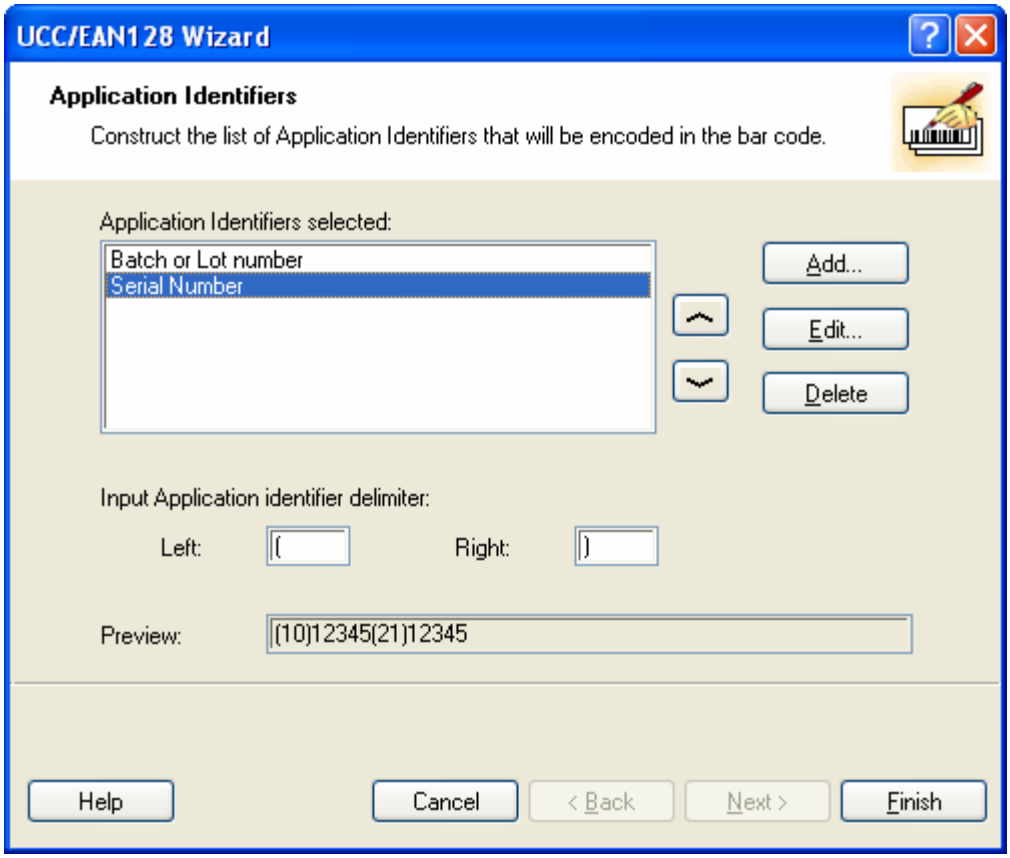


Selecting Application Identifier from the list

2. Click the **Next** button.
3. Select **Fixed,** and click the **Next** button.
4. Enter the sample data, for example *12345*.
5. Click the **Next** button.

   A dialog box showing all AI contained in this bar code will open.
6. Click the **Add** button to start adding a new AI.

   For example, select AI 21 (Serial Number). Repeat steps from 1 to 5 above.



Two Application Identifiers are defined

7. When you are satisfied with the designed AI and their positions within the bar code, click the **Finish** button.

   The EAN.UCC 128 bar code is placed on the label.

3.3.2 Link a Label to Advanced Databases

Pro Only

The options described in this chapter are only available in ZebraDesigner Pro edition.

You can use ZebraDesigner to retrieve data from any database on your computer or network. If you have the appropriate database drivers, you can connect to the database and use the records on the label.

Note: ZebraDesigner does not have the database options available. You cannot link to the databases.

With ZebraDesigner Pro you can connect to any ODBC database type as long as you have the appropriate database drivers installed and configured on your computer.

You have total control over which records in the database table will be printed. By default, all records are printed, but you also have the option to select the records for printing. Before the labels are processed, you can select the records in the table that you want to print. You can also specify the print quantity for each record.

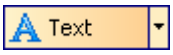
Pro Only

3.3.3 Using Advanced Objects and Data Manipulation

Use Linked Fields

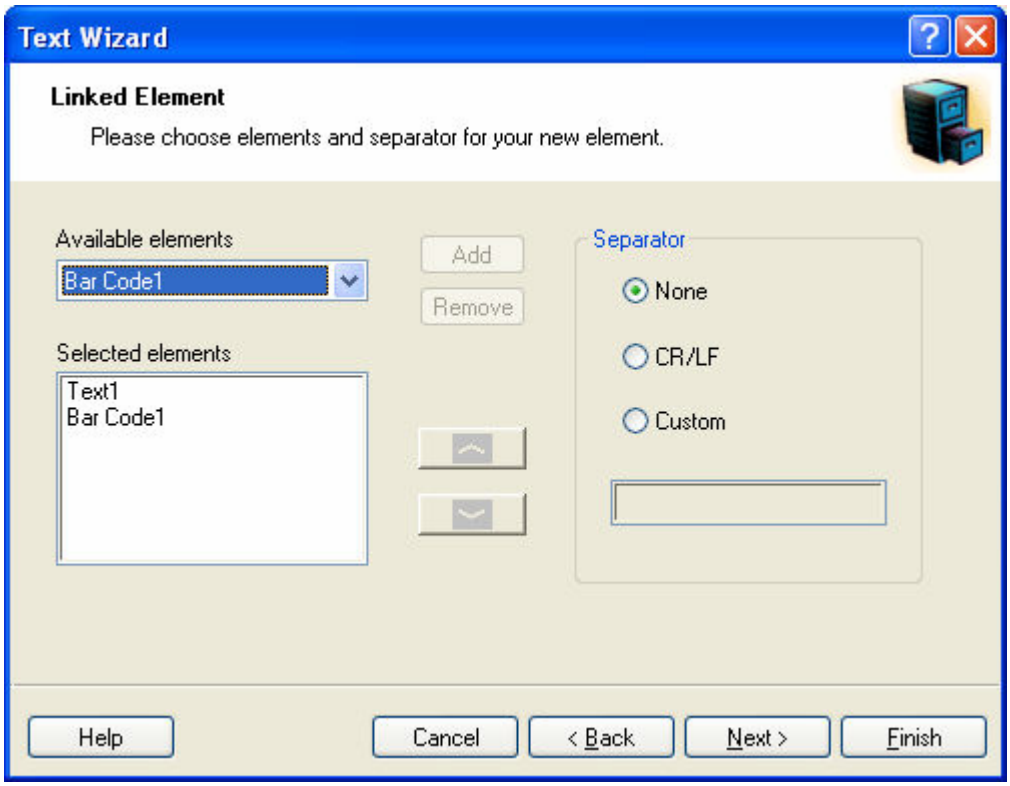
Select the linked field to merge the contents of selected variable fields into one field. The selected input variable fields are combined values and used as the value for the current object.

To merge some variable fields together in a text object on the label, do the following:

1. Click the 

button in the **Toolbox**.
2. Click the label where you want the new text object positioned. Text Wizard will start.
3. Select the option **Variable Text**.
4. Click **Next** button.
5. For the type of the variable field, select the option **Linked Field**.

6. Click **Next** button.
   The *Linked Element* dialog opens.



Linking fields together

7. Select the variable objects from the combo box, and click the **Add** button to merge them together.
   The selected fields are visible in the *Selected elements* section.
8. Select the separator between the fields in the merged content (optional).
9. Click the **Finish** button.
   The new text object with merged values of the input variable fields is placed on the label.

Pro Only

Use RF Tag Unique ID

Printers with RFID functionality can program RF tags embedded in the labels. Each RF tag has stored a unique ID number that was programmed into the tag during the manufacturing process. The unique number cannot be altered, but the RFID-enabled printer can read it.

To use the RF Tag Unique ID on the label, do the following:

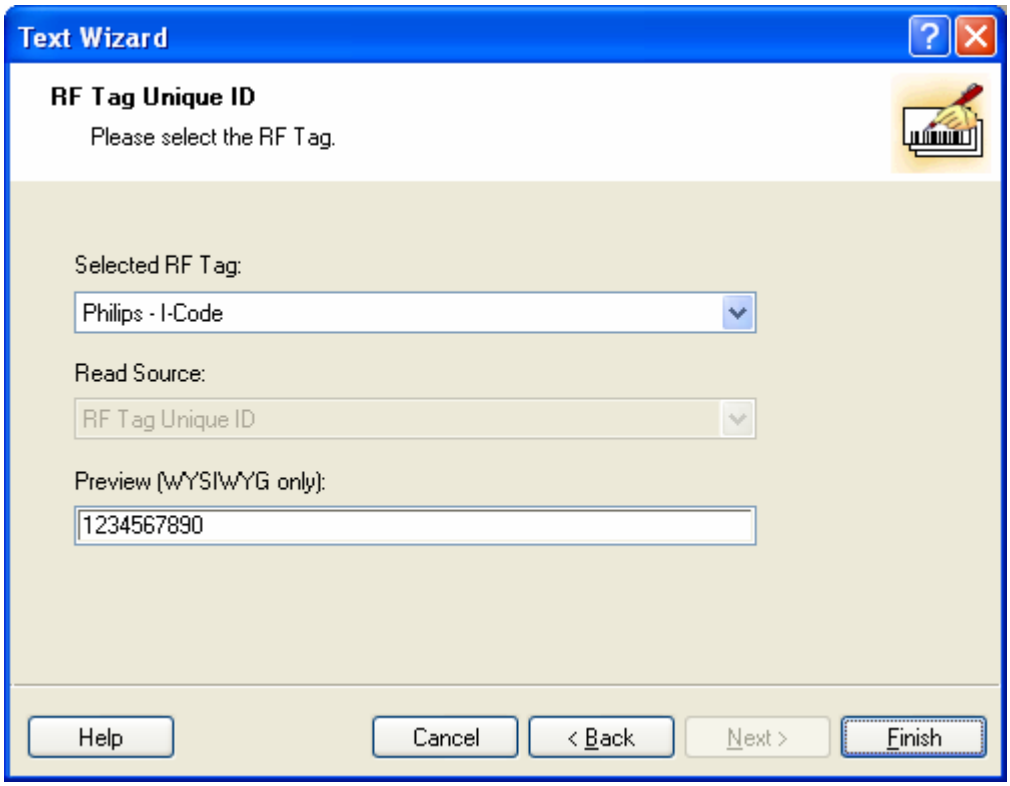
1. Click the

button in the **Toolbox**.
2. Click the label where you want the new text object positioned.
   Text Wizard will start.
3. Click the **Select** button and select one of the internal printer fonts for this text object.
   You cannot use text objects formatted in a TrueType font with RF Tag Unique ID.

Note: If you are using RF Tag Unique ID with the bar code object, make sure the bar code is printed as internal printer object and not as a picture.

4. Select the option **Variable Text**.
5. Click **Next** button.
6. For the type of the variable field select the option **RF Tag Unique ID**.

7. Click the **Next** button.
   The RF Tag Unique ID step opens.



Using the RF Tag Unique ID on the label

8. Select the type of RF tag you have embedded in the labels.
   Only the RF tags that are supported by the current printer are shown in the list.
9. Enter the preview of the RF Tag Unique ID data in the **Preview (WYSIWYG only)** field.

Note: ZebraDesigner Pro does not obtain the RF Tag Unique ID from the printer, so the real data cannot be previewed on-screen; the real data can only be printed with the object. Enter the data in the **Preview (WYSIWYG only)** field for designing / previewing purposes.

10. Click the **Finish** button.
    The new text object linked with RF Tag Unique ID is placed on the label.

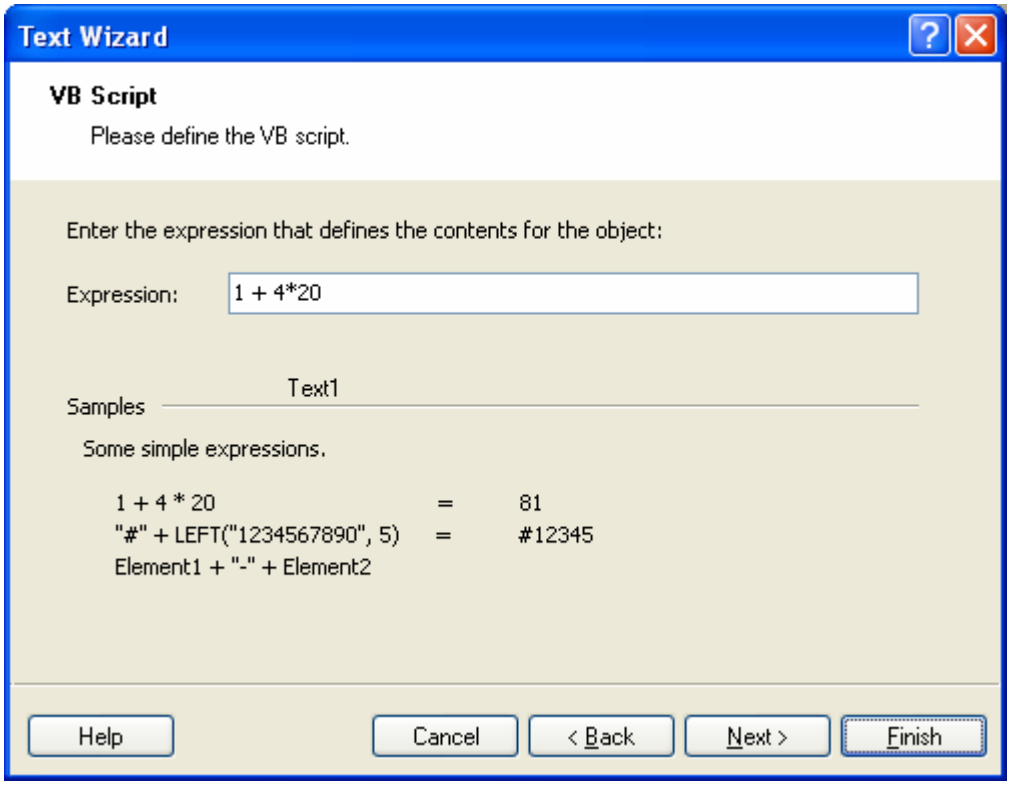
Pro Only

Use Visual Basic Expression

Visual Basic expression allows you to to manipulate your variable fields with the power of Visual Basic functions. The result of the expression will be used with the current object on the label. You can define one-line expressions that must follow Visual Basic programming syntax.

To use Visual Basic expression to work with the data values on the label, do the following:

1. Click the Text button in the **Toolbox**.
2. Click the label where you want the new text object positioned.
   Text Wizard will start.
3. Select the option **Variable Text**.
4. Click the **Next** button.
5. For the type of the variable field select the option **Visual Basic expression**.
6. Click the **Next** button.
   The Visual Basic expression step opens.



Using the RF Tag Unique ID on the label

7. Enter your expression in the field **Expression**.
   For example: type *1 + 4*20*. The result is 81 and it will be used as the value for the current text object.

Note: You can also use other variable fields in the Visual Basic expression. Make sure to enclose the names of the variable fields in the square brackets like this:
[My variable field1] or [My text1].

8. Click the **Finish** button.
   The new text object with value as result of the Visual Basic expression placed on the label.

Note: For more information about ZebraDesigner Pro advanced features, please refer to the User Guide or help file.

3.4 Designing an RFID Smart Label

Pro Only

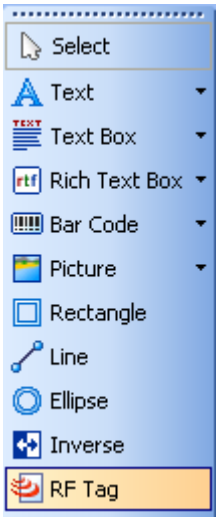
Radio frequency identification (RFID) refers to technologies that use radio waves to automatically identify individual or groups of items. ZebraDesigner and ZebraDesigner Pro printer drivers support programming and printing of RFID tags embedded in a label.

Note: You can use RFID functionality in ZebraDesigner Pro only if you have installed and selected a ZebraDesigner printer driver with RFID support.

3.4.1 Create RFID Smart Label

1. Click button in the **Standard** toolbar.
   Label Setup Wizard will start.
2. Select the printer that supports RFID smart label printing.
3. Click the **Finish** button.

You will see that RF Tag command is enabled in the **Toolbox** on the left side of the ZebraDesigner software *Design* window.



RF Tag is available for use

Pro Only

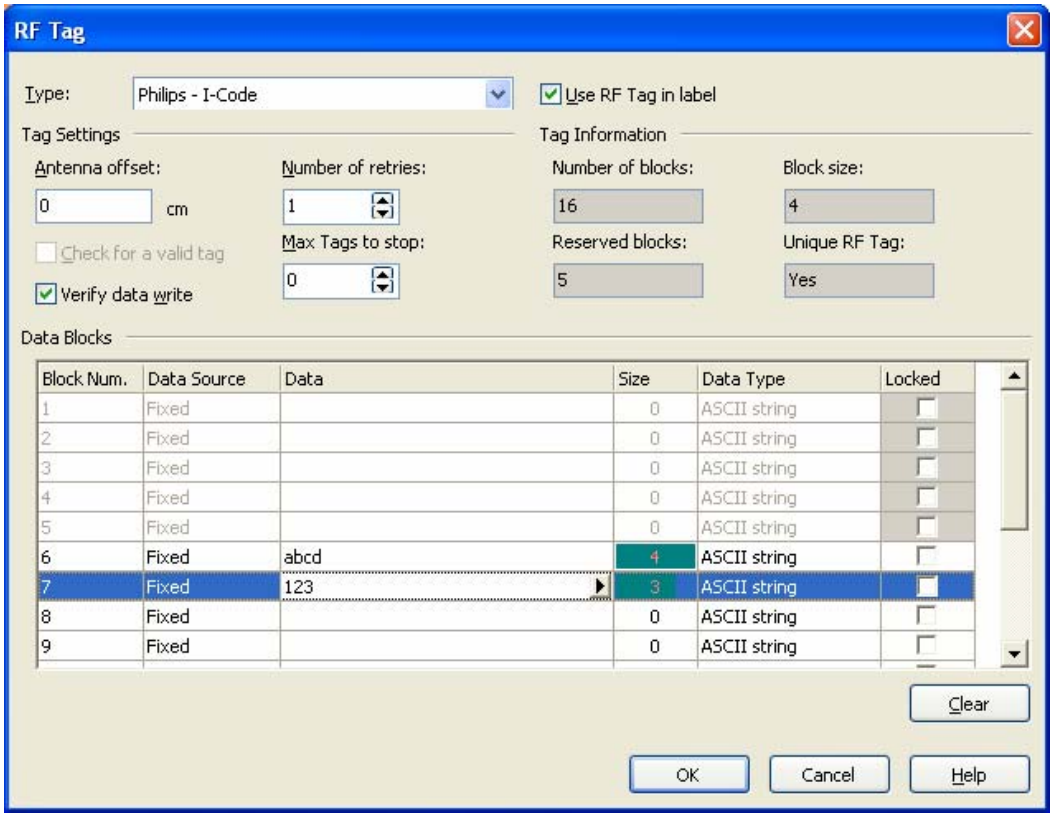
3.4.2 Encode RF Tag

The RF tags embedded into the label are usually these types:

- ISO tags—encode blocks of data
- UHF tags — encode one string of data.

1. Click the RF Tag button in the **Toolbox** to begin encoding the data.

   The *RF Tag* dialog box opens.



Encoding contents for RF Tag

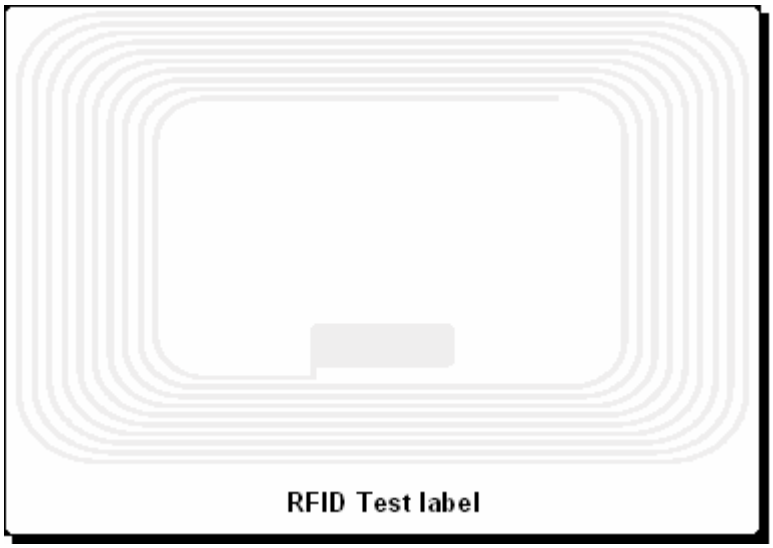
2. Select the type of the RF tag you want to use from the list box on the top of the dialog box.
3. Select the option **Use RF Tag in label**.

Note: If you don't select the *Use RF Tag in label* option, the definition of tag content is saved, but not sent to the printer.

4. Go to the first available block in the section **Data Blocks** and click the **Data** cell in the table.
5. Type in the value you want to encode into this block.

   Repeat the process for other blocks.
6. Click the **OK** button.

   A schematic view of the RFID tag antenna will open in the label background identifying the definition of the RFID data on the label.



RFID Tag antenna in the background

7. You can continue designing the smart label with non-RFID data as described in the previous sections.

When you print the label, the RFID data will be sent to the printer. The printer prints the RFID smart label and programs the RFID tag embedded into the label at the same.

Note: ZebraDesigner Pro can work with unique RF tag numbers. Each RFID tag has embedded a unique serial number. Some printers can read the unique RF tag number and it can be used on the label linked with some label objects.

3.5 Storing Fonts to the Printer

ZebraDesigner Pro provides fast and reliable label printing to thermal printers using the ZebraDesigner Pro printer drivers that are optimized Windows thermal printer drivers. ZebraDesigner Pro printer drivers support printer hardware accessories like cutters and different label sensors, but also printer resident objects. Such objects are fonts and bar codes that are built into the printer. Printers always print labels that use resident objects very quickly because the driver generates a print file with references to the objects already stored in the printer's firmware. The print file is short and can be transferred quickly to the printer.

When you print labels with graphic and non-resident objects, all unsupported objects are converted to pictures and sent to the printer as graphics. This approach ensures that the label is successfully printed on every printer. But the printout speed varies on different printers, depending on the number of objects that are recognized internally by the printer.

The solution for fast printing is available with the memory card manager Font Downloader that enables you to store Windows fonts (TrueType, OpenType, Type 1, and other) on the printer.

Fonts can be downloaded to the printer’s internal memory or add-on memory cards. The number of objects that can be downloaded is limited only by the memory size.

Once the objects are stored in the printer, you do not have to send them to the printer again. The objects are recalled from the printer memory, ensuring fast response at print time. Other applications can also take advantage of the downloaded objects and print labels quickly.

The content of one memory card can be used on many labels.

4. Technical Support

If you experience any technical difficulties using the ZebraDesigner software, the first thing to do is to refer to the on-line help and User Guides available on the ZebraDesigner Pro CD.

4.1 Online Support

You can find the latest builds, updates, workarounds, for problems and Frequently Asked Questions (FAQ) under the Support section on the Zebra Web site. If you cannot solve the problem on your own, please contact your local vendor or representative offices.

4.2 Contact Information

Worldwide, Technical Support is available through your Reseller, or at: http://www.zebra.com/id/zebra/na/en/index/service_support.html.

http://www.zebra.com/ support

Zebra Technologies Corporation
International Headquarters
333 Corporate Woods Parkway
Vernon Hills, Illinois 60061-3109 USA

Phone: +1 847 913 2259
Fax: +1 847 913 2578

Zebra Technologies Corporation
333 Corporate Woods Parkway
Vernon Hills, Illinois 60061.3109 U.S.A.
Telephone: +1 847.634.6700
Facsimile: +1 847.913.8766

Zebra Technologies Europe Limited
Zebra House
The Valley Centre, Gordon Road
High Wycombe
Buckinghamshire HP13 6EQ, UK
Telephone: +44 (0) 1494 472872
Facsimile: +44 (0) 1494 450103

Customer Order # 13858L-001
Manufacturer Part # 13858L-001 Rev. A

© 2005 ZIH Corp.