



The Free Barcode Solution  
Version 1.4.0



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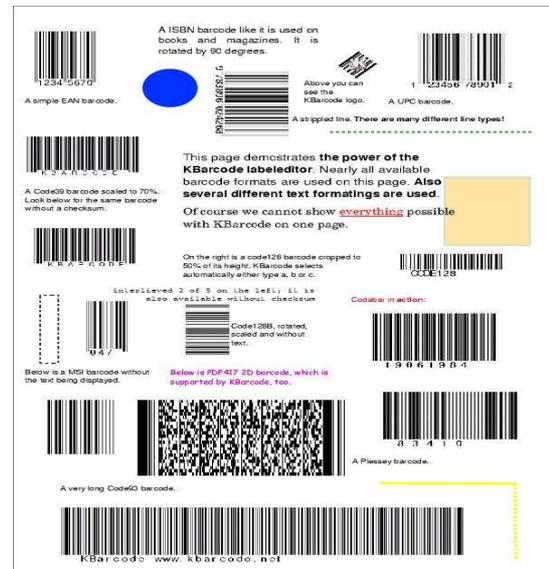
## 1) Introduction

### 1.1) What is kbarcode ?

**KBarcode** is a barcode and label printing application for KDE 3. It can be used to print every thing from simple business cards up to complex labels with several barcodes (e.g. article descriptions).

**KBarcode** comes with an easy to use WYSIWYG label designer, a setup wizard, batch import of labels (directly from the delivery note), thousands of predefined labels, database management tools and translations in many languages. Even printing more than 10.000 labels in one go is no problem for **KBarcode**.

Additionally it is a simply xbarcode replacement for the creation of barcodes. All major types of barcodes like EAN, UPC, CODE39 and ISBN are supported.



### 1.2) How much does it cost ?

kbarcode is released under the GNU/GPL licence, meaning that it's absolute free. We only ask you for one favour: please send us an email and inform us about the intended purpose and send us some feedback regarding the success.

### 1.3) Where do I find kbarcode ?

kbarcode is available via World Wide Web at: <http://www.kbarcode.net>. You will find here all kind of information's, samples, programs etc.



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### 1.4) I need help, whom can I ask ?

We offer different ways of support. Please choose one of them to get in touch with us:

- ✓ For support reasons we are offering a Mailing List. So, if you are using kbarcode in a professional environment, we strongly recommend joining the mailing list.

To join the list, please visit: <http://lists.sourceforge.net/lists/listinfo/kbarcode-users> and add your email address. After that you will get a confirmation mail, which you have simply to reply. Once done it, you are member of the kbarcode Mailing list. (low traffic). All messages send to "kbarcode-users@lists.sourceforge.net" will be send to all list members. We will try to answer you as soon as possible (normally within the next 8 hours).

For regular users or if you want better informations and contact, please join the Mailinglist of kbarcode. The traffic is quite low, between 2 mails a week and 20 mails a day. We strongly recommend this for all frequent users of kbarcode !

- ✓ If you don't want to join the mailing list, you can use the same address to send us mails: Please use "[kbarcode-users@lists.sourceforge.net](mailto:kbarcode-users@lists.sourceforge.net)" for kind of enquires and feedback.
- ✓ We also provide a forum, where you can ask questions or discuss with us and other users. Please visit <http://www.lkbarcode.net/forum>
- ✓ We are have an IRC support channel. So, if you are familiar with IRC, please connect to the Server "irc.freenode.net" and join the "#kbarcode" channel.



## 2) Install kbarcode

To install kbarcode on your system you need ROOT privileges. If you don't have them or do not know, what we are talking about please contact your local system administrator.

### 2.1) dependencies

kbarcode need some tools installed on your machine. The dependencies are depending, which features you would like to use:

Minimum requirements:

- ✓ Linux (<http://www.linux.org>)
- ✓ KDE 3.x (<http://www.kde.org>)

for printing barcodes:

- ✓ GNU Barcode (<http://www.kbarcode.net/25.0.html>)
- ✓ PDF 417 (<http://www.kbarcode.net/25.0.html>)
- ✓ Convert (<http://www.imagemagick.org>)

Additional requirements for database handling:

- ✓ mysql (<http://www.mysql.org>)
- ✓ QT SQL tools (<http://www.troll.no>)

Linux, KDE 3, Convert and mysql are quite standard and will be in 99% of all cases already installed on your machine. If you want to print barcodes, please install GNU Barcode. If you may want to print PDF417 barcodes (2-D), you need the "PDF417 Encode" program as well.

Please note, that you only need mysql, if you want to use the advanced features of kbarcode, like batch print or the labeldesigner.

### 2.2) Install from a RPM File

This is the most easiest way to install kbarcode. On our webpage you will find ready made RPM file for some Linux Distributions. If you are lucky and we do have a rpm file for your distrubution, just download it.

To install it please do:

```
stonki@database:~> su (will ask for the root password)
stonki@database:~> rpm -Uvh <name of RPM file>
stonki@database:~> exit
```



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## 2.3) Install from the Source Code

Install from the source code sounds difficult, but in the end it's quite easy as well. Just download the ".tar.gz" file of the latest version. In my example I created a temporary directory called "001" and I used version 1.4.0 as an example. First I do unpack it ("tar xzf"), than I start the compilation process (./configure && make). This normally takes up to 5minutes. Than I make myself root (with "su") and install it.

```
stonki@database:~/001> ls
kbarcode-1.4.0.tar.gz

stonki@database:~/001> tar xzf kbarcode-1.4.0.tar.gz

stonki@database:~/001> cd kbarcode-1.4.0/
stonki@database:~/001/kbarcode-1.4.0> ./configure && make

stonki@database:~/001/kbarcode-1.4.0> su
Password:
database:/home/stonki/001/kbarcode-1.4.0 # make install

database:/home/stonki/001/kbarcode-1.4.0 # exit
```

## 2.4) Start kbarcode

The easiest way is using the KDE start menu. Click on "START – Programs – kbarcode". You can also just press "ALT-F2" and than type in "kbarcode". This will start the program.





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**Please make sure, that the user is allowed to create a database and tables !  
Mysql has very detailed access levels for users and you have to make sure,  
that the user got full access.**

If you are not familiar with the SQL database (e.g. mysql) than study the documentation of the specific SQL database. If you like (you do not have it do it), kbarcode can create all tables for you and can add some example datas as well. This might help you to understand the logic.

Warning: If you already have data in a kbarcode database, we will delete them and create a fresh set !

We strictly recommend for business use, the setup of mysql tables. To merge existing information's (like article numbers, barcodes etc.) into import your business data, you need either some external tools or you have to be familiar with the mysql tools.

You can use either Microsoft Access with some ODBC tools or phpmyadmin.

PhpMyAdmin is a PHP based tool, running in a webbrowser. We are working with "phpmyadmin" and it's a great tool to handle mysql databases. See

<http://www.phpmyadmin.net> for full details.

Alternative you can use "mysqlimport" to import a CSV File (Text file with seperated values).

If you are running into problems (mysql is not that easy), please join the mailing list. Or ask your local system administrator.

If you just want to test kbarcode, add some of the sample data. If you want to use it seriously, you better install your own data at once.

### 3.2) Main Menu

Kbarcode usually starts in the main menu (see Chapter xx for command line parameters). The main menu ist straight forward and easy to use.



- ✓ **BARCODE GENERATOR** helps you to create single barcodes and to print or save them.
- ✓ **LABEL EDITOR** handels all labels. You can create or edit existing labels. You can also use it to print any labels, like business cards or labels with a single barcode.
- ✓ **BATCH PRINTING** offers you the possibility of using the advanced features of kbarcode, like import files, printing high amount of labels.
- ✓ **EDIT SQL TABLES** allows you to work direct in the SQL tables. We strictly recommend a real SQL Frontend like "phpMyAdmin".

### 3.3) Setting the preferences

#### 3.3.1) Print Settings

The printer settings are straight forward. The resolution is normally set to 600dpi. This is necessary to print barcodes, if the quality is below that, the barcodes are maybe not possible to read. Please check all values with your printer. For example, if your printer prints good enough with 300dpi, the whole printing will be significant faster. "Draw Borders when Printing Labels" is quite useful for the first testing. You may deselect it, when it comes to the real testing.

Printing in Grayscale is maybe a good idea to print faster. But please test it.



### 3.3.2) SQL Settings

In the Preferences Dialog you can set the settings for kbarcode ! Before you start, have a look here.

In the first dialog, you can set the SQL settings. This is done by the wizard as well, but you can edit them here. Make sure, that the checkbox "automatically connect..." is always on ! If not, you will not be connected to your SQL database.



### 3.3.3) Label Editor

In here you can set some preferences for the label editor.

First the format of the date, which you have to set according your country preferences.

The next important setting is the Grid setting, which helps you to place objects in the labeleditor in the right positions.



### 3.3.4) Import File

Kbarcode allows you to import CSV files (you can use "Open Office" or "Microsoft Excel" to create them) into the batch print dialog. Here you can set the format of this files.

If you get CSV directly from your customer, you may also tick here „Use customer article no. for import" which uses the customer table to import the correct article.



### 3.3.5) On New...

The dialog "On new Article" and "On New Group" sets the behaviour when using the batch print. Imagine you are printing 100xArticle 1 and 40x Article2. With this dialog, you can force kbarcode to start on a new line or new page, or print an extra label with a big "X" or the article number !

This will help you later to get the labels on the product or boxes.

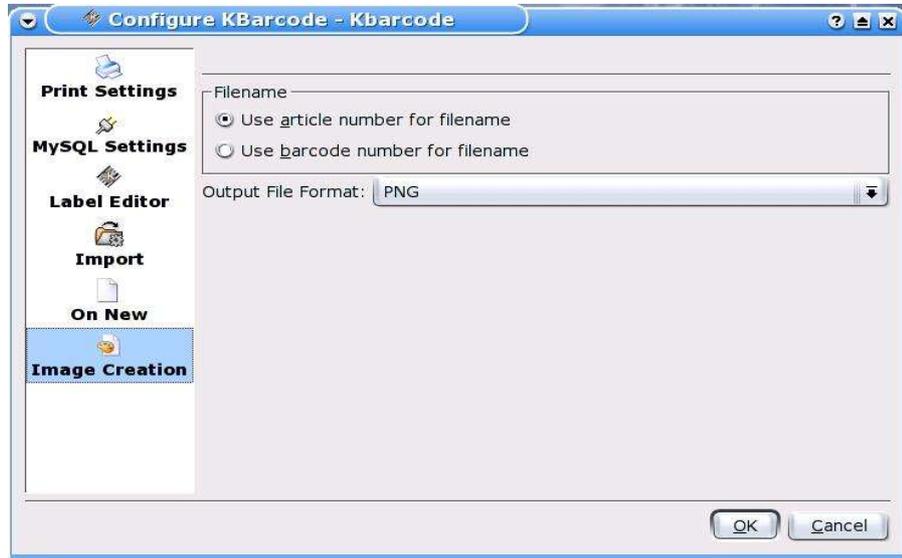
Please note, that during the batch print, all labels will be first sorted by group and than by article number.



### 3.3.6) Image Creation

Instead of printing all barcodes or creating a large PDF file, **kbarcode** can also create a single image for each label and save it. This might be useful, if you want to work with the labels with other programs or email them.

Here you can set the graphic format and which filename the files will get.

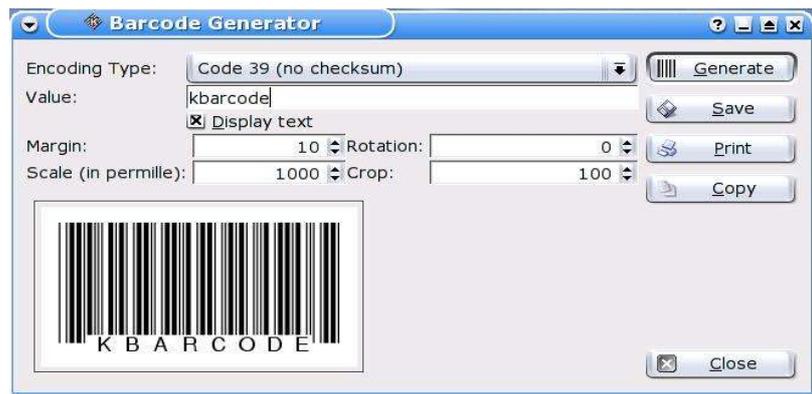


## 4) The main menu

### 4.1) create and print single barcodes

We will use this to explain you the settings of kbarcode. So please read carefully, even when you are more interesting in the batch print !

Most of the settings are straight forward. First you have to select what kind of barcode you would like to create.



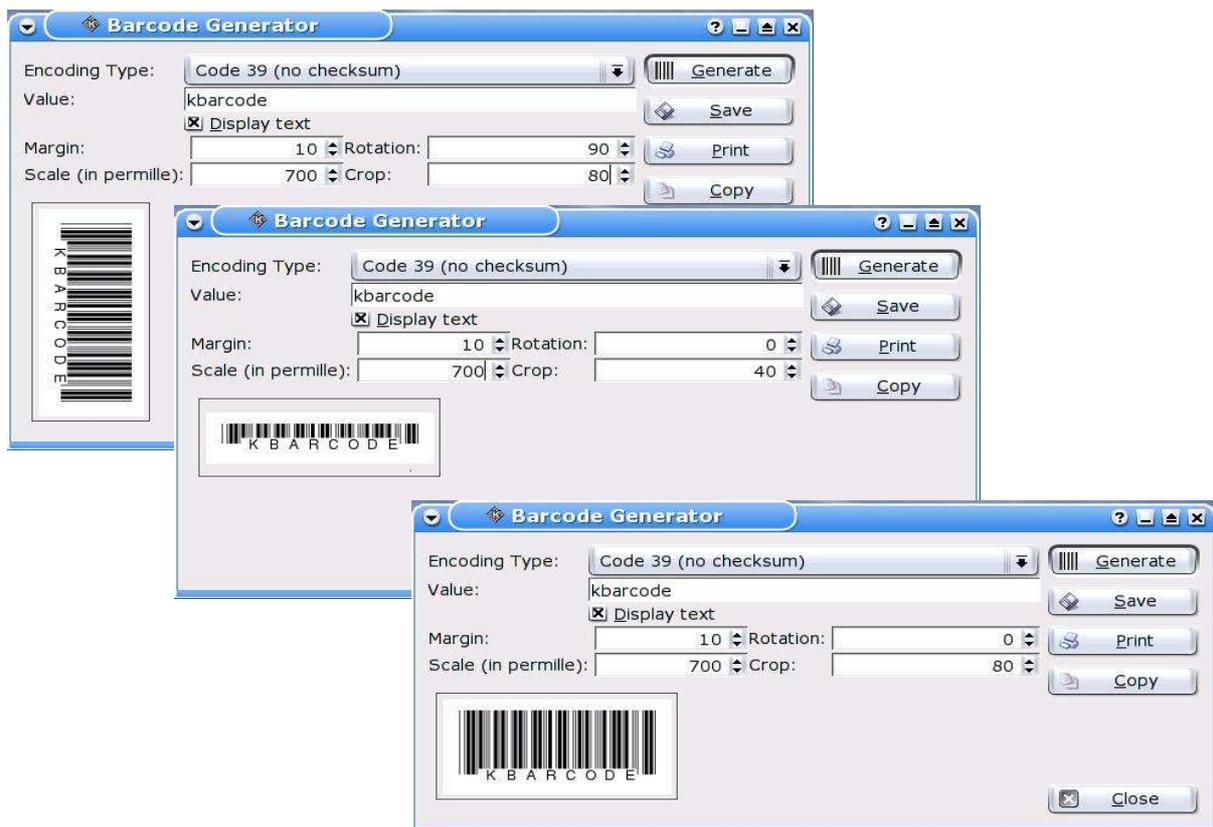
Kbarcode is offering you following barcode types:

- EAN (EAN 8 or EAN 13)
- UPC (12-digit EAN; UPCA and UPCB)
- ISBN (still EAN13)
- Code 39
- Code 39 (no checksum)
- Code 128 (a,b,c: autoselection)
- Code 128C (compact form digits)
- Code 128B (full printable ascii)
- interleaved 2 of 5 (only digits)
- interleaved 2 of 5 (only digits, no checksum)
- Raw code 128
- Codabar
- MSI
- Plessey
- Code 93
- PDF 417

Once selected the barcode type, you can add a value for the barcode. Please note, that not all barcode types support all characters and some barcodes needs a special format. Please check more detailed informations about each supported barcode. Now you can adjust the label by changing the values:

- ✓ **border** – border around the barcode. Normally set it to a value between "0" and "15"
- ✓ **Scale** – this is the scale of the barcode in per mille (1/1000). We strongly recommend not to dropping below 700 (=70%). If the value is too small, the barcode will be not able to recognize.
- ✓ **Rotation** – you can rotate the barcode by 90, 180 or 270 degrees. Do not use any numbers in between !!
- ✓ **Crop** – cut the top of the barcode. By default barcodes are normally to tall. You can use this function to shorten the barcode without changing the scale of the barcode.

Play around with these functions. You will find the same values in the label designer. Once you created a barcode, you can easily print or save it. Alternative you can copy it into the Clipboard.



## 4.2) Label designer

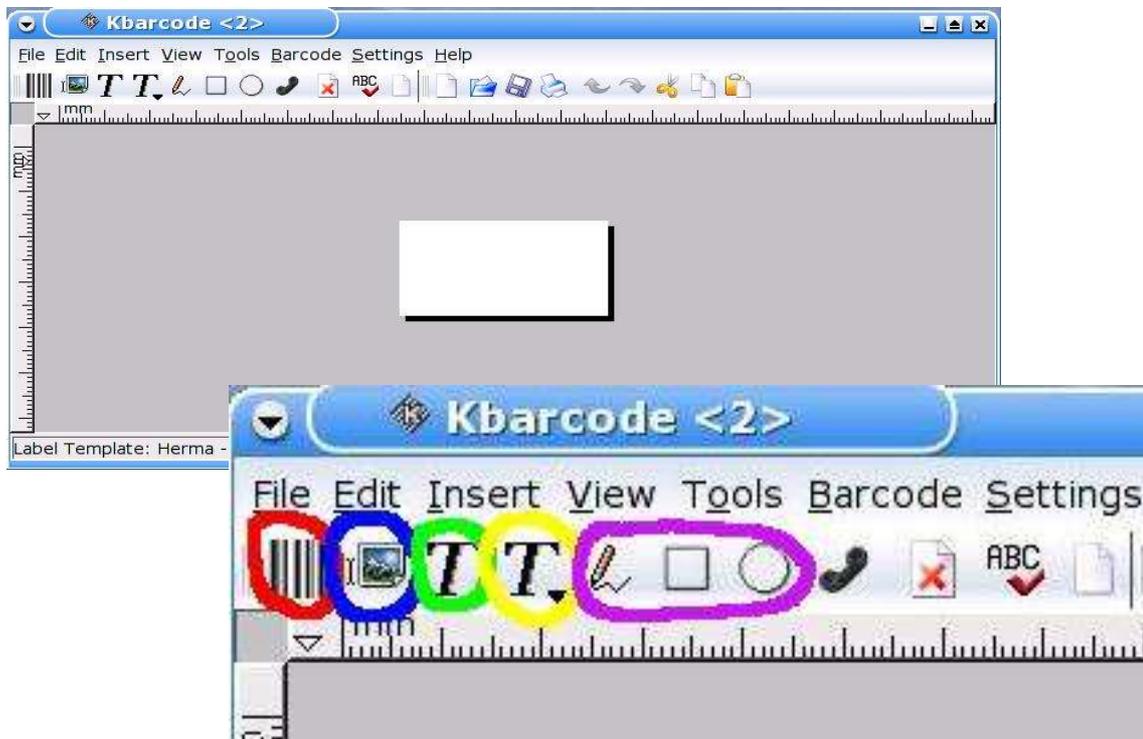
The label designer is the heart of **kbarcode**. Here you will design the labels for the batch print.

The label designer is a powerful tool to design custom barcode labels. It all starts with the dialog box, where you have to select the label, which you will use !

To create a new label definition, click on "new Label" and choose one of the defined labels – right now **kbarcode** comes with more than 1000 defined labels ! You can also simple add new label definitions.

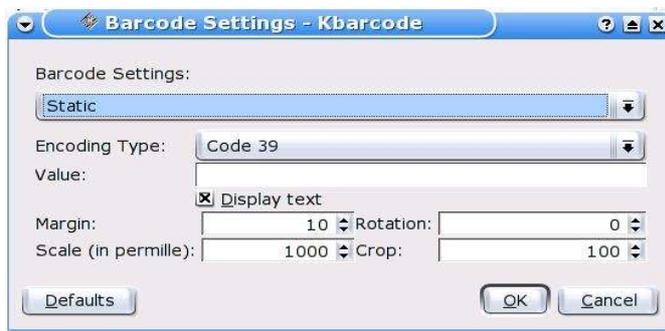


Once you selected a label, you will see it the real scale. Kbarcode offers you an easy to use "what you see is what you get" interface to create now the label.



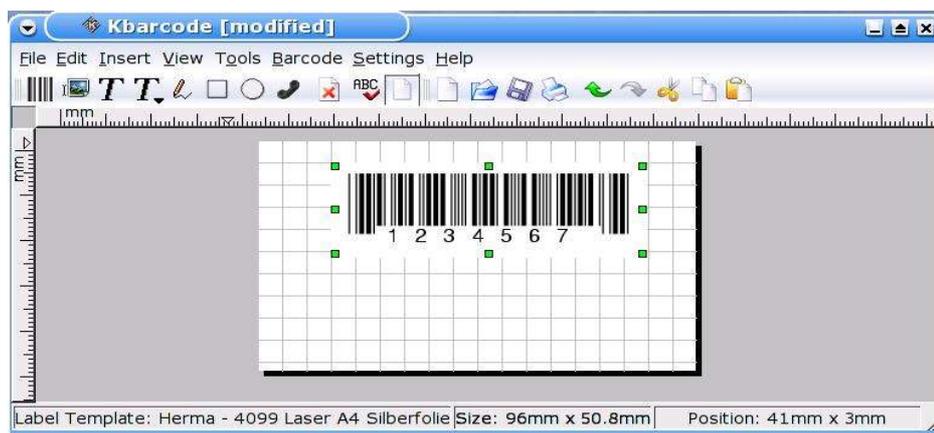
The best way to learn kbarcode is to play a little bit around.

The barcode symbol allows you to add a barcode to the label. It offers you the possibility to add a static barcode or to select one of the barcode types from the database. The barcode selection is very important, so better check twice.



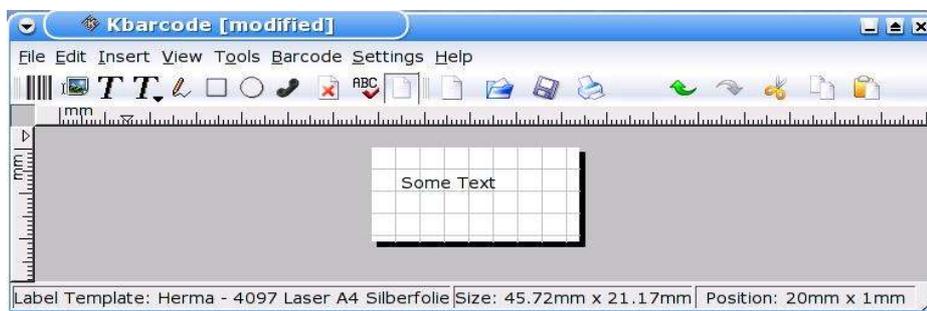
Kbarcode will evaluate which barcode types are used in your SQL tables, and will list them here. As an example, your main barcode is "UPC", but a customer is also using "Code39" – kbarcode will list both types here. Plus a static one, if you have to print one barcode everytime on the label.

After selecting the barcode type, kbarcode will check for the longest barcode and print it on the label ! You can modify the barcode with the same settings than the single barcodes.

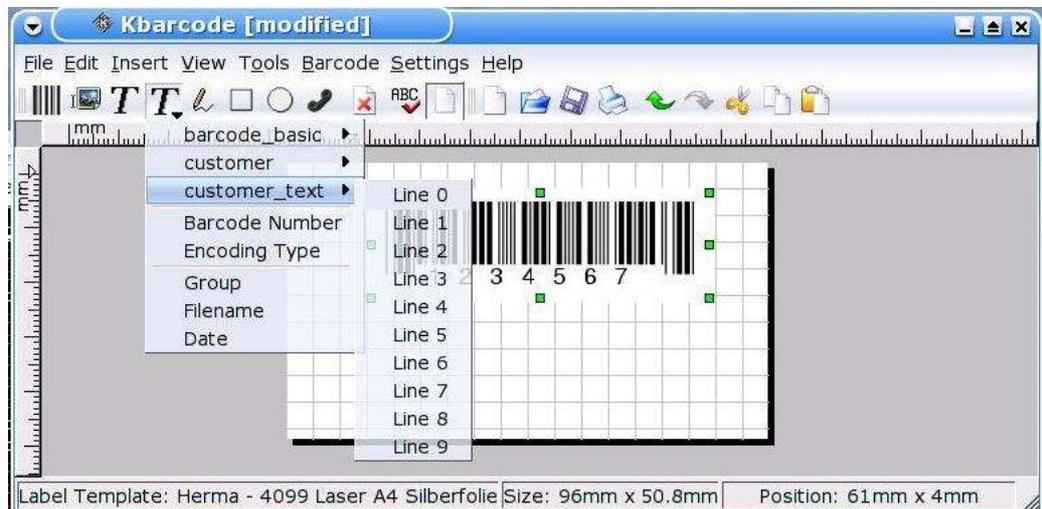


You can also add pictures and text to the label. You are able to resize the images or to select a special font for the text. The images might be used for a company logo.

The Grid helps you to place fields within the same line.



Ok, lets head over to the fields. These are again very important and linked to the batch print dialog. You have several wild cards here, which will be substitute during the printing:



#### Barcode Basic:

- ✓ Article Number (for which article)
- ✓ Article Description
- ✓ Field0...Field9:

#### Customer:

- ✓ Customer name (as selected in the batch print dialog)
- ✓ Customer number (as selected in the batch print dialog)

#### Customer Text:

- ✓ Line0....Line9: special fields for customers related to the article number

#### General:

- ✓ Barcode Type (as selected in the "insert barcode" dialog) e.g. Code39 or UPC
- ✓ Barcode Number (referring to the printed label)
- ✓ Group: Which group
- ✓ File name: file name of the label
- ✓ Date

For getting all the advanced feature of **kbarcode**, we have to explain you a little bit the logic of **kbarcode** and have to take you into the details of kbarcode. Kbarcode is using four tables in the mysql database. One is the table with the labels, do we don't have to think about it. One is the "Barcode\_basic" table, which can contains the article, article number, ONE barcode and up to 10 fields (of course also addresses, numbers, whatever you like).

But sometimes its necessary to be more flexible, if for example you need a second barcode for one article or a customer wants different text fields or even a complete different barcode.

In this case you add a new customer to the customer table. The "customer\_nr" will be used as the reference for the "customer\_text" table. The name is just for you and may be print out as well.

So in this "customer\_text" table you can now add for every article number and every customer a complete new set of informations, like new text, new barcode etc. Barcodes added here will be listed in the barcode dialog in the labeleditor. You can also add there the customer related fields.

Now, switching over to the batch printer: You can select a customer there and now **kbarcode** will print the label with all the details of the customer. (as long they are added to the label). And of course you can mix the static informations from "barcode\_basic" and the dynamic informations from "customer\_text".

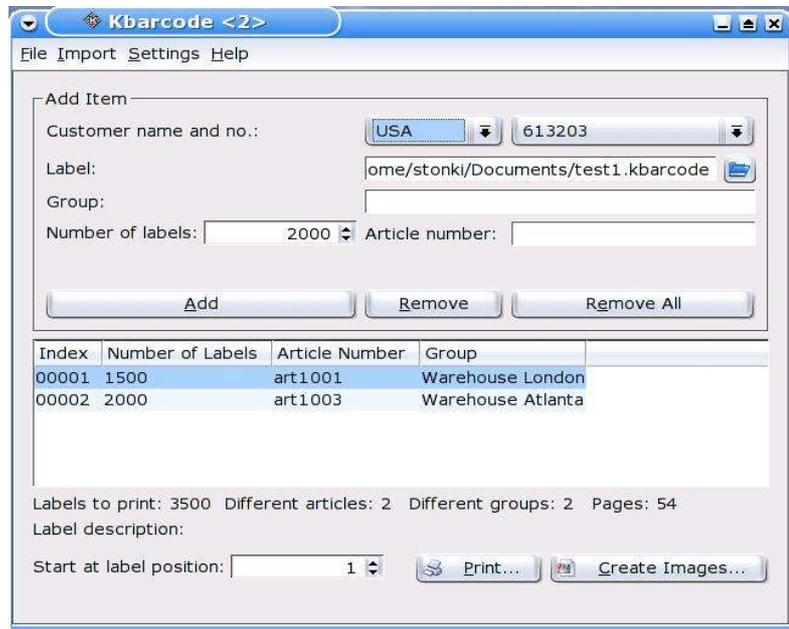
Now if you have 10 different customers and all wants to have their own article number in it: no big deal, just add the customer to the customer table and their article number to the "customer\_text" table.

### 4.3) Use batch print

The batch print dialog is now the links between the label designer and the barcodes for the articles in your system.

First you have to select a customer, than a label that you have created !

For each article you can also set a "Group". For example you have 2 different branches to deliver. Each brand will be an own group. Kbarcode will then print the barcodes first sorted by group and than by article number !



If you like you can add articles manually or you can import them using the import utility. The import file is a simple text file with three values separate by a separator (as set in the preferences dialog).

Once everything is ok, just press the "Print" button.

**Please note: printing barcodes needs time ! Please expect more than one hour if printing more than 1000 labels !**

## 5) Examples

### 5.1) Printing barcodes in a business environment!

In the first example we are using **kbarcode** in a small company selling computer articles. The company needs a small barcode with article number and barcode, which will be printed during stock receipt.

Create a table (in Excel or OpenOffice) with ALL article numbers, description, barcode number and barcode type (e.g. NV10, great graphic card, 123456789012, upc)

- Import this table into the "barcode\_basic" table of the kbarcode database
- Open the label designer, choose a label and create a little label with the needed information
- During stock receipt, create a little text file with: Quantity, Article Number. Leave Group empty, but add it to the table. A text file might look like this:  
33; NV10;  
4; OO101;
- Import this text file in the batch print dialog, choose the label and PRINT
- DONE

## 6) How Do I .... ?

### 6.1) change the label size later ?

- ✓ load the label in the label designer and use the "edit size" function to choose another label

## 7) Support us !

Kbarcode needs always your help ! This does not mean, that you should be Linux wizard or computer expert. You may help us with...

- ✓ Reporting bugs
- ✓ Sending us feature requests to improve the usability of kbarcode
- ✓ Simple give us some feedbacks about success or failure of kbarcode in your company
- ✓ Helping us with translations into more languages
- ✓ Creating RPM files for Linux distributions
- ✓ Join the mailing list and contribute to the kbarcode project
- ✓ Make advertising for kbarcode and other Open Source Software
- ✓ donate some money to the PayPal Account of Dominik. For details please visit the webpage.

## 8) Thanks to:

**Kbarcode** is realised and created by:

Project Leader: Stefan Onken <[stonki@stonki.de](mailto:stonki@stonki.de)>  
Core Programmer: Dominik Seichter <[domseichter@web.de](mailto:domseichter@web.de)>

Translations:

Swedish: Anton Vaaranmaa <[antonv@postikaista.net](mailto:antonv@postikaista.net)>  
Finish: Anton Vaaranmaa <[antonv@postikaista.net](mailto:antonv@postikaista.net)>  
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Hungarian: Sandor Jager <[jager@puskas.hu](mailto:jager@puskas.hu)>  
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Icons: Anton Vaaranmaa <[antonv@postikaista.net](mailto:antonv@postikaista.net)>  
Logo: Elrondo

special thanks to all members of the kbarcode mailing list for frequent help and feedback.

**kbarcode** is based on several tools like "ImageMagik", "KDE", "QT". Thanks a lot !  
Special thanks to Alessandro Rubini for GNU Barcode.

"Bike Alert Plc." for allowing Stefan Onken to starting this project !

## 9) SQL issues

Kbarcode is working without SQL support. Anyway, only we a SQL database, you can use all the unique functions and features of kbarcode, which makes it that powerful.

How to integrate kbarcode in your business enviroment is depending on a lot of factors – to much for mention here. If you need support in this cases, please refer to the mailinglist or contact us directly.

We are using a phpmyadmin, which is a web based tool , (<http://www.phpmyadmin.net/>) to import and modify data in the mysql database. This means, that we first read all the needed informations into a spreadsheet and modify here the informations to our needs. You will find later a complete list of all used fields.

is using SQL tables to store most of the information. Our test environment is using mysql as a backend. All information here are related to this mysql database, but should be similar to any other SQL database.

To handle the data in the SQL table, kbarcode is providing only basic tools. For “real life” use we recommend a solid tool, like phpMyAdmin, which is our favourite tool to deal with mysql tables. This tool helps to for example to import Excel sheets into mysql.

```
mysql> use kbarcode;
Database changed
mysql> show tables;
+-----+
| Tables_in_kbarcode |
+-----+
| barcode_basic      |
| customer           |
| customer_text      |
| label_def          |
+-----+
4 rows in set (0.00 sec)
```

```
mysql> show fields from barcode_basic;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| uid        | int(11)   |      | PRI | NULL     | auto_increment |
| article_no | varchar(50) | YES  |     | NULL     |                |
| article_desc | varchar(50) | YES  |     | NULL     |                |
| barcode_no  | varchar(50) | YES  |     | NULL     |                |
| encoding_type | varchar(50) | YES  |     | NULL     |                |
| field0     | varchar(50) | YES  |     | NULL     |                |
| field1     | varchar(50) | YES  |     | NULL     |                |
| field2     | varchar(50) | YES  |     | NULL     |                |
| field3     | varchar(50) | YES  |     | NULL     |                |
| field4     | varchar(50) | YES  |     | NULL     |                |
| field5     | varchar(50) | YES  |     | NULL     |                |
| field6     | varchar(50) | YES  |     | NULL     |                |
| field7     | varchar(50) | YES  |     | NULL     |                |
| field8     | varchar(50) | YES  |     | NULL     |                |
| field9     | varchar(50) | YES  |     | NULL     |                |
+-----+-----+-----+-----+-----+-----+
15 rows in set (0.00 sec)
```

```
mysql> show fields from customer;
```

| Field         | Type        | Null | Key | Default | Extra          |
|---------------|-------------|------|-----|---------|----------------|
| uid           | int(11)     |      | PRI | NULL    | auto_increment |
| customer_no   | varchar(20) | YES  |     | NULL    |                |
| customer_name | varchar(20) | YES  |     | NULL    |                |

```
3 rows in set (0.00 sec)
```

```
mysql> show fields from customer_text;
```

| Field         | Type        | Null | Key | Default | Extra          |
|---------------|-------------|------|-----|---------|----------------|
| uid           | int(11)     |      | MUL | NULL    | auto_increment |
| customer_no   | varchar(20) | YES  |     | NULL    |                |
| encoding_type | varchar(50) | YES  |     | NULL    |                |
| article_no    | varchar(50) | YES  |     | NULL    |                |
| barcode_no    | varchar(50) | YES  |     | NULL    |                |
| line0         | varchar(50) | YES  |     | NULL    |                |
| line1         | varchar(50) | YES  |     | NULL    |                |
| line2         | varchar(50) | YES  |     | NULL    |                |
| line3         | varchar(50) | YES  |     | NULL    |                |
| line4         | varchar(50) | YES  |     | NULL    |                |
| line5         | varchar(50) | YES  |     | NULL    |                |
| line6         | varchar(50) | YES  |     | NULL    |                |
| line7         | varchar(50) | YES  |     | NULL    |                |
| line8         | varchar(50) | YES  |     | NULL    |                |
| line9         | varchar(50) | YES  |     | NULL    |                |

```
15 rows in set (0.00 sec)
```

```
mysql> show fields from label_def;
```

| Field       | Type        | Null | Key | Default | Extra          |
|-------------|-------------|------|-----|---------|----------------|
| label_no    | int(11)     |      | PRI | NULL    | auto_increment |
| manufacture | varchar(30) | YES  |     | NULL    |                |
| Type        | varchar(30) | YES  |     | NULL    |                |
| paper       | char(1)     | YES  |     | NULL    |                |
| gap_top     | double      | YES  |     | NULL    |                |
| gap_left    | double      | YES  |     | NULL    |                |
| height      | double      | YES  |     | NULL    |                |
| width       | double      | YES  |     | NULL    |                |
| gap_v       | double      | YES  |     | NULL    |                |
| gap_h       | double      | YES  |     | NULL    |                |
| number_h    | smallint(6) | YES  |     | NULL    |                |
| number_v    | smallint(6) | YES  |     | NULL    |                |
| paper_type  | varchar(30) | YES  |     | NULL    |                |
| remark      | text        | YES  |     | NULL    |                |

```
14 rows in set (0.00 sec)
```



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