ScreenCheck

BADGEMAKER 7.1

BadgeMaker 7.1 User manual

· ID DESIGN · MANAGE · PRINT SYSTEM ·

www.screencheck.com

SCREEN CHECK

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System Requirements

BadgeMaker requires Windows XP, Windows Vista to run and can be used on any IBM compatible computer that meets the following minimum requirements:

- Pentium III 1 GHz Processor or better.
- 4GB hard disk space recommended, actual size depending on number of records and images in a database.
- 256MB or more internal memory.
- Color monitor and graphics card capable of supporting SVGA resolution of 1024x768 pixels and 24 bit (true) colors.

Licenses

BadgeMaker can be used in a multi user environment. The software can be used for evaluation for a total of 30 days. If you want to use BadgeMaker's full potential without any restrictions you must register the software. The restriction is that the package will retain the text http://www.screencheck.com when printing forms or badges.

Readme File (Release Notes)

As we are constantly improving our software and adapting it to the latest developments and technologies, a few features may not be included in this manual. In addition to the BadgeMaker software a Readme file will be installed in the BadgeMaker directory and an icon (*called Release Notes*) will be added to the BadgeMaker program group. In this file you can read the latest changes in the software and the version number it applies to. For every release there is a description of the main changes and new features.

Please read this file before starting BadgeMaker.

You can open the release notes by selecting it from the BM6400 program folder.

Appendices

The following plug-ins are described in separate chapters (appendices) at the end of this manual.

- Encoding
- Contactless encoding
- IntelliTWAIN

The reason is that these features are optional add-ons. Adding these features to the description of the relative module would make the chapters very long and distract attention from the main functionality of these modules.

Activate BadgeMaker

When BadgeMaker is installed for the first time you must register the software in order to gain full functionality.

A Software Activation Code (SAC) is shipped with BadgeMaker. With this Software Activation Code you can register BadgeMaker on the internet. After registering, a registration name and key is displayed immediately and sent to your email automatically.

In this document BadgeMaker 6400 is being used to demonstrate Activating BadgeMaker. The steps taken in this manual should be followed for all other versions of BadgeMaker.

Sample of a SAC (Software Activation Code)

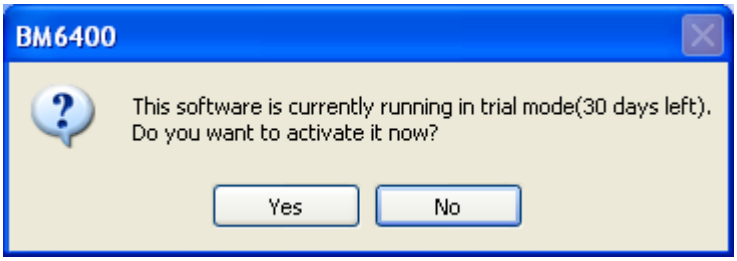
BM6400STD70VM-TST-0007-GQYXHPAMVQ

Sample of a Registration Key

01CNX7-FMN6EZ-X2H386-Y5UWEN-KW93Y-VR777T-PHNK0C-1CWJN3-44G9PG-BY4H34

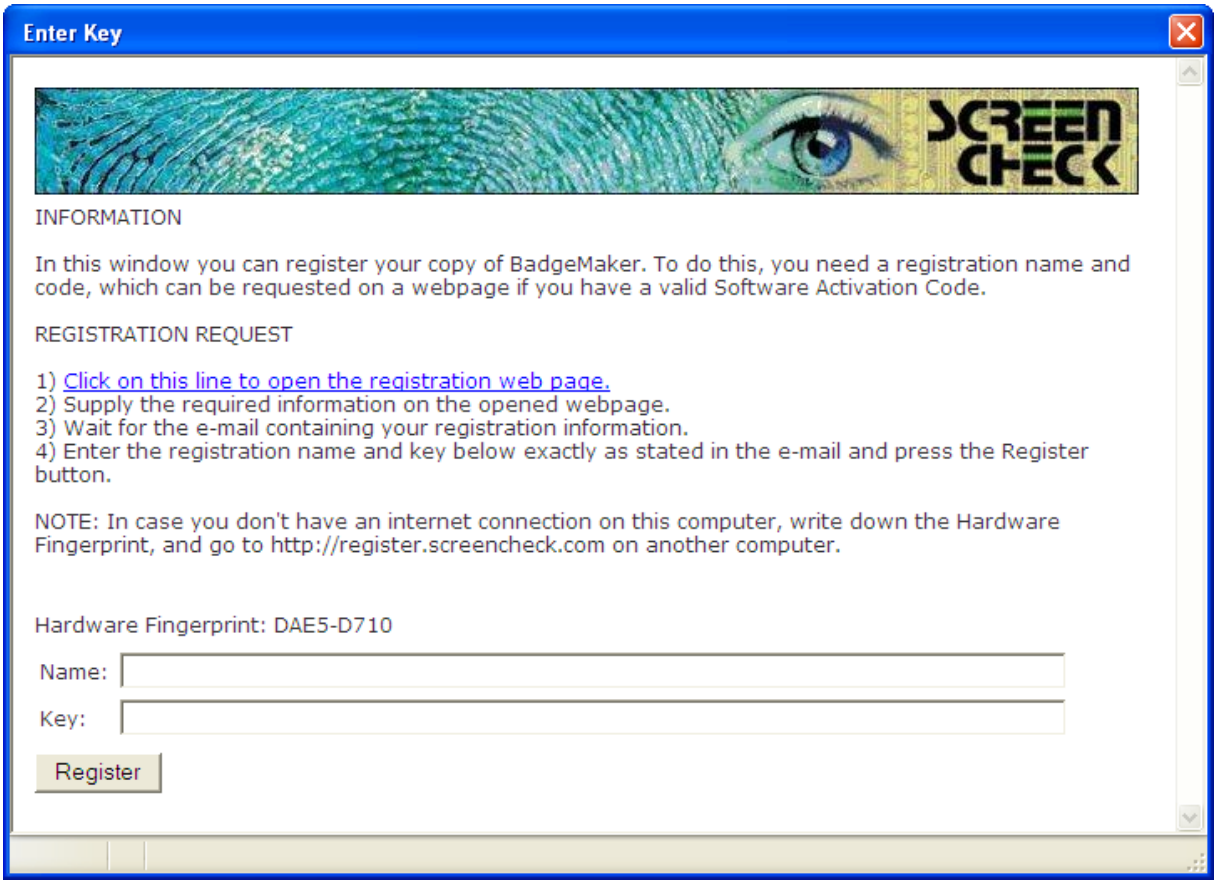
Acquiring an Activation Key

In trial mode, a message is shown every time BadgeMaker is started.



Select **Yes** to begin registering BadgeMaker.

If you do not wish to register at this time you can register at a later time by selecting the **Help Menu** and then click **About**, click **Enter Key**. The following dialog box is presented.



Enter Key Dialog

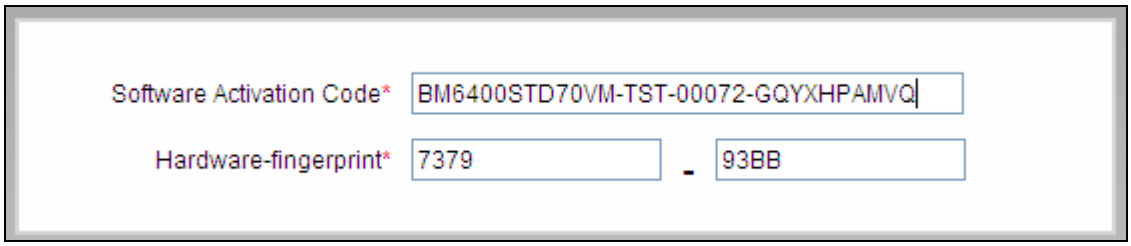
You must obtain a **Name** and **Activation Key** to activate BadgeMaker. Follow the instructions carefully on the screen.

Click on the link to open the website (www.register.screencheck.com. You are now directed to the **Software Registration Site** where you can complete your registration.

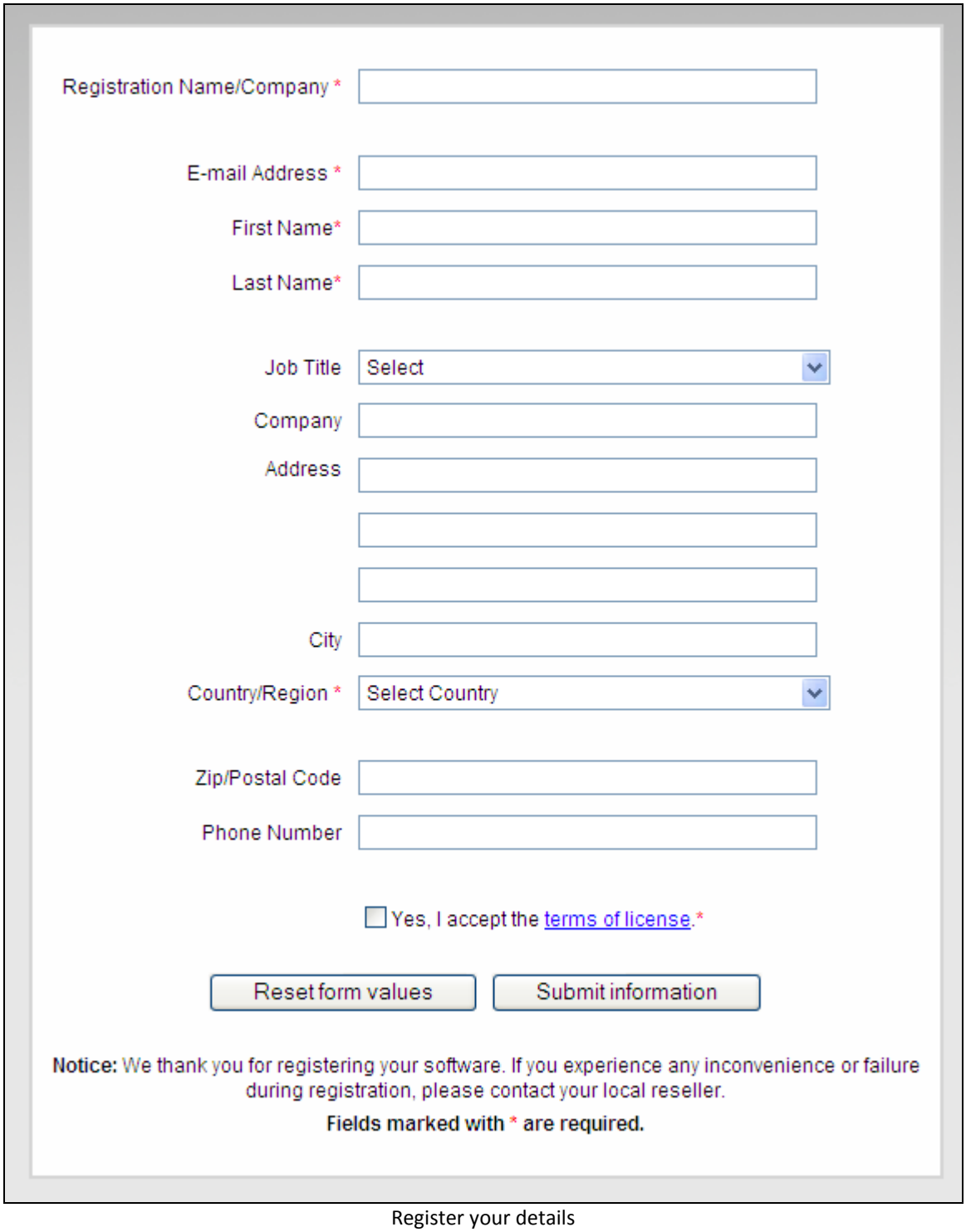
Software Registration Site

The **Hardware-Fingerprint** is already filled in. You must enter the SAC that was shipped with your product when you purchased BadgeMaker.

Enter the **Software Activation Code** you received in the field and all other fields marked with * are mandatory and must be populated.



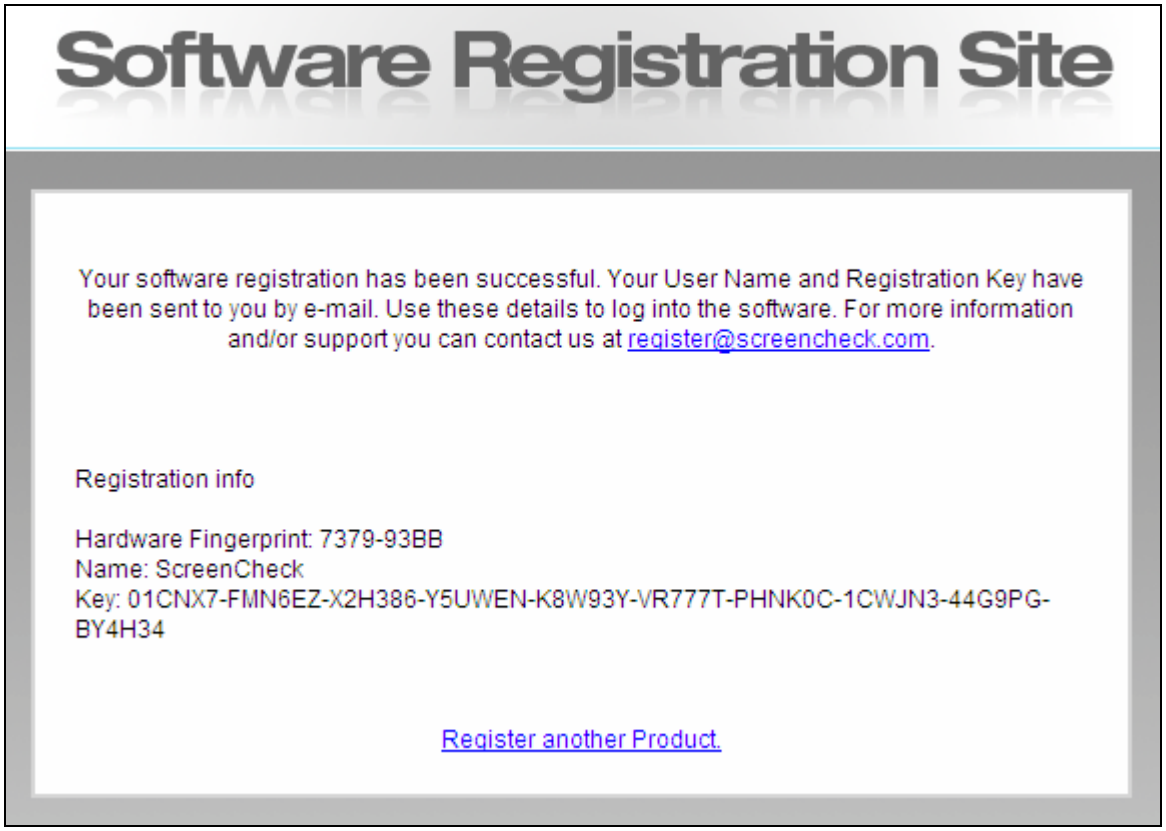
Input SAC



Register your details

Remember

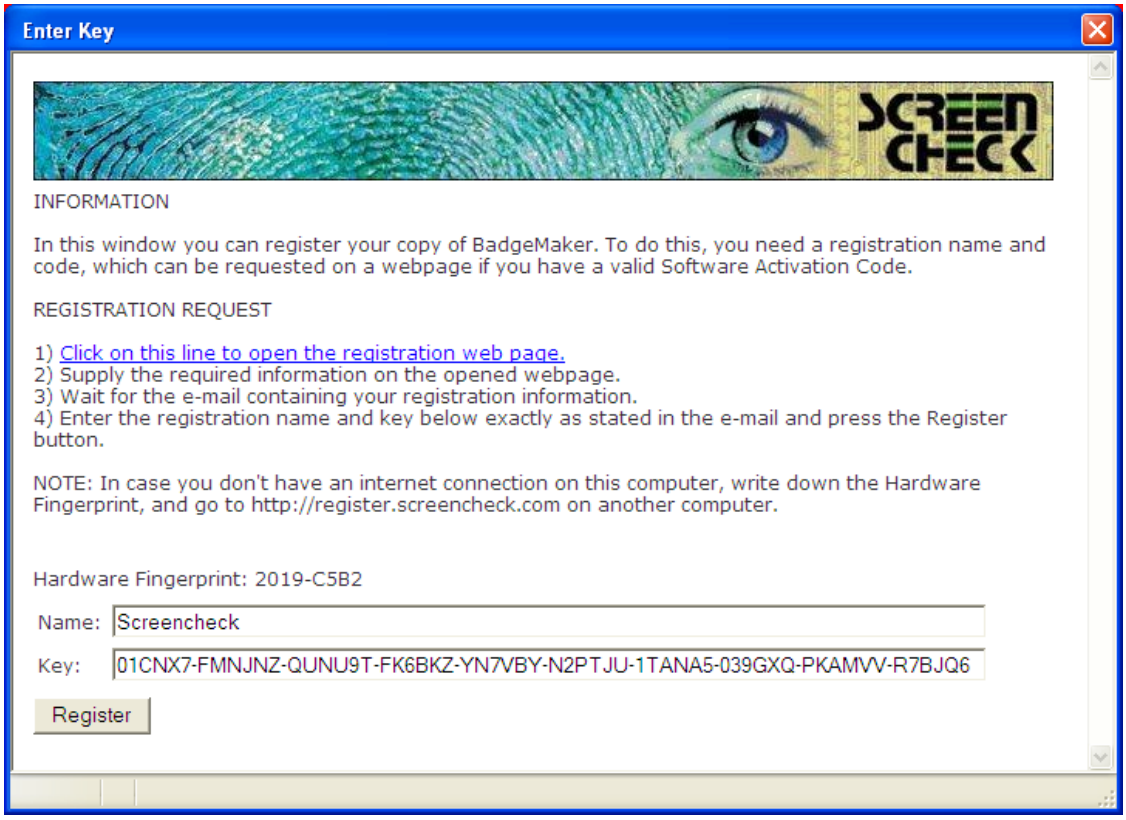
Note down "*Registration Name/Company*", this is needed for the registration along with the key. When you have entered all the required information, click the Submit Information button and you will receive Registration details together with a key.



Registration Key

If you do not have internet access on the PC where BadgeMaker is installed, you can register on another machine but you must remember the Hardware-Fingerprint from the original computer/server BadgeMaker is to be installed on and fill this in on the website manually.

You must register within the 30 day trial period.

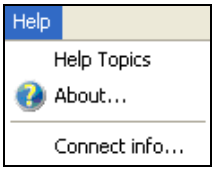


Enter Key

Enter your new Activation Key and select Register to complete registering your copy of BadgeMaker.

If you enter an incorrect Hardware-Fingerprint registration will fail and use of BadgeMaker will remain restricted.

You can also select **Help Menu>About** from the main menu in the software to register BadgeMaker.



BM Help Menu

Introduction to BadgeMaker

BadgeMaker has been implemented successfully in thousands of organizations worldwide to issue national ID's, driver licenses, passports, civil identification and social security cards. Use the full power and advanced features with BadgeMaker such as biometrics, contact and contactless smart cards.

With BadgeMaker an MSAccess demo database is included that illustrates most features in the software. The installation program will install demo files and will register an ODBC data source, so it will be ready to run (*applicable only in BadgeMaker 6400)*. You can use the demo database as a reference when you create your own BadgeMaker project or you can test different features you would like to integrate into your own project.

What's new in BadgeMaker 7.1

Mask edit

You can now choose whether to print data on badge with or without mask.

Create project from scratch

When saving a project created from scratch the system will ask for a unique field as well as for a layout field if you haven't defined one yet.

Auto Capture images

You can use the software to auto capture photos with the SC Digital Camera plug-in.
Getting Started

The BadgeMaker software consists of two components integrated into one application. Each component with its own functionality.

Badge Maker (BM)

This module is used to create a database and enter data into the database, acquire images and print cards. This module is the main screen of BadgeMaker.

Badge Creator (BC)

This module is used to create badge layouts with dynamic/static text, logos, signatures, photos, magstripe information and chip encoding.
BadgeMaker File extensions

When you wish to connect BadgeMaker to an existing database, you can start BadgeMaker and select the option **New** from the **File menu**.

Now you can create the initial files….

.BM - BadgeMaker project file. This file contains information about the use of the database fields and the location of the files and formats used by BM.(name, photo, signature, encoding data etc.)

.DSN - From within the project editor a new ODBC data source name can be created. BM uses this data source name to connect to the database.

After creating the initial files, you link Layout files to a BM-file by using the BadgeCreator module.

With BadgeCreator you can define one or more layouts linked to a BadgeMaker project file.

.BC - Layouts linked to a BM-file.
.ENC - Encode files linked to a BM-file.
.CHP - Encode files linked to a BM-file.

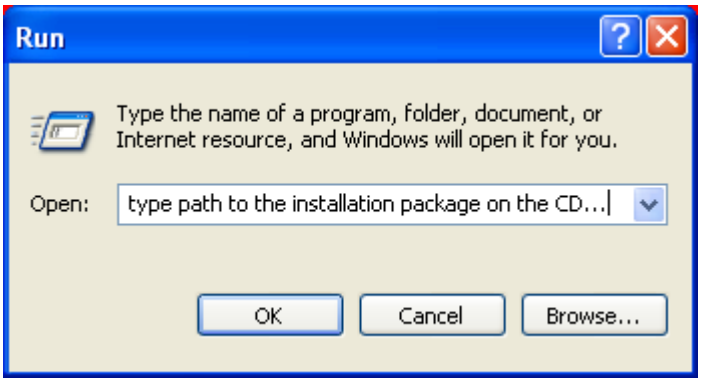
Installing BadgeMaker

For installation of BadgeMaker Software please follow these simple steps:

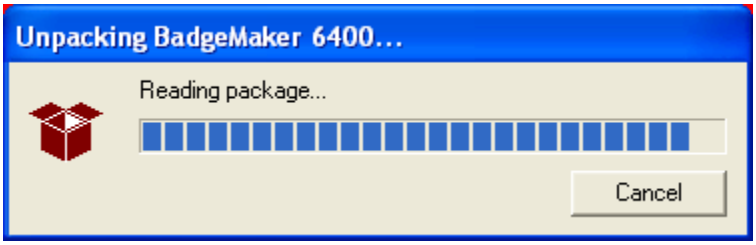
In our example BadgeMaker 6400 has been used. This will be the same for all versions of BadgeMaker.

Insert the ScreenCheck BadgeMaker CD into the CD-ROM, the CD will automatically launch setup. From the **Main Menu** select "*Install BadgeMaker*".

If however the CD does not run automatically please begin the Setup process manually. This can be done by opening up found in the **Start Menu>Run** , specify path to the *.exe file to begin.

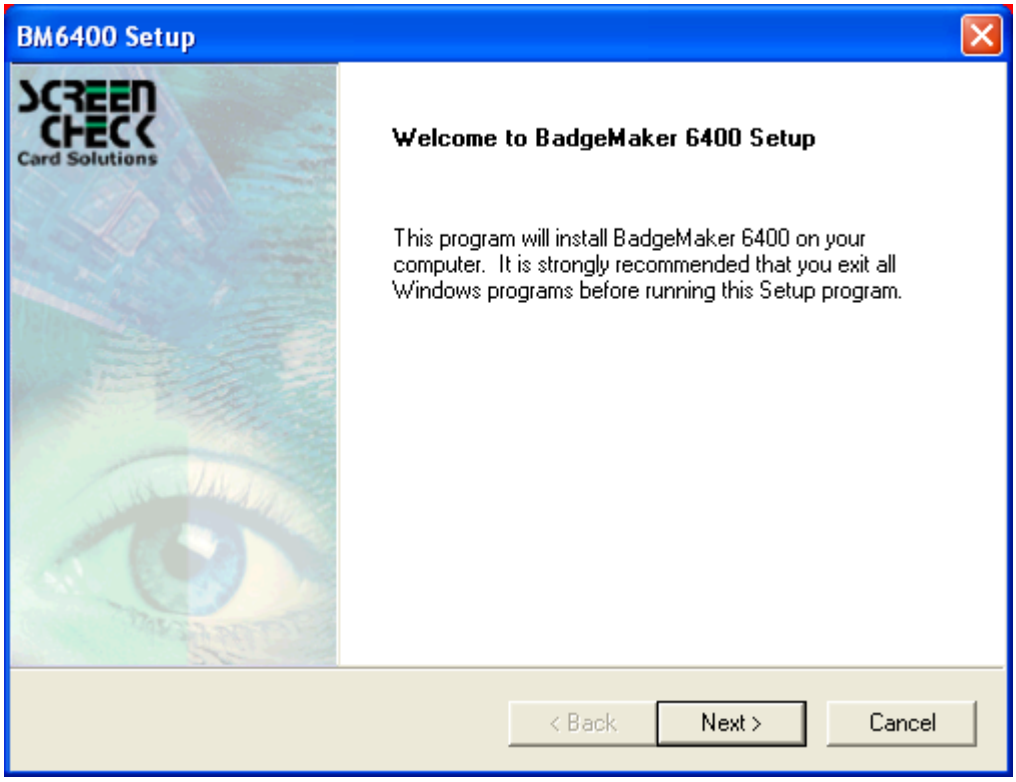


The software will begin unpacking in preparation for the install process to begin.



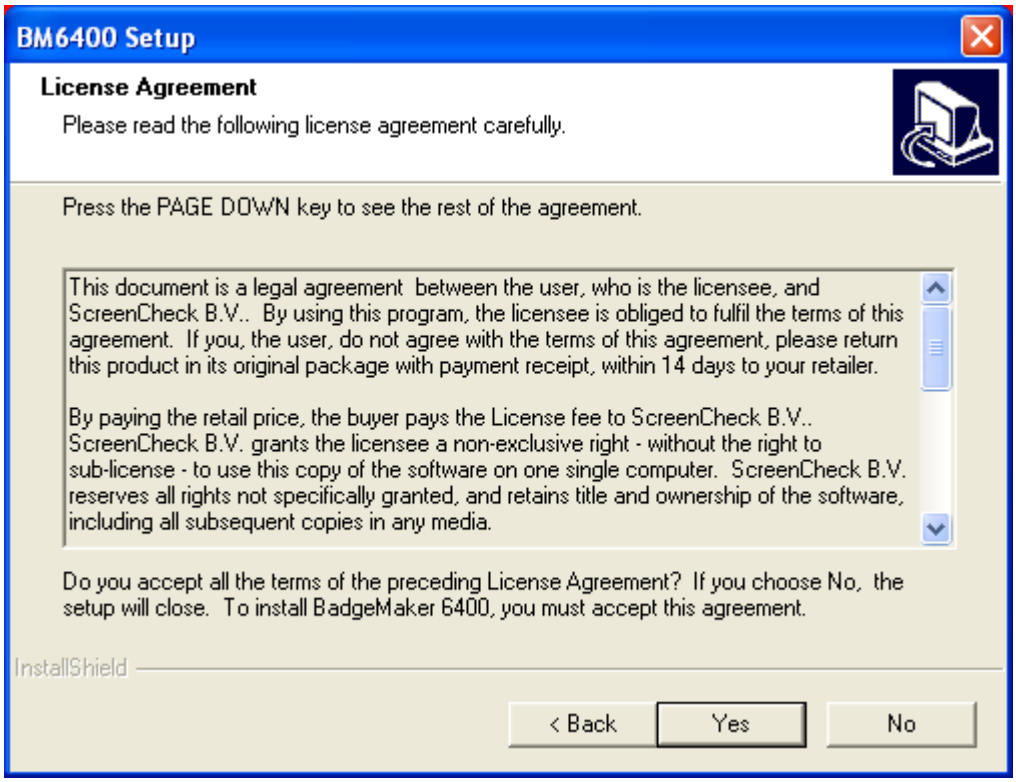
The **Welcome Screen** is presented.

It is strongly recommended that you exit all running programs before continuing with the BadgeMaker Setup.



BM Setup Welcome Screen

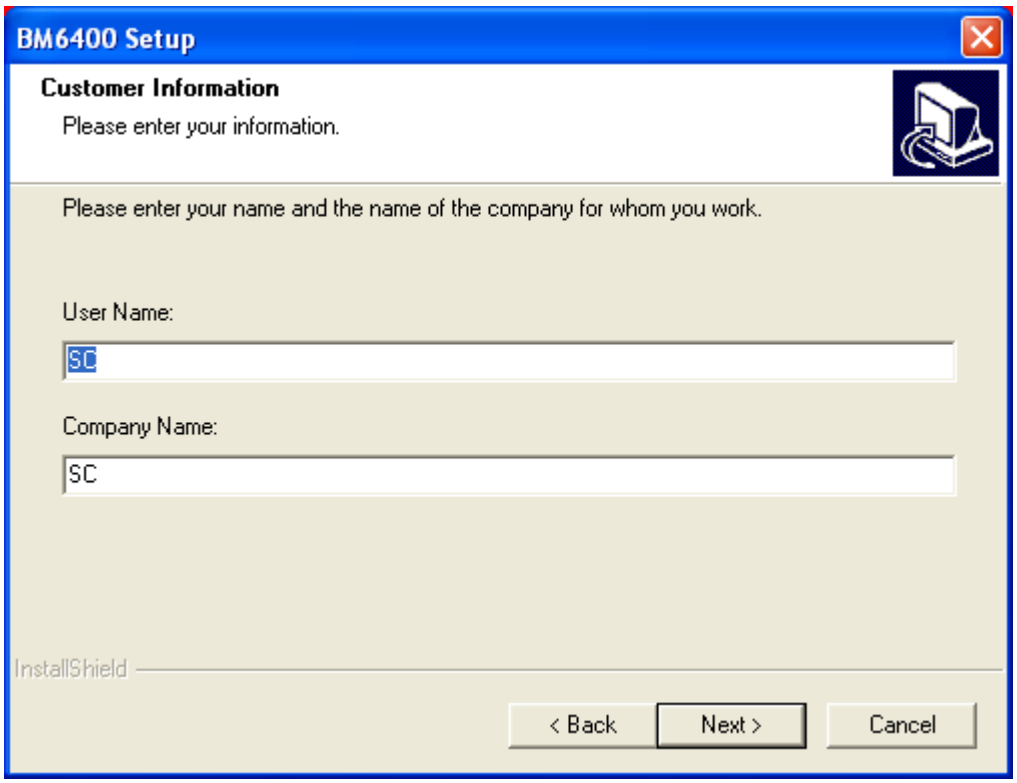
Click **Next** to progress.



License Agreement

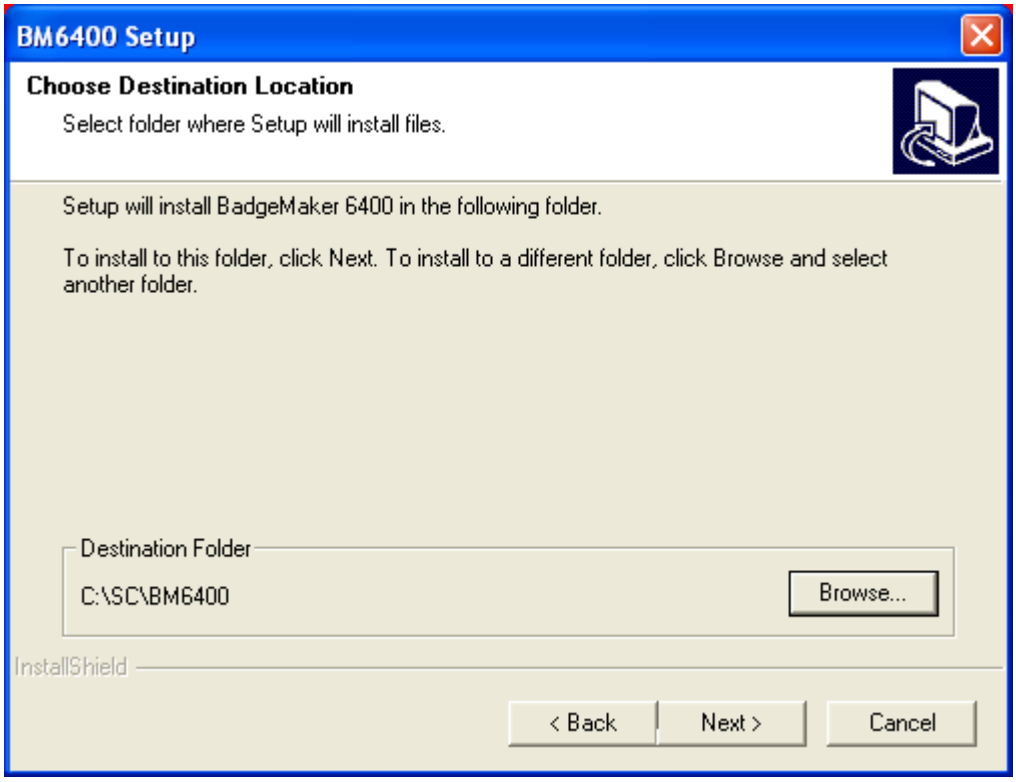
Please read the **License Agreement**. You must accept all the terms in this agreement to continue installing BadgeMaker.

Click **Yes** to continue.

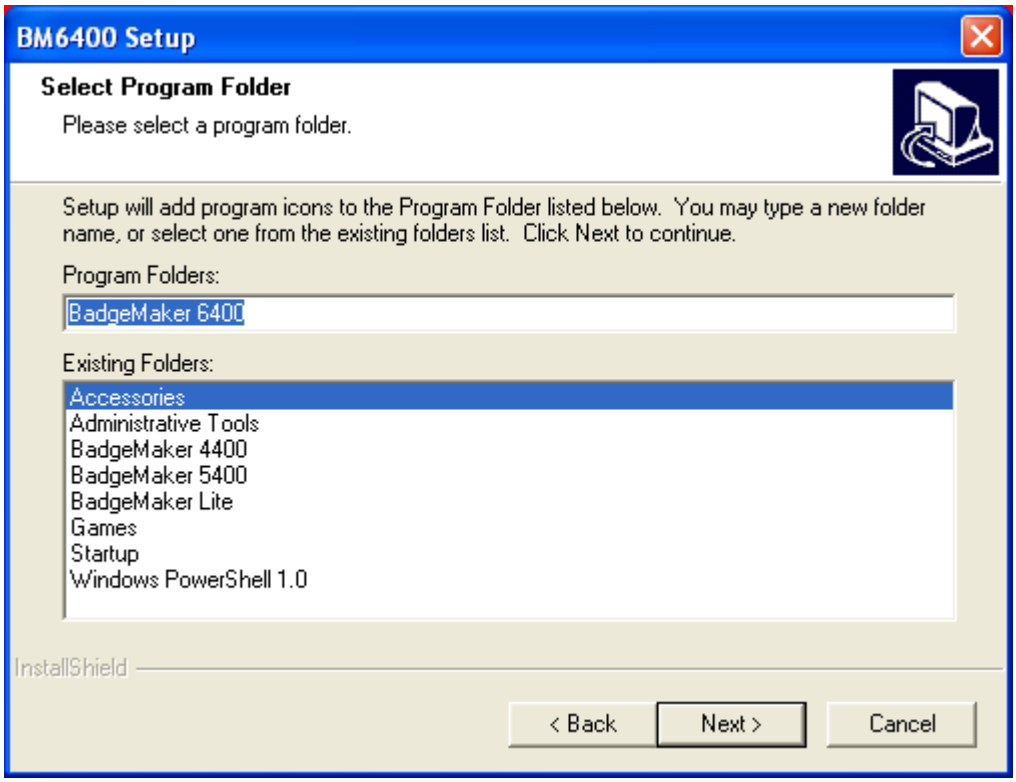


Enter Customer Information

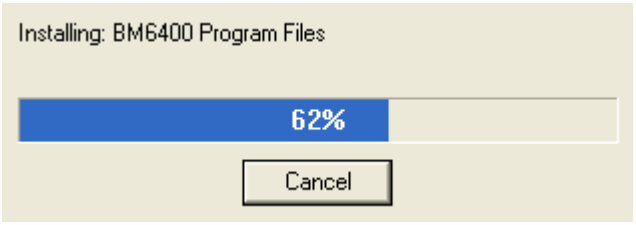
Enter your name and the name of the company for whom you work for in this dialog box. Select **Next** to progress.



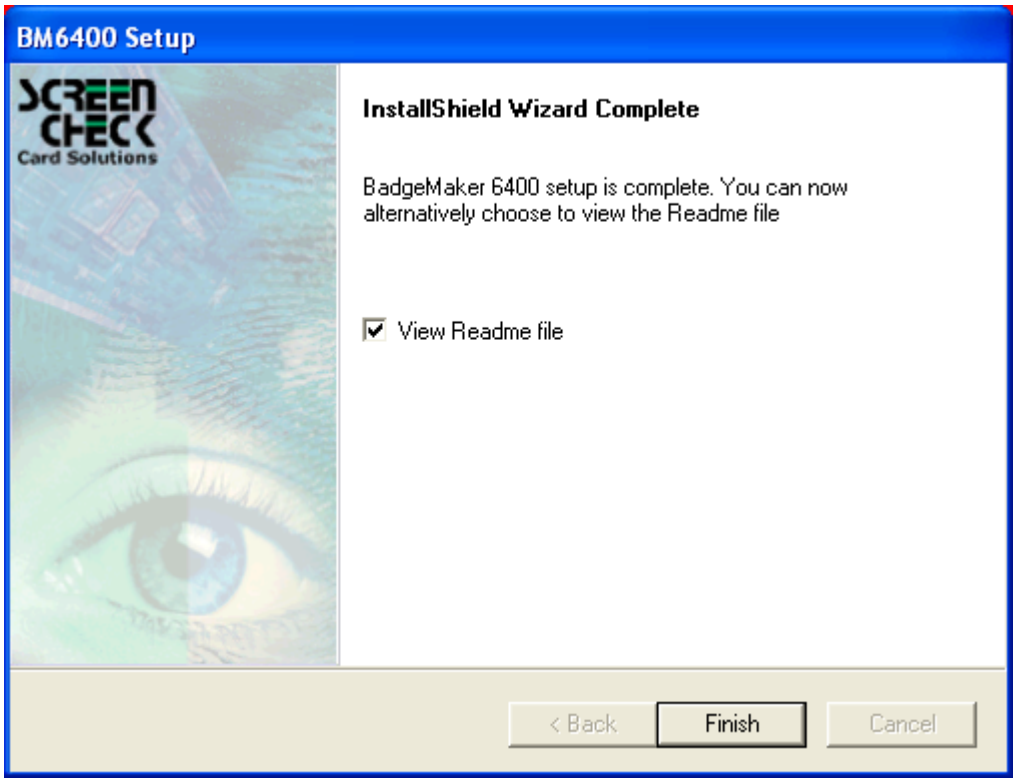
We recommend to leave the default path *C:\SC\BM6400* as the destination folder which BadgeMaker will be installed. Although if required you can specify an alternative destination path. Click **Next** to progress to the next screen.



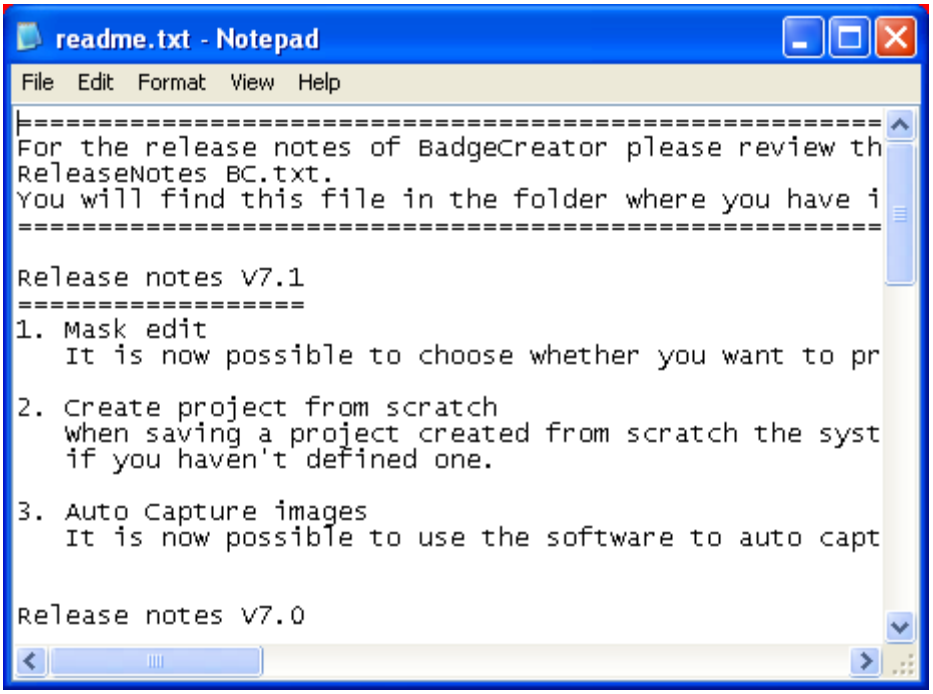
Leave default settings and click **Next** to begin installing BadgeMaker onto your computer.



Installing



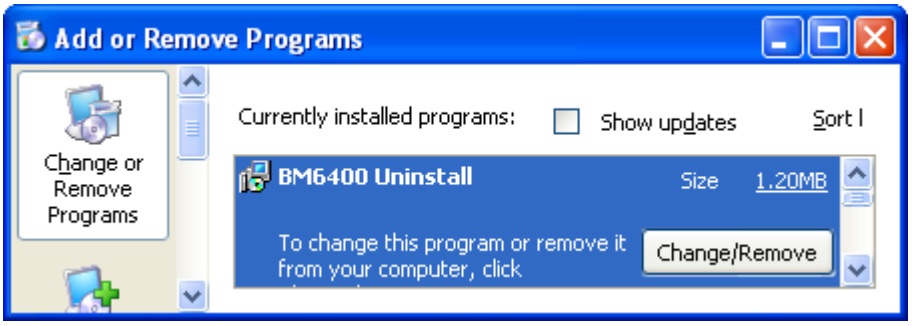
The BadgeMaker setup has now finished. If you do not wish to view the Readme File uncheck this option before clicking **Finish**. If you choose to read the **Read Me file** just click **Finish**.



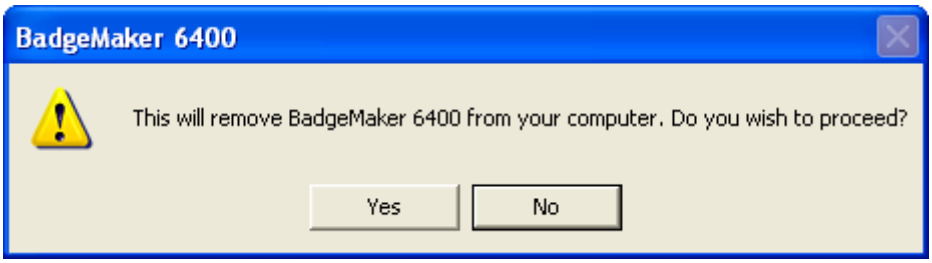
ReadMe.txt

Uninstalling BadgeMaker

To Uninstall BadgeMaker select **Start Menu>Control Panel>Add or Remove Programs>Select Change or Remove Programs.**



Select the BadgeMaker software from the list and select **Change/Remove**.



You will receive a warning stating BadgeMaker will be removed from the computer. At this point you can still cancel the process by clicking **No**. To proceed and remove BadgeMaker select **Yes**.

BadgeMaker will now be removed from the system. A success prompt will confirm removal was a success.

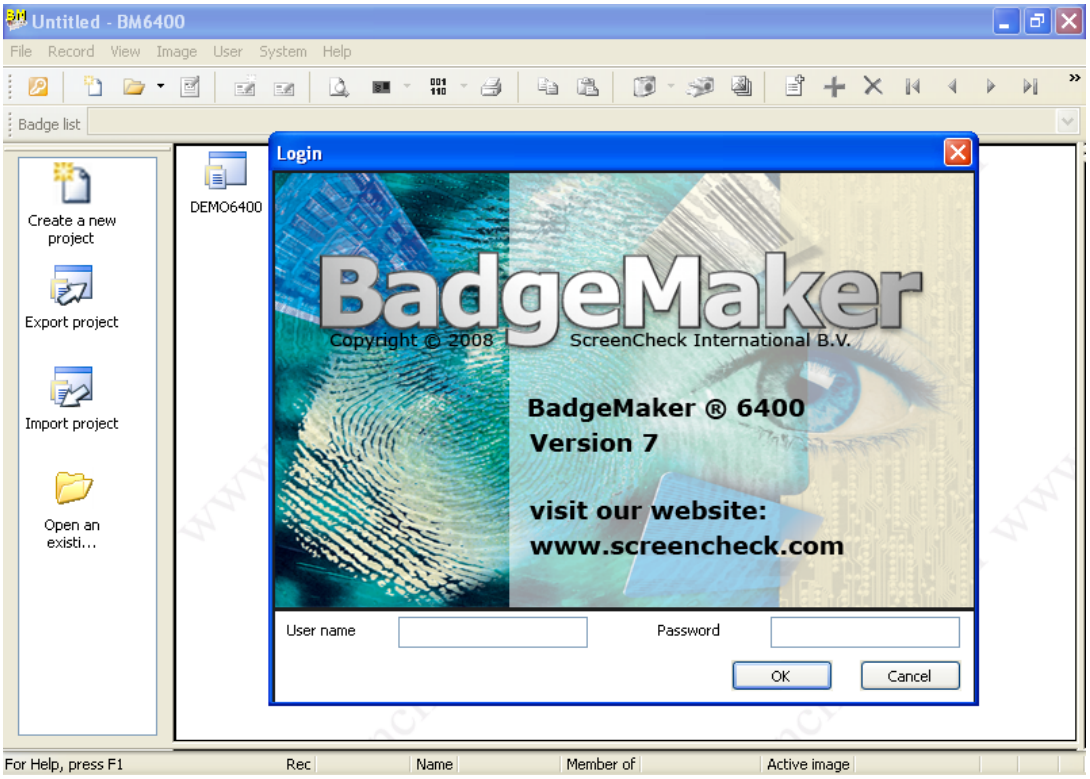
In our example BadgeMaker 6400 has been used. This will be the same for all versions of BadgeMaker.

Starting BadgeMaker for the first time…..

To open BadgeMaker select **Start**, click **Program Files**, click **BadgeMaker** and then click **BadgeMaker**. BadgeMaker can also be started by double clicking the desktop shortcut;

Desktop Shortcut

When you have started BadgeMaker an empty window will be displayed with the **Login dialog** box presented.



BM Login dialog box

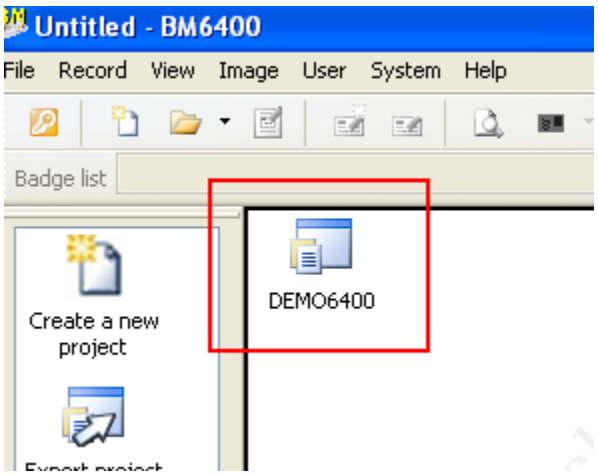
To begin working you must first login. Click the **login** button or select **Users Menu** and click **Login**. You will be prompted to enter your user name and password.

Default Administrator password (*Built In*)

Username: **SUPERVISOR**
Password: **SUPERVISOR**

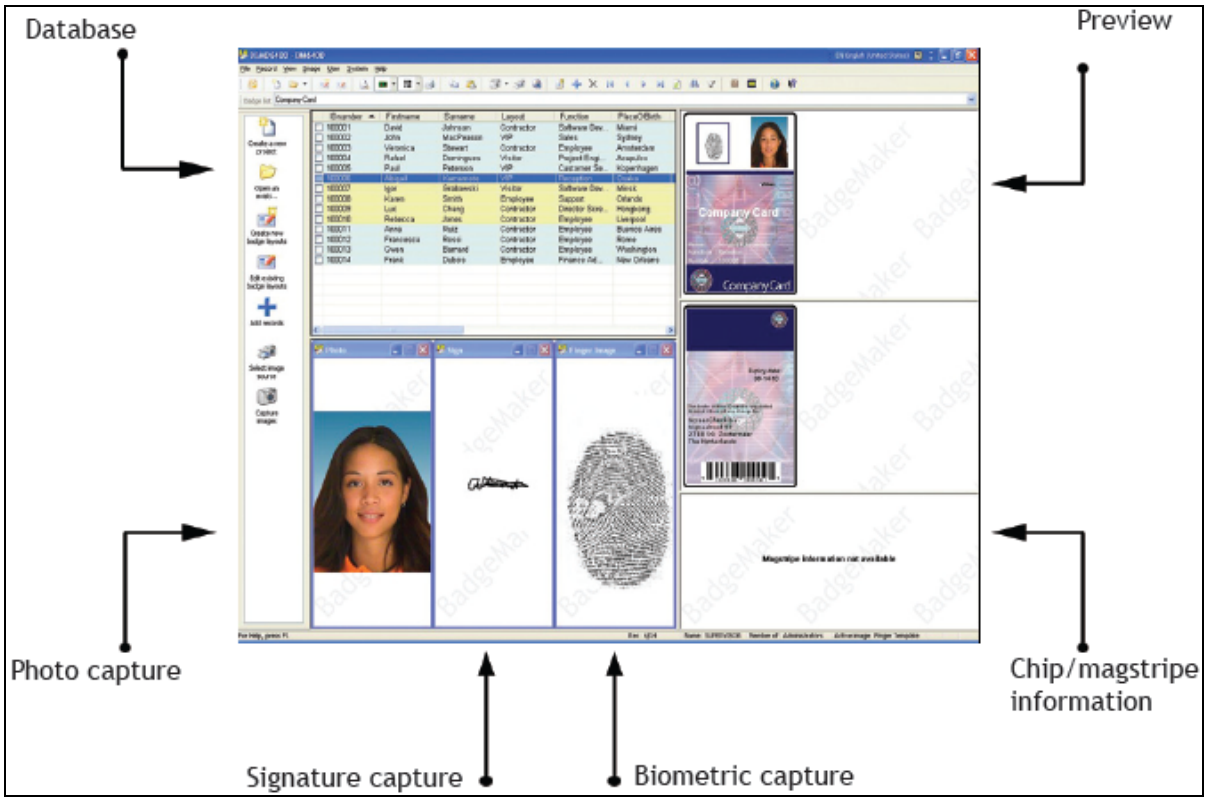
It is recommended not to change these default values. This user has administration rights, Full Control. You can create additional user accounts with their own passwords later.

Once you have logged on double click the default project **DEMO** to get acquainted with BadgeMaker's GUI interface and features.



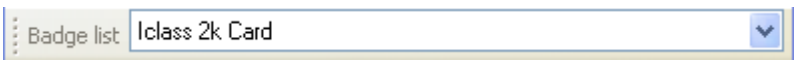
BM Project file (DEMO6400)

The will launch into BadgeMaker's **Main Screen**.



Layout Selection

Click on this box to select one of the available layouts.



Status bar

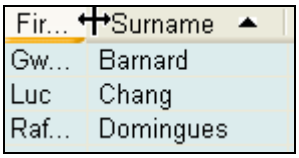
The Status Bar can be found along the bottom of the main window. In the status bar you can see the current selected record, the username currently logged in and group the user has been assigned to.

Status Bar

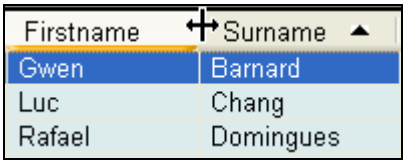
Adjust Field Width

Move your mouse pointer and click the borders between the fields as shown below. Drag the mouse either **left** or **right** to adjust the fields width.

Before Adjusting



After Adjusting

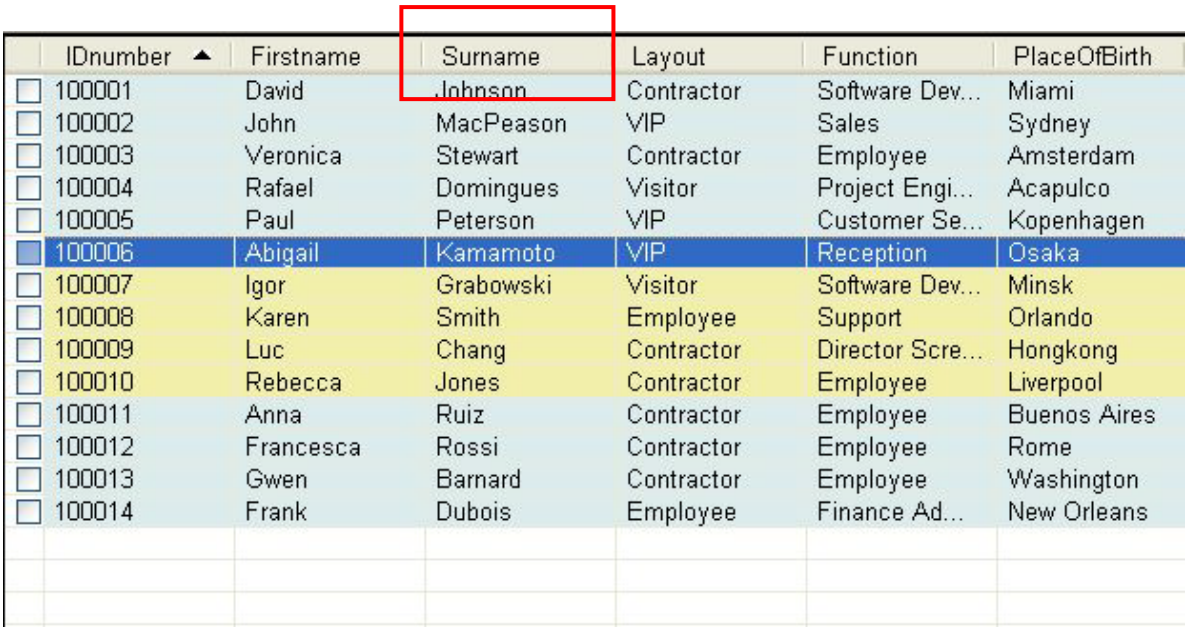


OMC functionality will only work in combination with the Lasercard ® optical memory card reader/writer and software.

The Automatic Scan functionality will only work in combination with the optional ADF software module and scanner.

Relocate a field

On the main screen of BadgeMaker the database window form a prominent part. The fields of the data window are placed in columns. Each record is placed in a row. The order of the columns (*database fields*) can be changed. To do this you can select the column you want to relocate, in our example Firstname in the header of the column:



IDnumber	Firstname	Surname	Layout	Function	PlaceOfBirth
100001	David	Johnson	Contractor	Software Dev...	Miami
100002	John	MacPeason	VIP	Sales	Sydney
100003	Veronica	Stewart	Contractor	Employee	Amsterdam
100004	Rafael	Domingues	Visitor	Project Engi...	Acapulco
100005	Paul	Peterson	VIP	Customer Se...	Kopenhagen
100006	Abigail	Kamamoto	VIP	Reception	Osaka
100007	Igor	Grabowski	Visitor	Software Dev...	Minsk
100008	Karen	Smith	Employee	Support	Orlando
100009	Luc	Chang	Contractor	Director Scre...	Hongkong
100010	Rebecca	Jones	Contractor	Employee	Liverpool
100011	Anna	Ruiz	Contractor	Employee	Buenos Aires
100012	Francesca	Rossi	Contractor	Employee	Rome
100013	Gwen	Barnard	Contractor	Employee	Washington
100014	Frank	Dubois	Employee	Finance Ad...	New Orleans

BM Database – Manage records

Now hold-down the right mouse button in the header of the column to relocate and drag it to the new location (*in our example the right side of "layout"*) and release the right button. The result will be:

IDnumber	Surname	Firstname	Layout	Function	PlaceOfBirth
100006	Kamamoto	Abigail	VIP	Reception	Osaka
100011	Ruiz	Anna	Contractor	Employee	Buenos Aires
100001	Johnson	David	Contractor	Software Dev...	Miami
100012	Rossi	Francesca	Contractor	Employee	Rome
100014	Dubois	Frank	Employee	Finance Ad...	New Orleans
100013	Barnard	Gwen	Contractor	Employee	Washington
100007	Grabowski	Igor	Visitor	Software Dev...	Minsk
100002	MacPeason	John	VIP	Sales	Sydney
100008	Smith	Karen	Employee	Support	Orlando
100009	Chang	Luc	Contractor	Director Scre...	Hongkong
100005	Peterson	Paul	VIP	Customer Se...	Kopenhagen
100004	Domingues	Rafael	Visitor	Project Engi...	Acapulco
100010	Jones	Rebecca	Contractor	Employee	Liverpool
100003	Stewart	Veronica	Contractor	Employee	Amsterdam

Tagging records

One or more records can be tagged by click the square on the left side of the database window pane. This will result in a check mark in the squire indicating the record is checked.

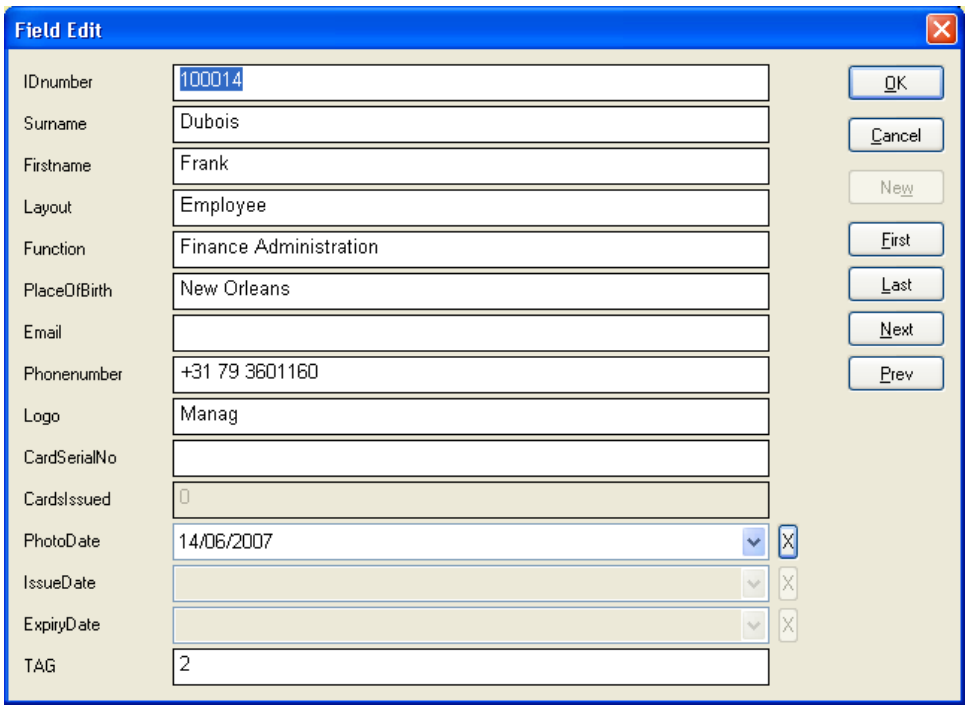
To check all records you can place the mouse in the left corner of the header and click on it:

IDnumber	Surname	Firstname	Layout	Function	PlaceOfBirth
100006	Kamamoto	Abigail	VIP	Reception	Osaka
100011	Ruiz	Anna	Contractor	Employee	Buenos Aires
100001	Johnson	David	Contractor	Software Dev...	Miami
100012	Rossi	Francesca	Contractor	Employee	Rome
100014	Dubois	Frank	Employee	Finance Ad...	New Orleans
100013	Barnard	Gwen	Contractor	Employee	Washington
100007	Grabowski	Igor	Visitor	Software Dev...	Minsk
100002	MacPeason	John	VIP	Sales	Sydney
100008	Smith	Karen	Employee	Support	Orlando
100009	Chang	Luc	Contractor	Director Scre...	Hongkong
100005	Peterson	Paul	VIP	Customer Se...	Kopenhagen
100004	Domingues	Rafael	Visitor	Project Engi...	Acapulco
100010	Jones	Rebecca	Contractor	Employee	Liverpool
100003	Stewart	Veronica	Contractor	Employee	Amsterdam

Tagging Records

Editing a record

Double clicking on a record in the main dialog will open the **Field Edit dialog**. In this dialog, changes can be made to the fields, provided the fields are defined to be **Editable**. If a field is defined to be **View only** it cannot be edited (*only the first value for can be filled in when a new record is created*). View only fields can be recognized because the contents are grey instead of black.



Record Details

After clicking the right mouse button in the grid, the following dialog will come up:

The right button will be enable you to **tag**, **remove tags**, **find**, **SQL select**, **copy**, **paste** and **adjust images** of selected records. Under **options**, the **font**, **colour** and **language** can be changed.

The Image Windows

The image windows are separate windows, which are always on top (*unless you close them or hide in the View menu*).

You can change the size of the **Photo window** by clicking with your mouse on the corners and drag the corners to adjust the size. By clicking on the name bar you can select the image type belonging to the window as the active one. When you use the **Acquire Image** option the image will be stored under the active image type.

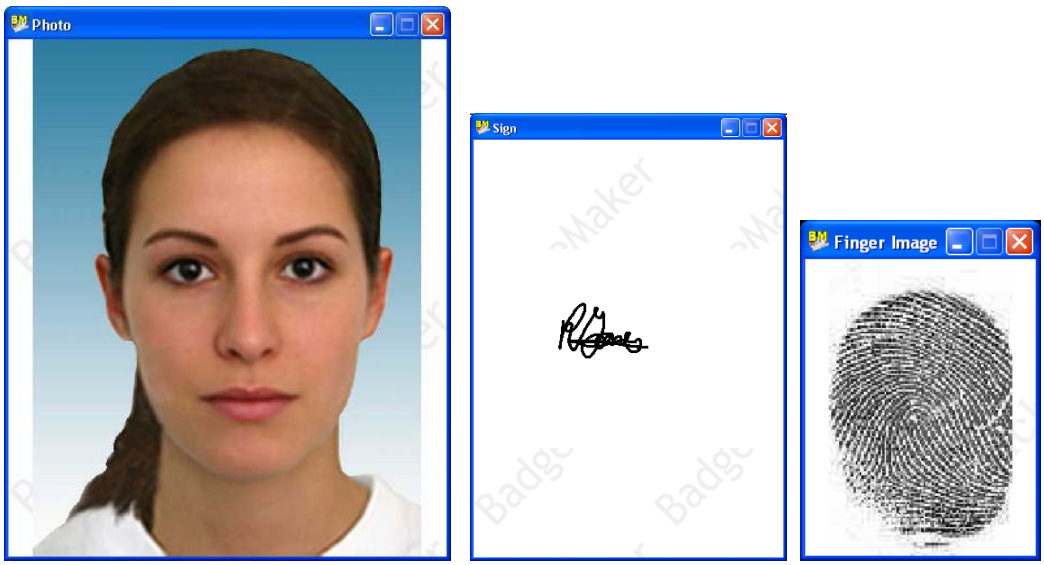


Image Windows

When you click with your left mouse button inside the Photo window you can drag it across the screen.

If you click inside the image window with your right mouse button, you will get three options:

- **Hide**
- **Acquire**
- **Adjust**

Select **Hide** to hide the current image window, select **Acquire** to acquire a new image (*to overwrite the existing image*).

BadgeMaker Toolbar

The Toolbar in BadgeMaker can be used to quickly start a function, by clicking on the desired button.

BM Toolbar

Login Button
Click on this button to login to BadgeMaker.

New Project
Click on this button to create a new project.

Open Layout
Click on this button to open a layout file that is linked to the currently opened *.BM file.

Edit Project
Click on this button to edit the current project settings and database.

New Badge
Click on this button to start BadgeCreator for designing a new layout.

Edit Badge
Click on this button to start BadgeCreator for editing the current layout.

Preview Button
Click on this button to preview the current record in the current layout on the screen. (Front, back, encoding etc.)

Toggle Card
Click on this button to show/hide the card preview in the main screen. With the submenu you can select/deselect the front and back of the card.

Toggle Encode
Click on this button to show/ hide the preview of the encode information. With the submenu you can toggle between magnetic or chip data previews.

Print Button
Click on this button to print the selection using the current layout to a Windows supported printer.

Copy Button

Click on this button to copy an image to the clipboard.

Paste Button

Click on this button to paste data from the clipboard to your current records.

Acquire Button

Click on this button to acquire/add an image from the selected image type. With the submenu you can select the from the following:

- Photo
- Sign
- Photo thumb
- Sign thumb
- Finger template
- Finger image

Select source

Click on this button to select the source of the photo (File, camera, signature pad). For example if using a camera to create photos, a source (Hardware driver) must be linked to an image type.

Bulk Input Button

Click on this button to activate the bulk input feature.

Import Data

Click on this button to import data according to the automatic import settings.

Add Record

Click on this button to add a record to the database.

Delete Records

Click on this button to delete the selected records.

First Button

Click on this button to go to the first record in the database.

Previous Button

Click on this button to go to the previous record in the database.

Next Button

Click on this button to go to the next record in the database.

Last Button

Click on this button to go to the last record in the database.

Refresh

Click on this button to refresh data.

Search Button

Click on this button to activate the find function.

Select Button

Click on this button to open the selection dialogue.

Chip encoding

Click on this button to encode a configured chip file onto the card the chip encoding is carried out by a separate encode unit attached to the printer. This feature can also be used to run simulation chip encoding for testing chip layouts.

Encode OMC (Optical Memory Card)

Click on this button for OMC (Optical Memory Card) encoding (optional).

About BadgeMaker

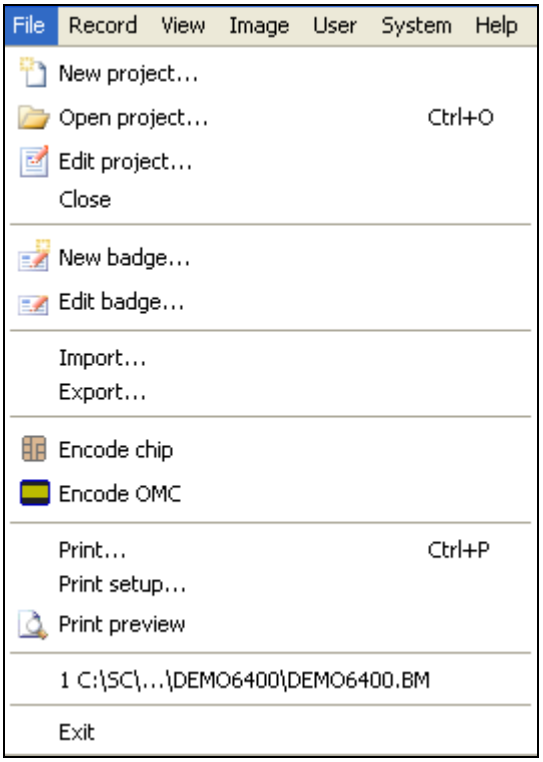
Click on this button, to display information about BadgeMaker.

Help

Click on this button to activate BadgeMaker Help.

File Menu

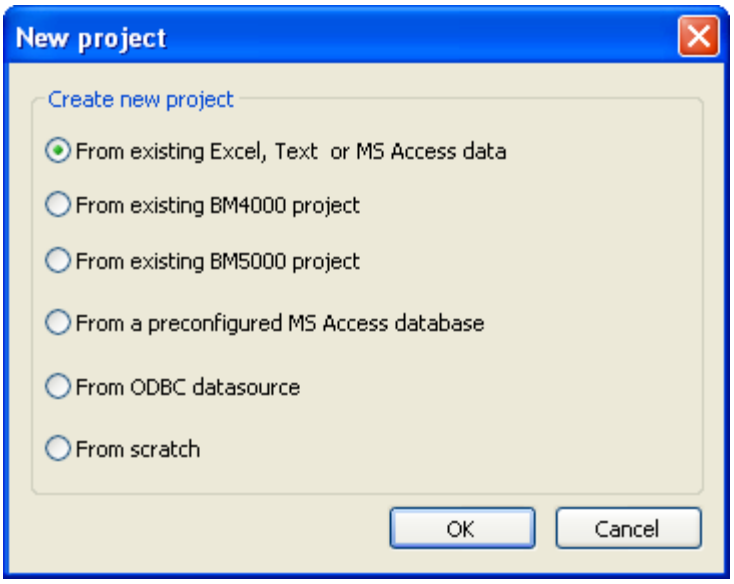
The **File Menu** appears as the first item in the menu bar, and contains commands relating to the handling of files such as open, print and save. You can close windows and exit BadgeMaker from here.



File Menu

New Project

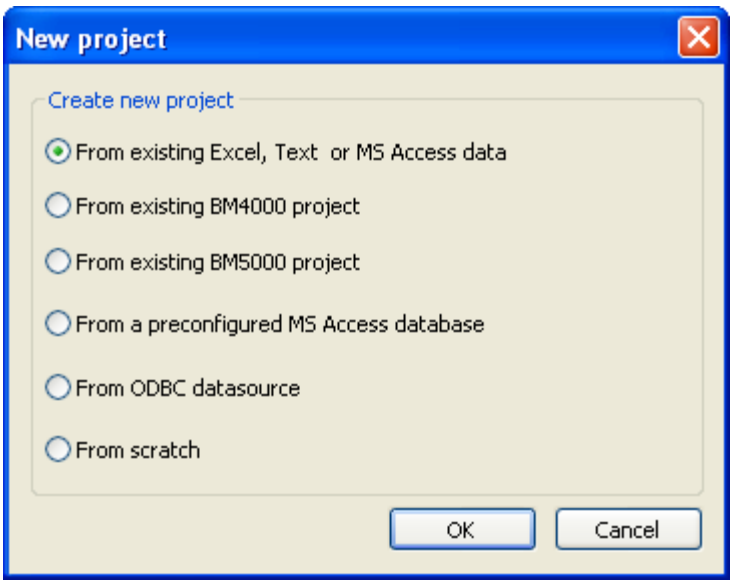
To create a new project file (*.BM file) select **File Menu**, click **New Project**. There are six options to select.



Use option  from the toolbar.

From Existing Excel, Text or MS Access data

Select **File Menu** and then click **New project**.

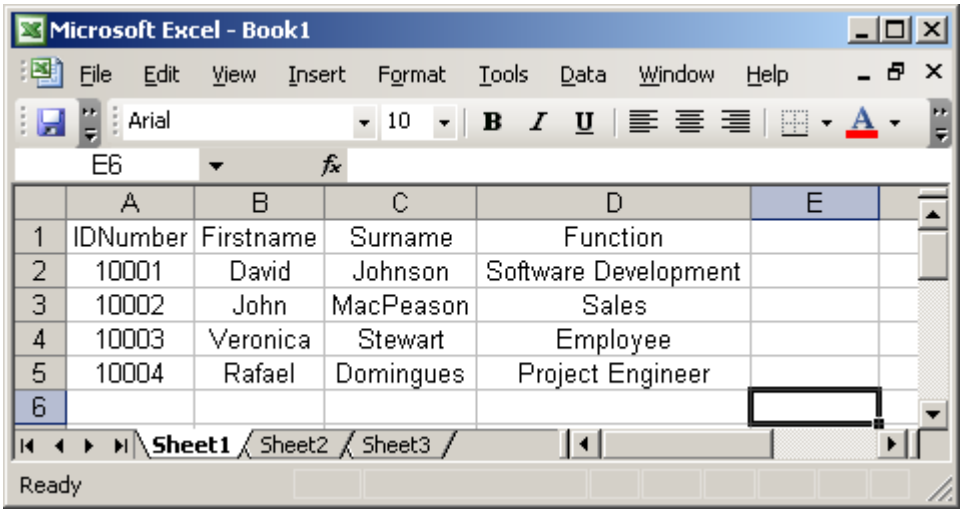


After selecting a new project, select **From existing Excel, Text or MS Access data**.

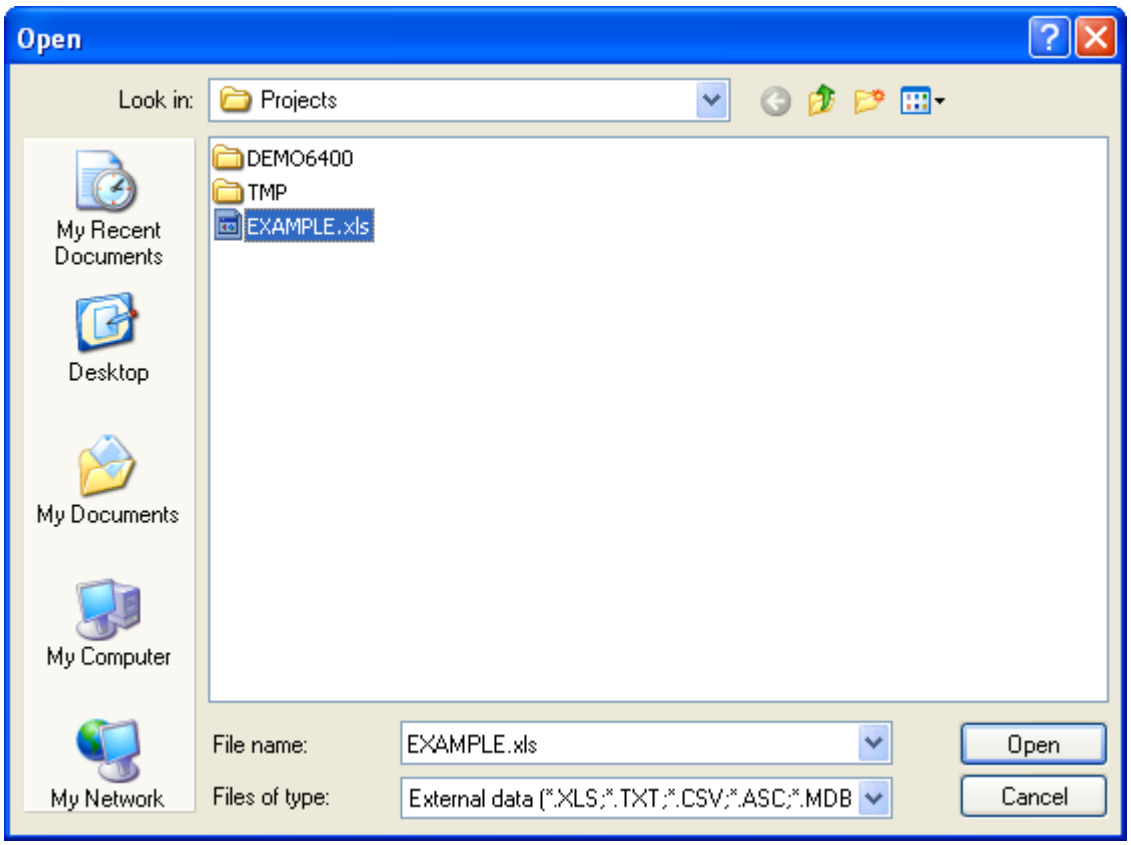
In preparation an Excel file is made, which represents a small database. This Excel database contains the following fields:

- **IDNumber**
- **Firstname**
- **Surname**
- **Function**

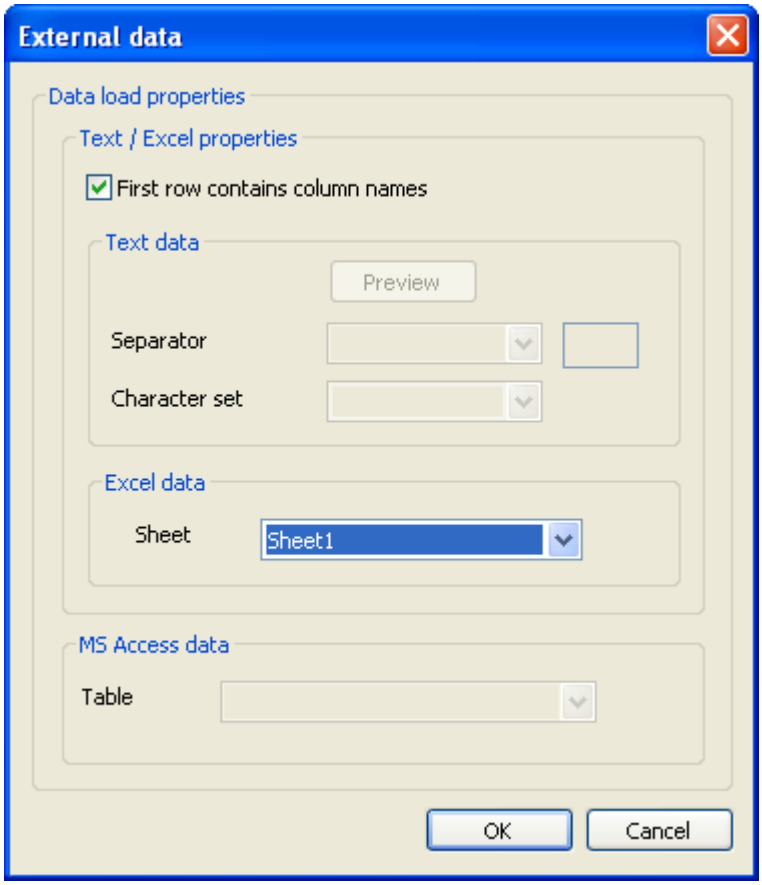
The file will look similar to this.



Search for the original file that will be used to create your project.

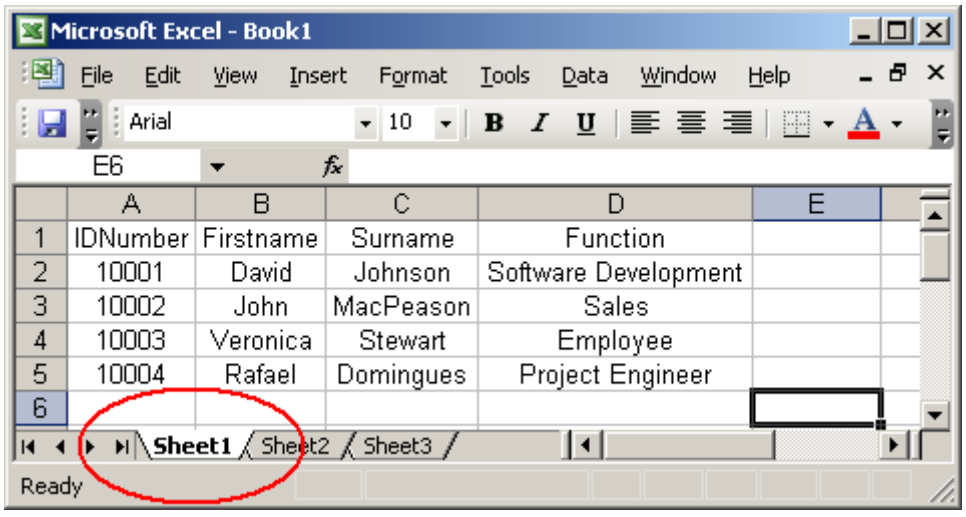


Click **Open** and the following dialog will be displayed.



External data source

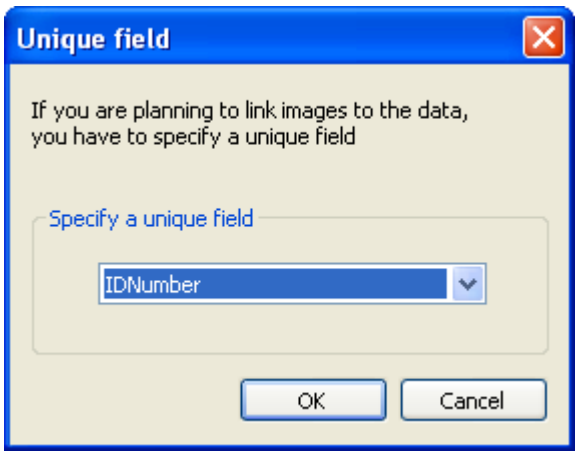
Under Excel Data select a **Sheet**.



Sheet 1

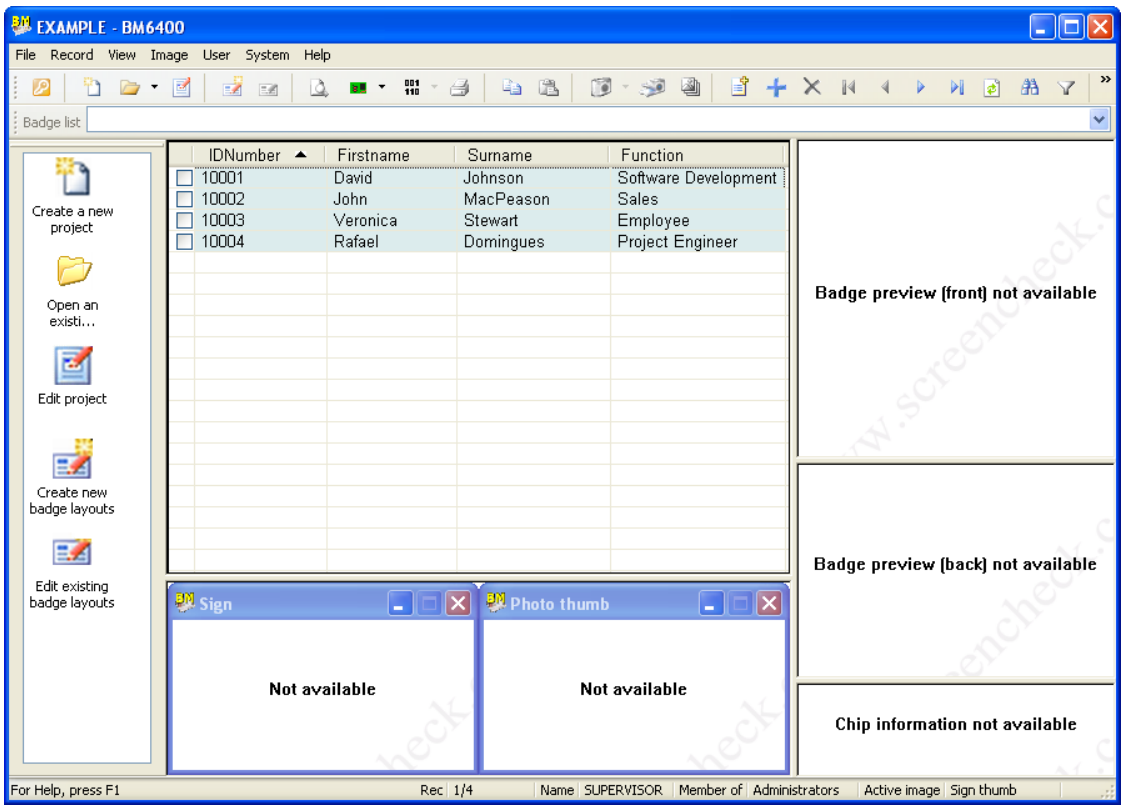
As an Excel file was chosen to create this project take note of the **Excel sheet** which contains your data. You must specify a sheet, in our example we are using **Sheet 1**.

Now you have to select the unique field of your Excel database. In our case this is going to be **IDNumber**.



Specify a Unique Field

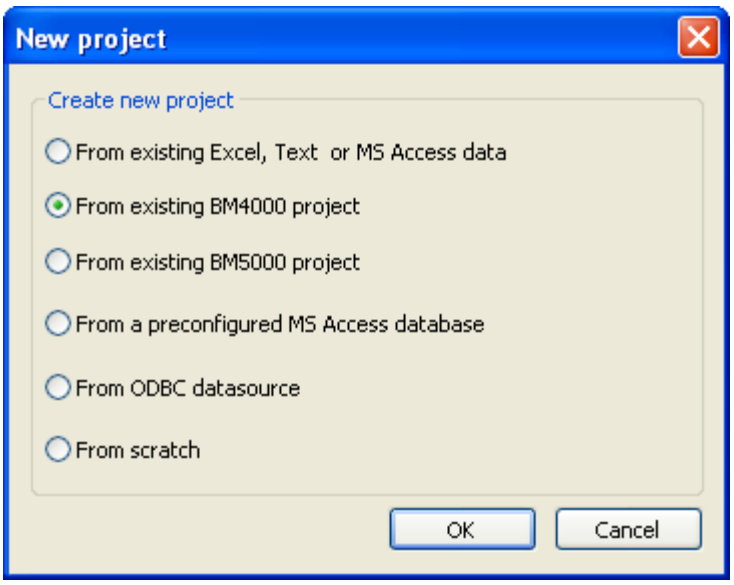
Select **OK** to complete creating the project. The conversion is complete, you are presented with the following results.



BM Main Screen

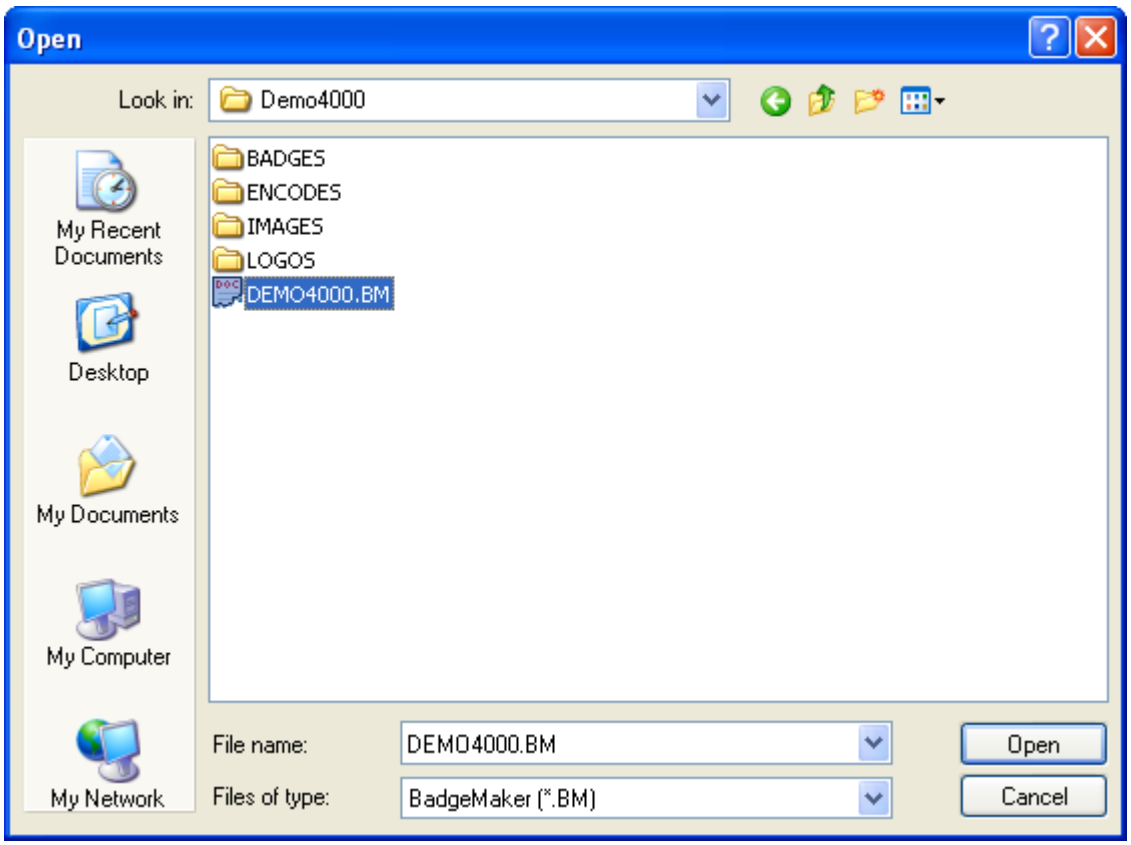
From Existing BM4000 project

Select **File Menu** and then click **New project**.



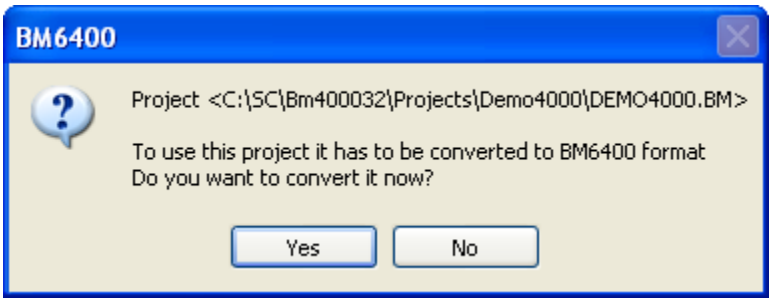
After selecting a new project, select **From existing BM4000 project**.

Click **OK** to progress.



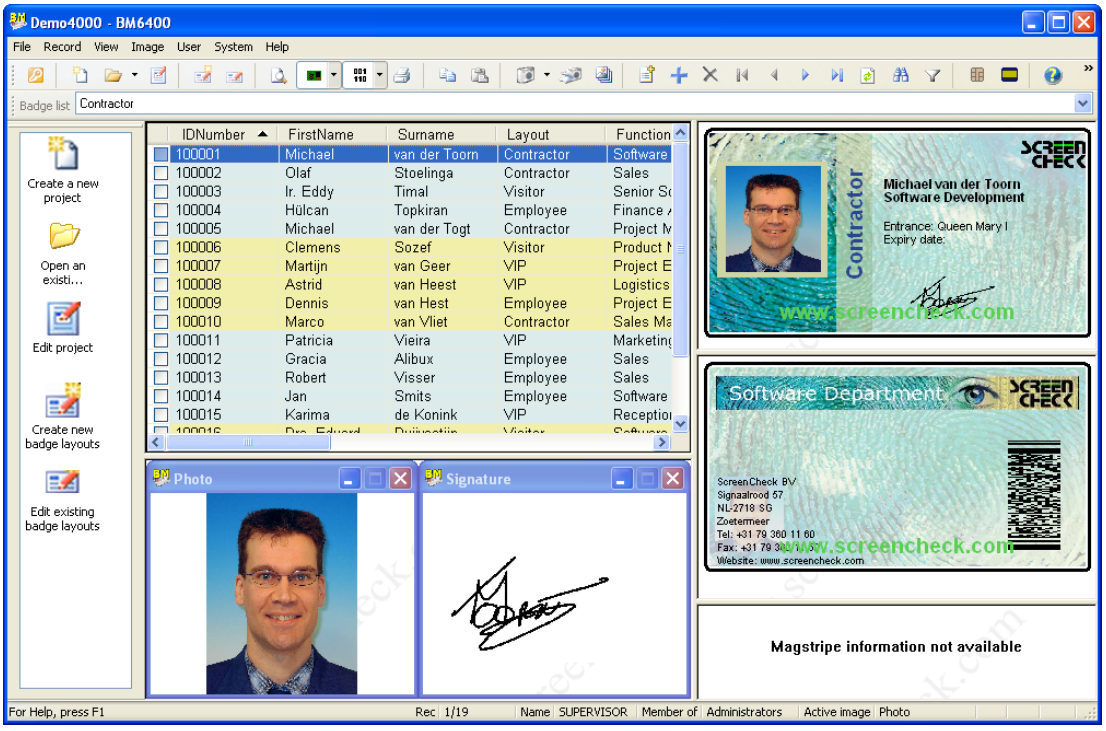
Browse to the **BM4000.BM** project file which will be converted to a later version **.BM* project file. Highlight the **.BM* file and click **Open**.

A confirmation screen is shown. To start conversion select **Yes**, to cancel select **No**.



Convert project

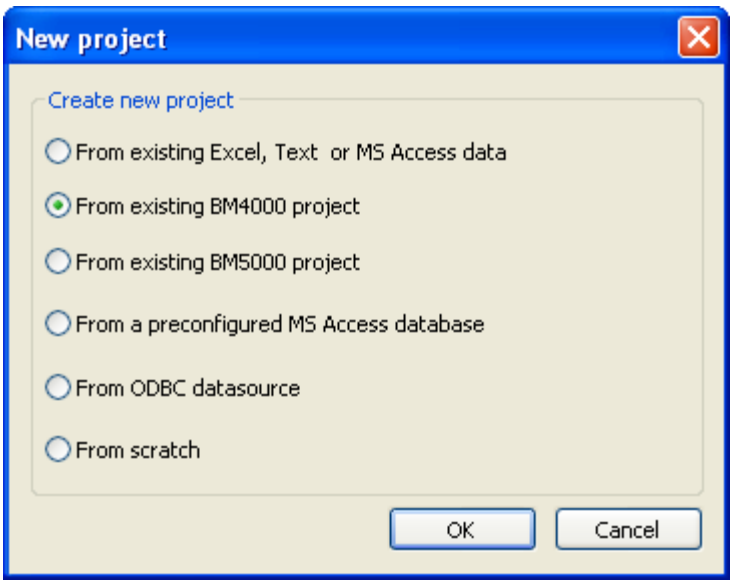
When conversion completes the newly created project will automatically start.



BM Main Screen

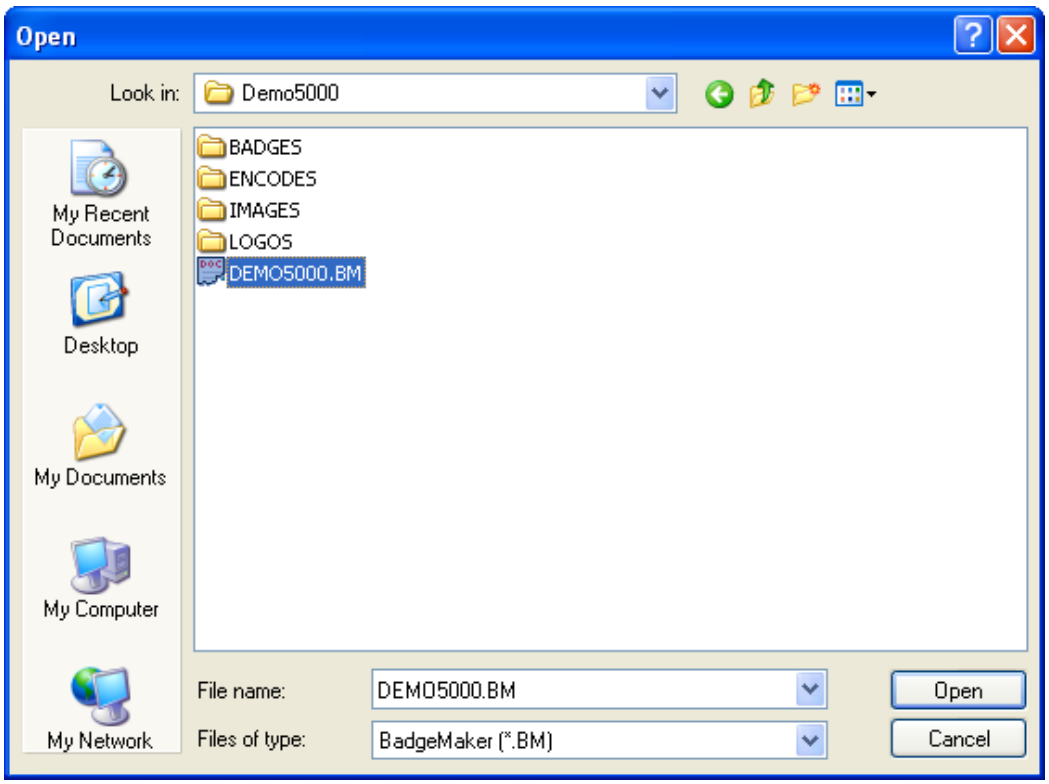
From Existing BM5000 project

Select **File Menu** and then click **New project**.



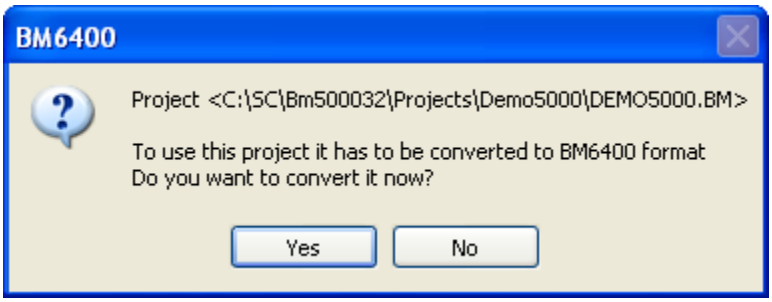
After selecting a new project, select **From existing BM5000 project**.

Click **OK** to progress.

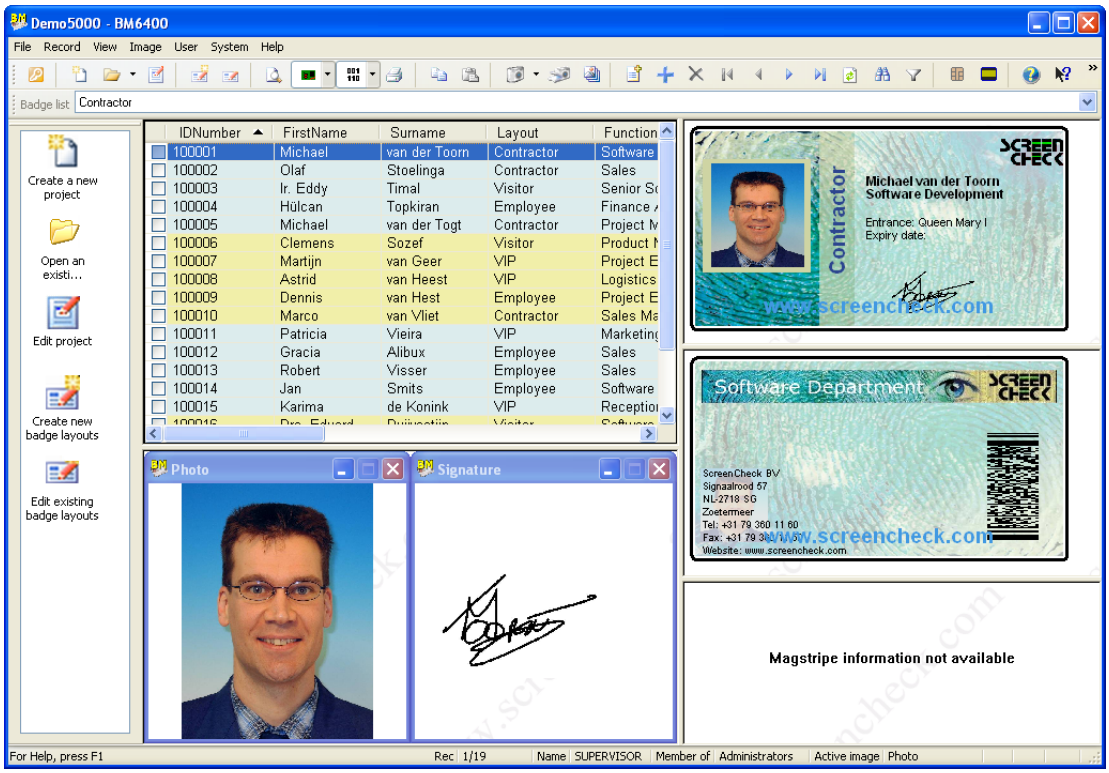


Browse to the **BM5000.BM** project file which will be converted to a later version **.BM* project file. Highlight the **.BM* file and click **Open**.

A confirmation screen is show. To start conversion select **Yes**, to cancel select **No**.



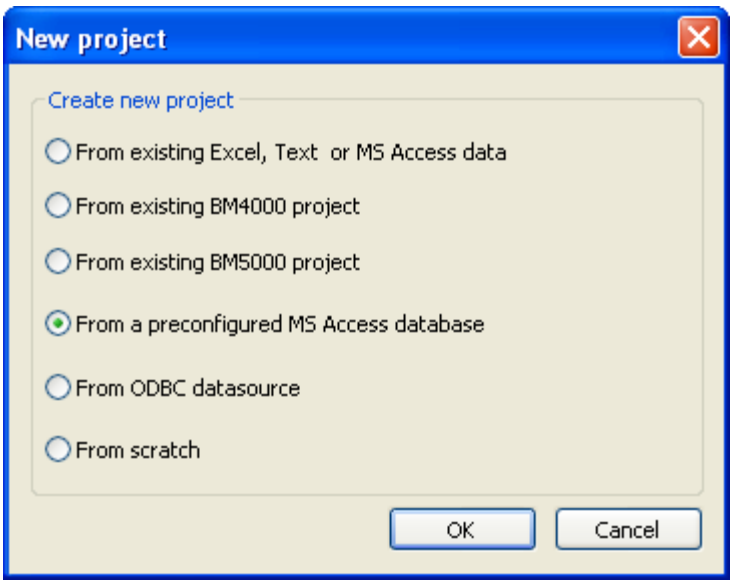
When conversion completes the newly created project will automatically start.



BM Main Screen

From a preconfigured MS Access Database

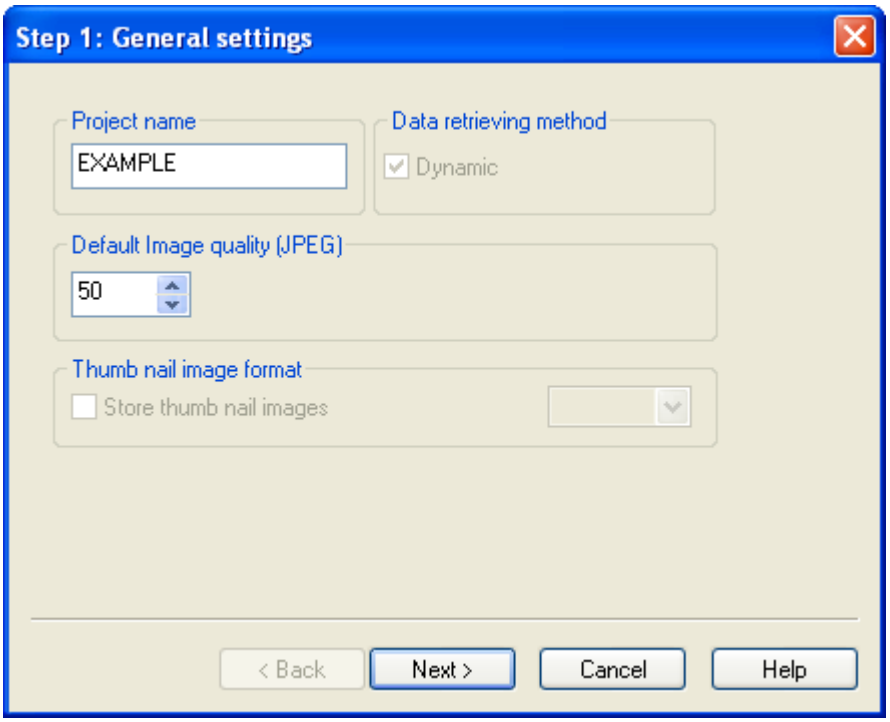
Select **File Menu** and then click **New project**.



After selecting a new project, select **From a preconfigured MS Access database**.

Click **OK** to progress.

[Step 1. General Settings]



Project name: Specify a name for the project. This name will be displayed when the project is opened in BadgeMaker. In this example we have chosen *EXAMPLE*.

Data retrieving method: By default **Dynamic** is enabled. If the ODBC driver of your database does not support Dynasets, you will receive an error message when you try to load the project in BadgeMaker. Disable this option if you receive a message stating Dynasets are not supported.

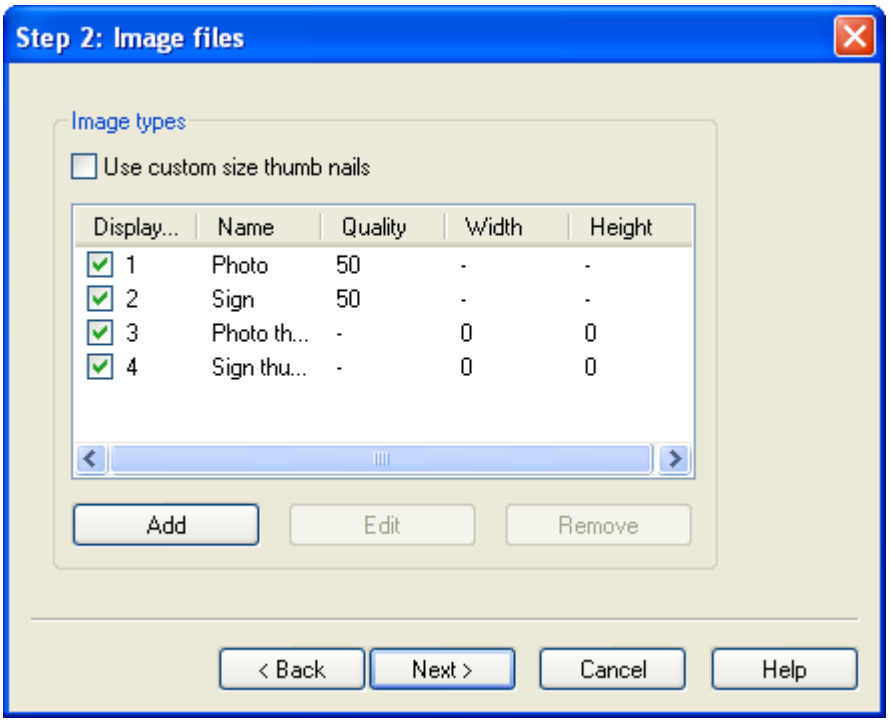
Default Image quality: Images are stored in **.JPEG* format by BadgeMaker. The images are stored as BLOB's (*Binary Large Objects*) in the database. The quality of the stored image can be set by specifying a value in this field. The default value is **50**, this combines a good image quality with a good compression rate (*images will be 20kB-25kB*). Image quality can be improved by specifying a higher value but stored images will increase in size.

Depending on the database used the image size that can be stored as a BLOB will vary. If you increase the value too much, some databases might get a problem storing the images. If this problem occurs, lower the image quality to decrease the image size.

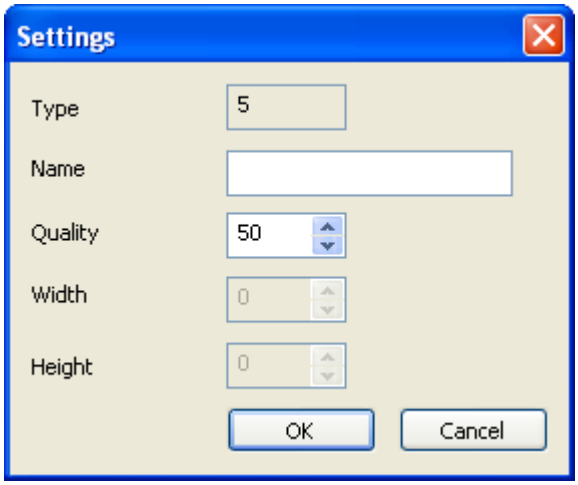
Thumbnail image: Check this box to store a thumb nail image of the photos and signatures (*in addition to the stored *.JPEG images*). The thumbnail image is stored in a **.BMP* format in 256 colors with a reduced resolution.

Click **Next** to progress.

Step 2. Image Files



Apart from using the following image types **Photo** and **Signature**, other image types can be added such as **Fingerprint**. Click **Add** to configure more image types. The following dialog is displayed.



Settings

By default BadgeMaker has four standard image types, (*Photo, Sign, Photo thumbnail and Sign thumbnail*). They cannot be changed or removed, however new image types can be added, edited and removed. The new type will be added to the list.

To remove an image type, select a **Image type** from the list and click **Remove**.

Remember when you remove an image type the images stored under it will also be lost. Image types 1 – 4 cannot be removed.

When a hand scan (Biometrics) is saved, uncheck the box in the column Displayable. The hand scanner will save a template of the characteristics of the hand and not an image of the hand.

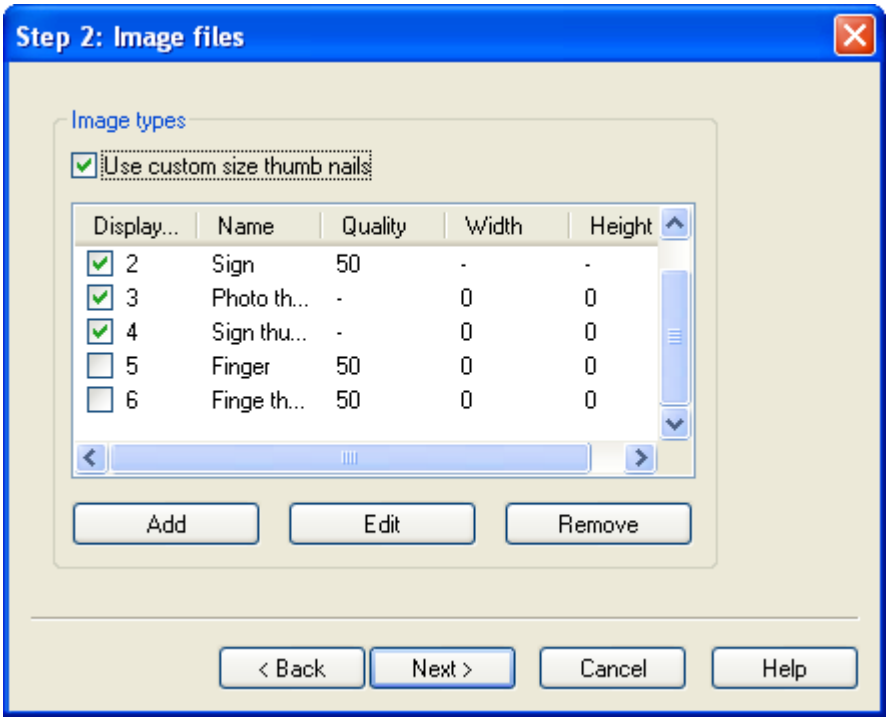


Image Files

Select **Use custom size thumb nails**, it is now possible to edit configured image types by clicking **Edit**.

If you add new image types, the first new image type is type 5, the second will be type 6 and so on.

Settings

Edit the name of an image type and change the quality of the image.

- This feature is only available if pictures are stored as BLOB's
- The thumbnails are always stored in 8 bits/pixel
- The location needed to store an image is calculated as follows: (Width*Height)/1024KB
- Standard aspect ratio for photos is 3:4 and for signature 4:1

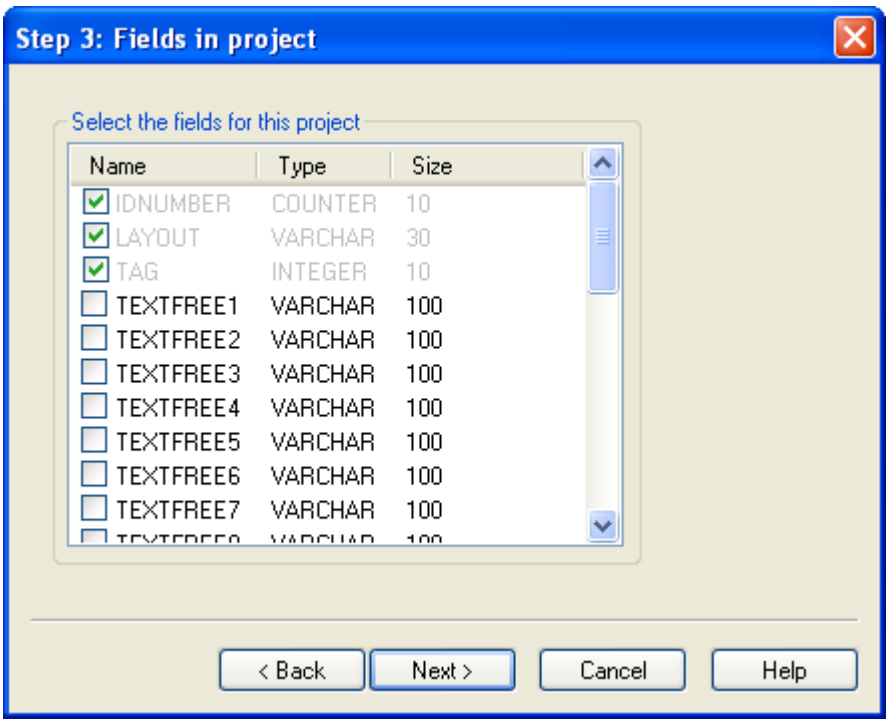
Do not use values greater than 2 times the default values. Using excessive values will degrade the performance of BadgeMaker because of the size of the images.

When a hand scan must be saved, please uncheck the box in the column **Displayable**. The hand scanner will save a template of the characteristics of the hand and not an image of the hand.

Click **OK** when changes have been made to return to the project set up.

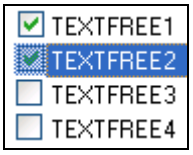
Click **Next** to progress.

Step 3. Fields in Project



Fields in project

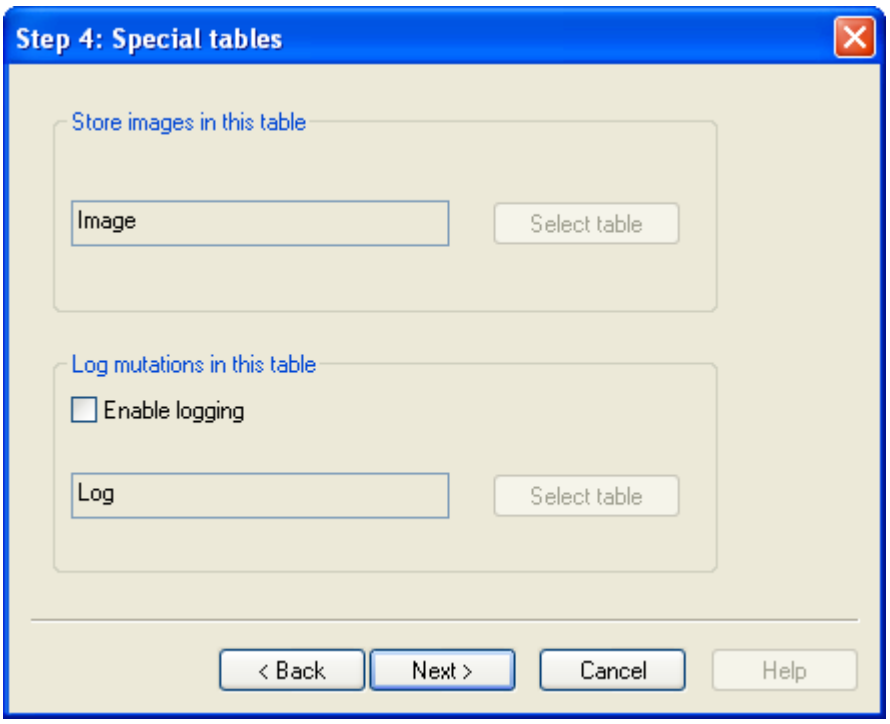
Select the fields to use in the project, the first three fields (*already selected by default*) are fixed and cannot be altered. You may select what fields to include from a choice of **14 Text fields**, **6 Numbered fields** and **6 Date fields**.



Text field

Click **Next** to continue.

Step 4. Special Tables



Special tables

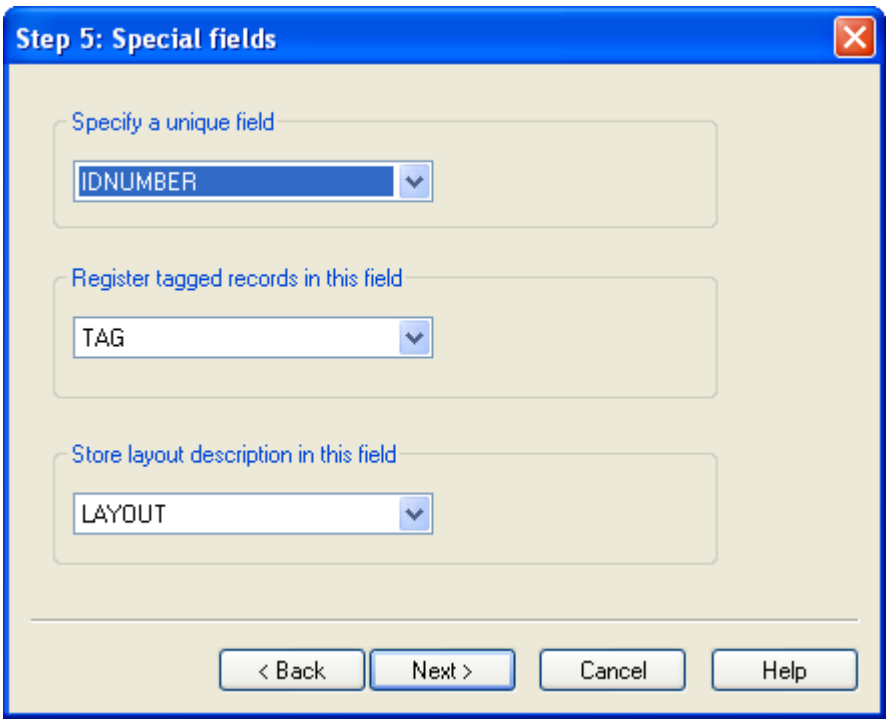
Select a image table and select a logging table (if required).

Store images in this table: Select here the table that will be used to store images. This table must have a fixed structure. (*By default Image is already selected and cannot be changed*).

Log mutations in this table: Keep track of the mutations made in BadgeMaker by creating a logging table. Select here the table to log mutations in. (*By default Log is already selected and cannot be changed*).

Click **Next** to proceed.

Step 5. Special Fields



Special fields

Specify a unique field: Select a Unique Field from the database. When an image is stored, BadgeMaker will copy this value into the field ID of the Image Table.

Register tagged records in this field: To use the option Tag Records. A field has to be selected to register the tagged records. An unused numeric field in the database can be used for this purpose. If this is not available a field must be added to the database.

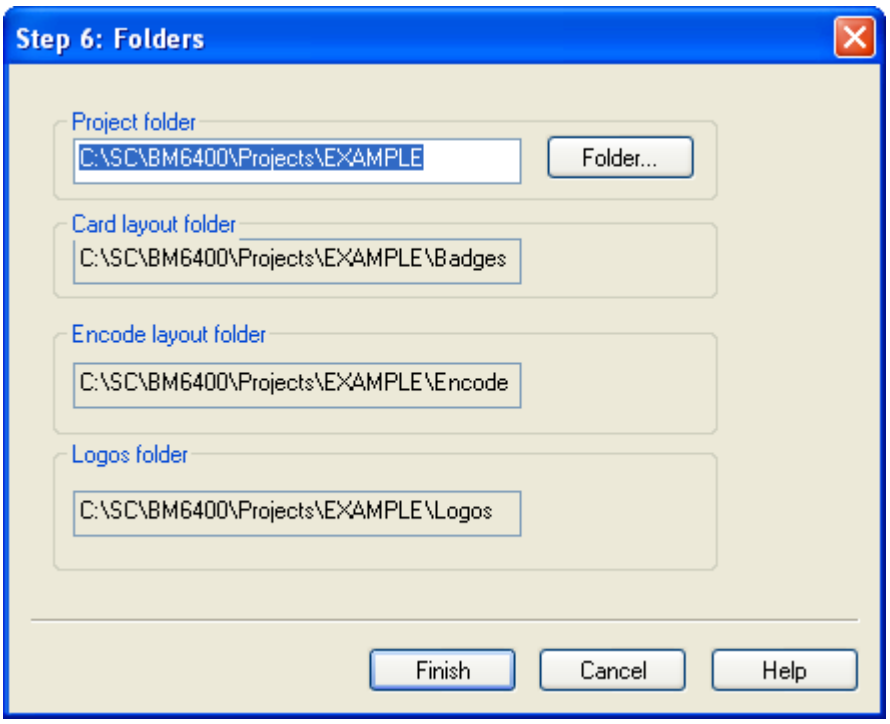
This field is not mandatory, but if it is not defined the option to tag records cannot be used.

Store layout description in this field: If the Automatic layout feature is used a field must be selected where the layout description can be read. The layout descriptions displayed in BadgeMaker's main screen should match the values filled in the field. If this feature will not be used, no field should be selected.

Every department has its own layout. For the field department a 'pick list' is created. All the department descriptions are filled in this list. The same descriptions must be used for the Badge layouts for the different departments in Badge Creator. If the automatic layout option is activated, the badges for every department will be printed automatically with its own layout.

Click **Next** to proceed.

Step 6. Folders



Folder location

Project folder: Location of the *.BM project file.

Card layout folder: Location of badge layouts files.

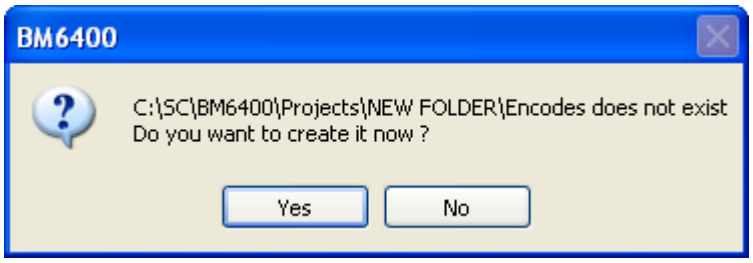
Encode layout folder: Location of encode files for magstripe and chip encoding.

Logos folder: Advised location for logos used in badge layouts.

Folder locations can be changed to another location of the operators choice. Click **Folder**, the following dialog is displayed.

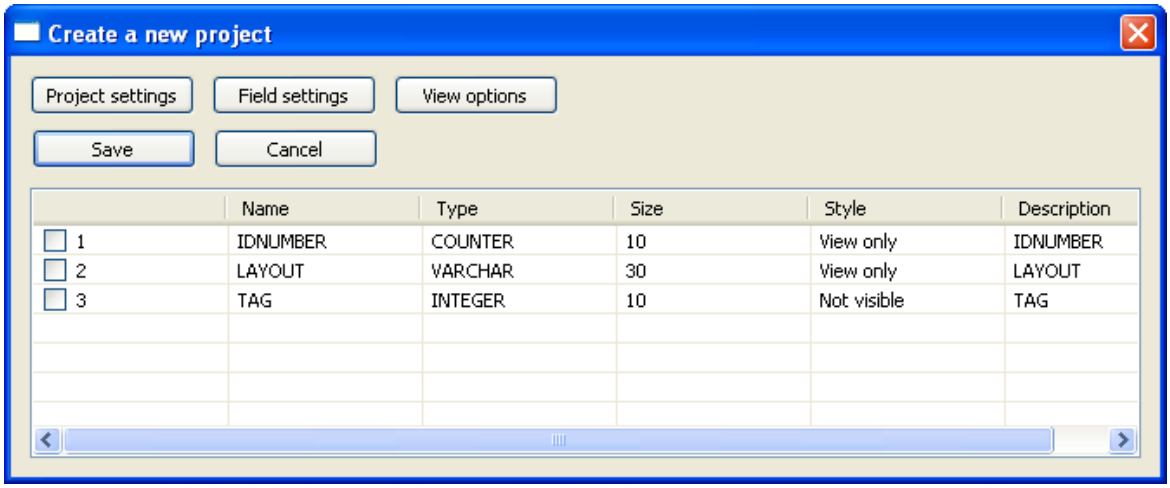
Select a different location or create a new location if necessary. Selection of the desired folder can be done in the same way as in Windows Explorer. Click **OK** to close.

For each folder the remark pops up that the folder does not exists.



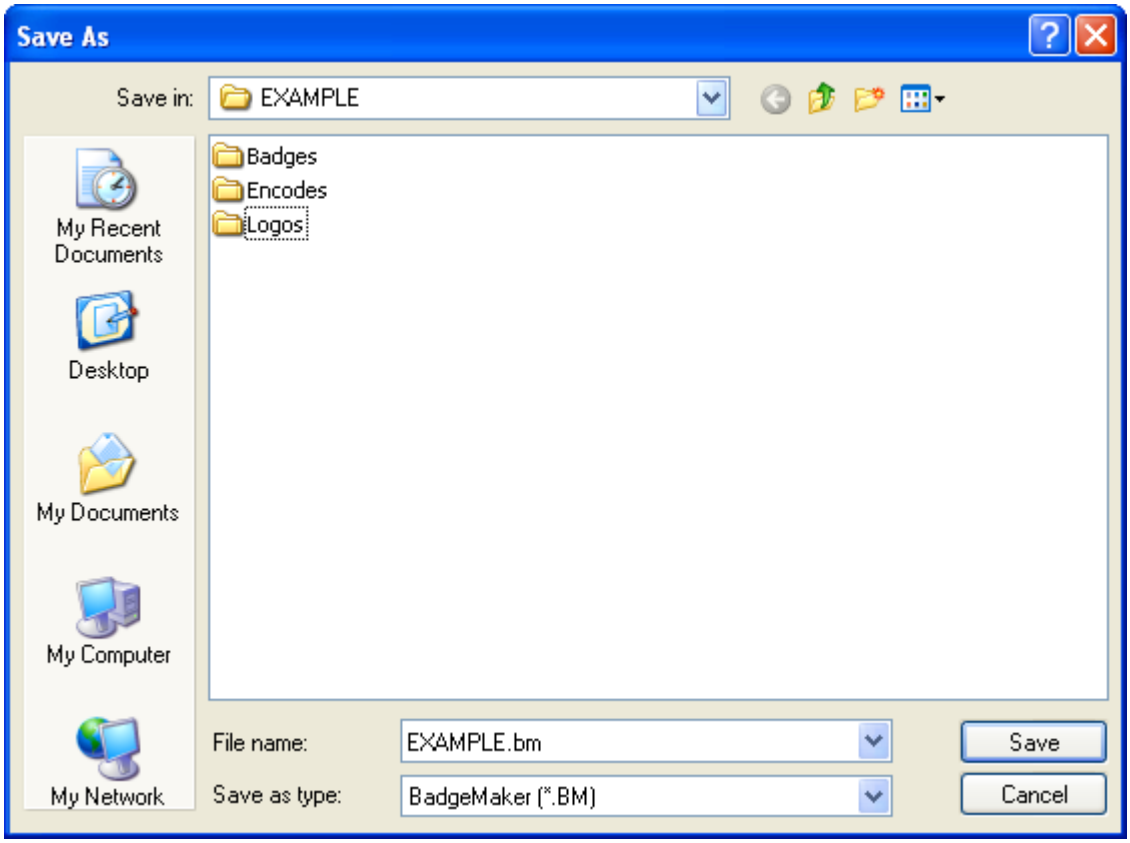
Click **Yes** to create it now. (*Repeat confirmation for the others which prompts the operator to confirm automatically*)

Click **Finish**, to close the dialog and proceed to save your settings.

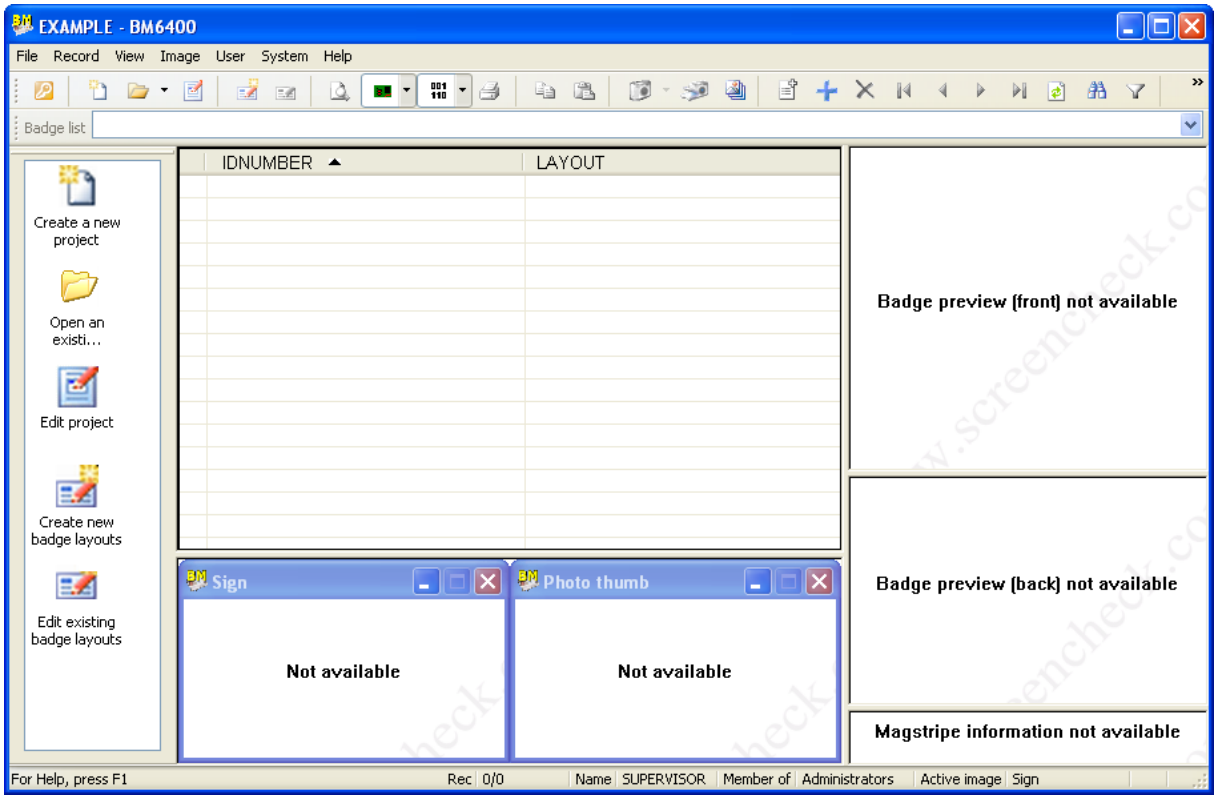


Save new project

Click **Save** to store the newly created database and specify a name for it.



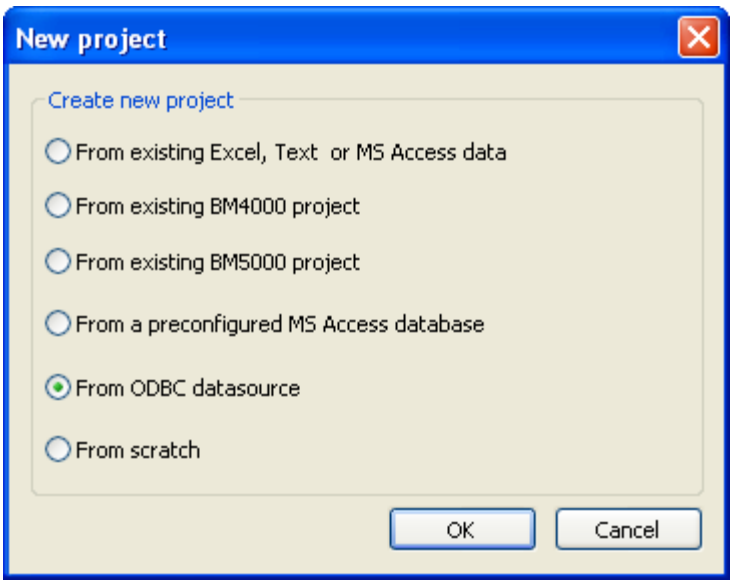
After the **.BM* project is saved. The newly created project is started. The database is initially empty and can now be filled with data.



BM Main Screen

From ODBC Datasource

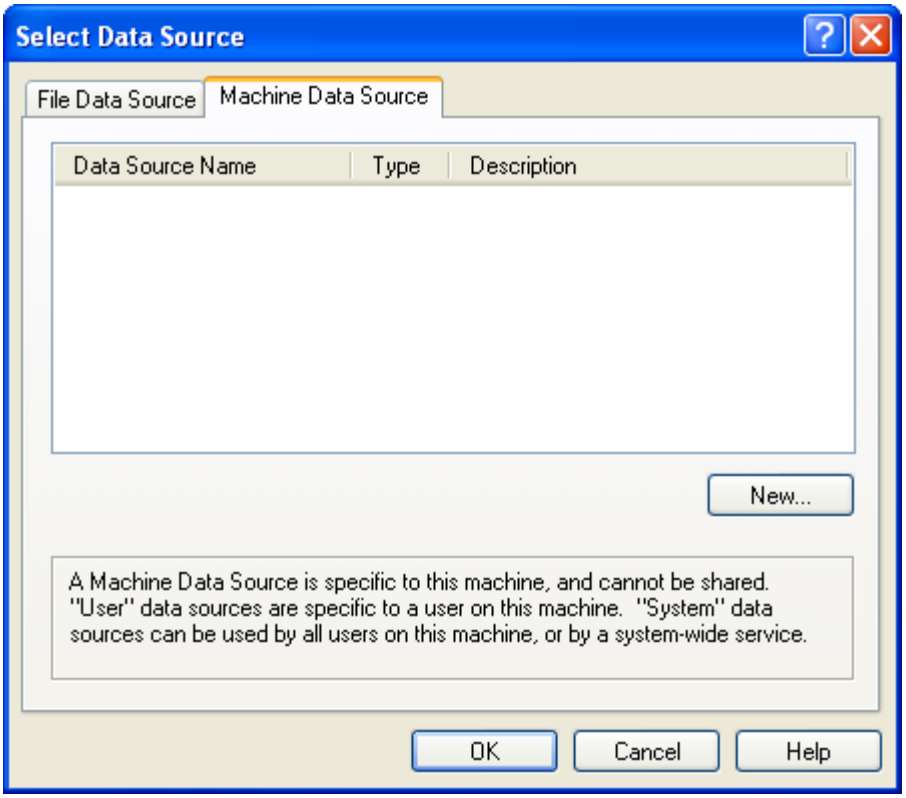
Select **File Menu** and then click **New project**.



After selecting a new project, select **From ODBC datasource**.

Click **OK** to progress.

The Select Data Source dialog will show.

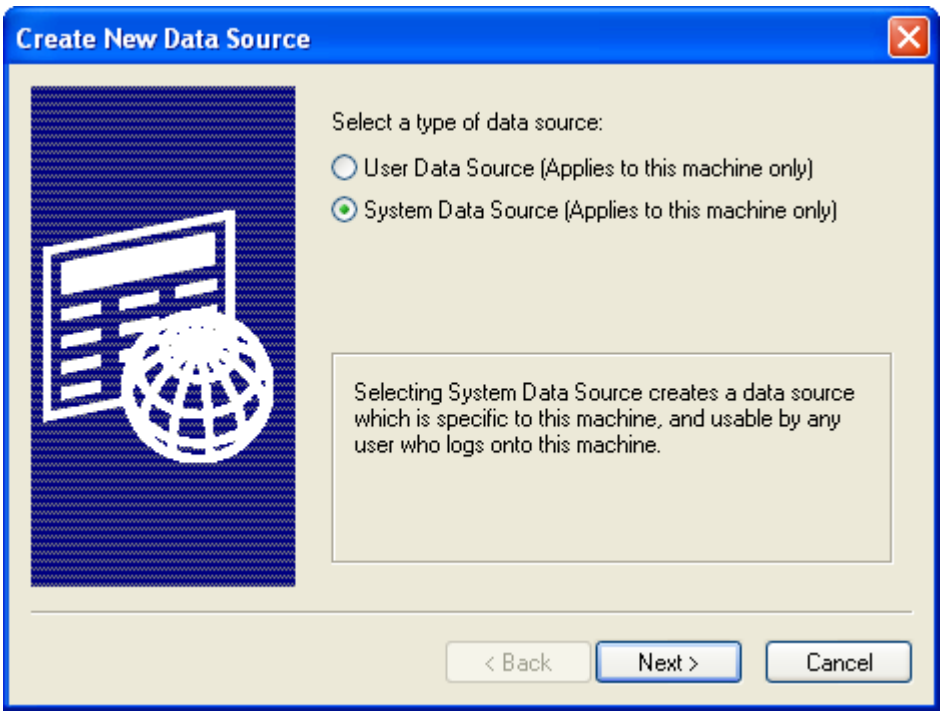


Select Data dialog

Click the **Machine Data Source** tab and then click **New...**

The **Create New Data Source** dialog will show.

Select a type of data source.



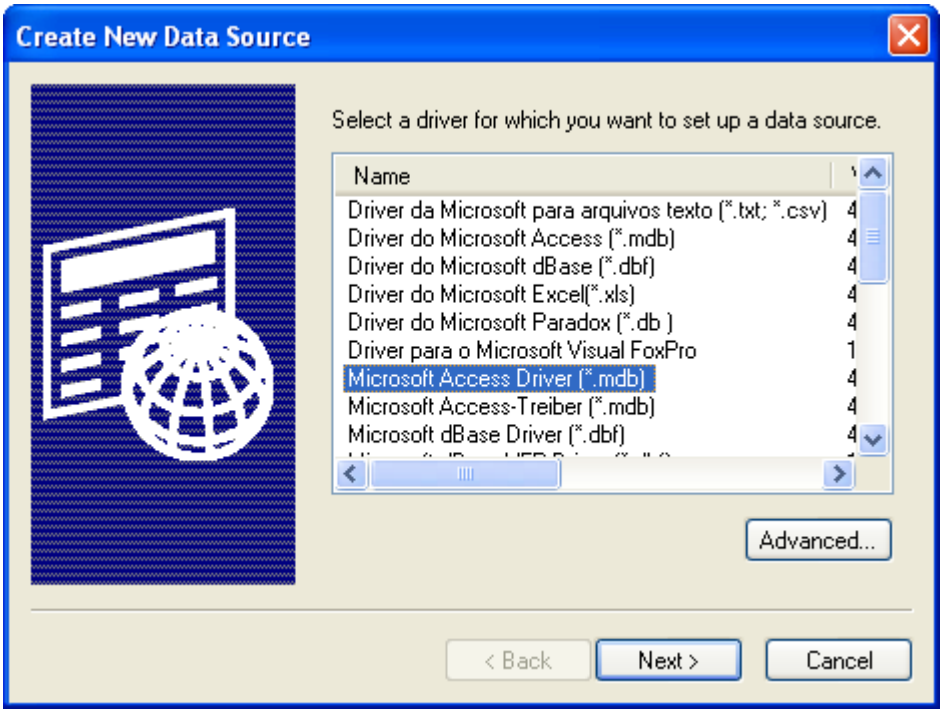
Create New Data Source dialog

User Data Source: Selecting User Data Source creates a data source which is specific to this machine, and visible only to the user.

System Data Source: Selecting System Data Source creates a data source which is specific to the machine, and usable by any user who logs onto the machine.

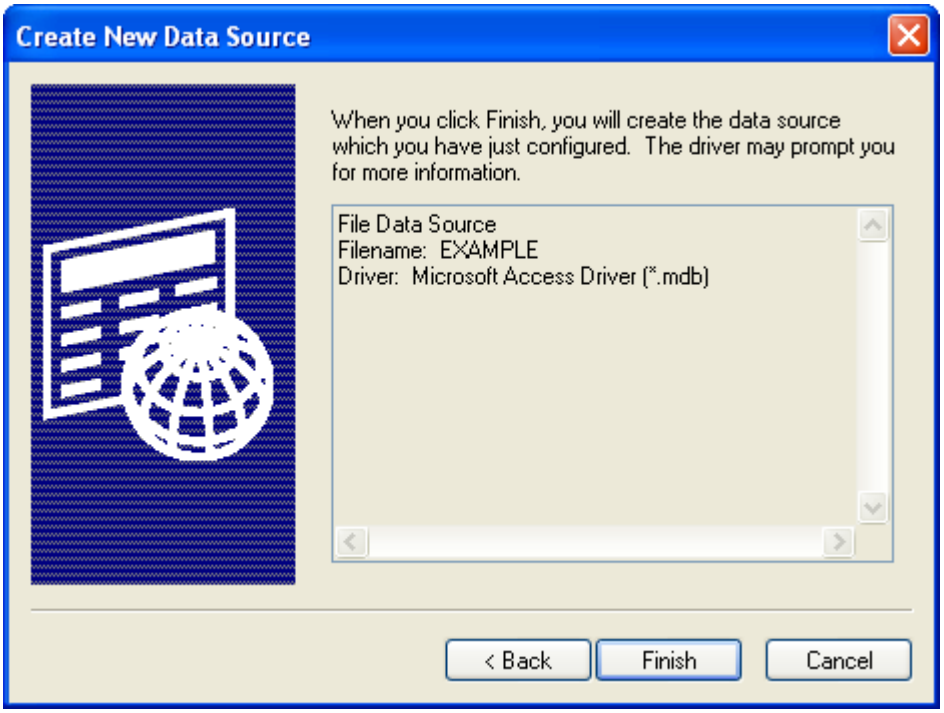
We recommend selecting **System Data Source**.

Click **Next** to progress.



Create New Data Source dialog

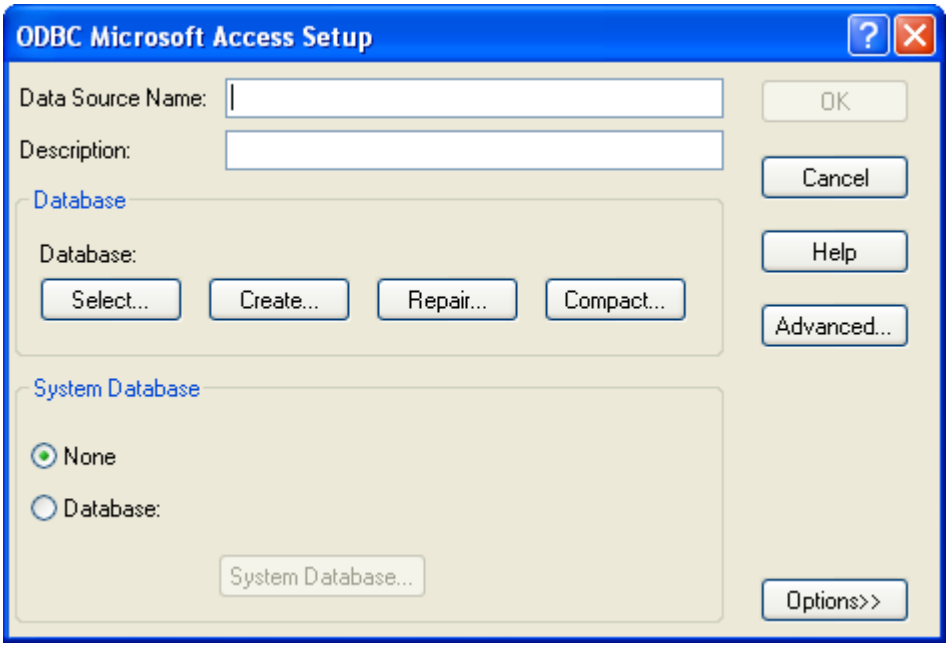
Depending on the type of database being used (*MS Access, Oracle or SQL*) select a driver to set up a data source. Once you have made a choice click **Next** to progress.



A summary is presented, confirm details are correct and then click **Finish**.

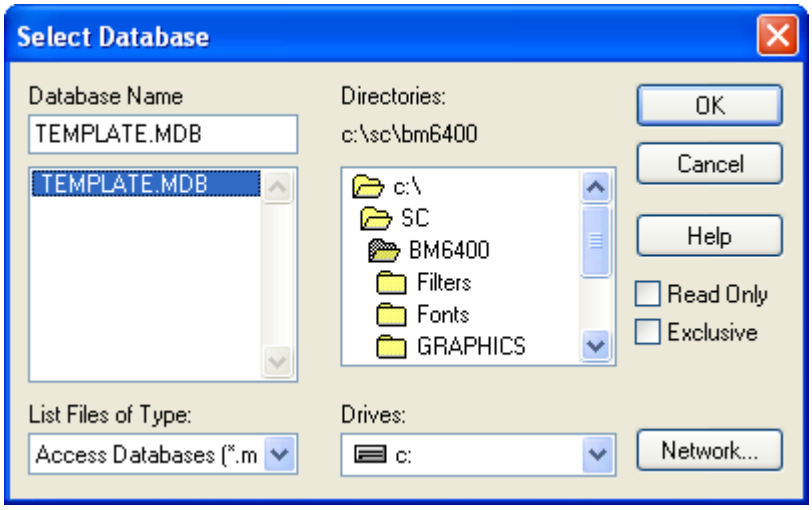
The **ODBC Microsoft Access Setup** dialog box is presented.
Enter **a Data Source Name** to identify the **Access database**, then enter a description if you choose to.

The Description field is blank by default and can contain your descriptive qualifiers.



ODBC Microsoft Access Setup

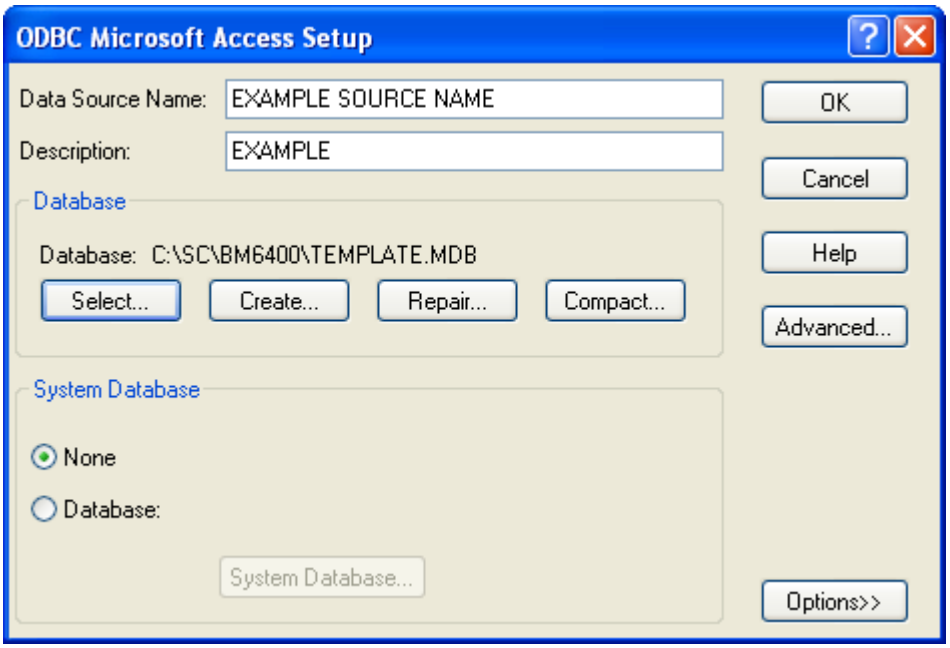
Select a shared database, click **Select** to open an existing database. The following dialog is displayed.



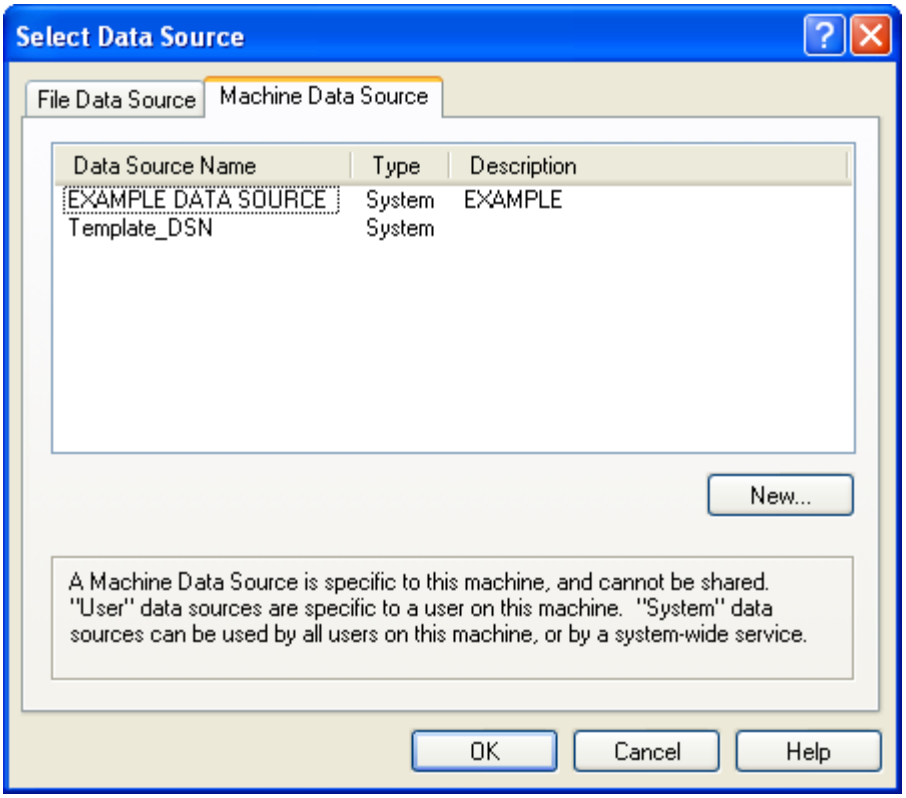
Select Database

Navigate and select the database and then click **OK**.

For this example TEMPLATE.MDB has been chosen.



Click **OK** to return to the **Select Data Source** dialog.



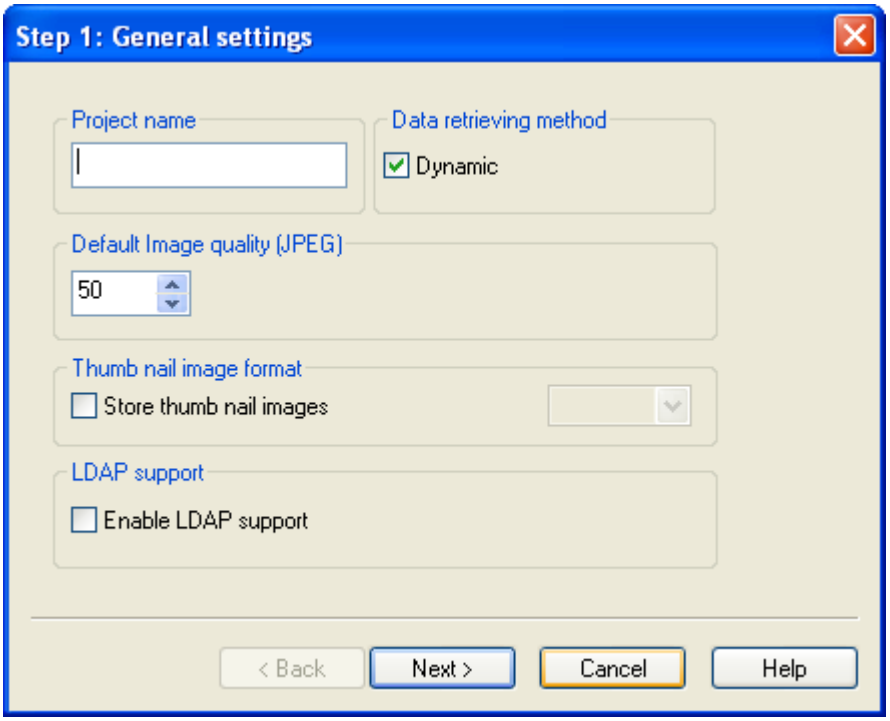
Click **OK** to proceed.

Fields from the database are shown in the Tables dialog, confirm they exist are listed correctly.

Tables

Click **OK** to proceed.

Step 1, General Settings



General settings

Project name: Specify a name for the project. This name will be displayed when the project is opened in BadgeMaker. In this example we have chosen EXAMPLE.

Data retrieving method: By default **Dynamic** is enabled. If the ODBC driver of your database does not support **Dynasets**, you will receive an error message when you try to load the project in BadgeMaker.

Default Image quality: Images are stored in *.JPEG format by BadgeMaker. The images are stored as BLOB's (*Binary Large Objects*) in the database. The quality of the stored image can be set by specifying a value in this field. The default value is **50**, this combines a good image quality with a good compression rate (*images will be 20kB-25kB*). Image quality can be improved by specifying a higher value but stored images will increase in size.

Depending on the database used the image size that can be stored as a BLOB will vary. If you increase the value too much, some databases might get a problem storing the images. If this problem occurs, lower the image quality to decrease the image size.

Thumbnail image: Check this box to store a thumb nail image of the photos and signatures (*in addition to the stored *.JPEG images*). The thumbnail image is stored in a *.BMP format in 256 colors with a reduced resolution.

LDAP (Lightweight Directory Access Protocol) support: The ODBC driver for LDAP databases is not compliant with the ODBC drivers for other databases. Therefore BadgeMaker has to handle this driver differently than the others. Check this option if you connect to an LDAP database. In all other cases leave this option unchecked.

Step 2, Image Files

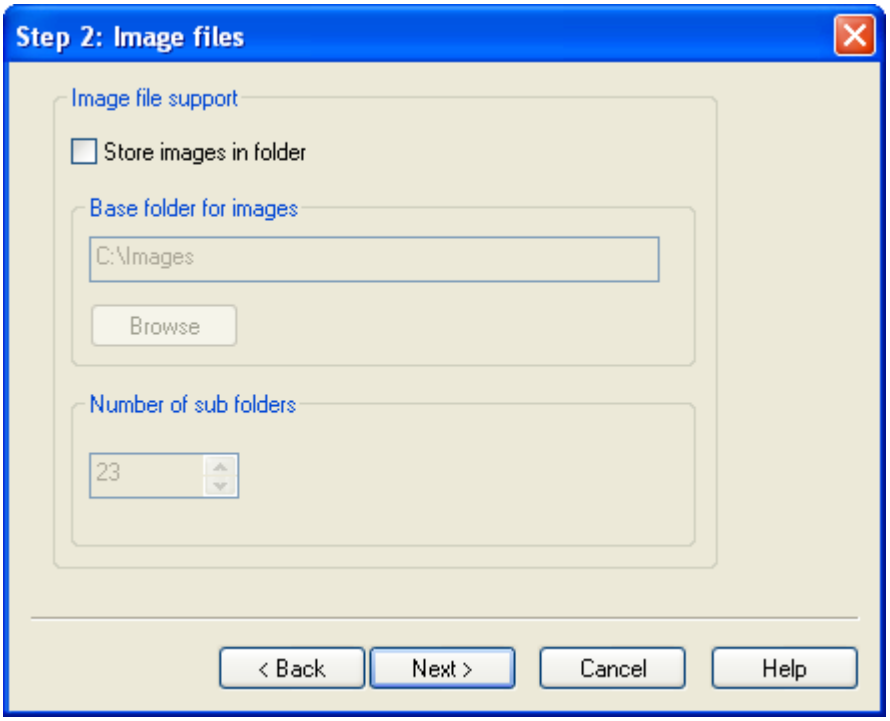


Image files

BadgeMaker stores images in an image table usually, but it can also read image files from another location on the hard disk or from a CD Rom. **Check Store images in folder** option if you have ready-made image files.

The name of these image files must correspond with the value in the field specified in **Step 5** under **Specify Unique Field**. This will depend on how the two tables in the database are linked together (*Data Table and Picture Table*).

Select the **Base folder** for images and specify a folder destination. Different image types must be stored in the folder according to their image type number for example **Photo = 1**, **Signs = 2** and so on.

Step 3, Image Types

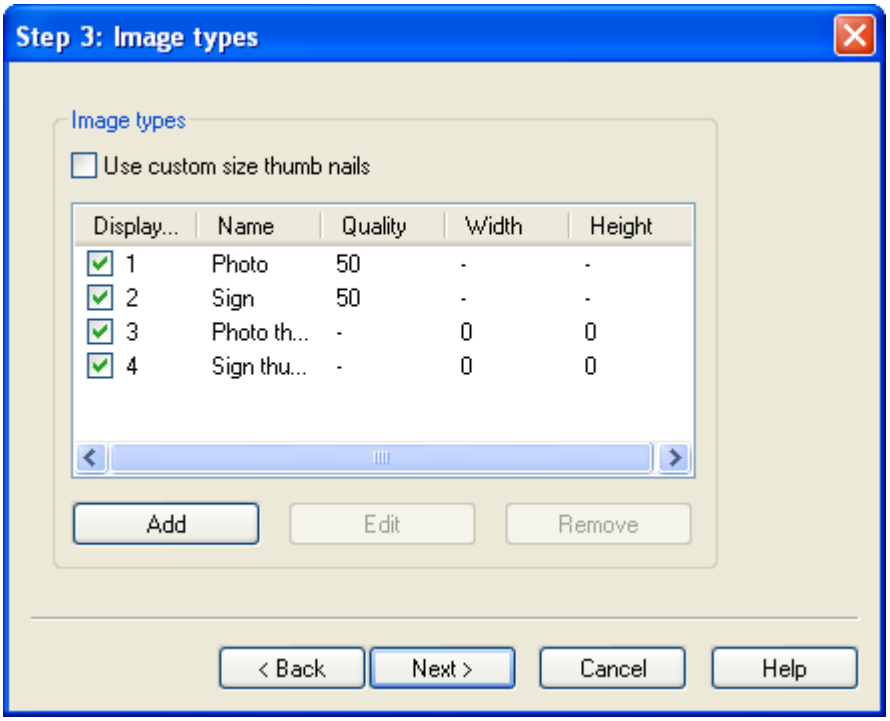
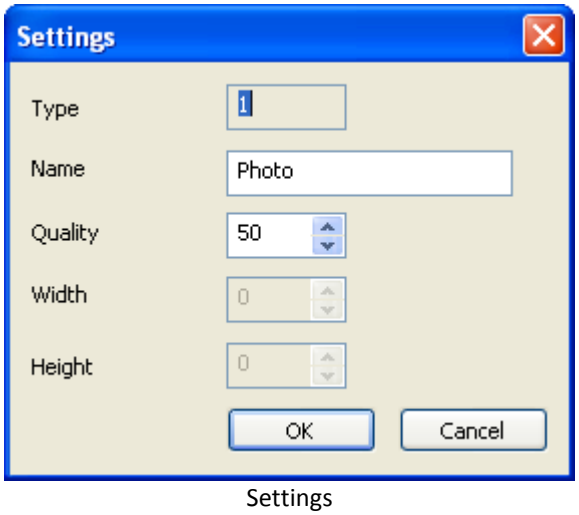


Image types

Apart from using the following image types **Photo** and **Signature**, other image types can be added such as **Fingerprint**. Click Add to configure more image types. The following dialog is displayed.

If you add new image types, the first new image type is type 5, the second will be type 6 and so on.



Settings

Edit the name of an image type and change the quality of the image.

- This feature is only available if pictures are stored as BLOB's
- The thumbnails are always stored in 8 bits/pixel.
- The location needed to store an image is calculated as follows: (Width*Height)/1024KB
- Standard aspect ratio for photos is 3:4 and for signature 4:1

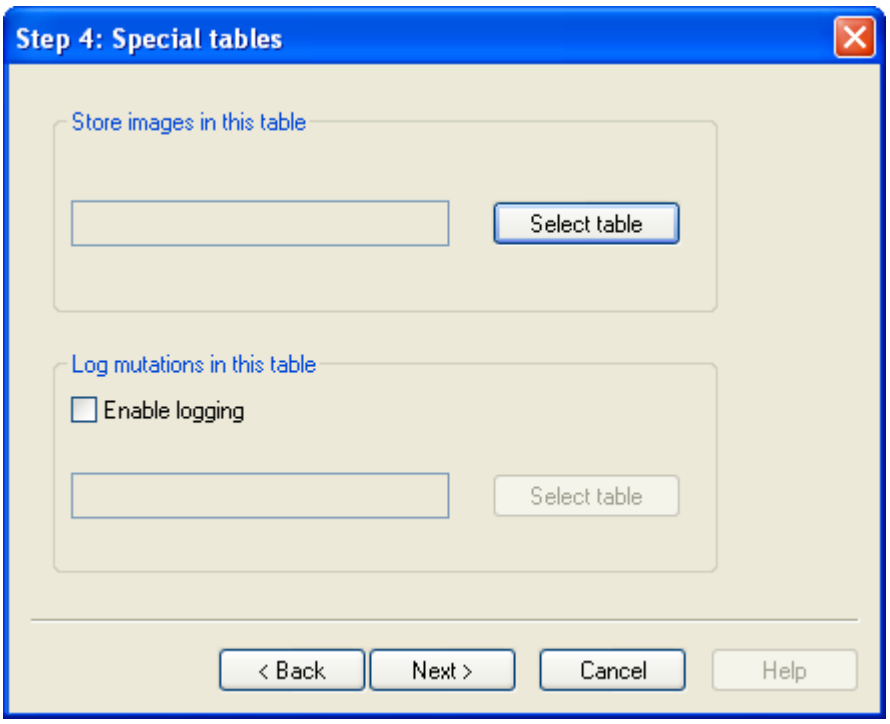
Do not use values greater than 2 times the default values. Using excessive values will degrade the performance of BadgeMaker because of the size of the images.

When a hand scan must be saved, please uncheck the box in the column **Displayable**. The hand scanner will save a template of the characteristics of the hand and not an image of the hand.

Click **OK** when changes have been made to return to the project set up.

Click **Nex**t to progress.

Step 4, Special Tables



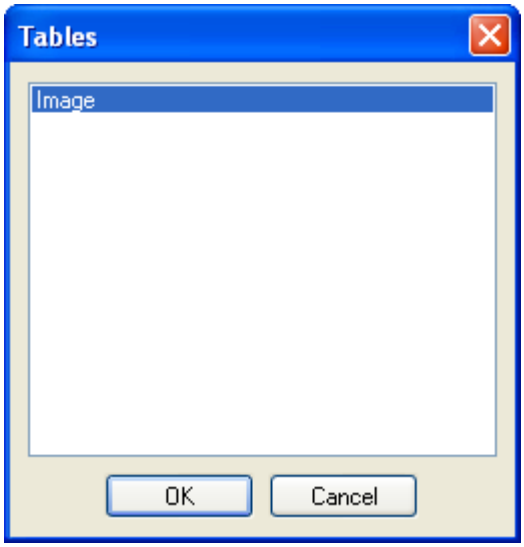
Special tables

Select a image table and select a logging table (if required).

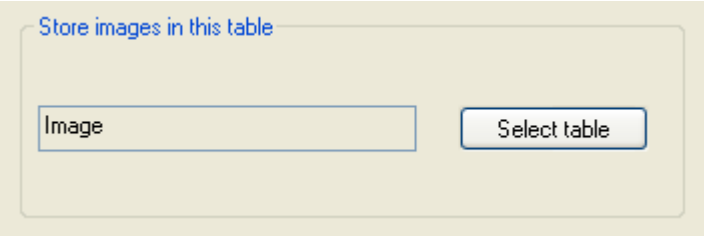
Store images in this table: Select here the table that will be used to store images. This table must have a fixed structure.

Log mutations in this table: Keep track of the mutations made in BadgeMaker by creating a logging table. Select here the table to log mutations in.

Click **Select Table**, a choice of tables are displayed.

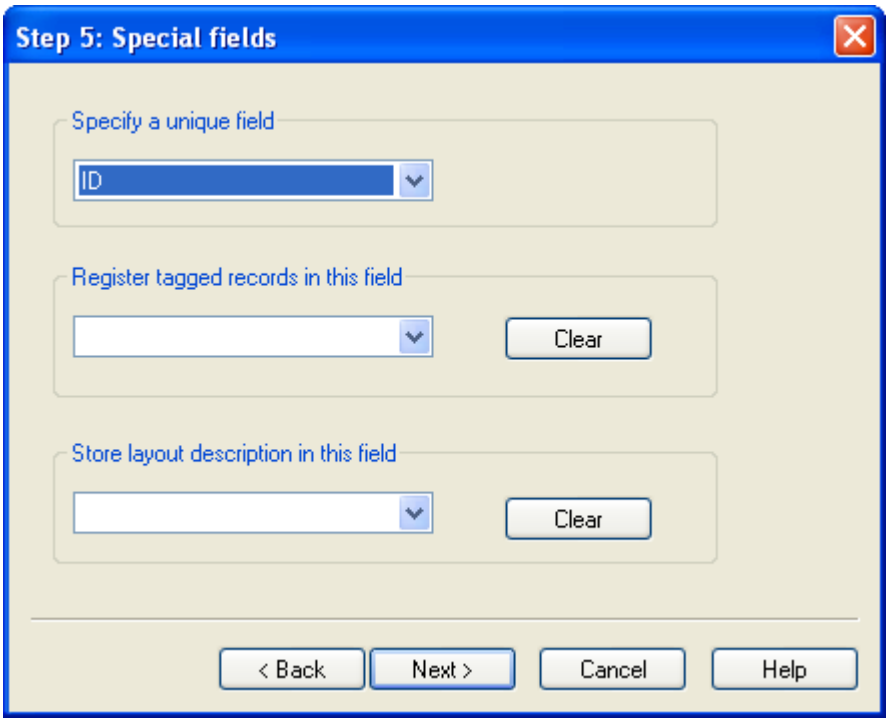


Select a table and click **OK**.



Select **Next** to progress to the next screen.

Step 5, Special Fields



Special fields

Specify a unique field: Select a **Unique Field** from the database. When an image is stored, BadgeMaker will copy this value into the field ID of the **Image Table**.

Register tagged records in this field: To use the option **Tag Records**. A field has to be selected to register the tagged records. An unused numeric field in the database can be used for this purpose. If this is not available a field must be added to the database.

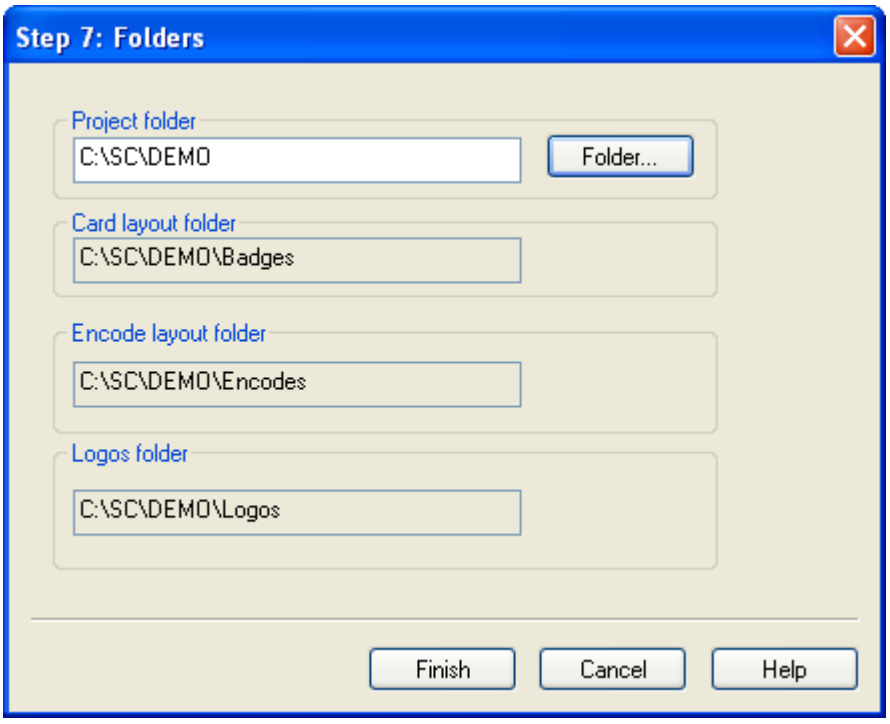
This field is not mandatory, but if it is not defined the option to tag records cannot be used.

Store layout description in this field: If the **Automatic layout** feature is used a field must be selected where the layout description can be read. The layout descriptions displayed in BadgeMaker's main screen should match the values filled in the field. If this feature will not be used, no field should be selected. This field is not mandatory.

Every department has its own layout. For the field department a **pick list** is created. All the department descriptions are filled in this list. The same descriptions must be used for the Badge layouts for the different departments in Badge Creator. If the automatic layout option is activated, the badges for every department will be printed automatically with its own layout.

Click **Next** to proceed.

Step 7, Folders



Folders

Project folder: Location of the *.BM project file.

Card layout folder: Location of badge layouts files.

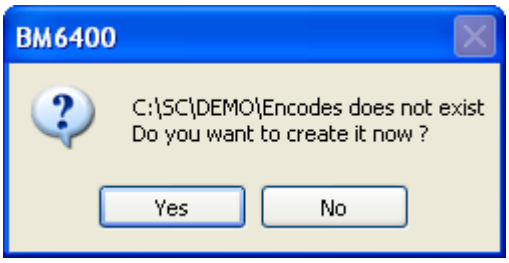
Encode layout folder: Location of encode files for magstripe and chip encoding.

Logos folder: Advised location for logos used in badge layouts.

Folder locations can be changed to another location of the operators choice. Click **Folder**, the following dialog is displayed.

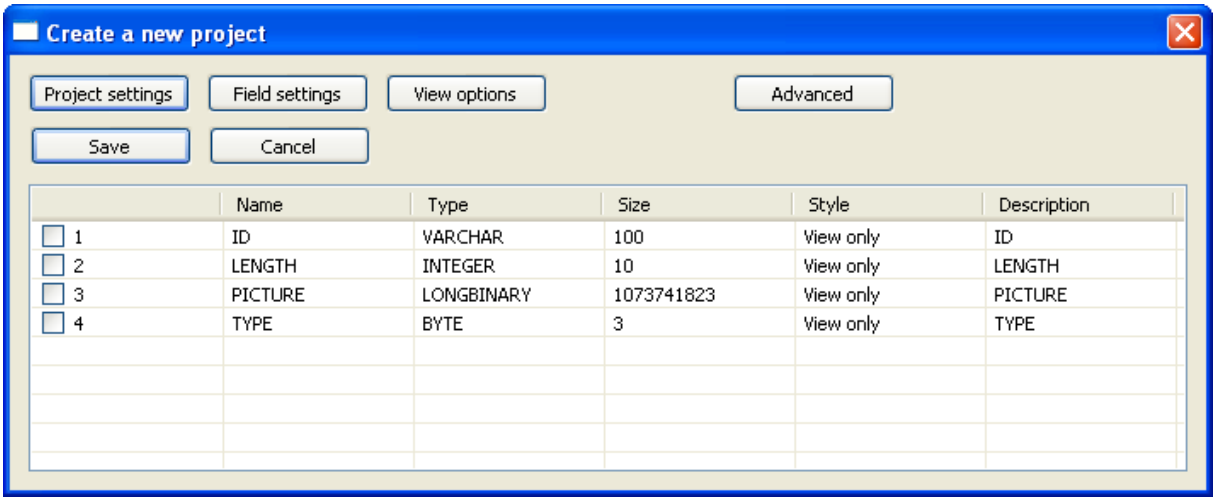
Select a different location or create a new location if necessary. Selection of the desired folder can be done in the same way as in Windows Explorer Click **OK** to close.

For each folder the remark pops up that the folder does not exists.



Click Yes to create it now. (*Repeat confirmation for the others which prompts the operator to confirm automatically*).

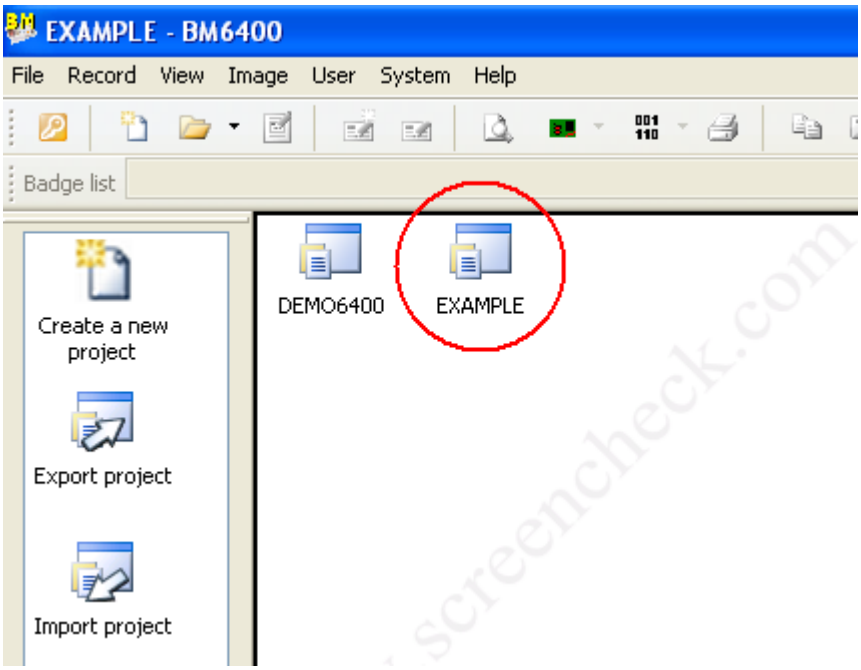
Click **Finish**, to close the dialog and save your settings.



Save new project

Click **Save** to store the newly created database and specify a name for it.

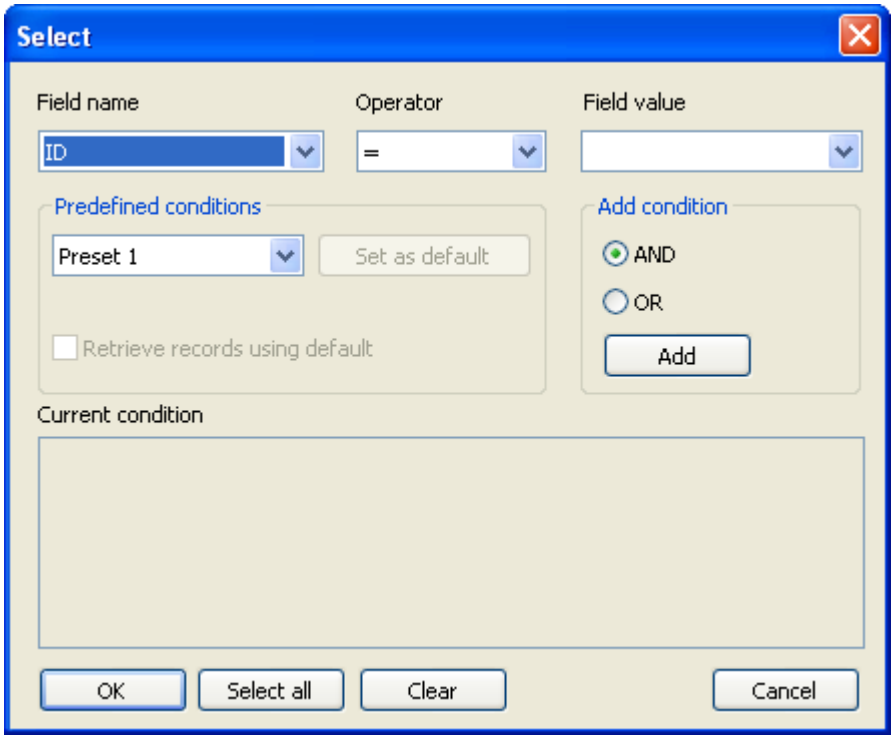
You are returned to the opening screen.



BM Start-up screen

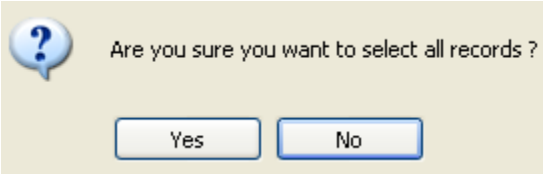
Select the new project just created by double clicking on the project icon or by selecting **File Menu** and then click **Open project**.

The Select dialog will appear.

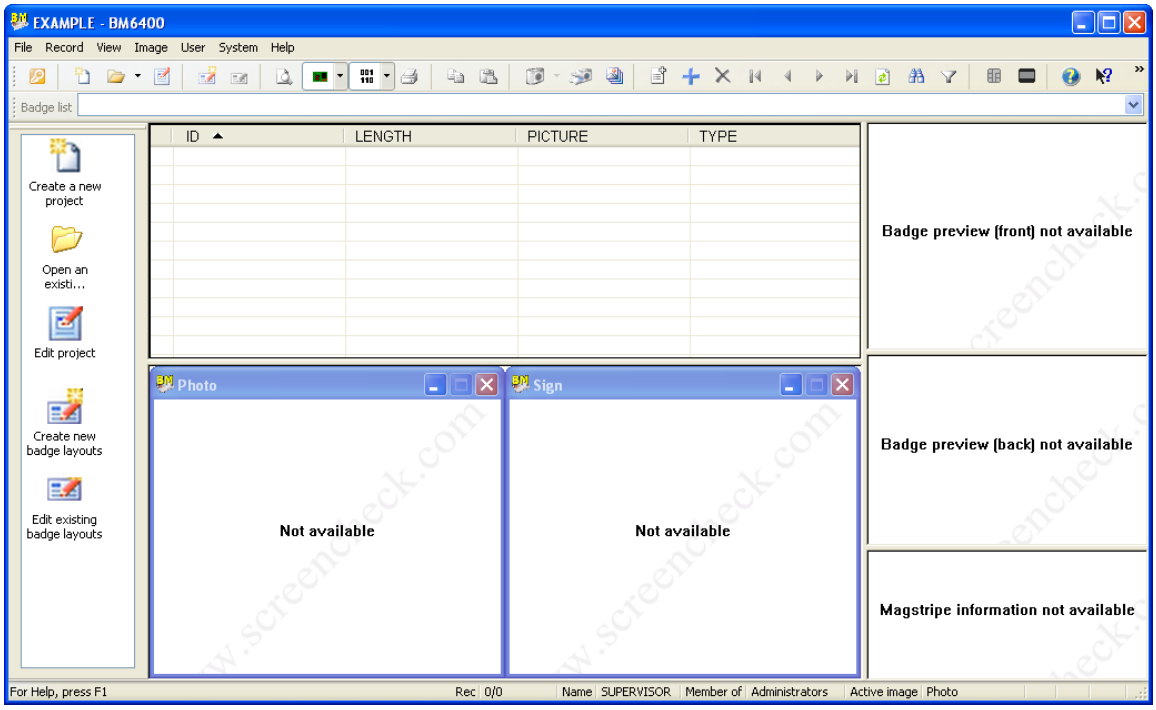


Select (*Records*) dialog

As this is a new project click **OK**.



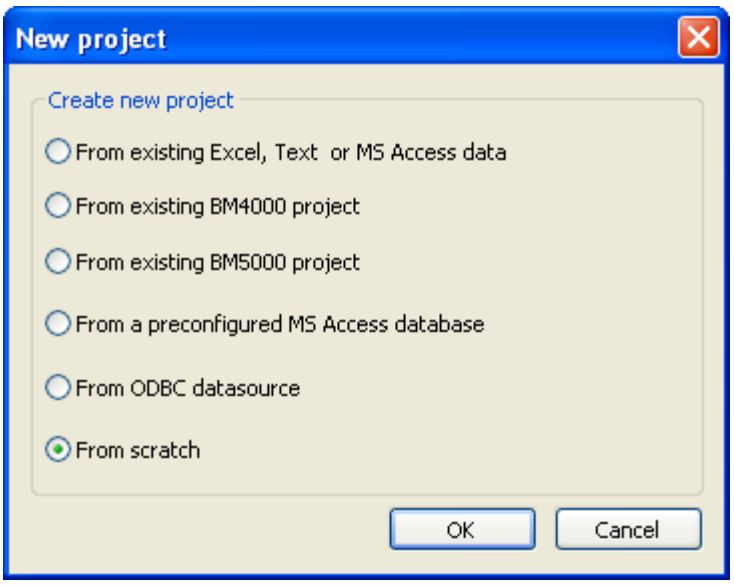
Select **Yes**, the project database will now be opened. The database is initially empty and can now be filled with data.



BM Main screen

From Scratch

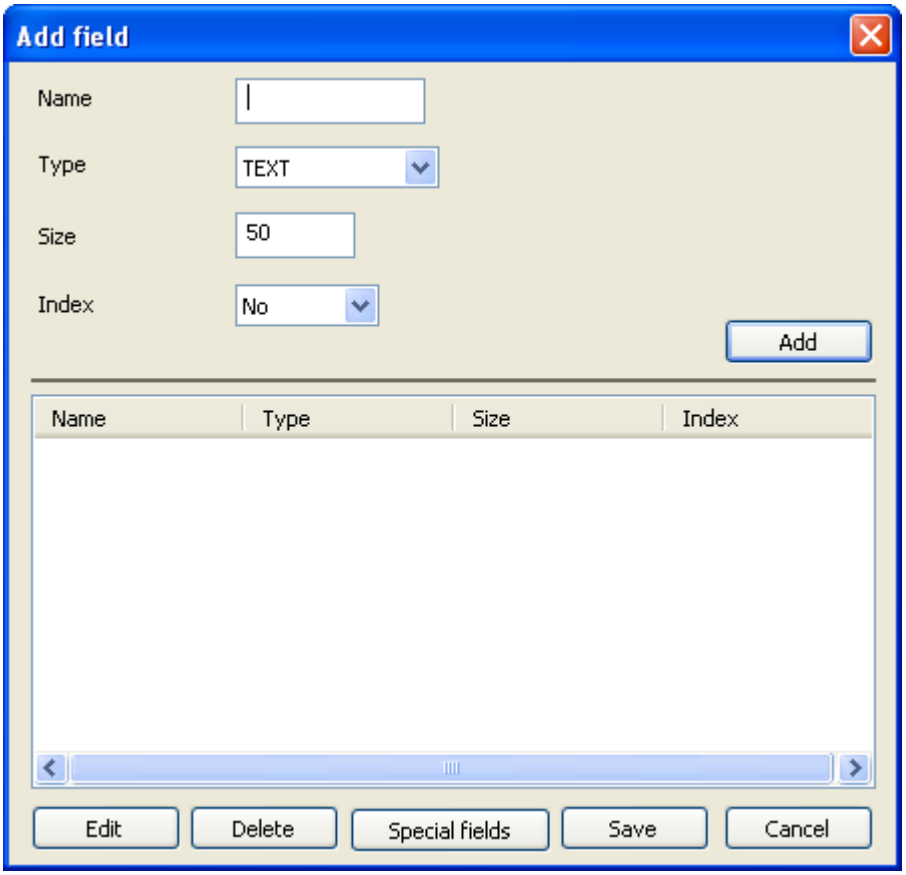
Select **File Menu** and then click **New project**.



After selecting a new project, select **From scratch**.

Click **OK** to progress.

The **Add Field** dialog is presented allowing you to construct a database from scratch.

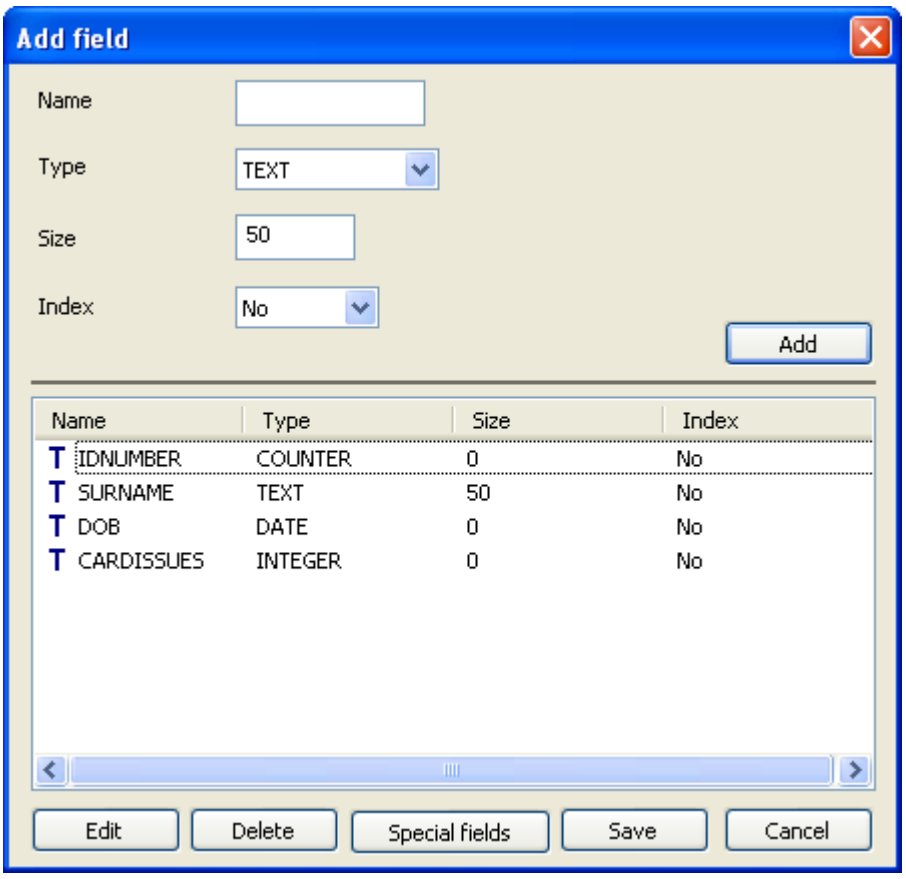


Add field

Name: Enter the name of the field you want to create. No spaces are allowed.

Type: Choose from the drop down list type of field required; **Text**, **Date**, **Integer**, **Counter**, **Logical**, or **Numeric**.

Example



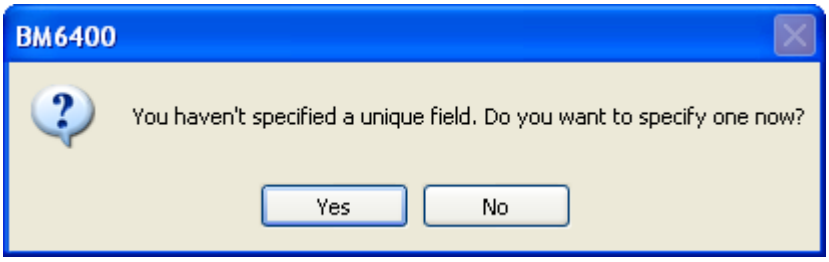
Add field

In our example we have added four fields to a new database.

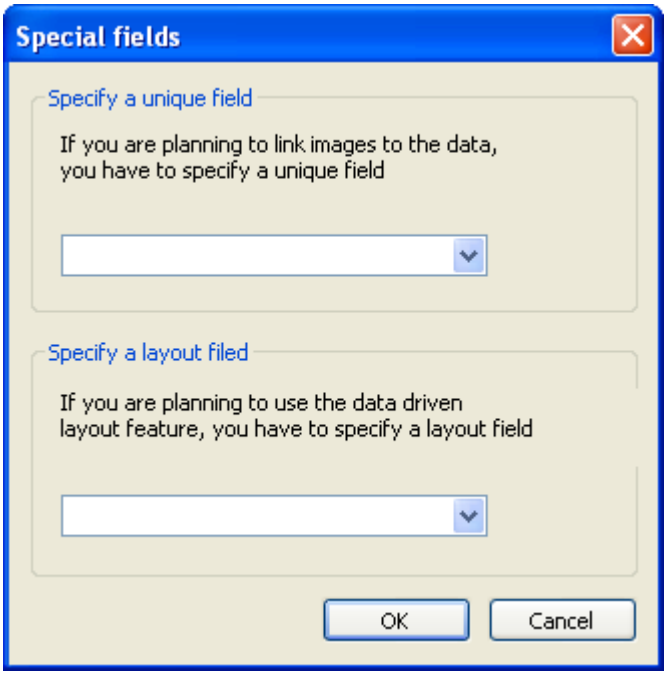
IDNUMBER = NUMERIC
SURNAME = TEXT
D.O.B = DATE
CARDISSUES = INTEGER

Once you have completed constructing your fields click **Save**.

The following dialog will request you to specify a unique field.



Click **Yes**.



Special fields

Specify a unique field: Select a Unique Field from the database. When an image is stored, BadgeMaker will copy this value into the field ID of the Image Table.

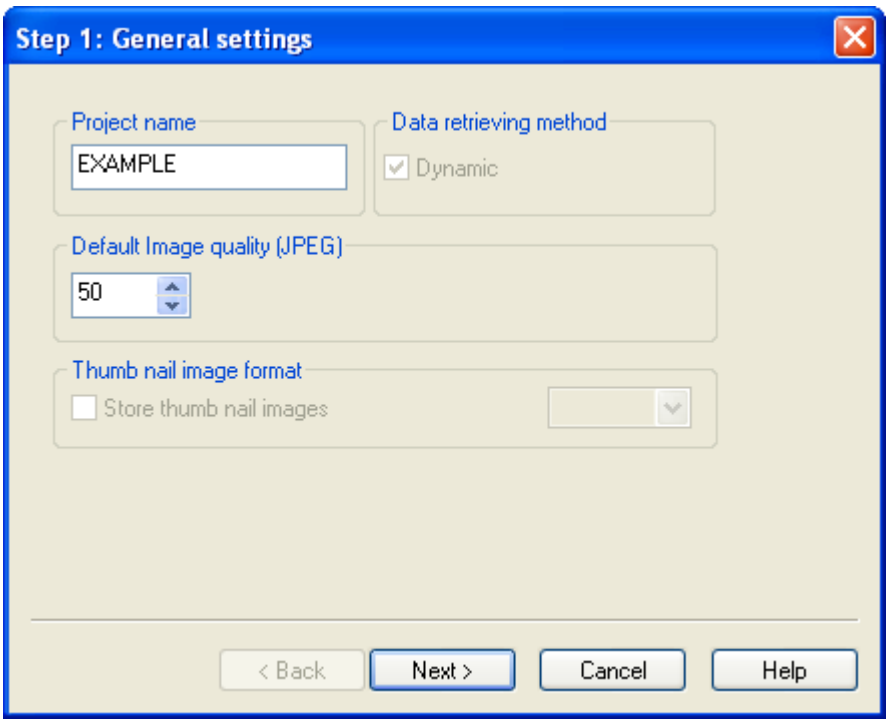
Example

Store layout description in this field: If the **Automatic layout** feature is used a field must be selected where the layout description can be read. The layout descriptions displayed in BadgeMaker's main screen should match the values filled in the field. If this feature will not be used, no field should be selected.

Every department has its own layout. For the field department a 'pick list' is created. All the department descriptions are filled in this list. The same descriptions must be used for the Badge layouts for the different departments in Badge Creator. If the automatic layout option is activated, the badges for every department will be printed automatically with its own layout.

Click **OK** to proceed.

Step 1. General Settings



General Settings

Project name: Specify a name for the project. This name will be displayed when the project is opened in BadgeMaker. In this example we have chosen EXAMPLE.

Data retrieving method: By default **Dynamic** is enabled. If the ODBC driver of your database does not support Dynasets, you will receive an error message when you try to load the project in BadgeMaker. Disable this option if you receive a message stating **Dynasets** are not supported.

Default Image quality: Images are stored in *.JPEG format by BadgeMaker. The images are stored as BLOB's (*Binary Large Objects*) in the database. The quality of the stored image can be set by specifying a value in this field. The default value is 50, this combines a good image quality with a good compression rate (*images will be 20kB-25kB*). Image quality can be improved by specifying a higher value but stored images will increase in size.

Depending on the database used the image size that can be stored as a BLOB will vary. If you increase the value too much, some databases might get a problem storing the images. If this problem occurs, lower the image quality to decrease the image size.

Thumbnail image: Check this box to store a thumb nail image of the photos and signatures (*in addition to the stored *.JPEG images*). The thumbnail image is stored in a *.BMP format in 256 colors with a reduced resolution.

Click **Next** to progress.

Step 2. Image Files

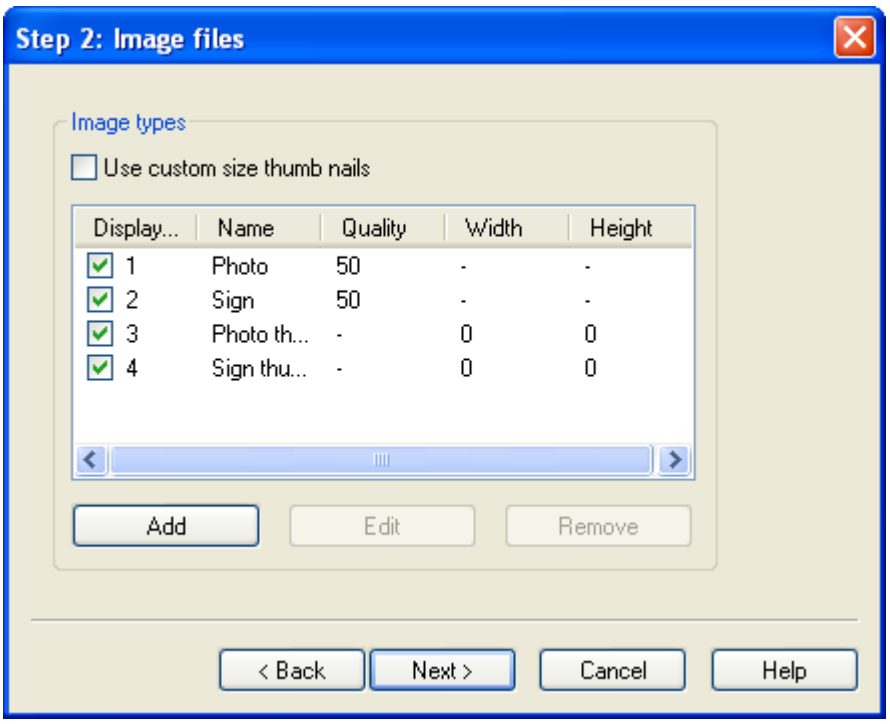
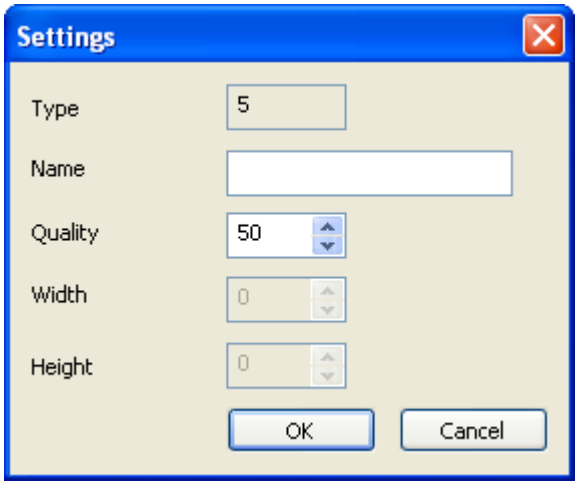


Image files

Apart from using the following image types **Photo** and **Signature**, other image types can be added such as **Fingerprint**. Click **Add** to configure more image types. The following dialog is displayed.



Settings

By default BadgeMaker has four standard image types, (*Photo, Sign, Photo thumbnail and Sign thumbnail*). They cannot be changed or removed, however new image types can be added, edited and removed. The new type will be added to the list.

To remove an image type, select a **Image type** from the list and click **Remove**.

Remember when you remove an image type the images stored under it will also be

lost. Image types 1 – 4 cannot be removed.

When a hand scan (Biometrics) is saved, uncheck the box in the column Displayable. The hand scanner will save a template of the characteristics of the hand and not an image of the hand.

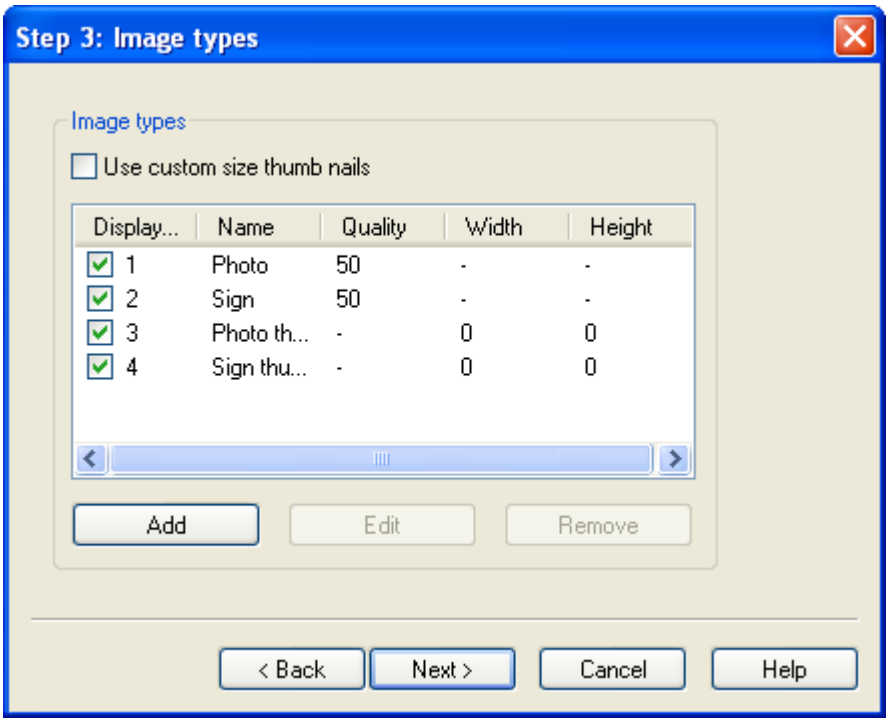


Image types

Select **Use custom size thumb nails**, it is now possible to edit configured image types by clicking **Edit**.

If you add new image types, the first new image type is **type 5**, the second will be **type 6** and so on.

Edit the name of an image type and change the quality of the image.

- This feature is only available if pictures are stored as BLOB's

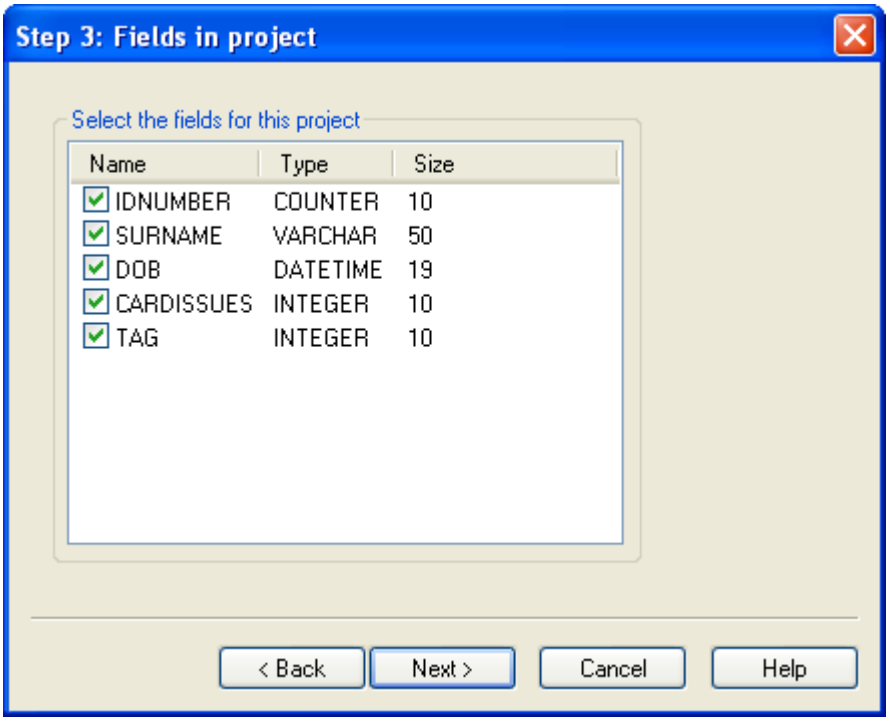
- The thumbnails are always stored in 8 bits/pixel.
- The location needed to store an image is calculated as follows: (Width*Height)/1024KB
- Standard aspect ratio for photos is 3:4 and for signature 4:1

Do not use values greater than 2 times the default values. Using excessive values will degrade the performance of BadgeMaker because of the size of the images.

When a hand scan must be saved, please uncheck the box in the column *Displayable*. The hand scanner will save a template of the characteristics of the hand and not an image of the hand.

Click **OK** when changes have been made to return to the project set up.

Click **Next** to progress.

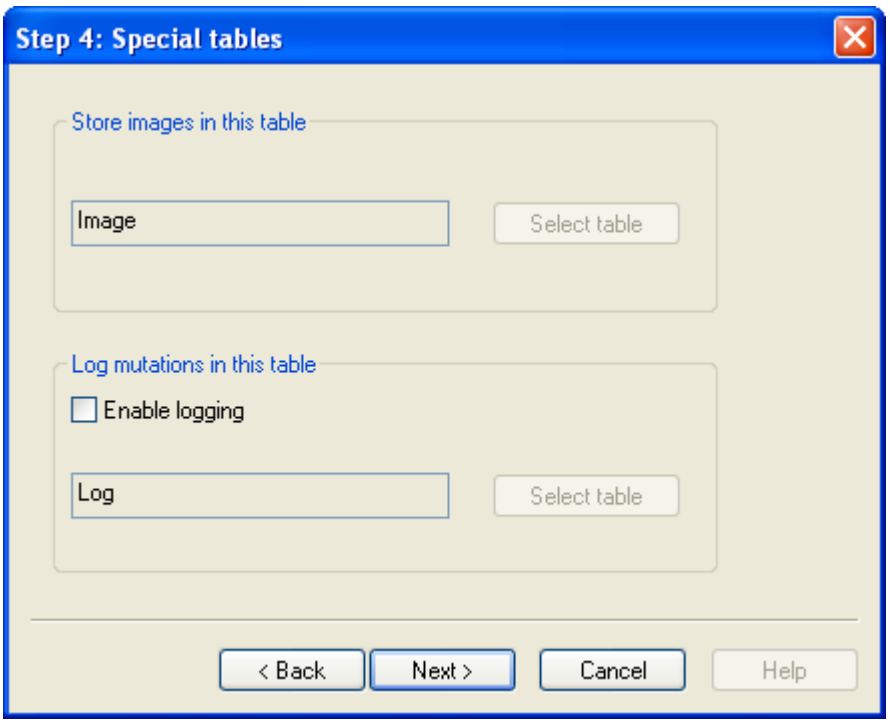


Fields in project

Select the fields to use in the project, by default all are selected.

Click **Next** to continue.

Step 4. Special Tables



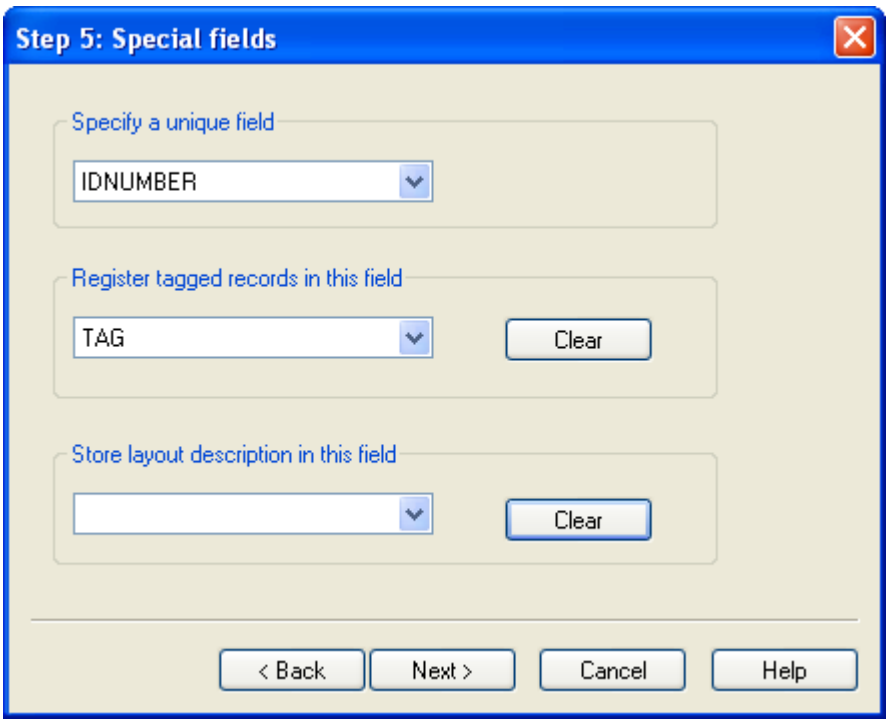
Special tables

Store images in this table: Select here the table that will be used to store images. This table must have a fixed structure. (*By default Image is already selected and cannot be changed*).

Log mutations in this table: Keep track of the mutations made in BadgeMaker by creating a logging table. Select here the table to log mutations in. (*By default Log is already selected and cannot be changed*).

Click **Next** to proceed.

Step 5. Special Fields



Special fields

Specify a unique field: Select a **Unique Field** from the database. When an image is stored, BadgeMaker will copy this value into the field ID of the **Image Table**.

Register tagged records in this field: To use the option **Tag Records**. A field has to be selected to register the tagged records. An unused numeric field in the database can be used for this purpose. If this is not available a field must be added to the database.

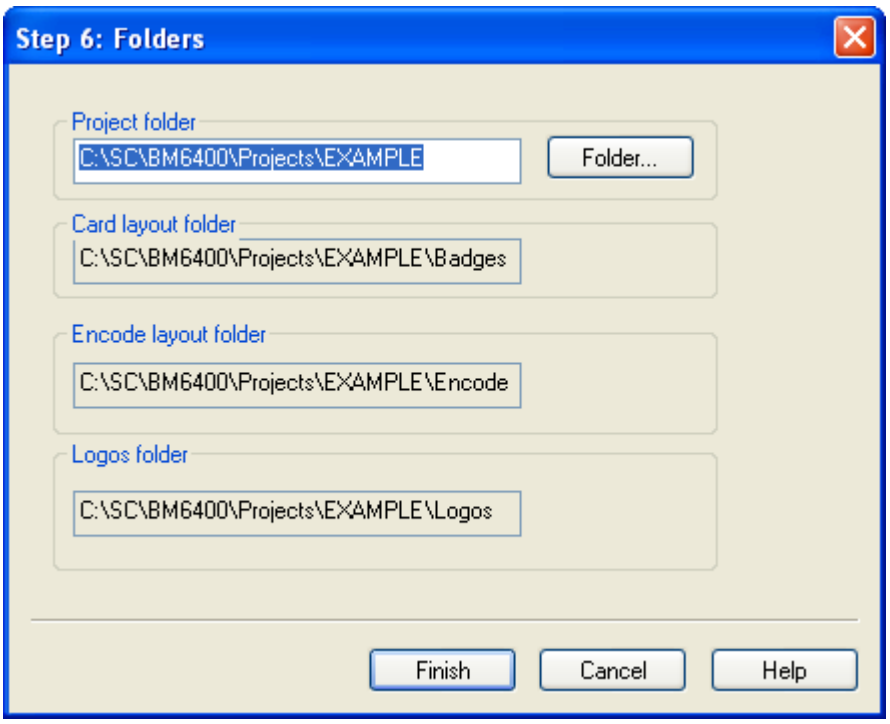
This field is not mandatory, but if it is not defined the option to tag records cannot be used.

Store layout description in this field: If the **Automatic layout** feature is used a field must be selected where the layout description can be read. The layout descriptions displayed in BadgeMaker's main screen should match the values filled in the field. If this feature will not be used, no field should be selected.

Every department has its own layout. For the field department a 'pick list' is created. All the department descriptions are filled in this list. The same descriptions must be used for the Badge layouts for the different departments in Badge Creator. If the automatic layout option is activated, the badges for every department will be printed automatically with its own layout.

Click **Next** to proceed.

Step 6. Folders



Folders

Project folder: Location of the *.BM project file.

Card layout folder: Location of badge layouts files.

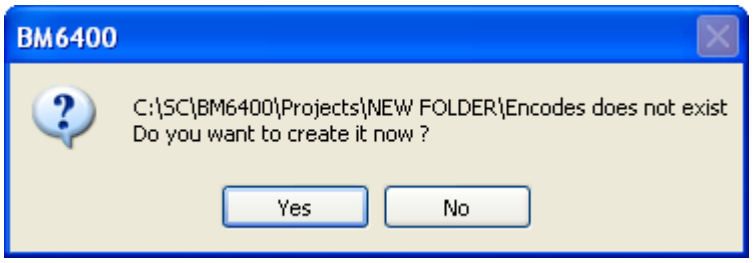
Encode layout folder: Location of encode files for magstripe and chip encoding.

Logos folder: Advised location for logos used in badge layouts.

Folder locations can be changed to another location of the operators choice. Click **Folder**, the following dialog is displayed.

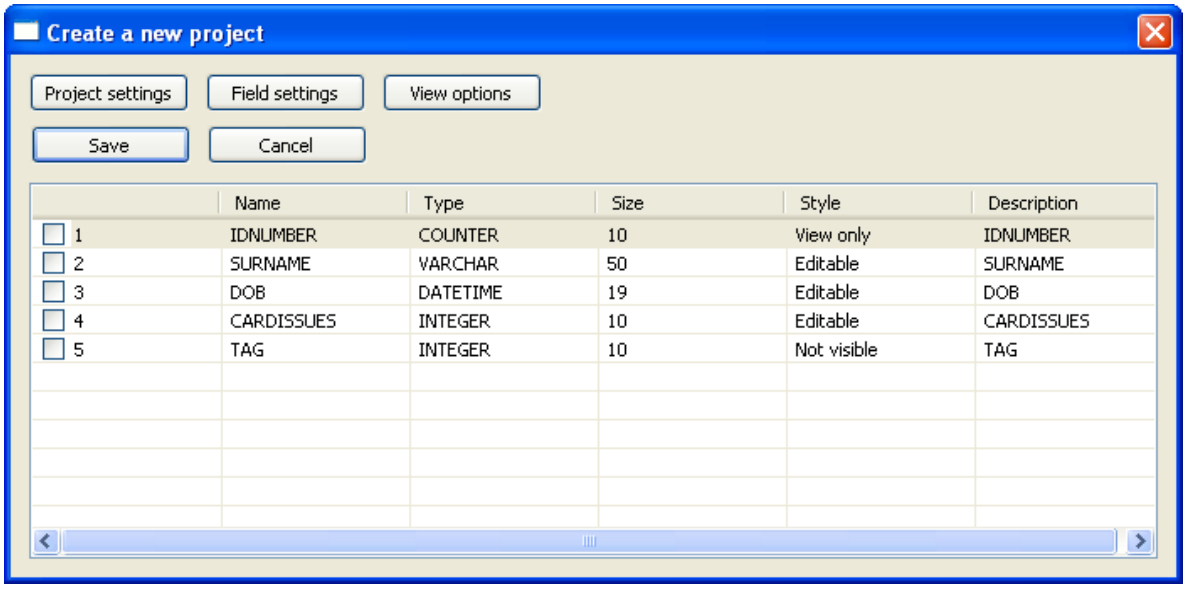
Select a different location or create a new location if necessary. Selection of the desired folder can be done in the same way as in Windows Explorer Click **OK** to close.

For each folder the remark pops up that the folder does not exists.



Click Yes to create it now. (*Repeat confirmation for the others which prompts the operator to confirm automatically*).

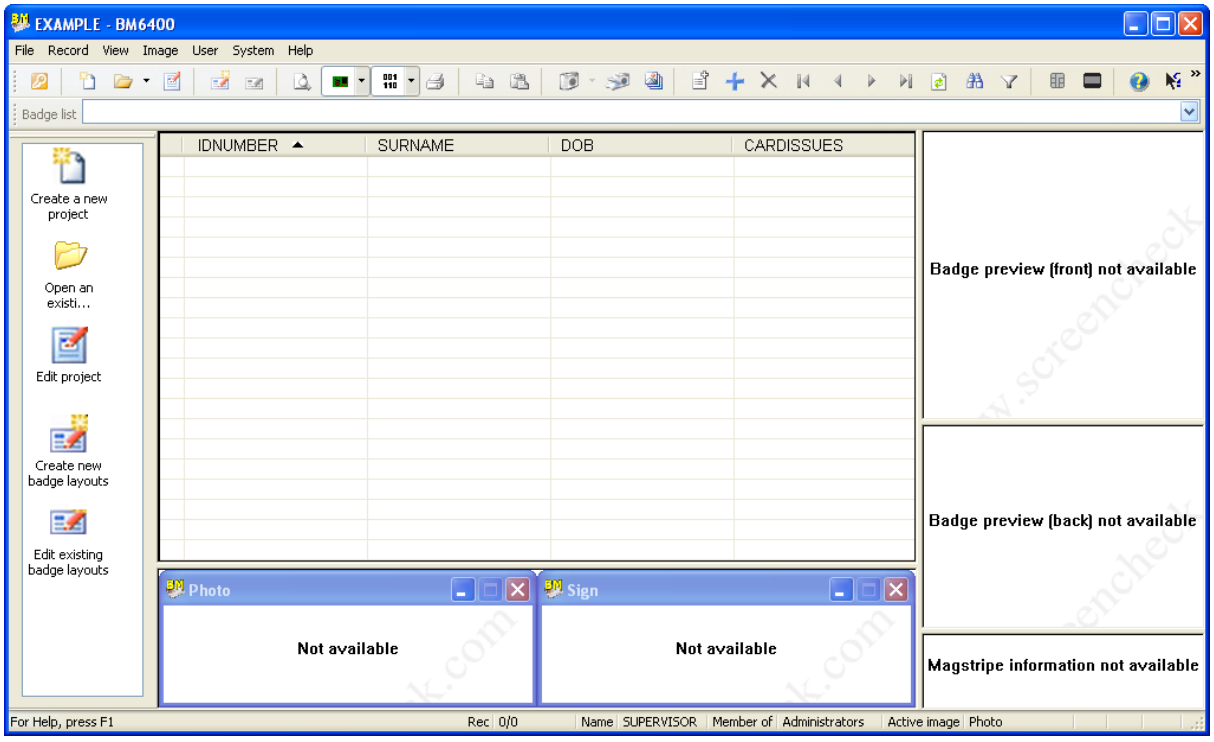
Click **Finish**, to close the dialog and save your settings.



Save new project

Click **Save** to store the newly created database and specify a name for it.

You are returned to the opening screen.



BM Main screen

Structure of the Image Table

BadgeMaker stores images as BLOBs (*Binary Large Objects*) in a table in the database. This has an advantage that you only need to backup your database. Alphanumeric fields can be used as Photo and Signature ID's and you have the option of also storing image thumbnails.

If you select this option, a table must be selected by clicking the **Select Table** button. If a table is selected without the appropriate structure an error message will be displayed.

The Image table must be created using the database management system of your existing database (*e.g. MS Access, Oracle, SQL Server, Sybase etc.*). The name of the table is free to select (*e.g. Pictures, Images or else*), the table must consist of **4** fields with fixed names and fixed types in a fixed order.

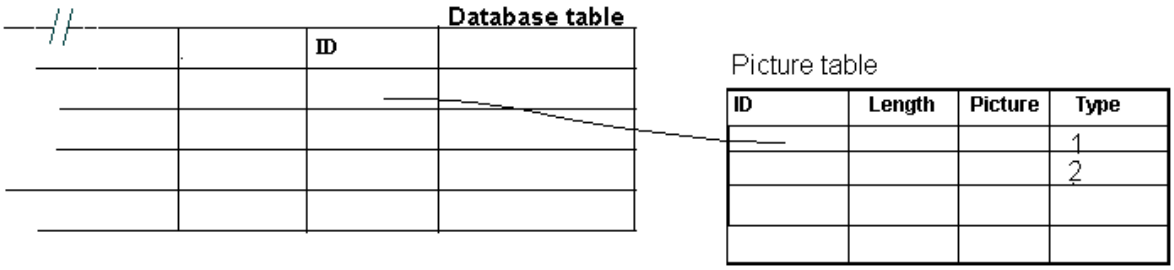
Image Table

Field Name	Type	Length
ID	Alpha numeric	8 or more
Length	Numeric	8 or more
Picture	Long Binary	
Type	Numeric	2 or more

The type can be different depending on the database used. In MS Access the numeric fields can be Long Integers, the images must be of type OLE object. In Oracle the type for pictures is Long Raw or Binary.

The ID field in the Picture table is not unique; the same ID can be used with up to 20 types of pictures (photo, thumbnail photo, signature and thumbnail signature). ID and Type fields are unique (a combined index can be made). Do not create a relationship between the tables.

Below the link between the **Database table** and the **Picture table** is displayed. BadgeMaker will take care of the link between the Photo or Signature ID in the Database table and the ID field in the Picture table.



Database table and the Picture table

Structure of the Logging Table

The Logging table must be created using the database management system of your existing database (*e.g. MS Access, Oracle, SQL Server, Sybase etc.*).The logging option enables logging of user actions (mutations) in BadgeMaker. Select the table name in which these actions (*Date, Time, Mutation and User name*) will be logged. The database made must include the following fields: MUT_DATE, MUT_TIME, MUT_ACTION and MUT_USER. In addition one or more fields from the Database table can also be logged. The exact type and name of these fields must be included in the log table. The user has to take care of this himself.

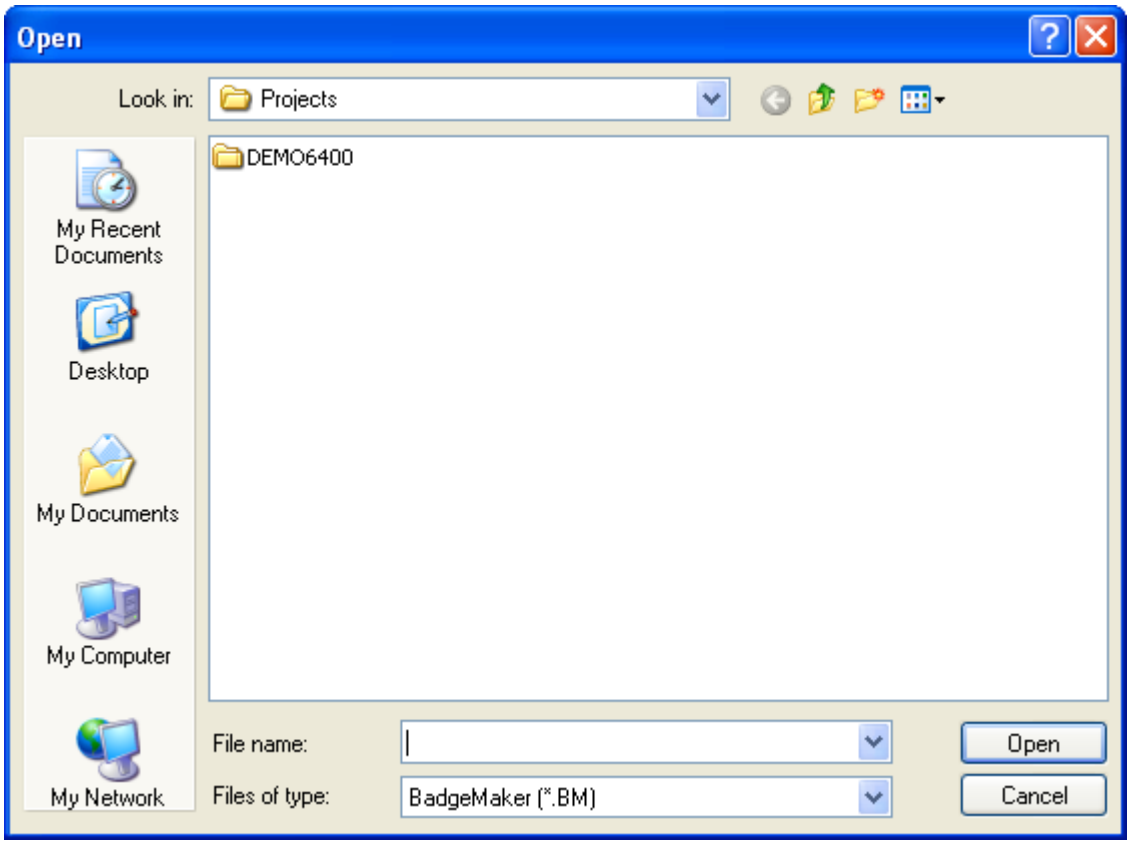
Use the database manager of the existing database to create the log table, then select this table by clicking the **Select Table** button.

Logging Table

Name	Type	Size
MUT_DATE	Date	8 or more
MUT_TIME	Character	10 or more
MUT_ACTION MUT_USER	Character Character	10 or more 30 or more
*other fields can be copied from 'data' table	same as in data table	same as in data table

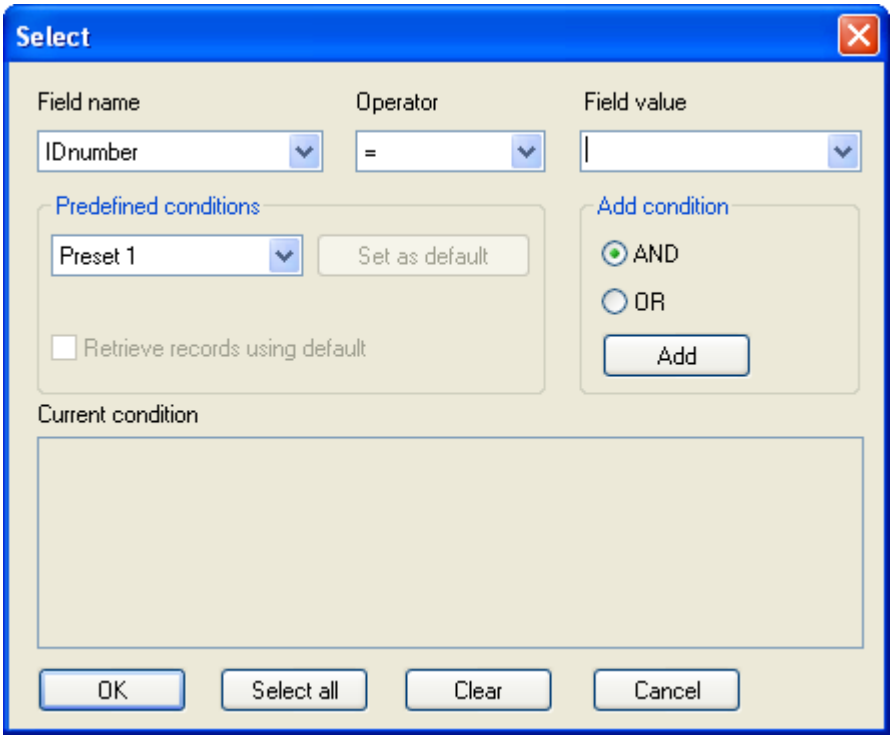
Open Project

Select **File Menu** and then click **Open**, the open file dialogue is displayed.



Select a valid project file *(*.BM*) file and click **Open**. You must log in before creating or selecting a project file *(*.BM*) file. When you have logged in and selected a project file to open, the **Select data** window will be displayed.

Options in this window enable the operator to select all or part of a database.



Select dialog

A field name can be selected from the dropdown list, then an operator must be selected from the next dropdown list **(=, <, >, <=, >=, <>, LIKE**). Enter a value in the **Field Value** box. Add a condition of **AND** or **OR**, (*for the first selected statement a condition is not applied*). Click **Add** to add the selection statement to the list. This procedure can be repeated to add more selection statements if required.

- **OK:** Select the records on specified criteria.
- **Select all:** Selects all the records (can take some time when working with a very large database).
- **Clear:** Removes the current selection.
- **Cancel:** Closes the select dialogue, no selection will be made.

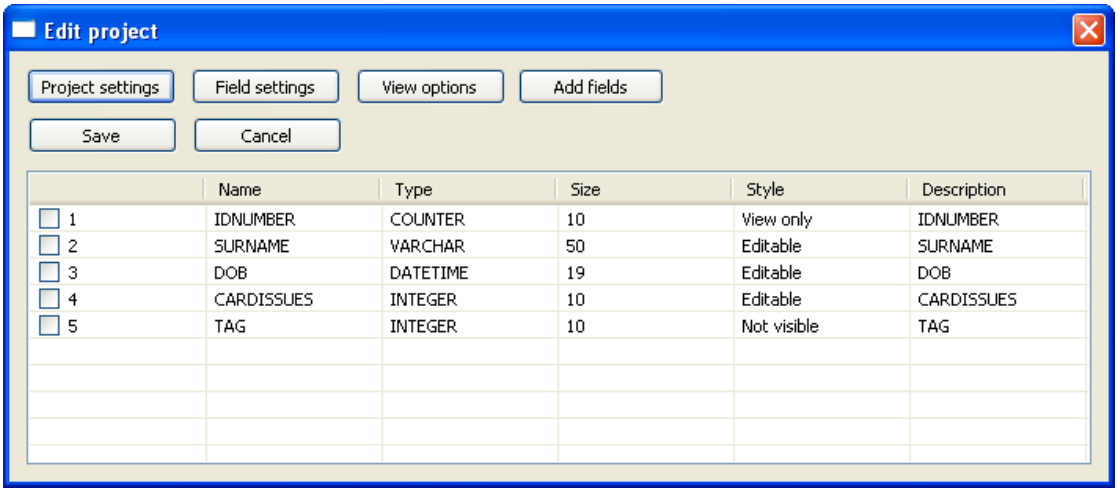
Click on **Select All** if you want to work with an entire database. In some cases opening a large database entirely may take considerable time. Do not reset your system during this process or the database could be damaged.

After selecting the entire database or part of it, within the specified criteria stipulated, the main screen will be shown.

Edit Project

Select **File Menu** and click **Edit Project** to change project settings of a currently opened project (*.BM) file.

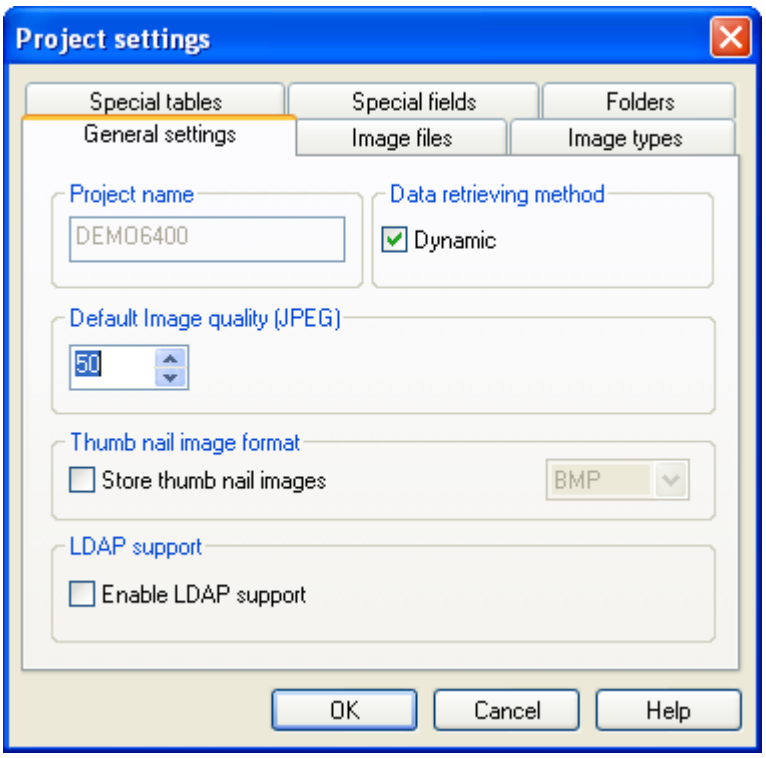
Use  option from the toolbar.



Edit project

Select **Save** to save any changes made to the current layout.

General Settings



General settings

Project name: Specify a name for the project. This name will be displayed when the project is opened in BadgeMaker. In this example we have chosen EXAMPLE.

Data retrieving method: By default **Dynamic** is enabled. If the ODBC driver of your database does not support Dynasets, you will receive an error message when you try to load the project in BadgeMaker.

Default Image quality: Images are stored in *.JPEG format by BadgeMaker. The images are stored as BLOB's (*Binary Large Objects*) in the database. The quality of the stored image can be set by specifying a value in this field. The default value is **50**, this combines a good image quality with a good compression rate (*images will be 20kB-25kB*). Image quality can be improved by specifying a higher value but stored images will increase in size.

Depending on the database used the image size that can be stored as a BLOB will vary. If you increase the value too much, some databases might get a problem storing the images. If this problem occurs, lower the image quality to decrease the image size.

Thumbnail image: Check this box to store a thumb nail image of the photos and signatures (*in addition to the stored *.JPEG images*). The thumbnail image is stored in a *.BMP format in 256 colors with a reduced resolution.

LDAP (Lightweight Directory Access Protocol) support: The ODBC driver for LDAP databases is not compliant with the ODBC drivers for other databases. Therefore BadgeMaker has to handle this driver differently than the others. Check this option if you connect to an LDAP database. In all other cases leave this option unchecked.

Image Files

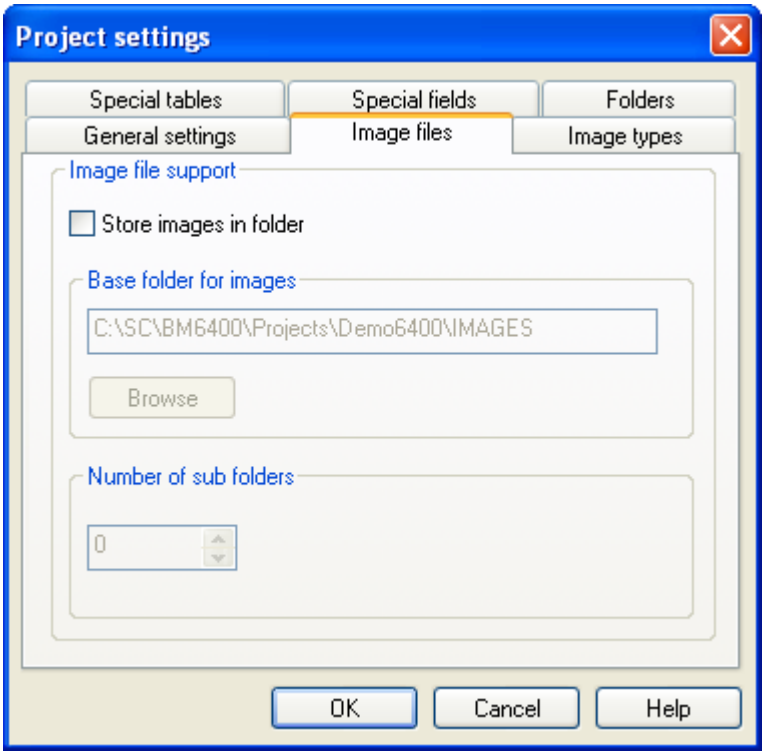


Image files

BadgeMaker stores images in an image table usually, but it can also read image files from another location on the hard disk or from a CD Rom. Check **Store images in folder** option if you have ready-made image files.

The name of these image files must correspond with the value in the field specified in **Step 5** under **Specify Unique Field**. This will depend on how the two tables in the database are linked together (*Data Table and Picture Table*).

Select the Base folder for images and specify a folder destination. Different image types must be stored in the folder according to their image type number for example **Photo = 1**, **Signs = 2** and so on.

Image Types

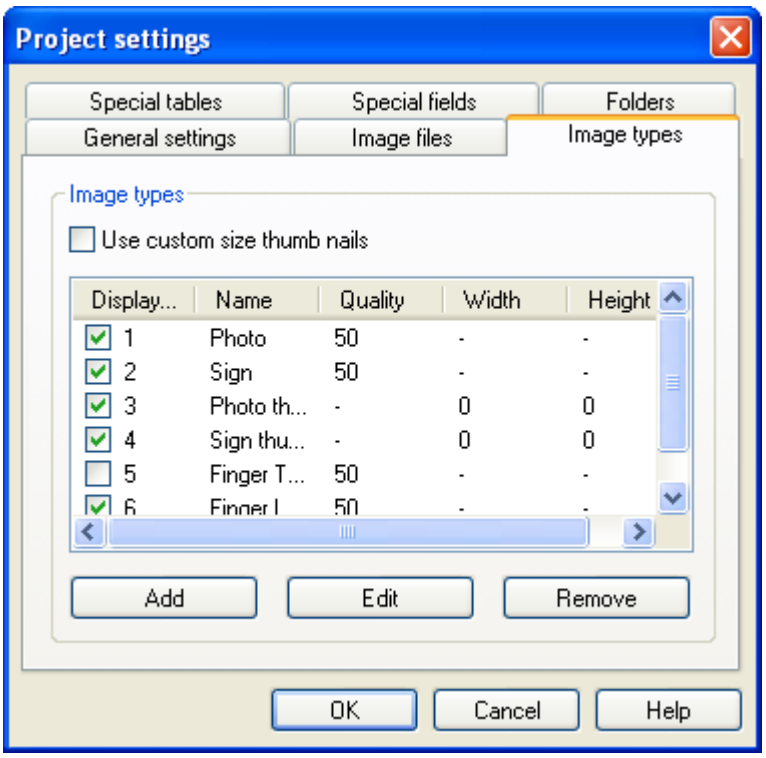
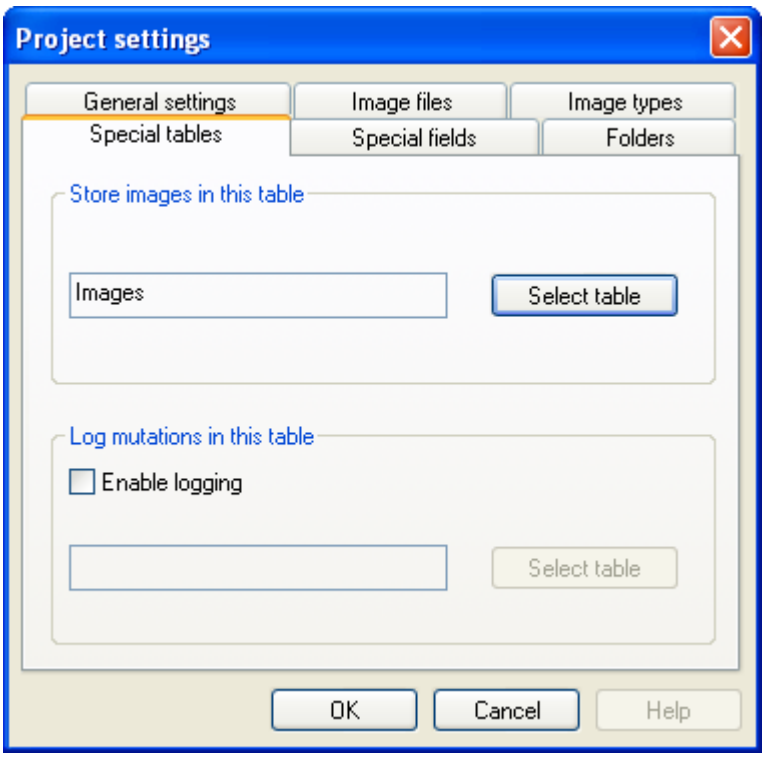


Image types

Apart from using the following image types **Photo** and **Signature**, other image types can be added such as **Fingerprint**. Click **Add** to configure more image types. The following dialog is displayed.

If you add new image types, the first new image type is type 5, the second will be type 6 and so on.

Special Tables

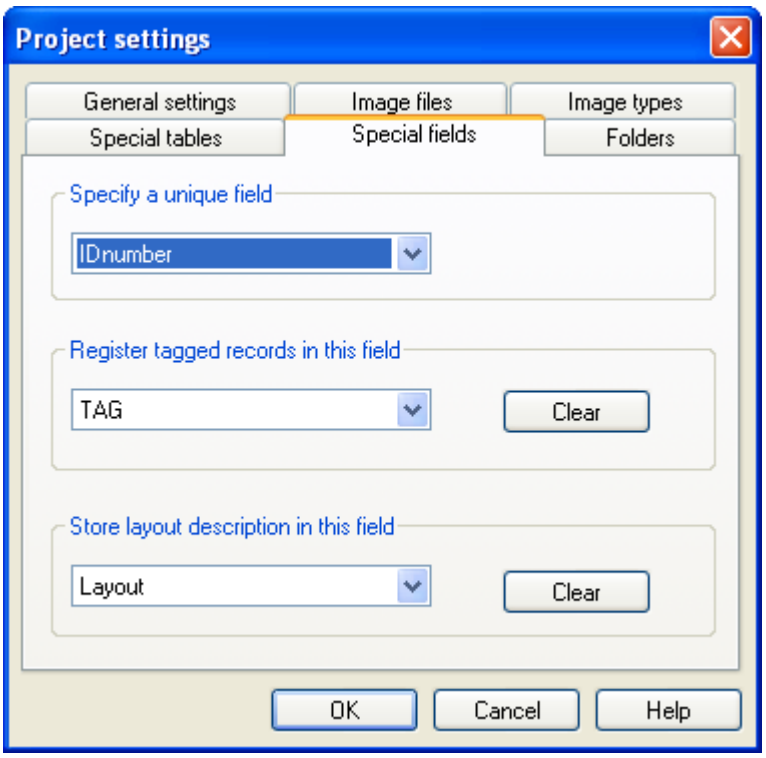


Project settings

Store images in this table: Select here the table that will be used to store images. This table must have a fixed structure.

Log mutations in this table: Keep track of the mutations made in BadgeMaker by creating a logging table. Select here the table to log mutations in.

Special Fields



Special fields

Specify a unique field: Select a **Unique Field** from the database. When an image is stored, BadgeMaker will copy this value into the field ID of the **Image Table**.

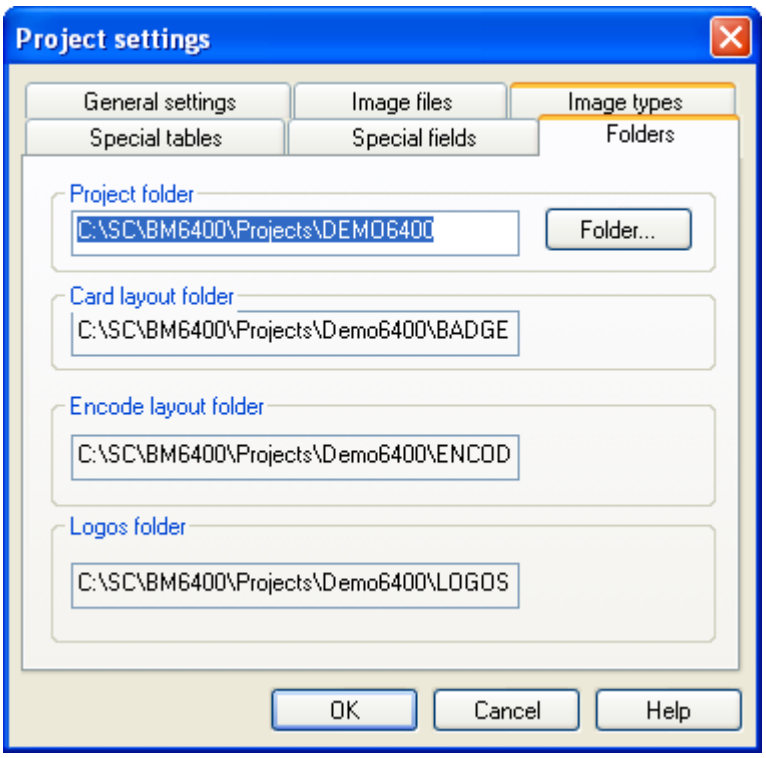
Register tagged records in this field: To use the option **Tag Records**. A field has to be selected to register the tagged records. An unused numeric field in the database can be used for this purpose. If this is not available a field must be added to the database.

This field is not mandatory, but if it is not defined the option to tag records cannot be used.

Store layout description in this field: If the Automatic layout feature is used a field must be selected where the layout description can be read. The layout descriptions displayed in BadgeMaker's main screen should match the values filled in the field. If this feature will not be used, no field should be selected.

Every department has its own layout. For the field department a 'pick list' is created. All the department descriptions are filled in this list. The same descriptions must be used for the Badge layouts for the different departments in BadgeCreator. If the automatic layout option is activated, the badges for every department will be printed automatically with its own layout.

Folders



Folders

Project folder: Location of the *.BM project file.

Card layout folder: Location of badge layouts files.

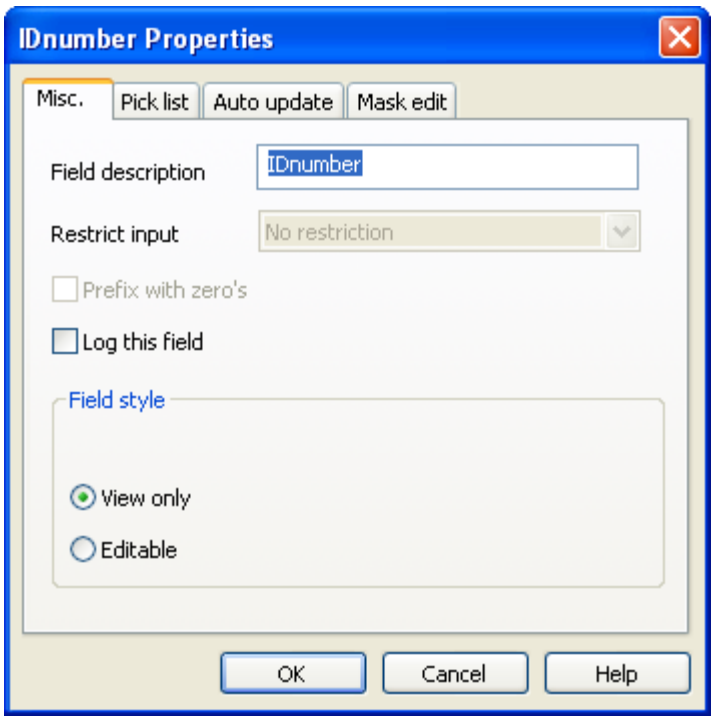
Encode layout folder: Location of encode files for magstripe and chip encoding.

Logos folder: Location of logos used in badge layouts.

Folder locations can be changed to another location of the operators choice. Click **Folder**, the following dialog is displayed.

Field Settings

Misc



Misc dialog

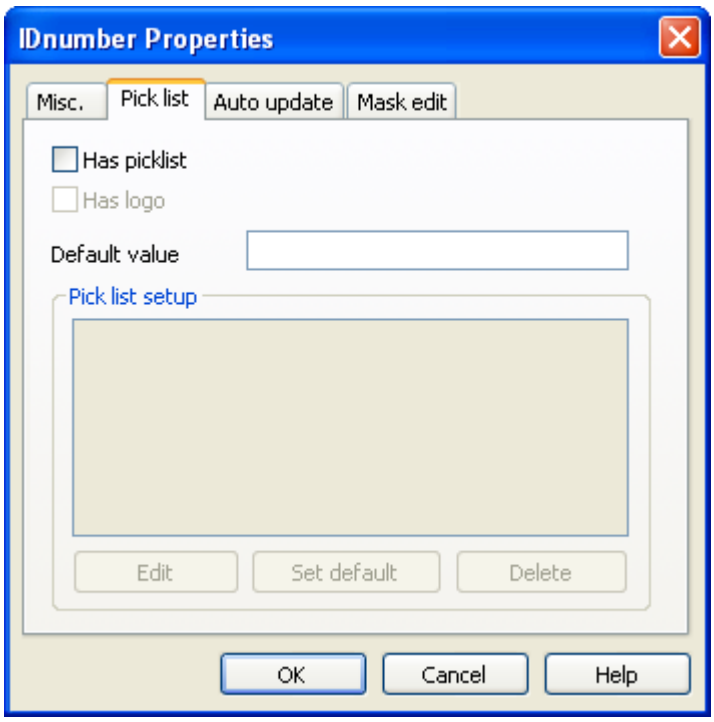
Field description: The field description is shown in top of the field columns. Field descriptions can be edited by entering another description. The actual field name cannot be changed, this can only be done with the database management system MS Access, Oracle, or SQL Server.

Restrict input: This option is only available if a field is a text field. Input restrictions are used for magstripe encoding the options are ISO-numeric and ISO-character.

Log this field: Check this option if the contents of this field should to be stored in a log table.

Field style: Select whether a field is view only or editable.

Pick List



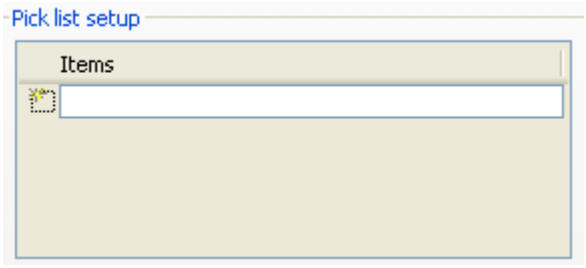
Pick list

Has pick list: Enable this option if you want to create a list with predefined values to select from for a field. This option can be activated only when a field is editable.

Has logo: Enable this option if you want to use a dynamic logo in your badge layout.

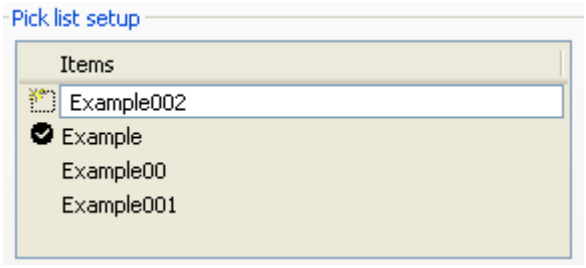
Default value: Displays an item from the list which is selected as a default value.

Move your cursor into the **Pick list** setup region and double click to begin constructing a pick list.

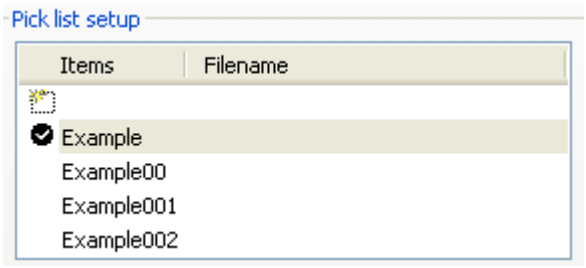


Pick list

Items: Displays available items in a list. The empty bar can be used to add new items.

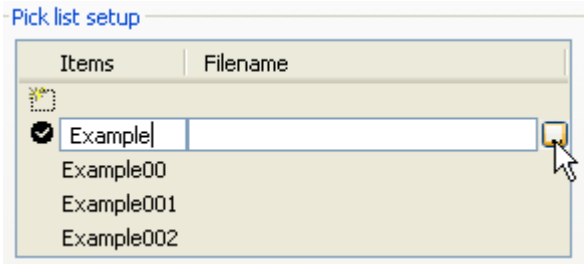


Filename: Displays the filename of a logo linked to the items. Has logo must be enabled.



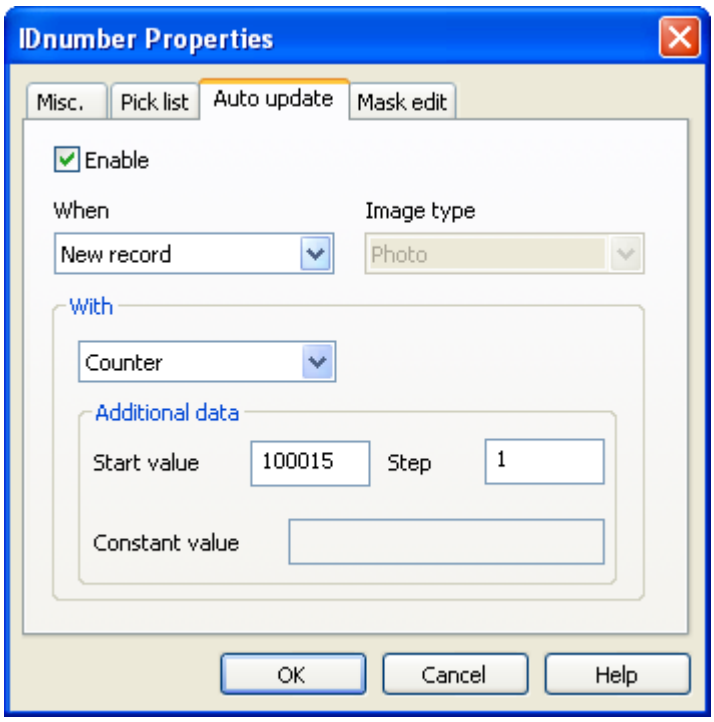
Set default: Select to make the current item a default, the selected value will be displayed in the 'default value' box.

To add an item place the cursor on the empty bar and then click **Edit** button. Fill in the name of the new list item. Click **OK** to save the new item. When **Has logo** is enabled you can select a logo. Click on the button as shown below to browse for a logo.



Delete an item: Select an item by clicking on it and click **Delete**. The item will be deleted immediately.

Auto Update



Auto update

This option can only be enabled when a field style is configured as **View only**.

When:

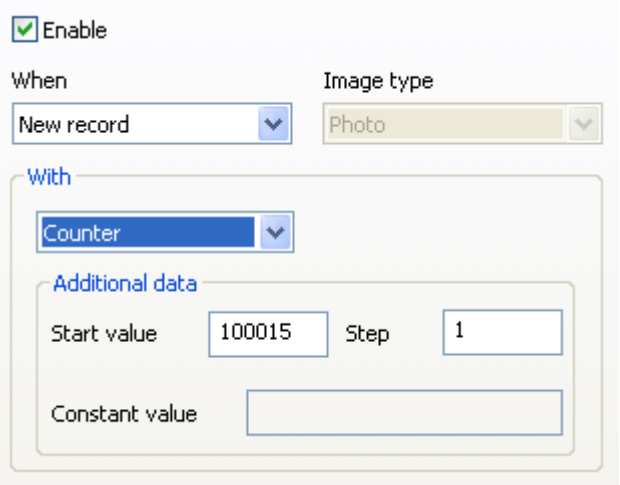
After print : Fill the contents of a field after printing.
Before print : Fill the contents of a field after printing.
New record : Fill the contents of a field after adding a new record.
After image : Fill the contents of a field after adding an image.
After export/Send mail : Fill the contents of a field after exporting data.
After encoding OMC: Fill the contents of a field after encoding OMC (*Optical Memory Card*)

With:

Current Date: Fills the field with the current date, field type must be *Date*. To create an expiry date, the current date can be extended with a number of days, weeks, months or years.
Random Number: Fills the field with a random number, field type must be 'Numeric'.
Addition: Adds a value to the current field value, this value can be specified by the user. The field type must be 'Numeric'. This option can be used to create a version number of a printed card.
Counter: Can be used to create a sequential number.
Constant value: Can be used to fill in a constant value after an event.
Workstation no: Can be used to register the workstation on which a photo was added or a card was printed. Check that the workstation is set correctly, select System menu and then click Setup.
User: Can be used to register the user who added a photo, or printed a card.

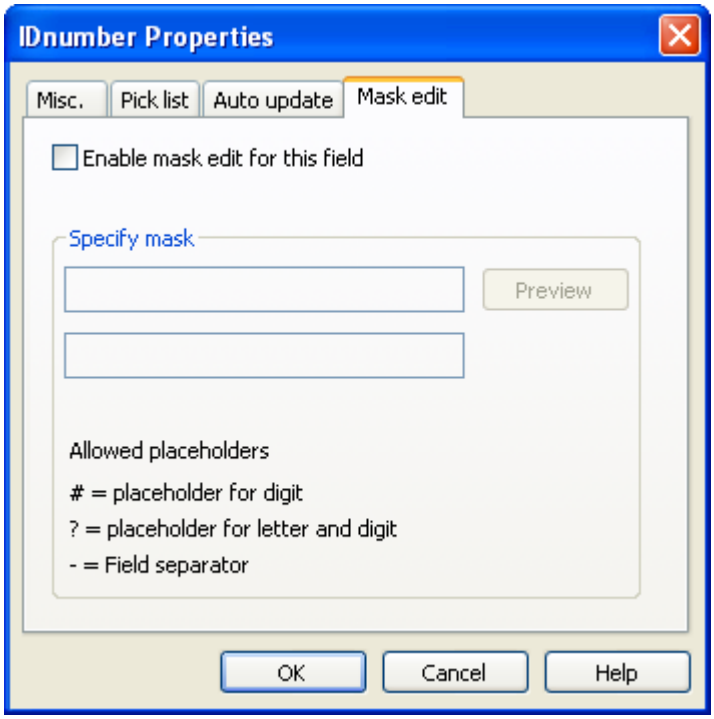
Example

The **IDnumber** field is selected, click **Field Settings** and then click the **Auto Update** tab.



In this example when a new record is added a start value **100015** is automatically added to the IDnumber field, the next record added will be 100016 and the next 100017. Specifying Step = 1 means that the Start Value increments by 1 after a new record is added.

Mask Edit



Mask edit

Select **Enable mask edit for this field** to enable this feature.

A mask is a set of characters and mask characters that control what you can and cannot enter in a field. A mask can require operators to enter for example dates or zip codes which follow specific conventions.

When you enable **mask edit** for a field you find that you must use the permitted placeholders allowed.

The following example demonstrates a mask edit for zip codes in the U.K. format:

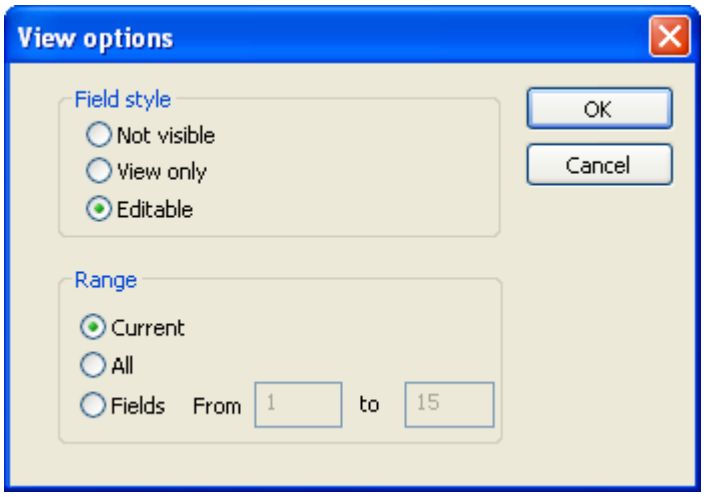
??# - #?? (represents XZ4 - 7PJ)

___ - ___

This consistency can make data easier to locate and maintain.

View Options

View options allow you to configure a style for fields. BadgeMaker uses the field style settings to determine how fields are viewed and edited.



View options

Not Visible: A field remains hidden to the operator. No access allowed.

View Only: A field cannot be edited or changed. Read only access permitted.

Editable: A field can be altered and edited if needed. No restriction applied.

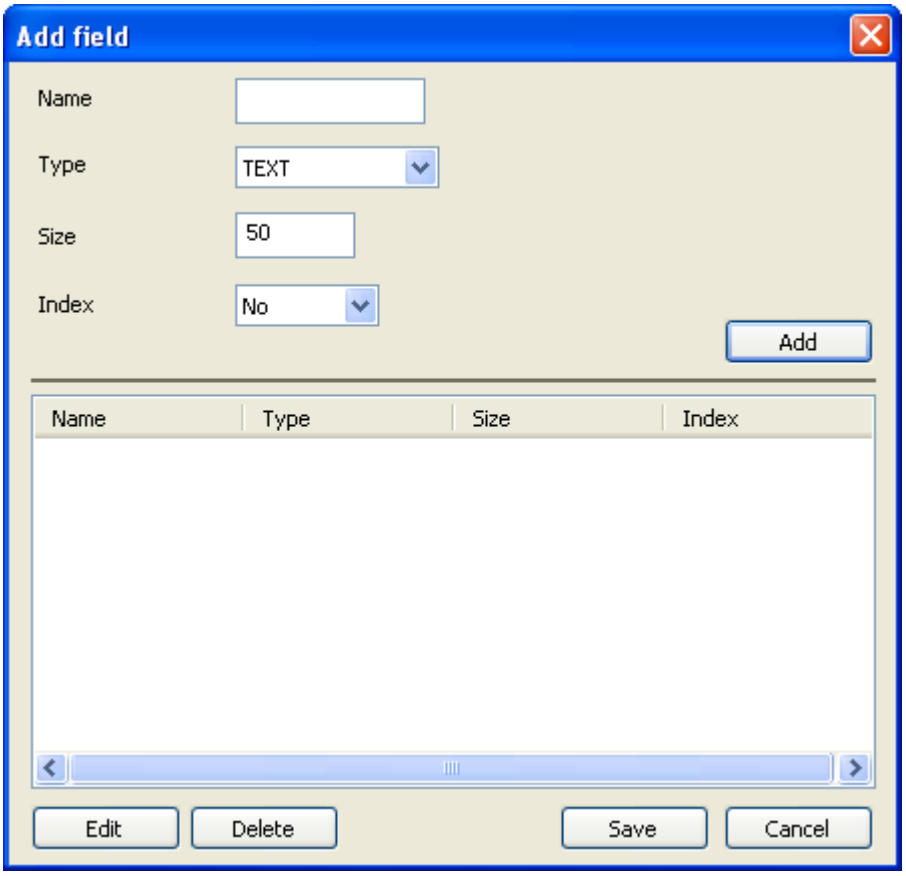
All fields or a range of fields can be changed.

Add Fields

The **Add Field** dialog allows you to construct a database by adding fields to your database. It is important you choose fields carefully.

You can immediately add a field by typing a Name, for example **SurName**, **Firstname**, **Telephone number**, and **IDNumber** among other useful fields.

Instead of creating a field FullName, consider creating fields Surname and Firstname. It is better to try and keep information in its smallest, more useful parts.



Add field

Name: Enter the name of the field you want to create. No spaces are allowed.

Type: Choose from the drop down list type of field required; **Text, Date**, **Integer**, **Counter, Logical**, or **Numeric**.

Select a type when adding a field to ensure more accurate data entry. Roe example select TEXT for text fields, DATE to enter dates and so on.

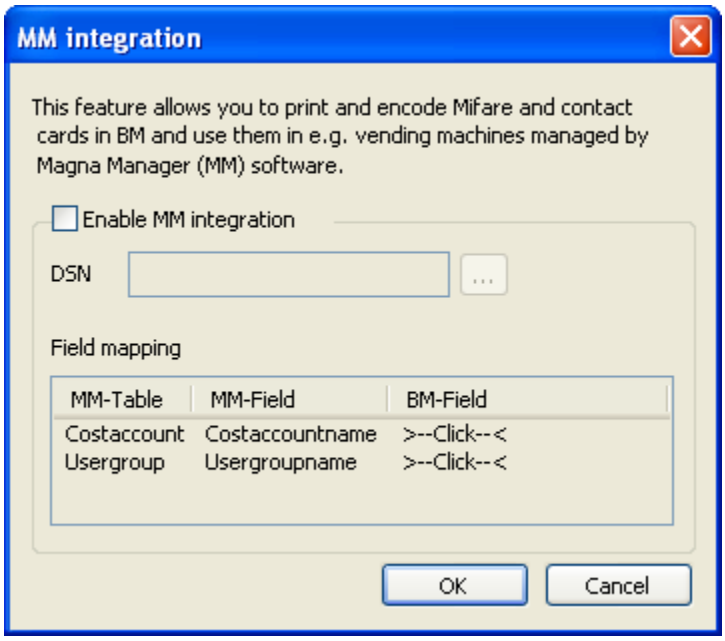
Size: Select a size for data stored as a Text, Number, or another field type. (*We recommend leaving this as the default value 50*).

Index: Speed up access to data in this field by building and using an index. Prevents you from adding duplicate values.

Advanced (MM integration)

This feature allows you to print and encode Mifare and contact cards with **Magna manager (MM) software**.

Use this option to integrate **Magna Manager** with BadgeMaker.



MM integration dialog

Close

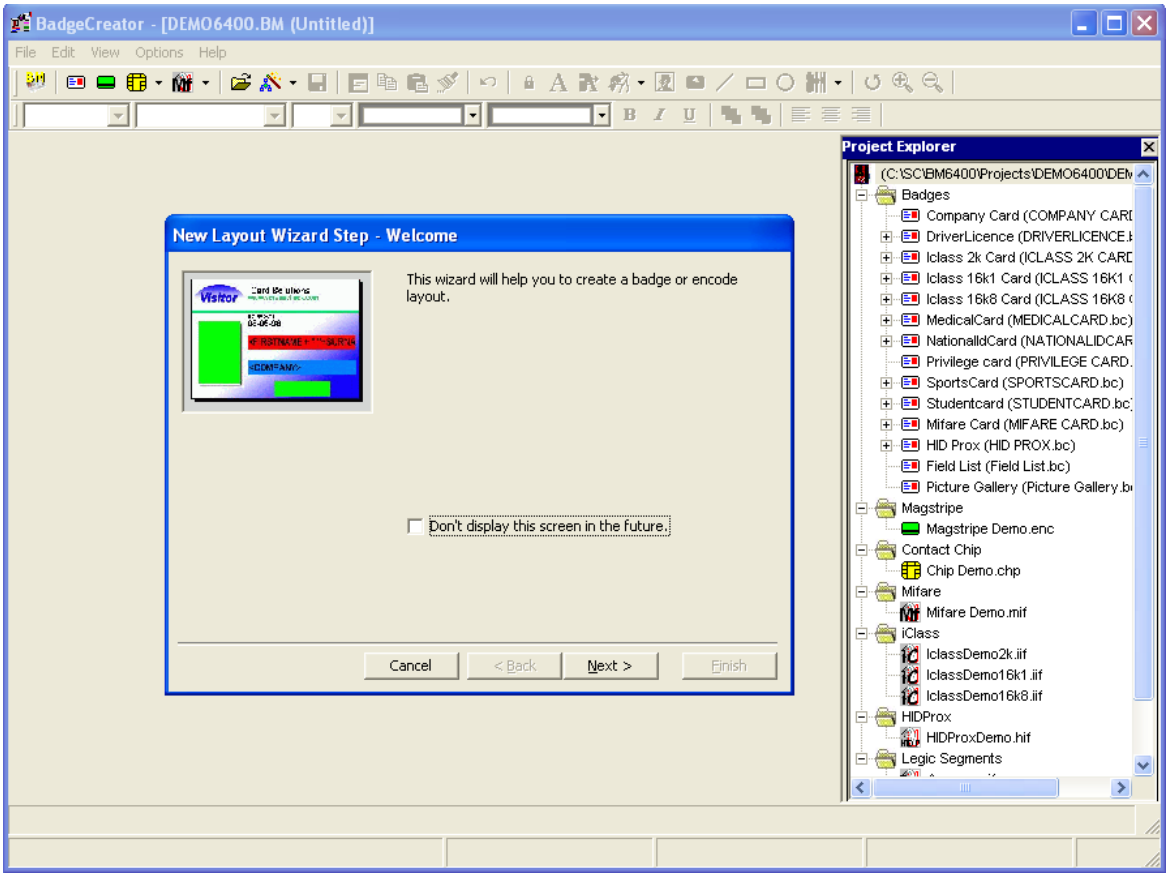
Select the **File Menu** and click **Close**. Use this option to close the current project file. BadgeMaker will not be closed the current user remains logged in.

New Badge

To create a new badge layout (**.BC file*) select **File Menu**, click **New Badge**.

Use  option from the Toolbar.

BadgeCreator will open automatically and you can begin creating a badge layout using the **New Layout Wizard** to incorporate data from project fields.



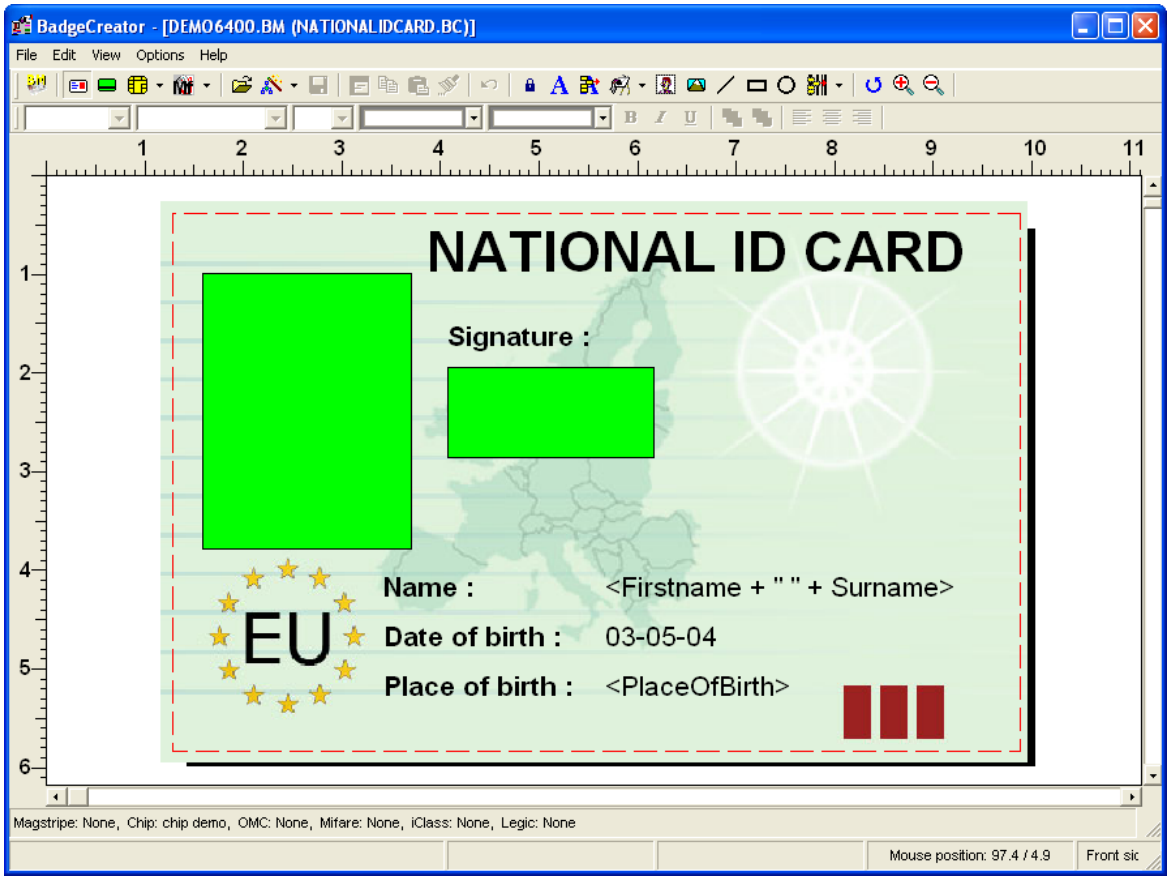
New layout wizard

Edit Badge

To edit an existing badge layout (**.BC file*) select **File Menu**, click **Edit Badge**.

Use  option from the toolbar.

BadgeCreator will open and you can begin editing existing card layouts.



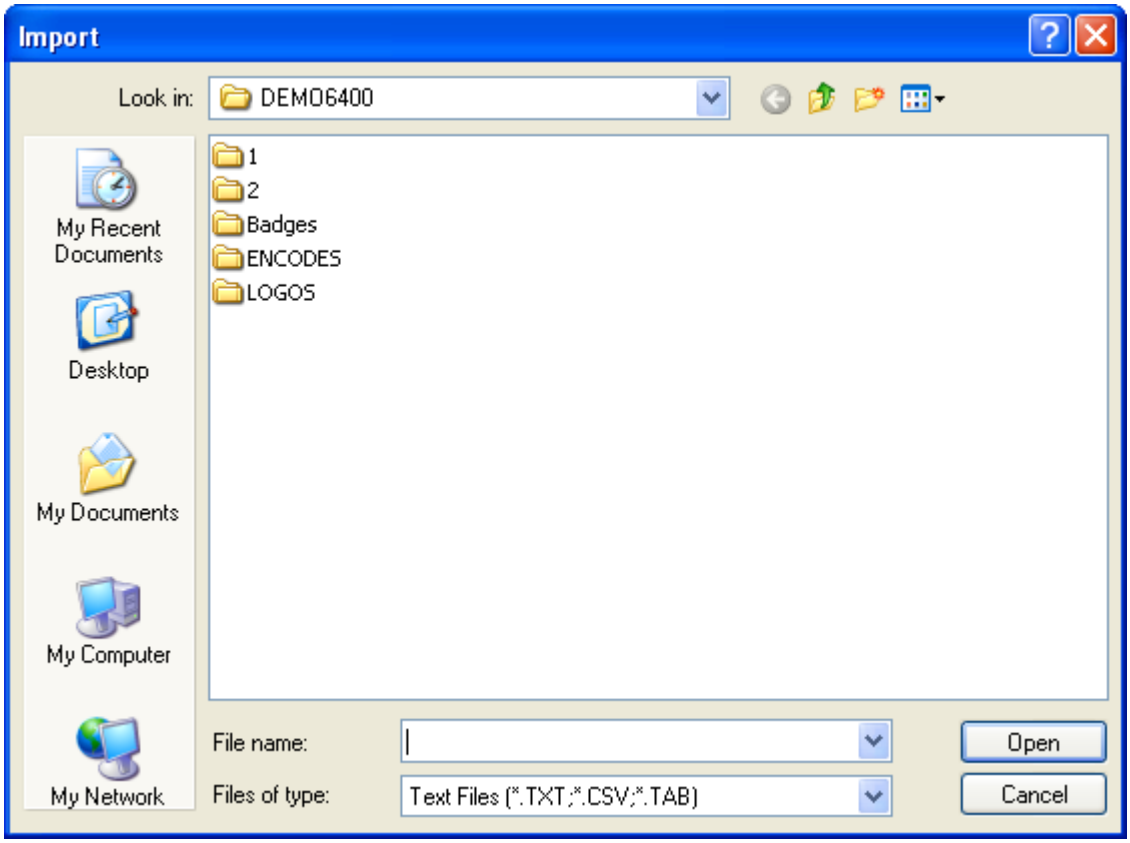
BC main screen

Import

Select the **File Menu** and select **Import**. It is possible to import data from **Text Files** (**.TXT;*.CSV;*.TAB*), **BadgeMaker DAT files** (**.DAT*) or Image files (**.IMG*).

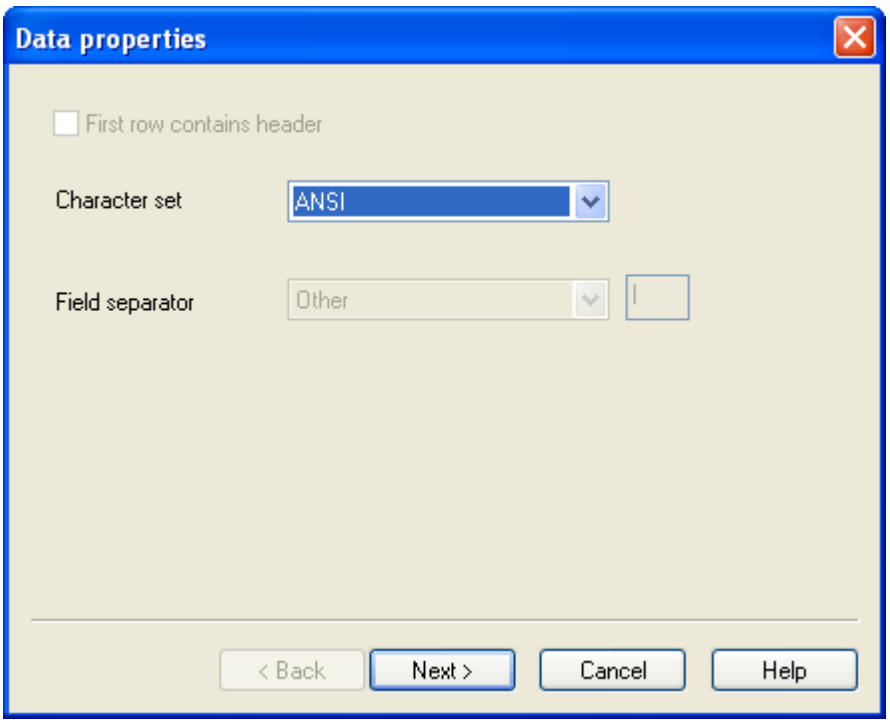
A DAT-file is a special ASCII-file for managing a database. It means you can use a DAT-file for updating and adding records to an existing database.

Keep in mind imported records must have the same number of specified fields and in the same chronological order as fields appear in the project.



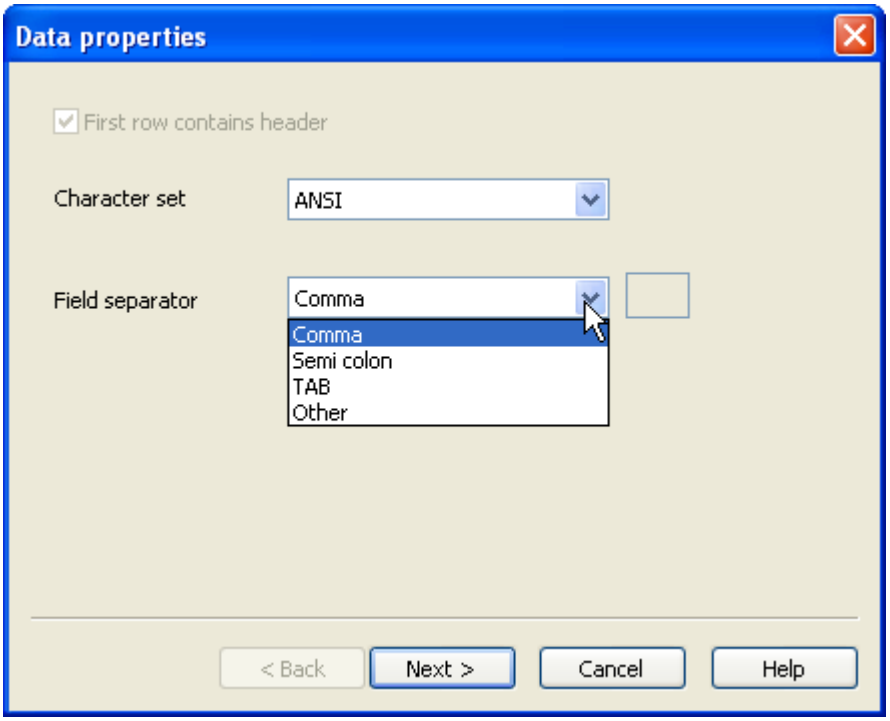
Importing Text Files (*.TXT, *.CSV, *.TAB)

In case you choose the **Text Files** option and select a ***.TXT**; ***.CSV** or ***.TAB** file to import, the following dialog will be started.



Data properties

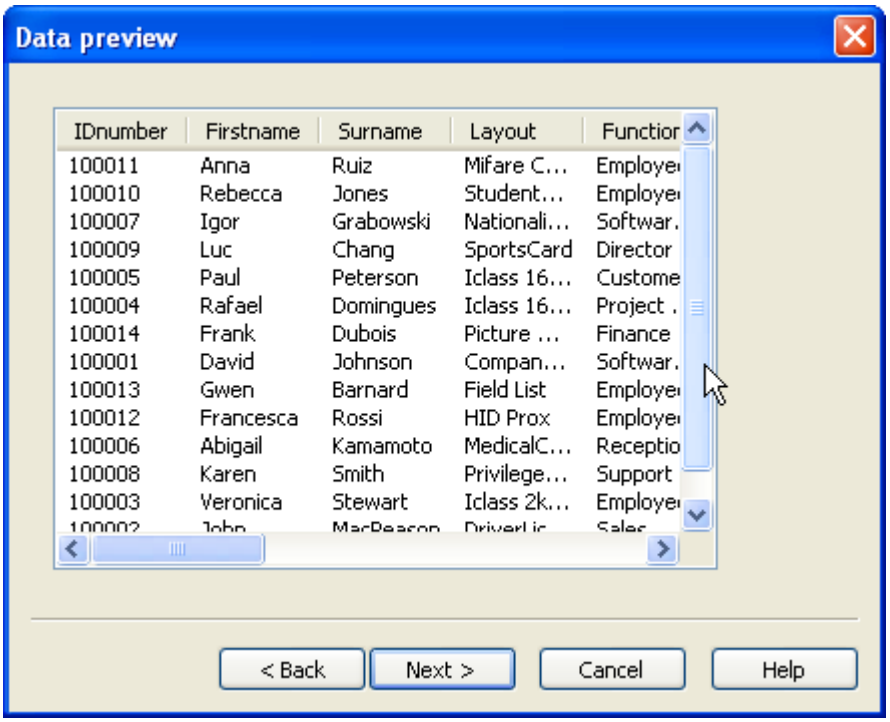
Select **First row contains header**. Leave unchecked if the import record does not contain a header row.



Character set options are **OEM** or **ANSI**. Decide which character set should be chosen depending on the how the data was stored and saved. This is also valid for the **Field Separator**.

If unclear which character set to select, we recommend leaving the default setting in place, **ANSI**.

Select **Next**. The **Data preview** dialog box is presented.



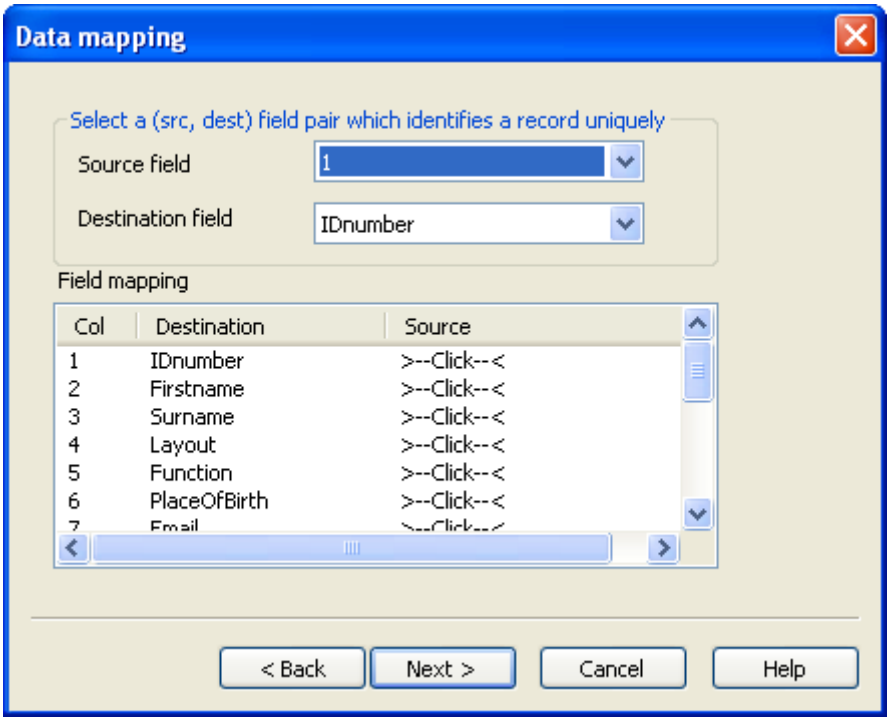
Data preview

Click **Next**.

The **Data mapping** dialog box is presented. **Source fields** must be paired together with a **Destination field** in order to compile the project.

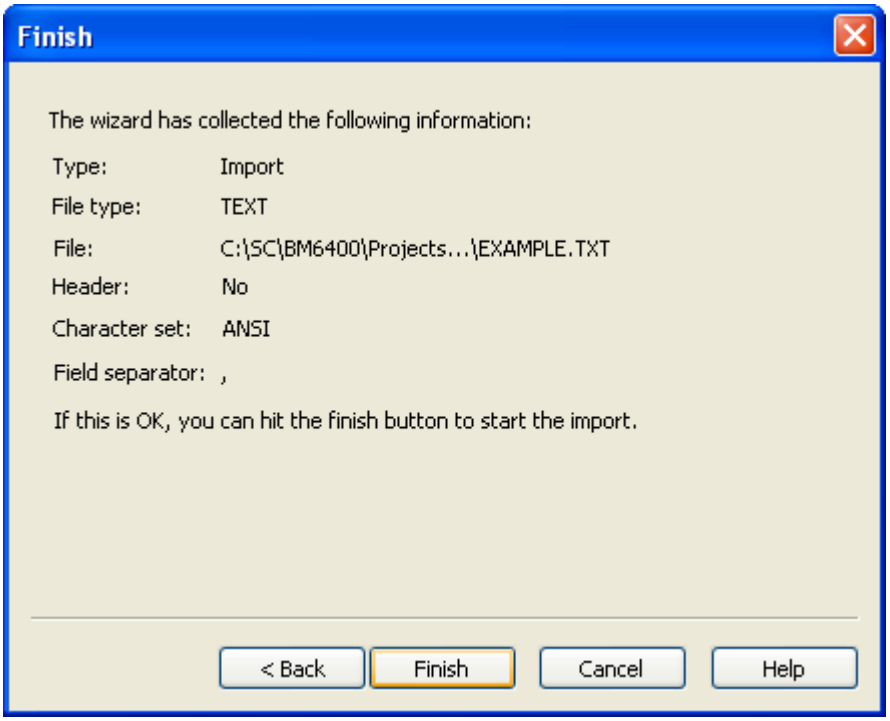
Destination field refers to the fields configured in the project, and Source field represents the column or location of the selected fields.

If a **Destination field** does not have a representation in the source field list, you can leave on default (>-Click-<). If a **source field** is mapped to a **destination field** make sure they are of the same type and the field length is accurate. A special case is the **Destination field**, which contains the unique identifier, in our example the destination field IDnumber is the unique identifier, and it can be mapped with the first column of the Source field 1.



When mapping is completed, click **Next**.

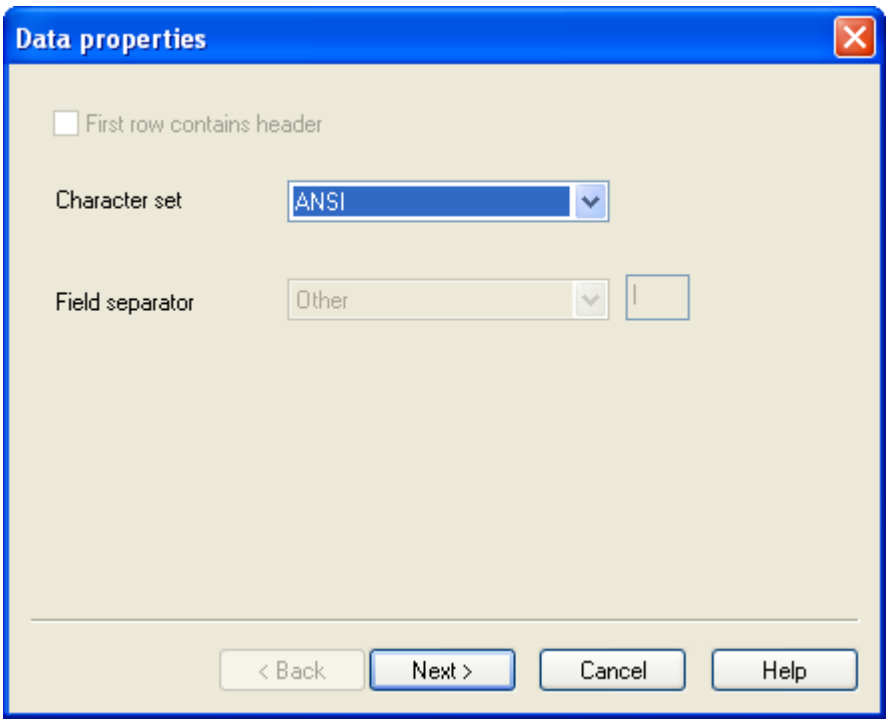
The **Finish** dialogue box is presented. It will present a summary of settings specified in the **Import Wizard**. Check the information presented, if everything looks correct click **Finish** to start importing.



Finish import

Importing DAT Files (*.DAT)

If you select a BadgeMaker DAT file for importing, the following dialog box is shown on the screen.

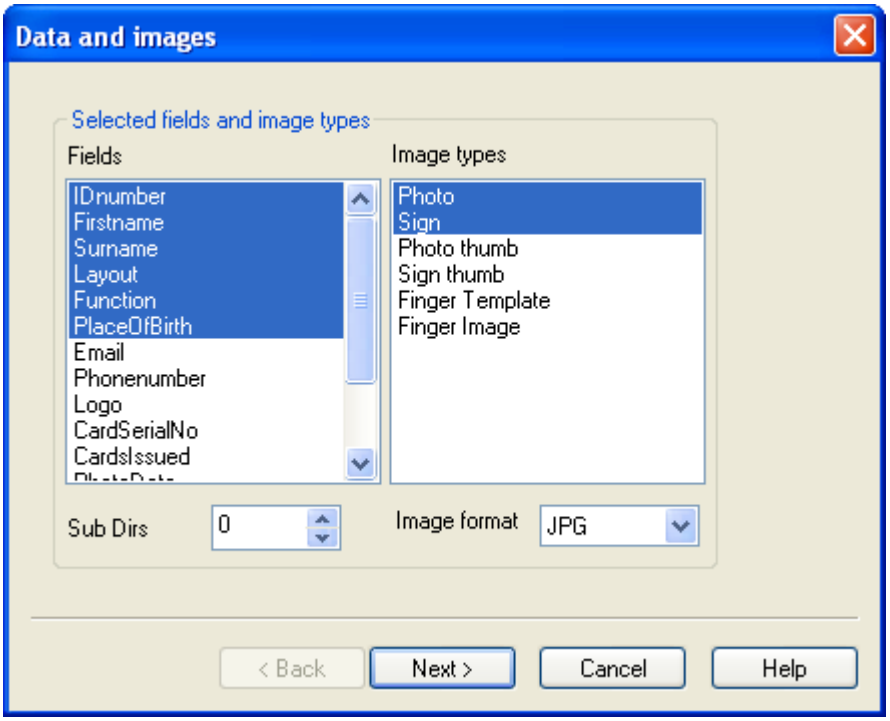


Data properties

Character set options are **OEM** or **ANSI**. Decide which character set should be chosen depending on the how the data was stored and saved. This is also valid for the **Field Separator**.

If unclear which character set to select, we recommend leaving the default setting in place, **ANSI**.

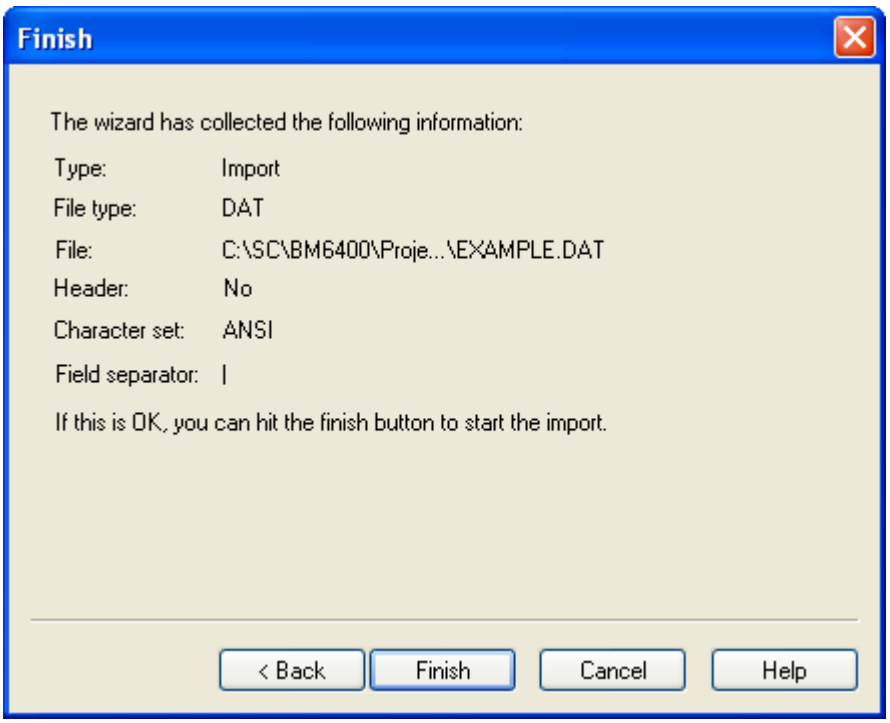
You can select the fields you want to import by highlighting them with your mouse. Certain Image types can be chosen and image formats can be selected from the dropdown list.



Data & Images

The following formats are available:
TIF, **BMP**, **DIB**, **RLE**, **FLF**, **CUT**, **PCX**, **DCX**, **PCT**, **GIF**, **JPG**, **TGA**, **RAS**, **IM8**, **CMP** and **JIF**.

Click **Next**. The **Finish** dialogue box is presented. It will present a summary of settings specified in the **Import Wizard**. Check the information presented, if everything looks correct click **Finish** to start importing.



After clicking **OK**, the DAT-file will be read, using the following conditions.

1. A **Primary Index** has to be defined. This Primary Index has to be a unique field. If no Primary Index field was selected, an error message will be displayed.
2. Each field in the DAT file must be separated by a **|** (*pipeline*).

U = Updates the first record that matches the Primary Index, as defined in the BM-file. Only the selected fields are updated. If a record is not found, it will be added to the database with only the values filled for the Primary Index and the selected fields.

A = The record will be added to the database no matter if the primary index already exists or not. It is not necessary to add the A, the same action will take place if you end every record just with a | (*pipeline symbol*).

If image types are selected, BadgeMaker will also import them under the following conditions.

1. Under the directory where the DAT file is situated, there must be a sub directory for every image type. The names of these sub directories are the same as names of the image types.
2. The images must have the correct format selected in the dropdown list.
3. Following the standard import-fields, the DAT-file must contain the image ID's for every image type.

An import *.DAT-file without photo and signature information can look as follows:

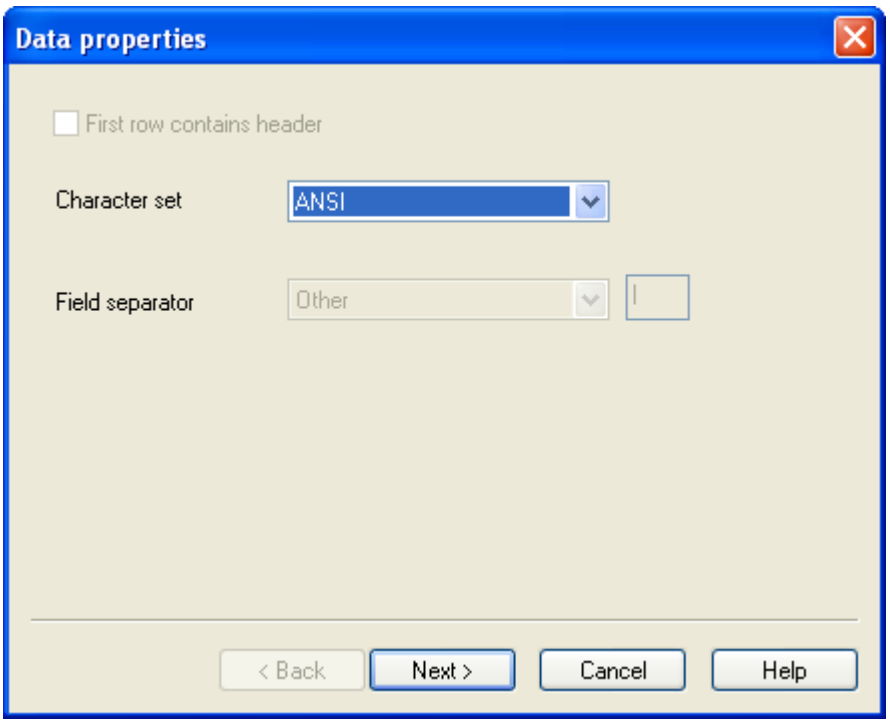
```
100001|David|Johnson|Company Card|Software Development||||||||||||U
100002|John|MacPeason|DriverLicence|Sales||||||||||||U
100003|Veronica|Stewart|Iclass 2k Card|Employee||||||||||||U
100004|Rafael|Domingues|Iclass 16k1 Card|Project Engineer||||||||||||U
100005|Paul|Peterson|Iclass 16k8 Card|Customer Services||||||||||||U
100006|Abigail|Kamamoto|MedicalCard|Reception||||||||||||U
100007|Igor|Grabowski|NationalidCard|Software Development||||||||||||U
```

The same import *.DAT-file with photo and signature information can be as follows:

```
100001|David|Johnson|Company Card|Software Development|||||||||100001|100001|||U
100002|John|MacPeason|DriverLicence|Sales|||||||||100002|100002|||U
100003|Veronica|Stewart|Iclass 2k Card|Employee|||||||||100003|100003|||U
100004|Rafael|Domingues|Iclass 16k1 Card|Project Engineer|||||||||100004|100004|||U
100005|Paul|Peterson|Iclass 16k8 Card|Customer Services|||||||||100005|100005|||U
100006|Abigail|Kamamoto|MedicalCard|Reception|||||||||100006|100006|||U
100007|Igor|Grabowski|NationalidCard|Software Development|||||||||100007|100007|||U
```

Importing Image Files (*.IMG)

Select Import Images to import Images. Once selected you are presented with the following prompt.

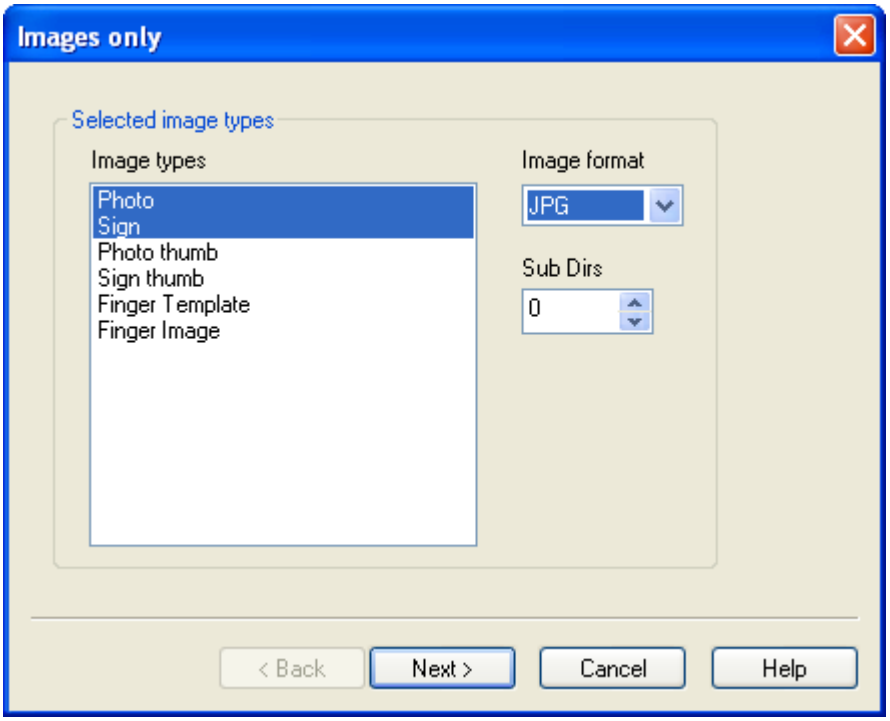


Data properties

Character set options are **OEM** or **ANSI**. Decide which character set should be chosen depending on the how the data was stored and saved. This is also valid for the **Field Separator**.

If unclear which character set to select, we recommend leaving the default setting in place, **ANSI**.

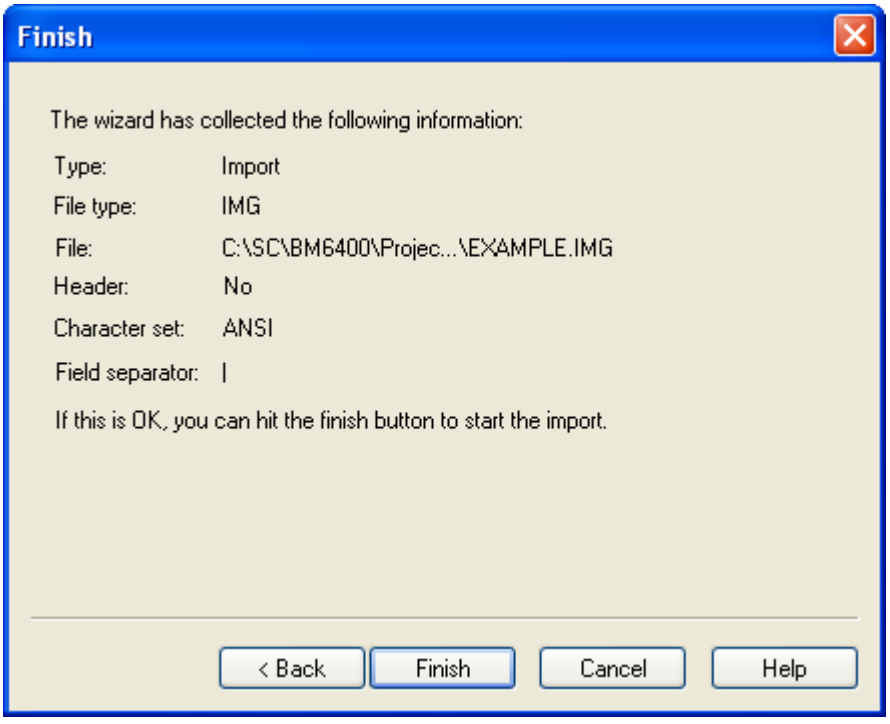
Click **Next** to proceed.



Images only

Select the **Image types** required for import and define an **Image format**.

Click **Next** to proceed. The **Finish dialog** presents a summary of settings defined earlier.

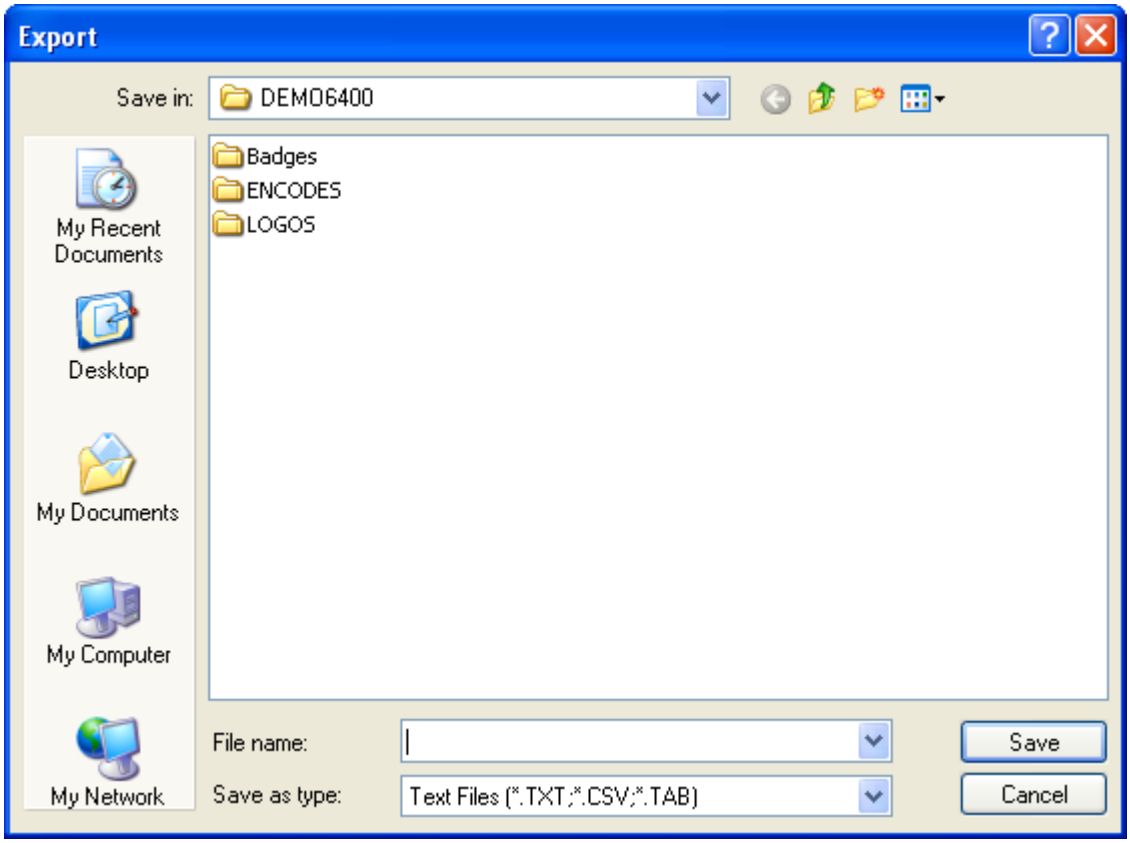


If the settings chosen are correct click **Finish** to begin importing.

Export

Select File Menu and click Export. It is possible to import data from **Text Files** (**.TXT;*.CSV;*.TAB*), **BadgeMaker DAT files** (**.DAT*), IDX (**.IDX*), **Image files** (**.IMG*), **WebData** (**.WEB*).

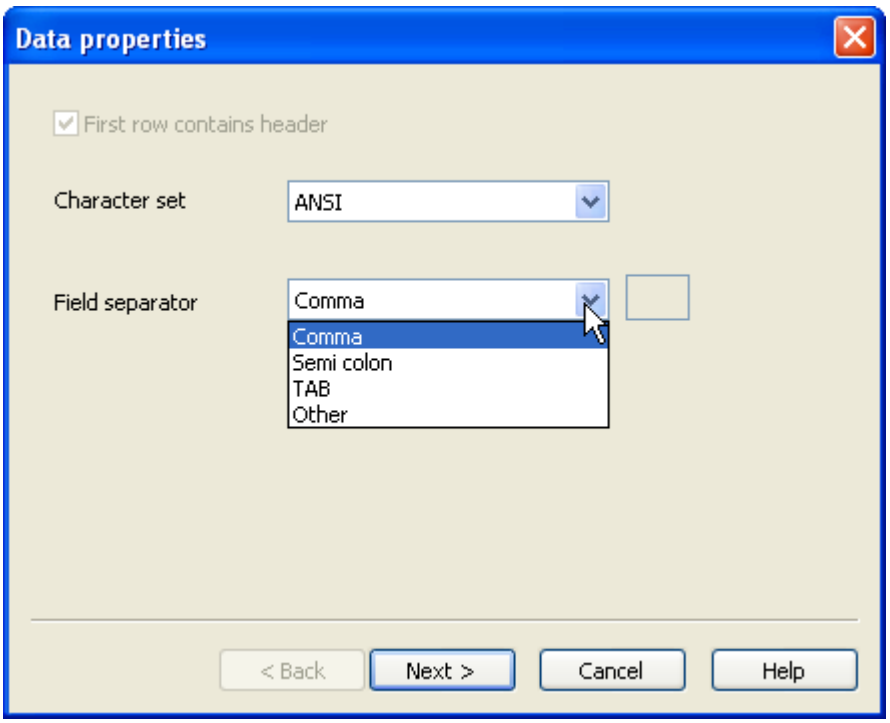
A DAT-file is a special ASCII-file for managing a database. It means you can use a DAT-file for updating and adding records to an existing database.



Select a destination directory to save the export file and give it a name. Select a file type from the drop down menu and start exporting.

Exporting Text Files

In case you choose the **Text Files** option and select a ***.TXT**; ***.CSV** or ***.TAB** file to export the following dialog will be started.

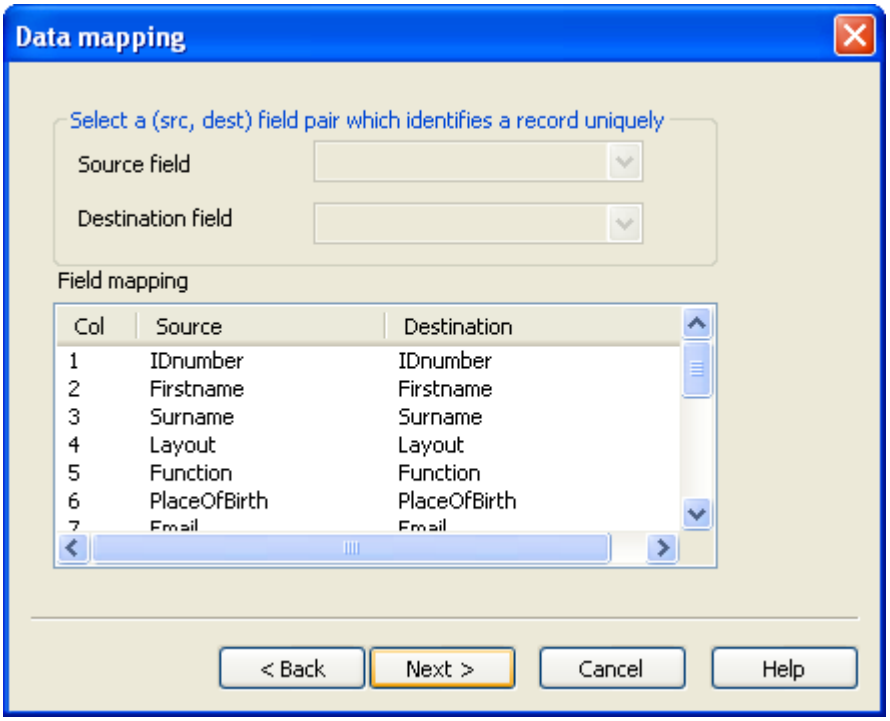


Data properties

Character set options are **OEM** or **ANSI**. Decide which character set should be chosen depending on the how the data was stored and saved. This is also valid for the **Field Separator**.

If unclear which character set to select, we recommend leaving the default setting in place, **ANSI**.

Select **Next**. The Data mapping dialog box is presented.



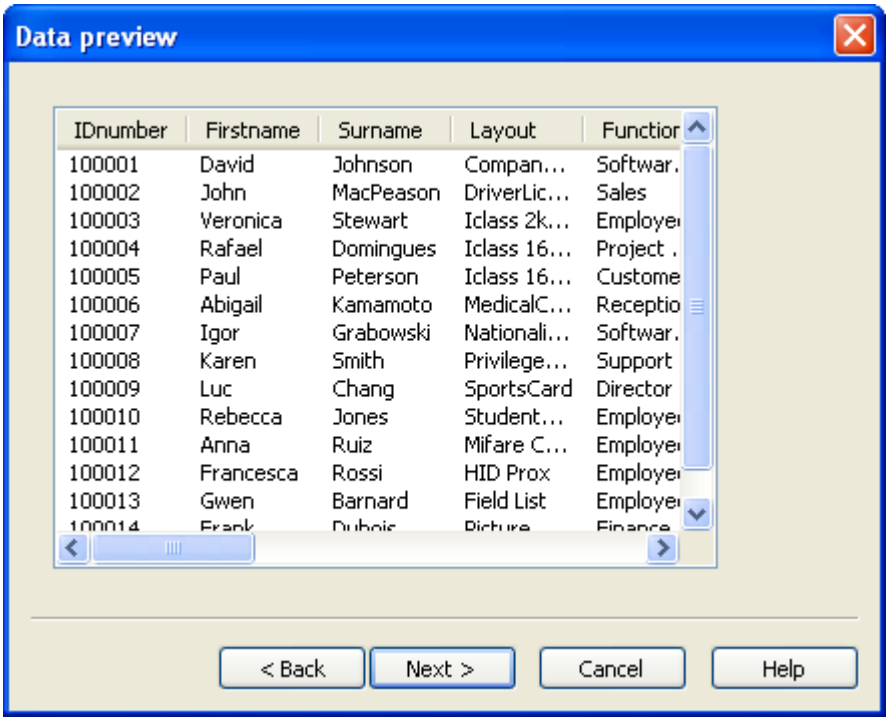
Data mapping

In the **Data mapping** dialog box select a destination to map to a source filed for the export.

By default all **Source fields** are mapped to a **destination field**. You can edit mappings yourself if needed, it is also possible to mix and match Source fields to a Destination for example you can map a **Source filed** “Firstname” to **Destination** “Surname”.

In our example we have kept Source and Destination as equal (recommended).

Select **Next** to proceed. The **Data preview** is shown.



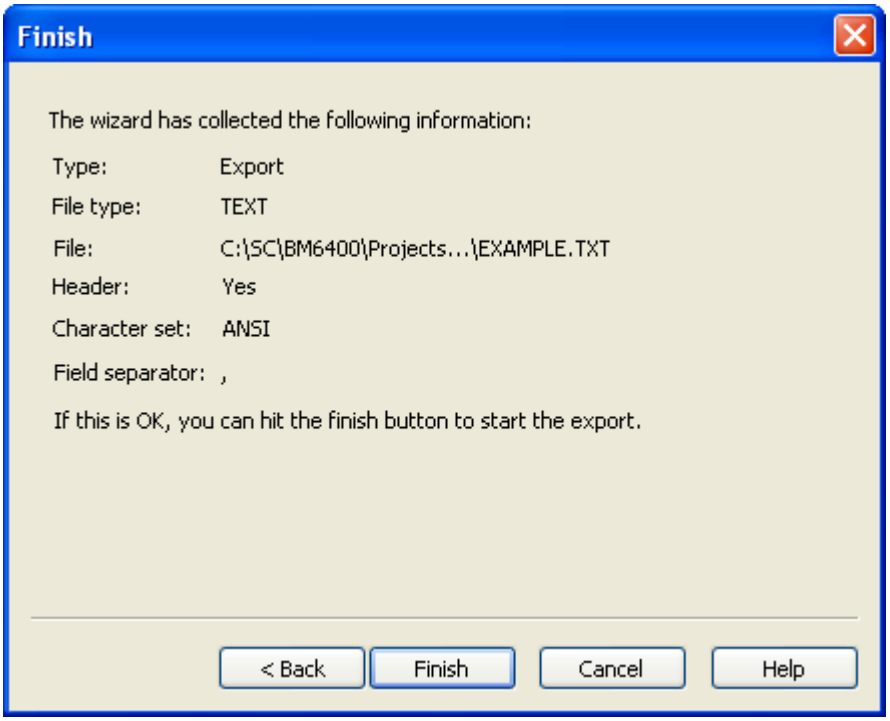
Data preview

If you are content with the results click **Next**.

An **Exported ASCII-file** can look as follows.

```
IDnumber,Firstname,Surname,Layout,Function,PlaceOfBirth,Email,Phonenumber,Logo,CardSerialNo,
CardsIssued,
100001,David,Johnson,Company Card, Software Development,Miami,,+31 79
3601160,Soft,,1,,5/9/2008,,0
100002,John,MacPeason,DriverLicence,Sales,Sydney,,+31
793601160,Soft,,3,6/8/2007,5/9/2008,5/9/2011,0
100004,Rafael,Domingues,Iclass 16k1 Card, Project Engineer,Acapulco,,+31 79
3601160,OPS,,0,6/18/2007,,,0
100005,Paul,Peterson,Iclass 16k8 Card, Customer Services,Kopenhagen,,+31 79
3601160,OPS,,0,5/22/2007,,,0
100006,Abigail,Kamamoto,MedicalCard,Reception,Osaka,,+31 79
3601160,Manag,,2,5/23/2007,6/15/2007,6/14/2010,0
100007,Igor,Grabowski,NationalidCard,Software Development,Minsk,,+31 79
3601160,Soft,,0,6/14/2007,,,0
```

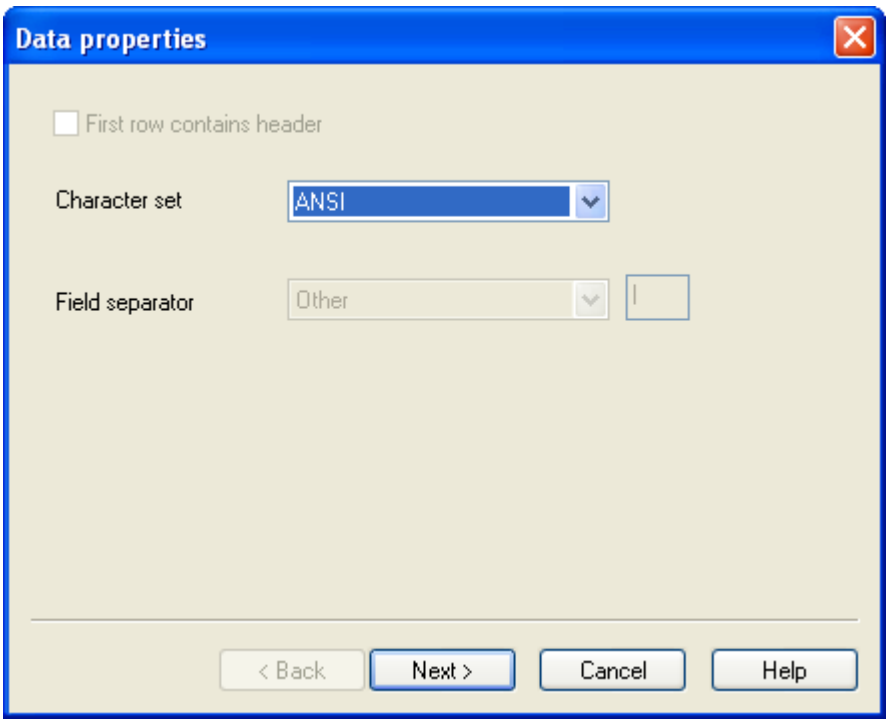
The **Finish** dialog presents a summary of settings defined earlier.



Click **Finish** to begin importing.

Exporting DAT Files (*.DAT)

If you select a ***.DAT file** for exporting, the following dialog box is shown on the screen.

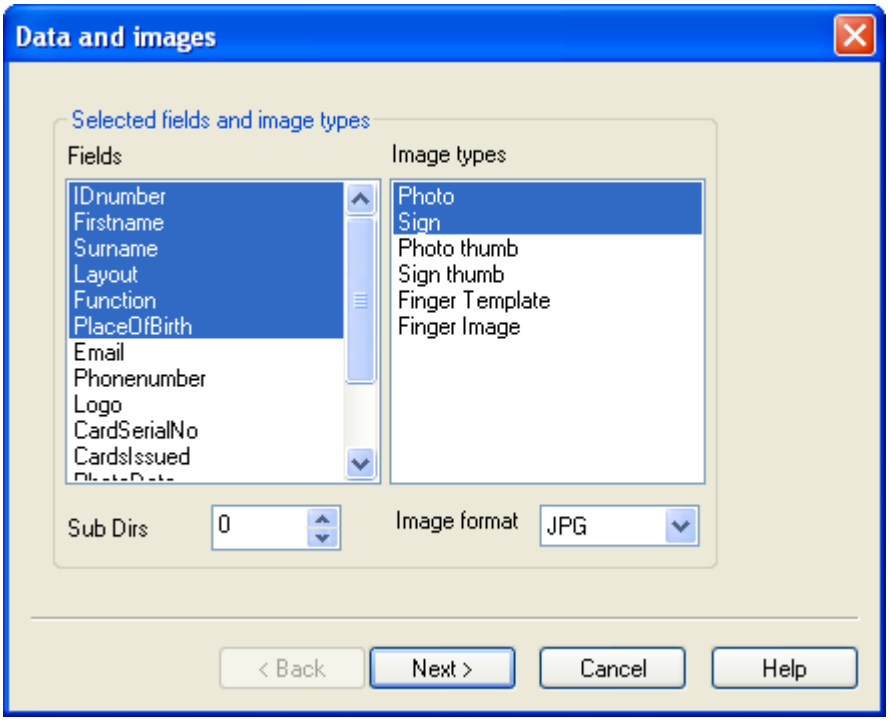


Data properties

The **Field Separator** remains disabled in this case. Click **Next** to proceed.

Character set options are **OEM** or **ANSI**. Decide which character set should be chosen depending on the how the data was stored and saved.

Click **Next** to proceed.



Data & images

Select the **Fields** and which **Image types** to include in the Export. Click **Next** to proceed.

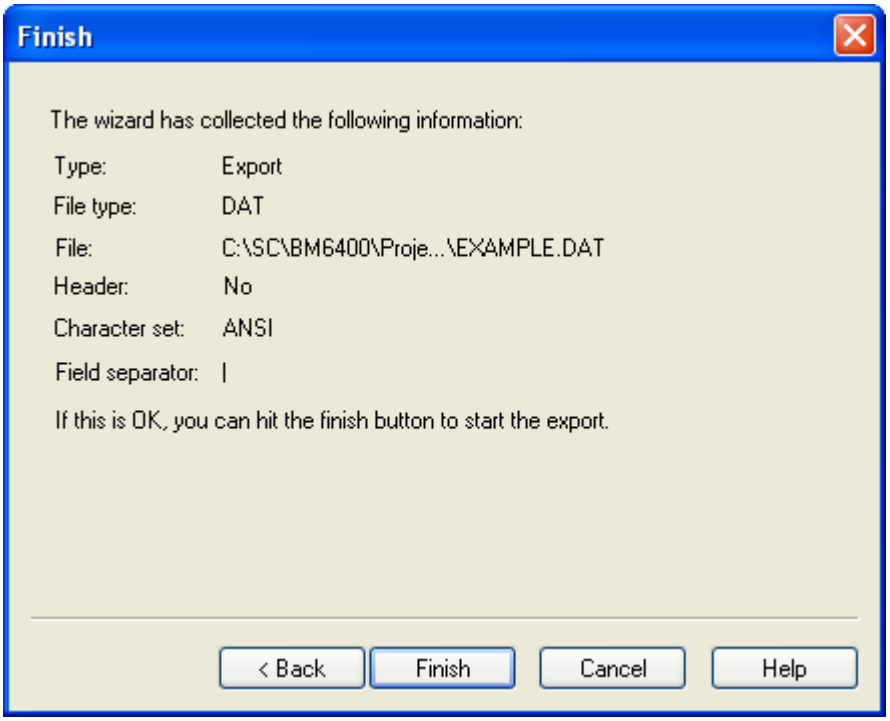
Below illustrates the differences when you produce an export file without an **Image type** and when you produce an export file with an Image type specified.

An Export *.DAT file without photo and signature information can look as follows:

```
100001|David|Johnson|Company Card|Software Development|||||||||||||U
100002|John|MacPeason|DriverLicence|Sales|||||||||||||U
100003|Veronica|Stewart|Iclass 2k Card|Employee|||||||||||||U
100004|Rafael|Domingues|Iclass 16k1 Card|Project Engineer|||||||||||||U
100005|Paul|Peterson|Iclass 16k8 Card|Customer Services|||||||||||||U
100006|Abigail|Kamamoto|MedicalCard|Reception|||||||||||||U
100007|Igor|Grabowski|NationalidCard|Software Development|||||||||||||U
```

The same Export *.DAT file with photo and signature information can be as follows:

```
100001|David|Johnson|Company Card|Software Development|||||||||100001|100001|||U
100002|John|MacPeason|DriverLicence|Sales|||||||||100002|100002|||U
100003|Veronica|Stewart|Iclass 2k Card|Employee|||||||||100003|100003|||U
100004|Rafael|Domingues|Iclass 16k1 Card|Project Engineer|||||||||100004|100004|||U
100005|Paul|Peterson|Iclass 16k8 Card|Customer Services|||||||||100005|100005|||U
100006|Abigail|Kamamoto|MedicalCard|Reception|||||||||100006|100006|||U
100007|Igor|Grabowski|NationalidCard|Software Development|||||||||100007|100007|||U
```



The **Finish** dialog presents a summary of settings defined earlier.

Click **Finish** to begin exporting.

Exporting IDX Files

If you select a ***.IDX file** for exporting, the following dialog box is shown on the screen.

An ***.IDX file** only exports images to another file location. Save your ***IDX file** in your desired location, the images will also be exported and saved in the same location.

IDX export

By default the **Counter option** is turned on. A counter replaces the name of the photo.

Click **OK** to begin exporting.

An exported *.IDX file can look as follows (*With Counter switched on*).

```
100001    1.JPG
100002    2.JPG
100003    3.JPG
100004    4.JPG
100005    5.JPG
100006    6.JPG
100007    7.JPG
```

IDX Export

Switch off the **Counter option** to automatically rename images to a selected field.

Click **OK** to begin exporting.

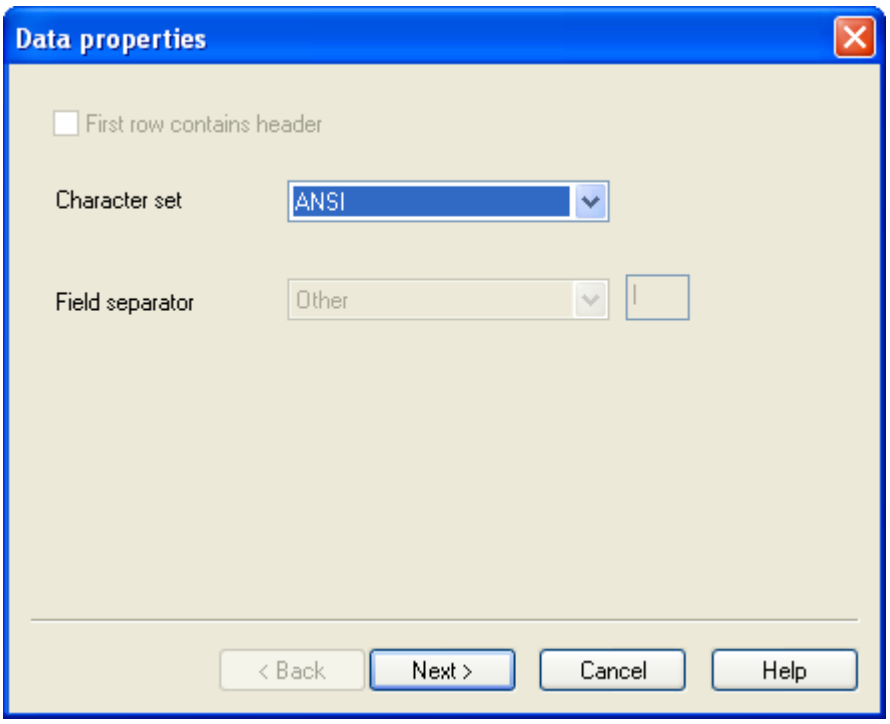
An exported ***.IDX file** can look as follows (*Field set to Surname, Counter switched off*)

100001	Johnson.JPG
100002	MacPeason.JPG
100003	Stewart.JPG
100004	Domingues.JPG
100005	Peterson.JPG
100006	Kamamoto.JPG
100007	Grabowski.JPG

Images are stored in the same directory as the *.IDX export file.

Exporting WEB Files (*.WEB)

If you select a ***.WEB file** for exporting, the following dialog box is shown on the screen.

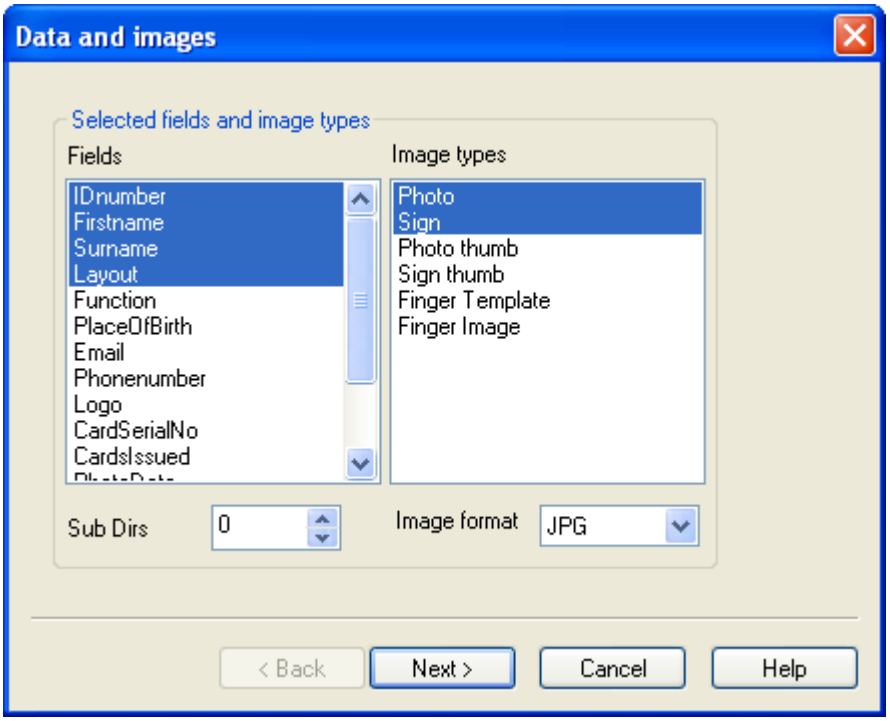


Data properties

The **Field Separator** remains disabled in this case. Click **Next** to proceed.

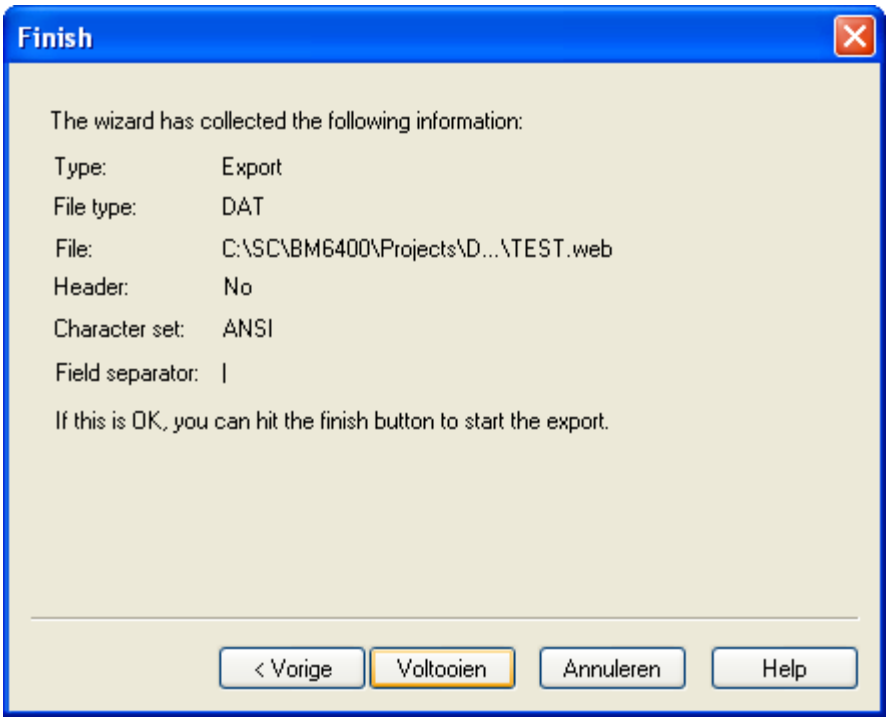
Character set options are **OEM** or **ANSI**. Decide which character set should be chosen depending on the how the data was stored and saved.

Click **Next** to proceed.



Data & Images

Select the **Fields** and which **Image types** to include in the export. Click **Next** to proceed.



The **Finish** dialog presents a summary of settings defined earlier.

Click **Finish** to begin exporting.

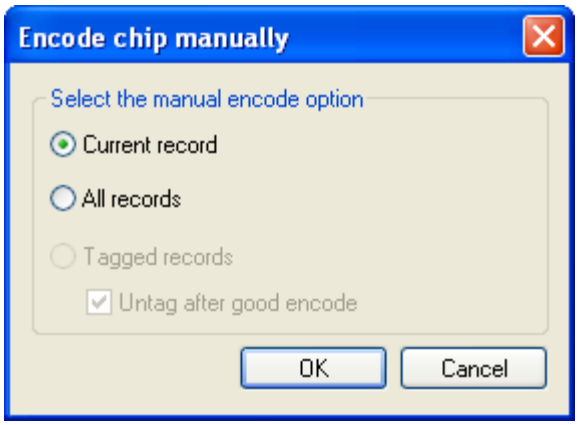
An exported ***.WEB file** can look as follows.

```
100001|David|Johnson|Company Card|Software Development|
100002|John|MacPeason|DriverLicence|Sales|
100003|Veronica|Stewart|Iclass 2k Card|Employee|
100004|Rafael|Domingues|Iclass 16k1 Card|Project Engineer|
100005|Paul|Peterson|Iclass 16k8 Card|Customer Services|
100006|Abigail|Kamamoto|MedicalCard|Reception|
100007|Igor|Grabowski|NationalidCard|Software Development|
```

Encode Chip

Select **File Menu** and then click **Encode Chip** or click  in the **Toolbar** to simulate manual chip encoding.

The manual encode function from the chip *.dll will be activated.



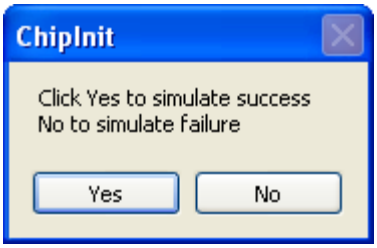
Encode chip simulation

You can select whether you want to encode only the current record, all records or only the tagged records.

If you encode only tagged records, you have the option to un-tag these records after encoding. The option **Tagged records** is only available if one or more records have been tagged.

Encode chip simulation

Encode Chip manually will work only if a suitable chip encoding *.dll has been added to the SC directory (C:\SC\ BM.....).



Click **Yes** to simulate success. ChipInit dialog will close.

Click **No** to simulate a failure. The following dialog will simulate a failure.

Encode OMC

Select File Menu **and then click** Encode OMC **or click**  **in the** Toolbar **to simulate manual chip encoding.**

Select this option to simulate manual OMC encoding (*encoding of an Optical Memory Card*).

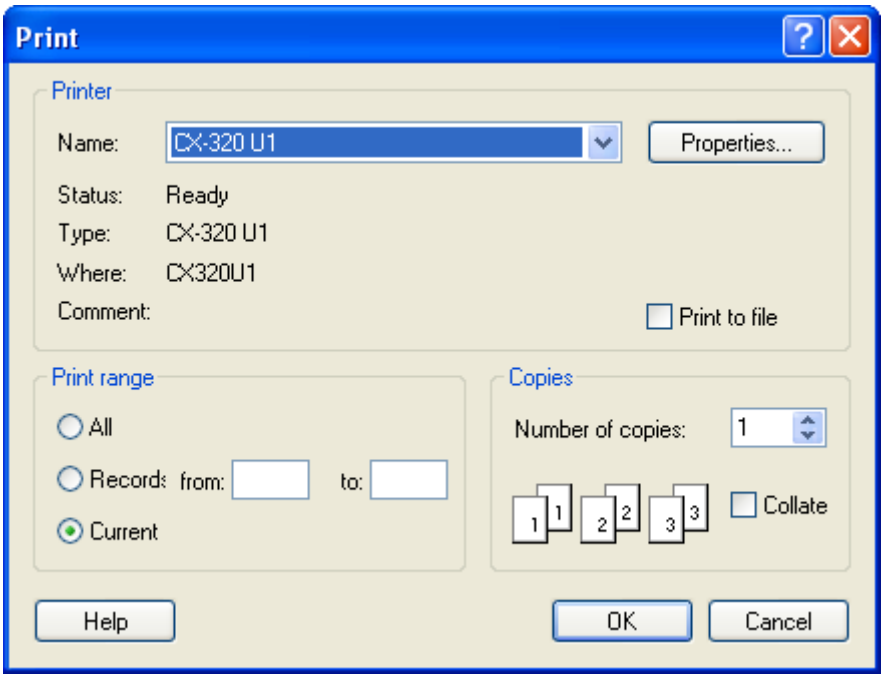
This is only optional if using an Optical Memory Card.

Print

Click the **Print** button on the toolbar  or select **File Menu** and then click **Print.**

Use this command to print badges from either a selected tagged record(s), current record or all records.

Select **File Menu** and then click **Print**, the following dialog is presented.



Print dialog

The printers that are available from your computer are listed in the drop down menu under **Name**. Click the printer you want to use.

Click **Properties** to view and edit driver settings, encode settings, print settings. The options available will depend on the type of printer installed.

Print to File: Prints a document (*badge*) to a file and not directly to a printer. The document is saved as a ***.prn** file and can be printed on other printers.

Print Range: Specify to print an entire document, specific pages, or a portion of the document.

Copies: Type the number of printed copies to print.

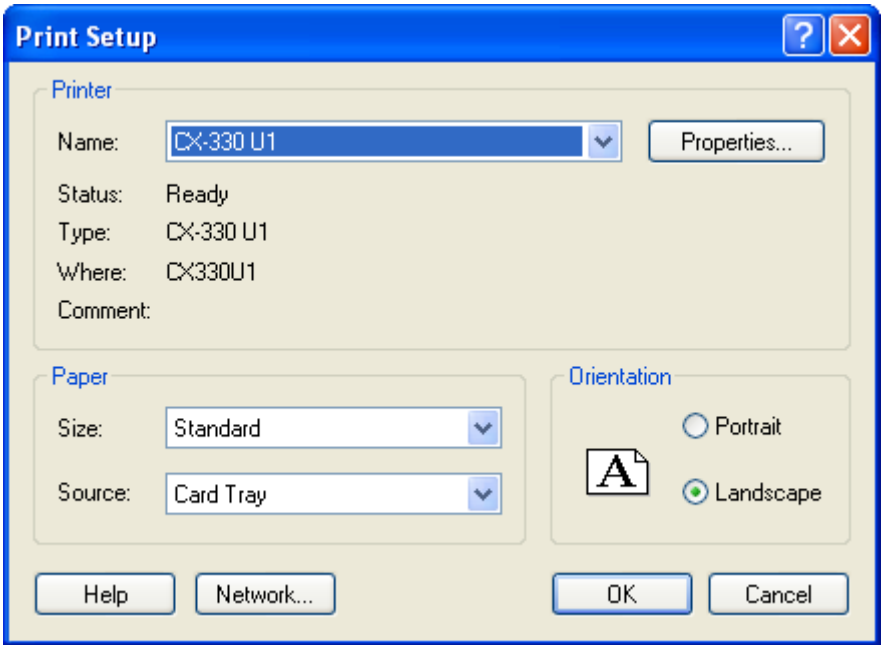
Click on a record in the database view or find a record using **Find** from the **Record Menu**.

Select **Current** in the print range section to print the current record.

Print Setup

Select **File Menu** and click **Print Setup**.

You can select paper size and orientation.



Print setup dialog

Click **Properties** to view and edit driver settings, encode settings, print settings. The options available will depend on the type of printer installed.

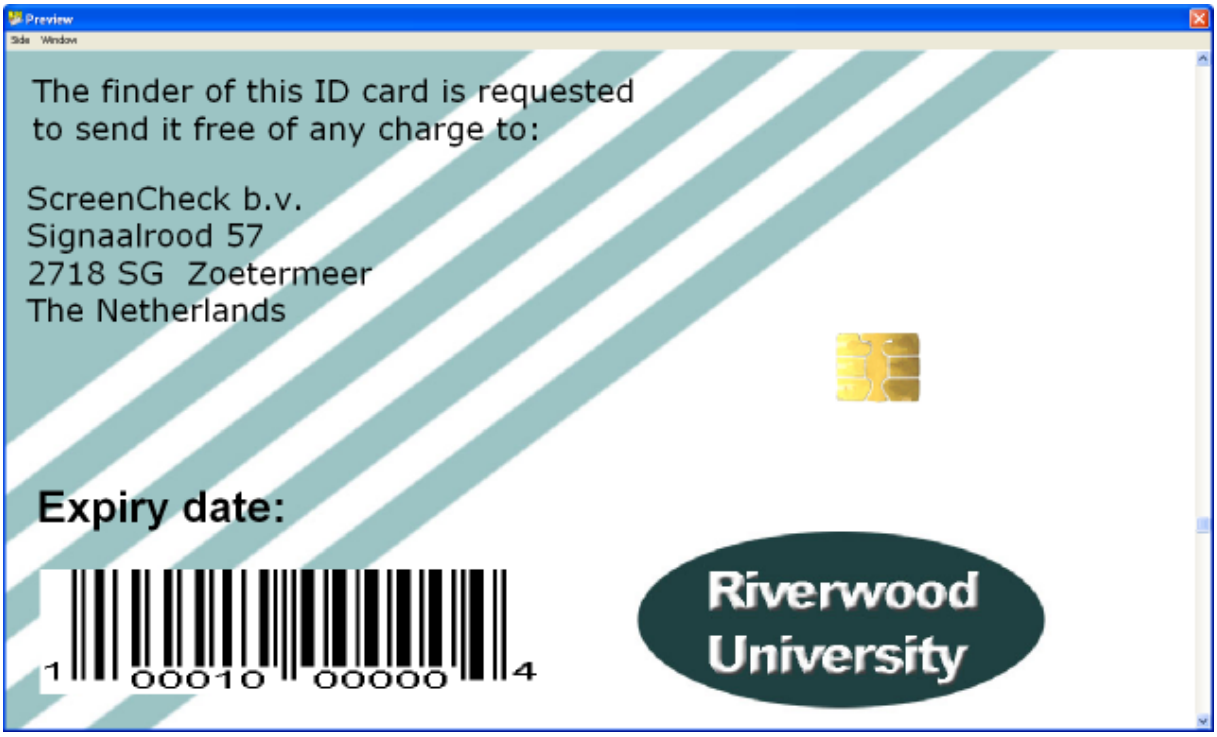
Print Preview

Select **File Menu** and click **Print Preview**.

Use this command to preview a badge design before printing. This is useful when checking data on a badge is represented correctly before sending.

Select the **Side Menu**, you can choose to view the **front** or **back** of the layout.

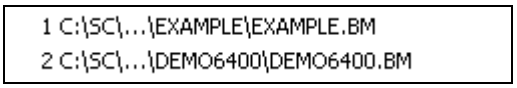
Print preview (*Front*)



Print preview (*back*)

Recent Files

Select **File Menu**, towards the bottom on the menu you will notice a list of recently opened project files (**.BM*).



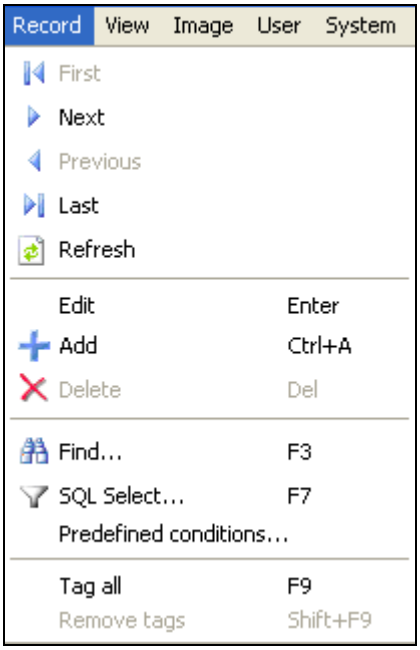
BadgeMaker will keep a list of recently opened projects.

Exit

Select **File Menu** and click **Exit**. BadgeMaker will close down.

Record Menu

The **Record Menu** appears as the second item in the menu bar, and contains commands relating to the handling of records such as browsing records, adding records, editing and deleting records. You can run a search and tag records from here.



Record Menu

First

Use  option from the toolbar or select from the **Record Menu** and click **First** to go to the first record in a project.

Next

Use  option from the toolbar or select from the **Record Menu** and click **Next** to go to the next following record in a project.

Previous

Use  option from the toolbar or select from the **Record Menu** and click **Previous** to go back to a previous record in the database.

Last

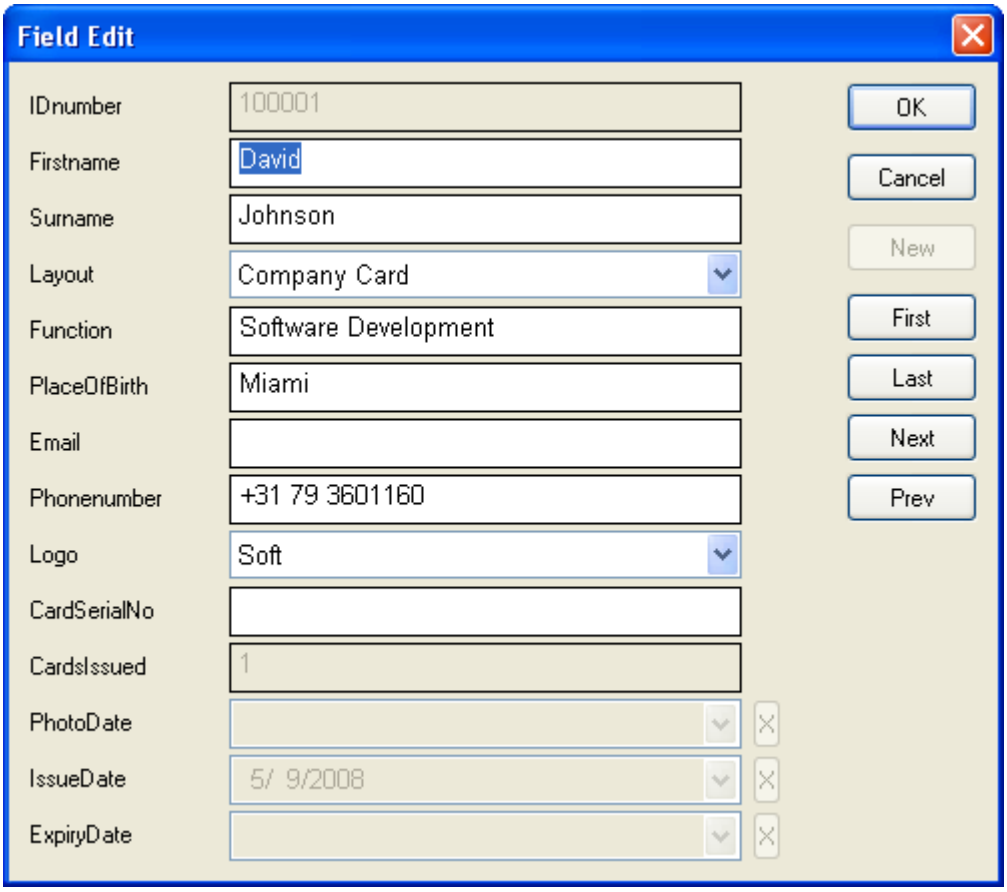
Use  option from the toolbar or select from the **Record Menu** and click **Last** to go to the last record in a project.

Refresh

Use  option from the toolbar or select from the **Record Menu** and click **Refresh** to keep and settings up to date on the screen.

Edit

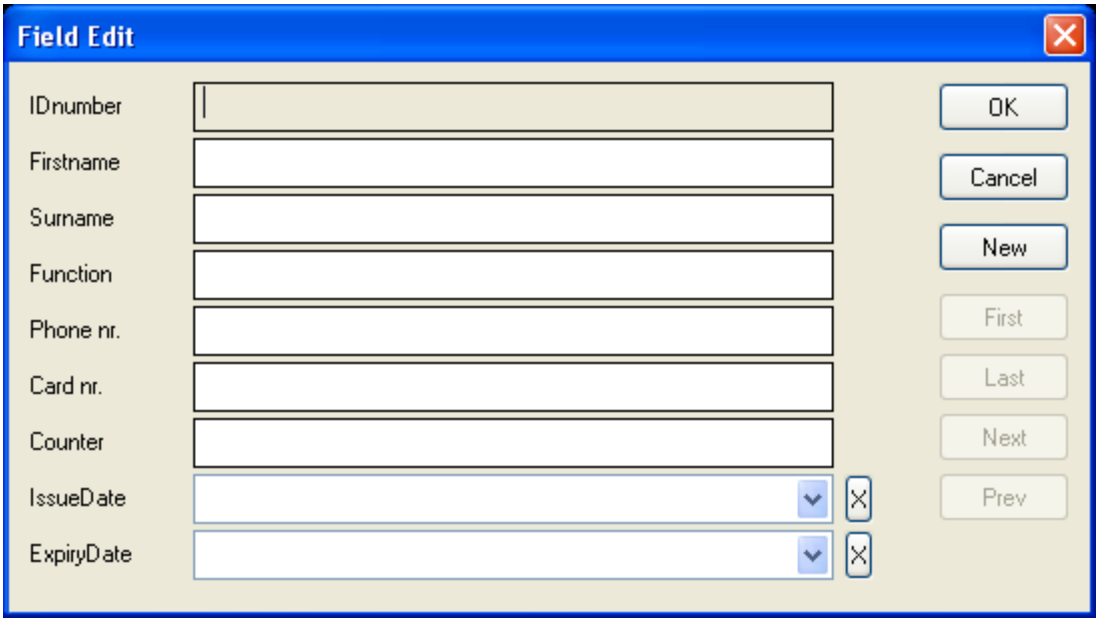
Select the **Record Menu** and click **Edit** to open the Edit dialogue box. In this dialogue the contents of the fields can be edited, provided that the fields are marked as editable and the underlying database allows the user to edit the fields.



Edit record

Add

Use  option from the toolbar or select the **Record Menu** and click **Add** to open the Add dialog box. In this dialogue a new record can be created and added to the database.



New record

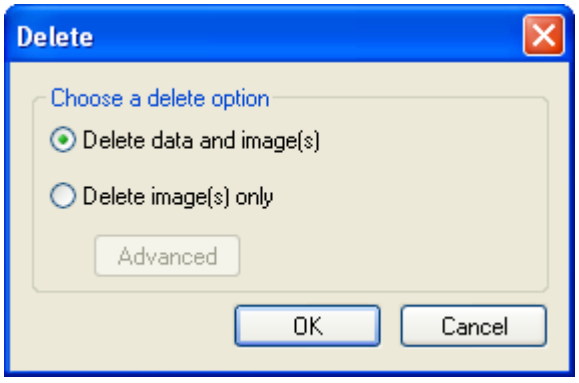
Fill in the required information to add. Once completed click **OK** to save the new record, or select **New** to create another record.

Delete

Use  option from the toolbar or select from the **Record Menu** and click **Delete** to delete a new record in the database.

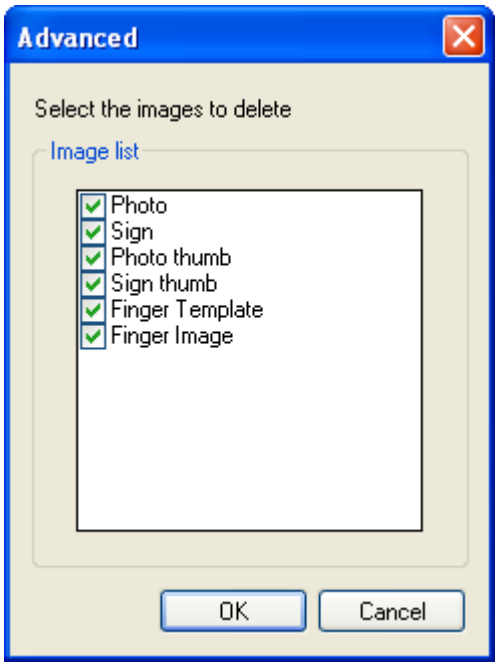
This option is only enabled if a record is tagged.

Tag one or more records and then click **Delete**, the following dialog is shown.



Choose **Delete data and image(s)** (*complete record and images are removed*) or **Delete image(s) only**.

If you choose to delete images then the **Advanced** button is enabled, click **Advance** and the following screen is shown.

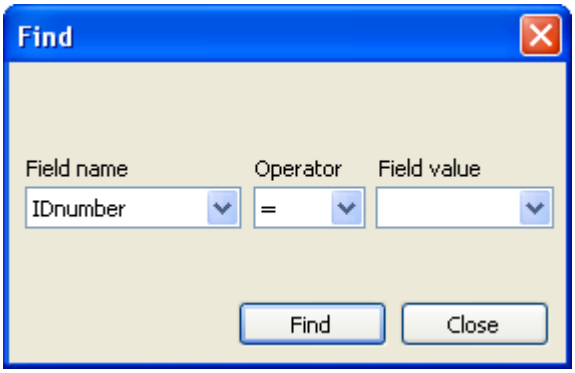


Advanced

Select which images should be deleted, and then click **OK**.

Find

Use  option from the toolbar or select from the **Record Menu** and click **Find** to search one or more records from the current database.



Find dialog

Only records specified with in a search will be displayed in the database window. To return to the initial selection right click inside the database and select **SQL Select**, click **Select All** and then confirm selection by clicking **Yes**.

You can also search on the contents of a field by pressing **F3** on your keyboard.

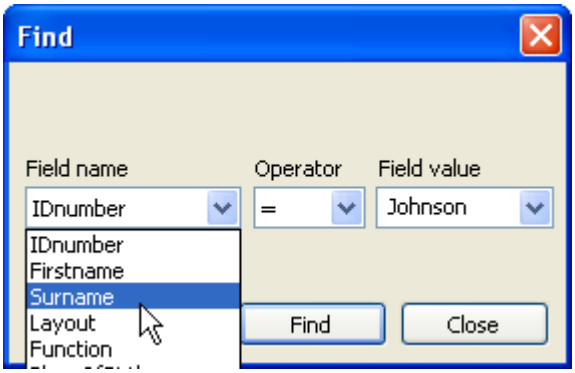
The search function will search the selected record set. However if the **=** (*equal sign*) is used, the find option will search the entire database. This enables the user to work with a predefined record set, but adds the flexibility to search for a particular record in case of urgency such as a new card being issued to replace a lost or expired card.

Field name: The dropdown menu enables the user to select a field name on which the sorting is based upon.

Operator: The **=, <, >, >=, <=, <> or LIKE operators** are used in correspondence with the selected field value.

Field value: Fill in the value to search for, or use the drop down list to select a value of an earlier cached entry.

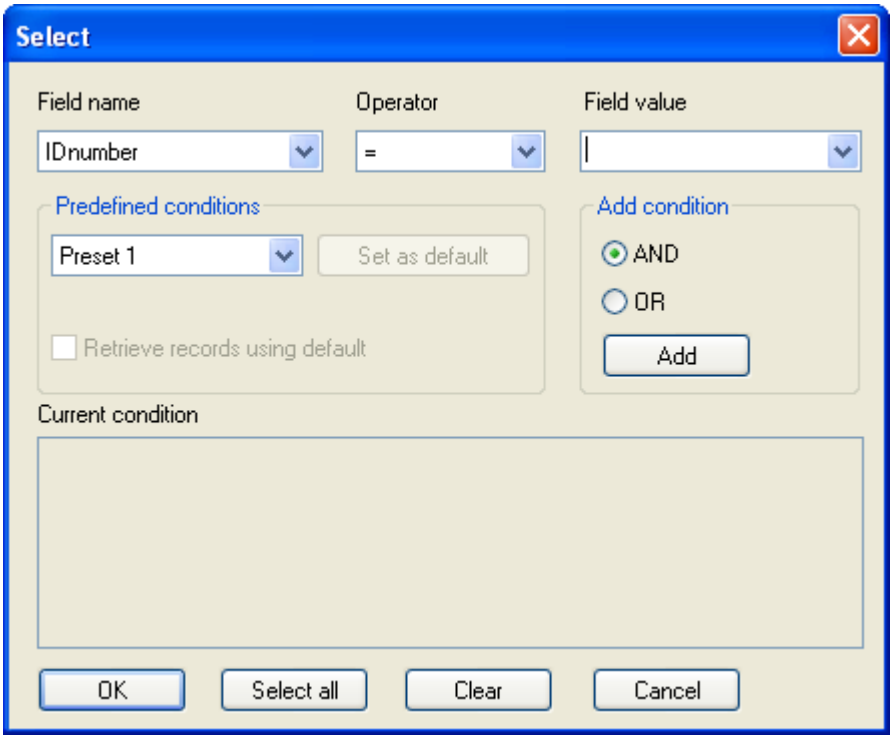
This example we will search for a record by a person's surname. To search for the surname 'Johnson' select a field name, type "*Johnson*" in the Field Value edit box and choose the **=** operator. The specified field value "*Johnson*" is found and displayed.



SQL Select

Use  option from the toolbar or select from the **Record Menu** and click **SQL Select** to select or deselect a group of records in the database.

You can also start **SQL Select** by clicking the right mouse button within the database window, and then click **SQL Select**.



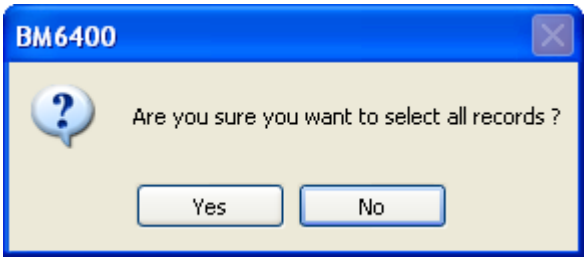
Select dialog

A Field name can be selected from the dropdown list, then an **Operator** must be selected from the next dropdown list (**=, <, >, <=, >=, <>, LIKE**). Enter a value in the **Field value box**. Select the type of selection **AND** or **OR** (*first entry does not need a condition applied*). Click **Add** to add a condition.

This procedure can be repeated to add more conditions to your search.

OK: Select the records on specified criteria.
Select all: Selects all the records (*can take some time when working with a very large database*). A confirmation will be asked if you are sure you want to select all records.
Clear: Removes the current selection.
Cancel: Closes the select dialogue, no selection will be made.

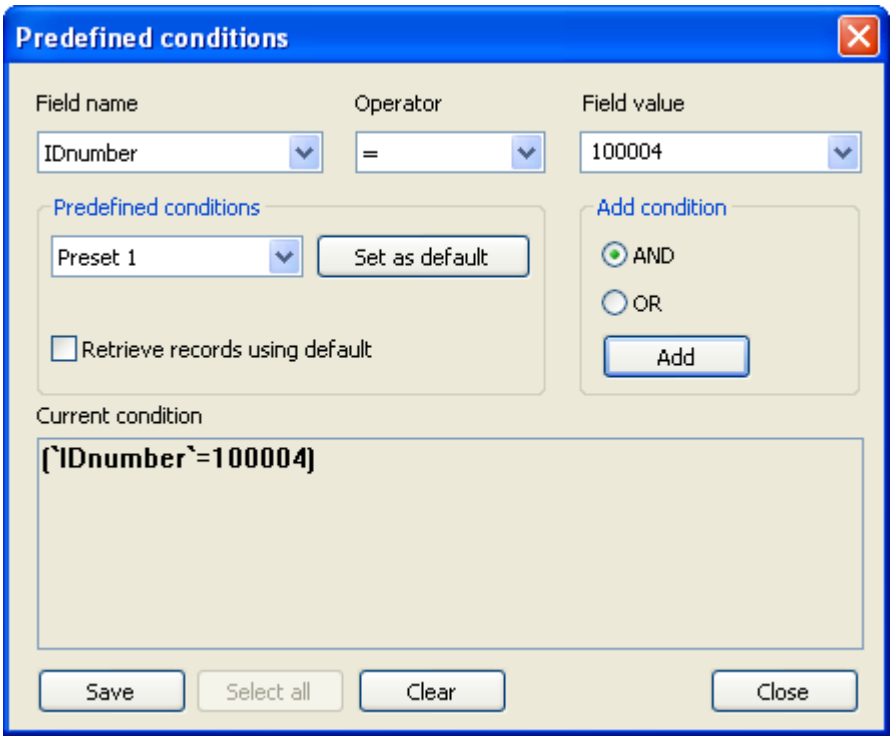
If you choose to **Select All records** you will see a warning message appear.



Select **Yes** to confirm your choice or **No** to cancel and define a search further.

Predefined Conditions

Select the **Record Menu** and then click **Predefined Conditions** to open the dialog box.



Predefined conditions

Use this option to define conditions which can be stored under four presets listed under **Predefined Conditions**. One of these presets can be used as a default condition at startup.

To create a predefined condition:

- Select one of the four presets….
- Add the required condition(s)….
- Click Save to store the condition(s) under the selected preset….
- Repeat these steps for the other presets….
- Assign one of the presets as default….

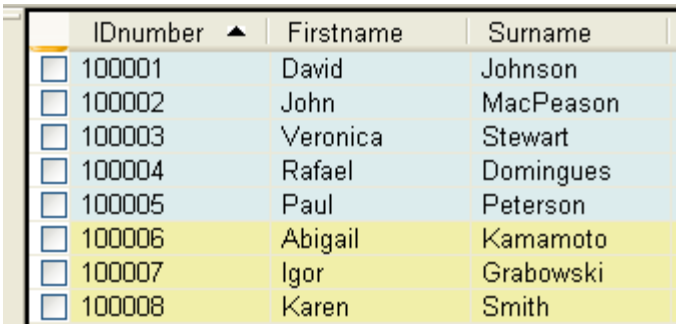
If an operator chooses to use a preset to define a condition to a project at startup then the SQL select dialogue will not be presented, but the default selection will be performed on the database automatically.

Tag All

To use select **Record Menu** and then click **Tag all**.

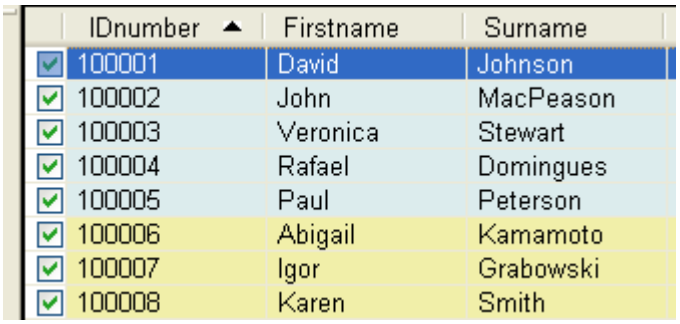
Use this option to tag all records in the selection. Tagged records can be used to print cards, export, delete or to print a list from.

Untagged



IDnumber	Firstname	Surname
100001	David	Johnson
100002	John	MacPeason
100003	Veronica	Stewart
100004	Rafael	Domingues
100005	Paul	Peterson
100006	Abigail	Kamamoto
100007	Igor	Grabowski
100008	Karen	Smith

Tagged



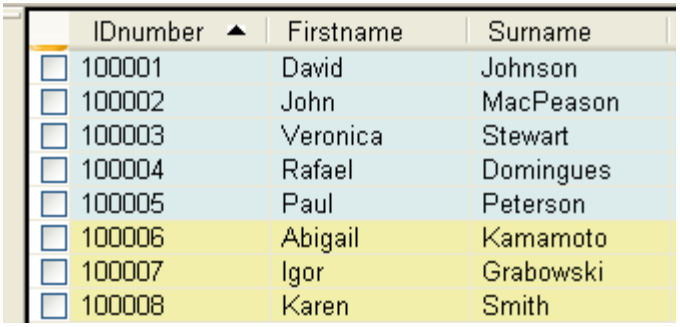
IDnumber	Firstname	Surname
100001	David	Johnson
100002	John	MacPeason
100003	Veronica	Stewart
100004	Rafael	Domingues
100005	Paul	Peterson
100006	Abigail	Kamamoto
100007	Igor	Grabowski
100008	Karen	Smith

You can also tag records individually by selecting the box next to the record, for example deleting a record or printing a record.

Remove Tags

To use select **Record Menu** and then click **Remove tags**. Use this option to remove all tagged records in the project.

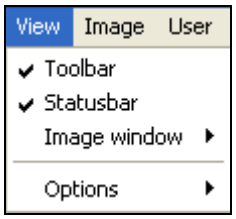
Untagged



IDnumber	Firstname	Surname
100001	David	Johnson
100002	John	MacPeason
100003	Veronica	Stewart
100004	Rafael	Domingues
100005	Paul	Peterson
100006	Abigail	Kamamoto
100007	Igor	Grabowski
100008	Karen	Smith

View Menu

The **View Menu** appears as the third item in the menu bar, and contains commands relating to hiding or showing image windows such as photos, signatures or fingerprints. You can hide or show the toolbar and status bar and change the appearance of BadgeMaker's main screen such as changing the font or selecting another language.

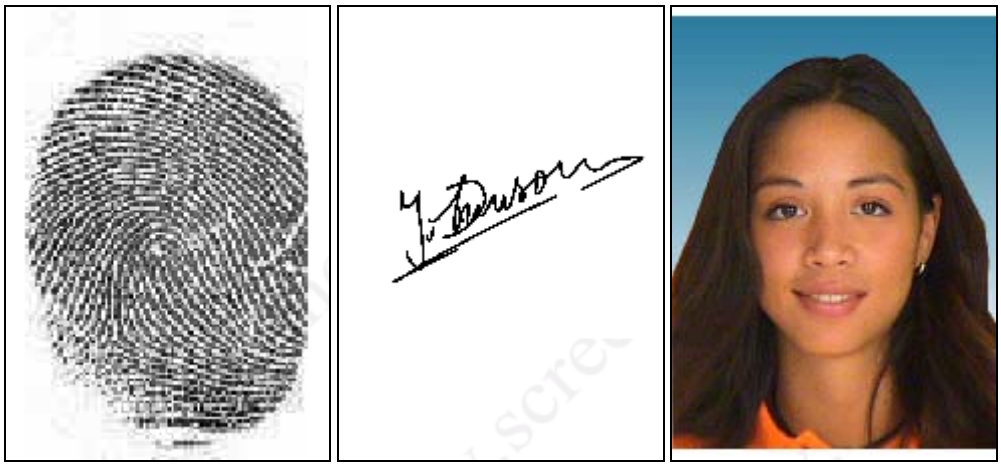


View menu

Image Windows

Image Windows are separate windows which are always displayed on the **Main Screen**. When an image is acquired the image is stored under an active image type.

Images



BadgeMaker offers up to **20** image types. The photo and signature windows are the most well known and most commonly used image types. Each image window can be displayed separately.

Select **View Menu** and then select **Image Window**.

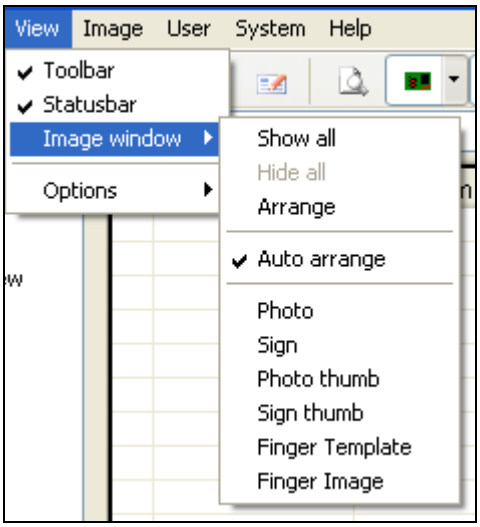
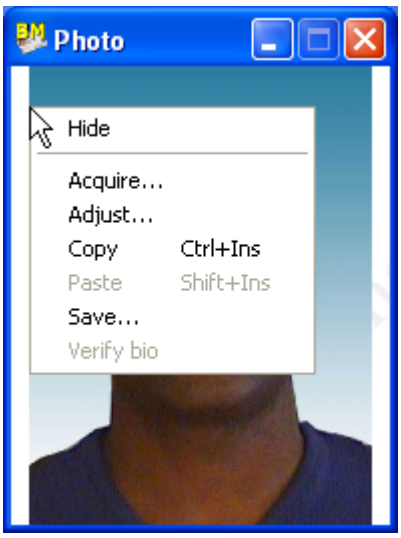


Image window

There exists an option to Show All image windows, Hide All image windows or select an individual image window.

Image windows can be resized by dragging with the mouse pointer on one of the corners.

By using the right mouse button a small menu can be activated with the following options:

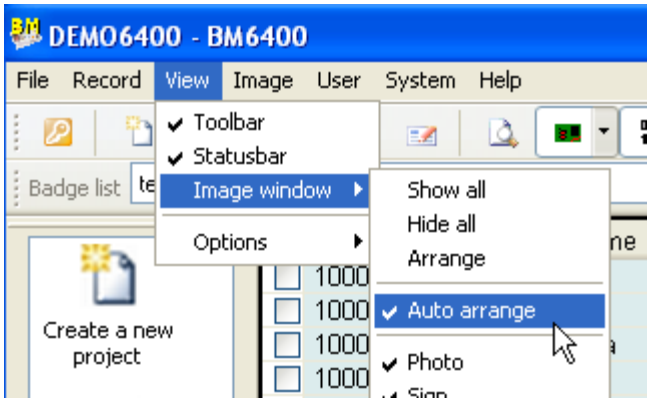


Hide: Closes the window.
Acquire: Activates the selected TWAIN driver or direct driver to capture a new image.
Adjust: Opens the 'Adjust' dialogue which enables you to adjust the brightness, contrast or gamma of the image (*BCG tab*). It can also be used to rotate the image in steps of 90 degrees (*rotate tab*) and to sharpen or soften the image (*filter tab*).
Copy: Copies the image to the clipboard.
Paste: Pastes the image from the clipboard in the image window (*and stores it into the database*).
Save: Save the current image.

Auto Arrange

To select click the **View Menu**, then move the mouse pointer so it highlights Image Window and then click **Auto Arrange**.

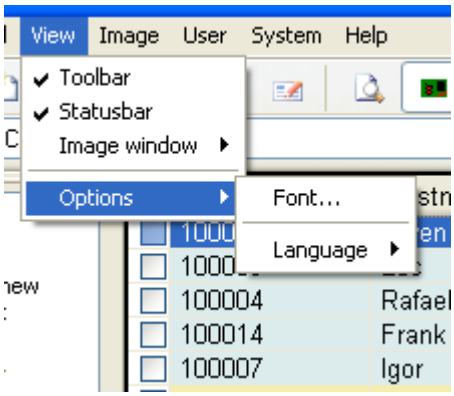
Check this option to arrange the image files automatically next to each other under the database grid.



Auto arrange

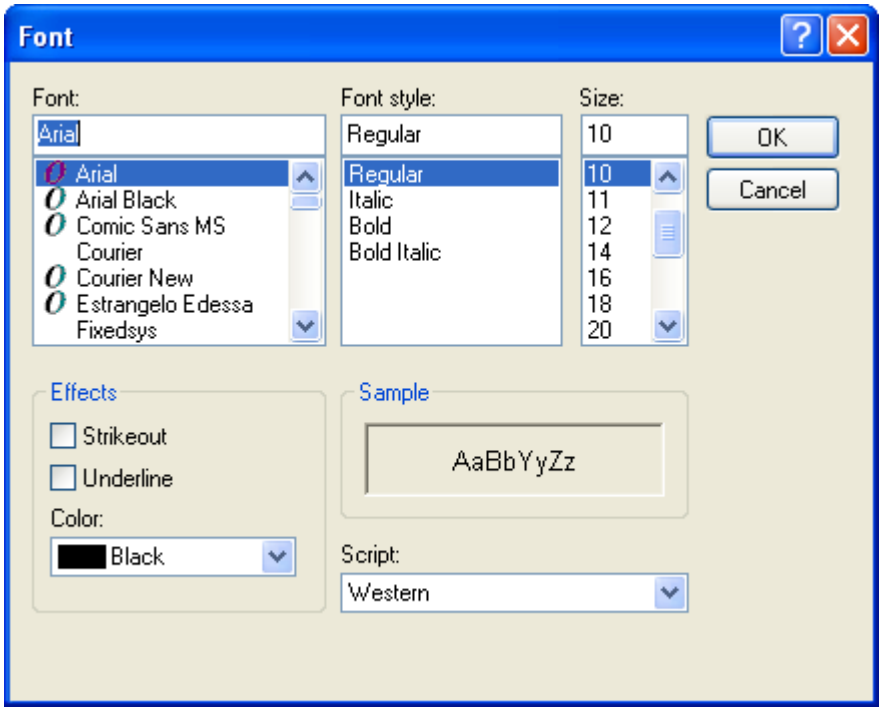
Options

Select the **View Menu** and then select **Options**.



Font

Select **Font** to change the font for text in the grid. You can select various **Font types**, **Font Styles**, **Font size** and **Font color**. In the **Sample area** you can preview your customized settings.



Font

Select **Language** to modify the language of all Top Menu items and Dialog boxes with in BadgeMaker and BadgeCreator.

By default **English (US)** is the preset.

You can change the appearance to reflect the area of the world you live in.

Please consult your dealer when the desired language is not available.

Image Menu

The Image Menu appears as the fourth item on the menu bar, and contains commands relating to the handling of image files such as copy, paste, and save. You can acquire images and select a source from here.

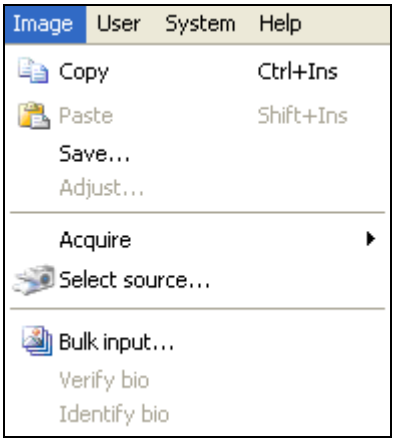


Image menu

Copy

Use  option from the toolbar or select from the **Image Menu** and click **Copy** to copy data onto the clipboard. When you copy an image or data, you are making a duplicate of the original item, you can then modify, delete or save images independently of the original.

Paste

Use  option from the toolbar or select from the **Image Menu** and click **Paste** to paste data from the clipboard which you have copied previously.

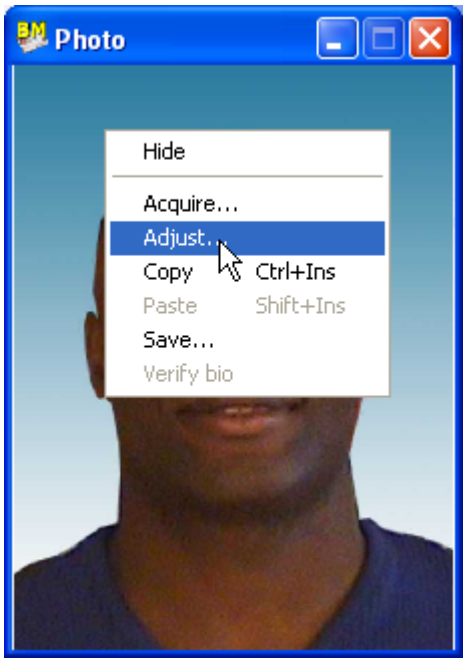
Save

Select from the **Image Menu** and click **Save** to save data and images.

Adjust

Use **Adjust** to adjust the image in the active image window.

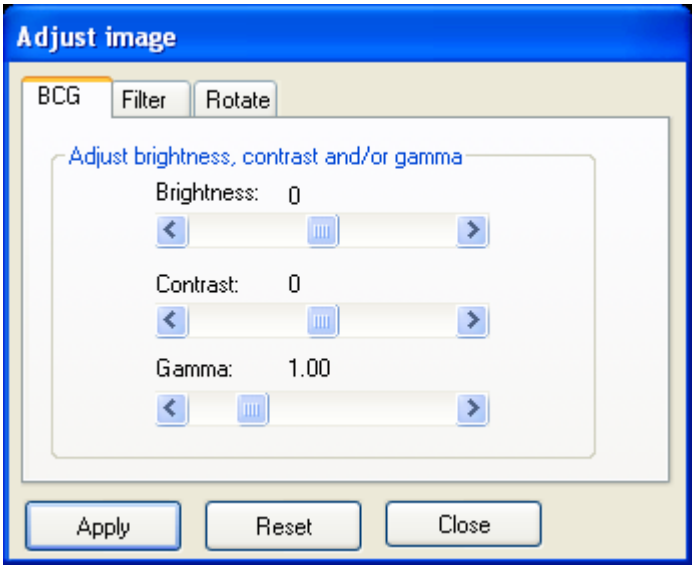
Click on the window of the desired image type to make it active. Right click inside the image window and click on **Adjust**.



When you select **Adjust**, the **Adjust Image** dialog is displayed.

BCG Tab

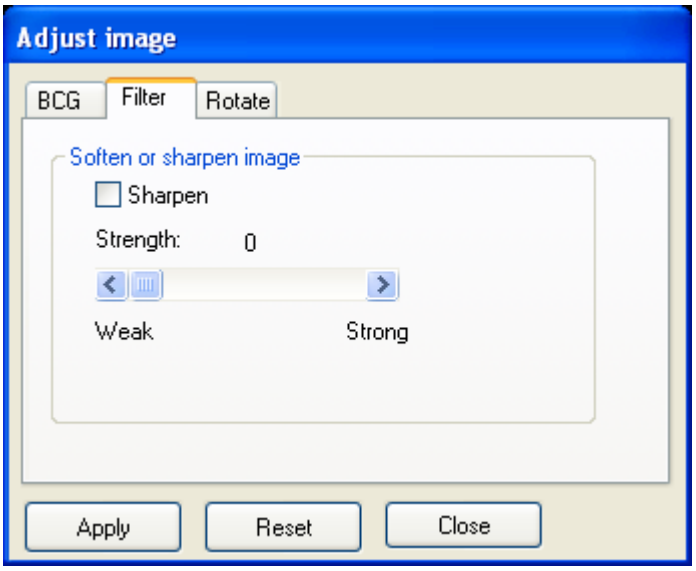
Change the brightness, contrast or gamma by moving the slide bars. The result is directly visible in the image window. Click **OK** when the desired result is attained. Click **Reset** to undo any changes made to the image or click **Close** to undo changes and close the dialogue box.



BCG

Filter Tab

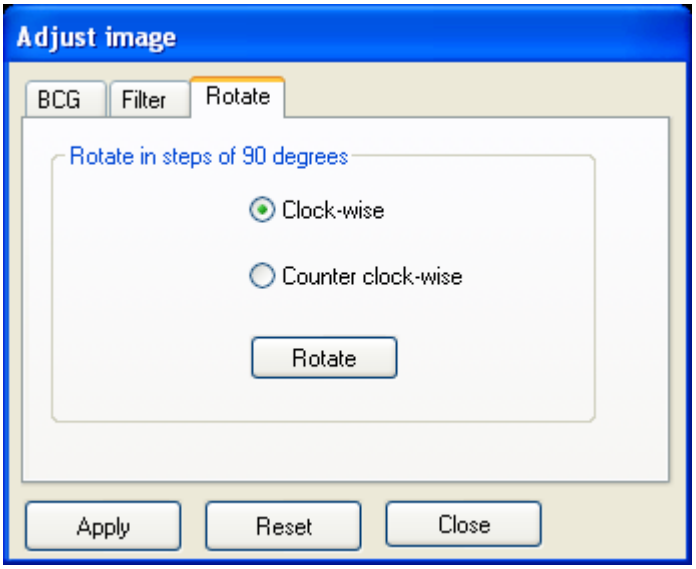
Use this option to soften or to sharpen the image. The result will be visible after clicking **Apply** button. Click **Reset** or **Close** if the result is not satisfying.



Filter

Rotate Tab

Use this option to rotate the image **90**, **180** or **270** degrees. The result will be visible after clicking **Apply** button. Click **Reset** or **Close** if the result is not satisfying.

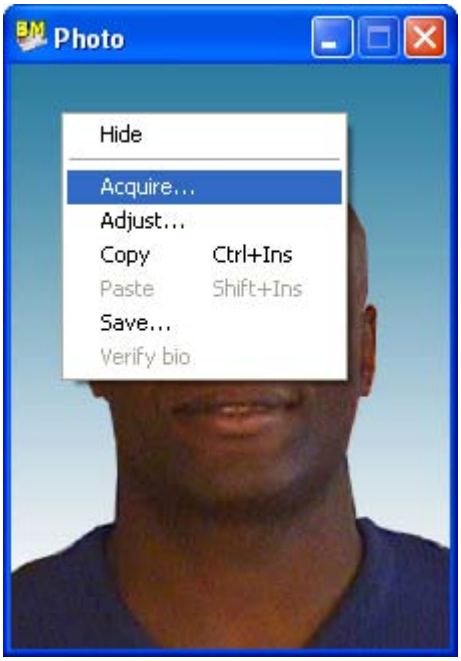


Rotate

Acquire

Use this function to add an image to the image database. The image type that will be acquired is equal to the type of the active image window selected.

Click on the window of the desired image type to make it active. Right click inside the image window and click on **Acquire**.



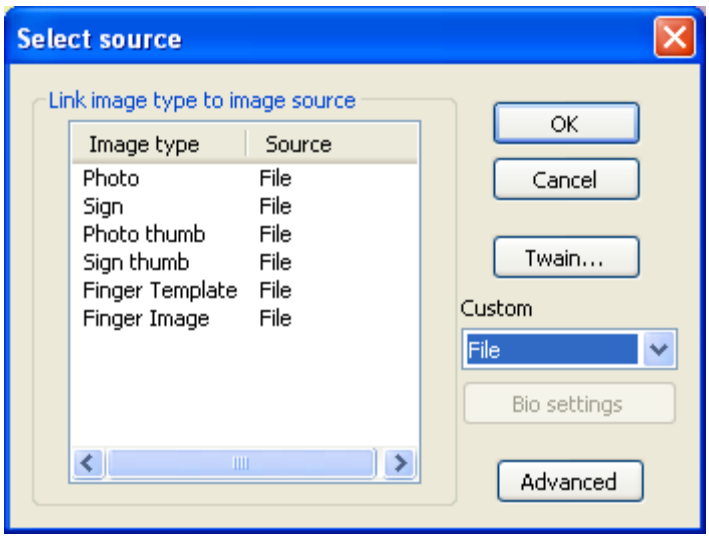
Production of the image depends on what input source has been configured.

The input source to acquire an image can be selected under **Select Source** (*listed also in the Image menu*).

BadgeMaker has the possibility to acquire existing files, by using the option **Load from file**. In this way graphic files of different formats can be selected and linked directly to the current record. Keep in mind that the graphic files already must have the correct ratio to show on the Badge Layout (*this prevents distortion of the image*).

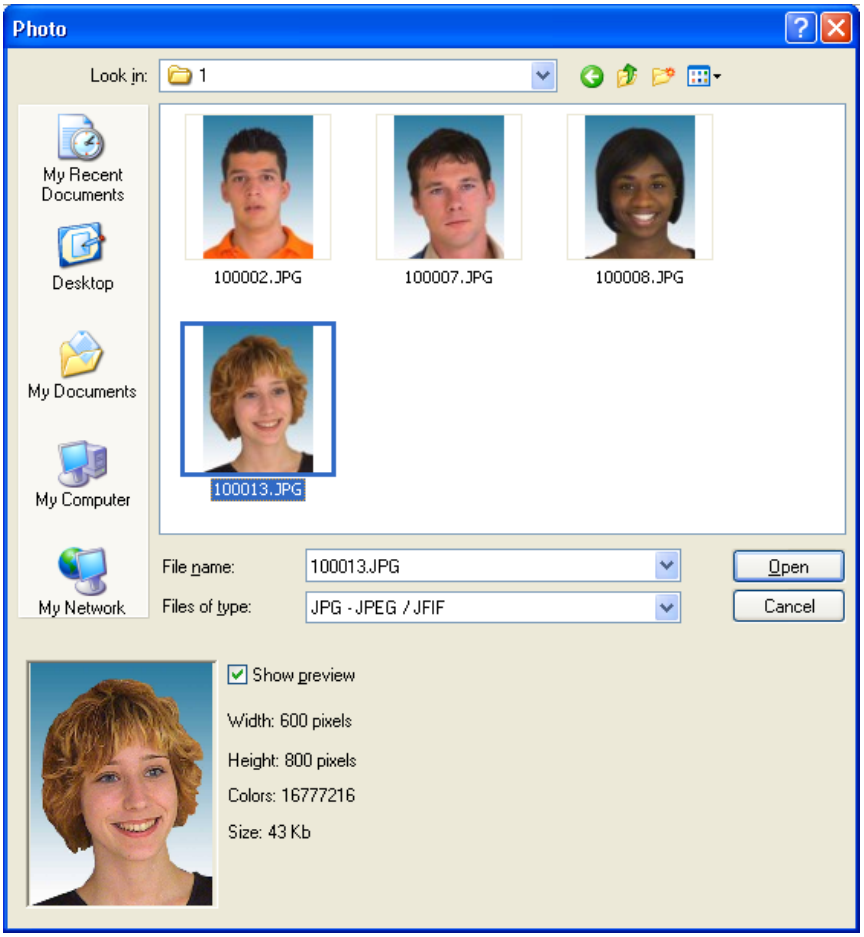
Acquire Image from Image File

To acquire a photo from a file select **Image Menu**, then click **Select Source**.



Select source

If File is selected (default), the following dialogue will come up when acquiring an image.



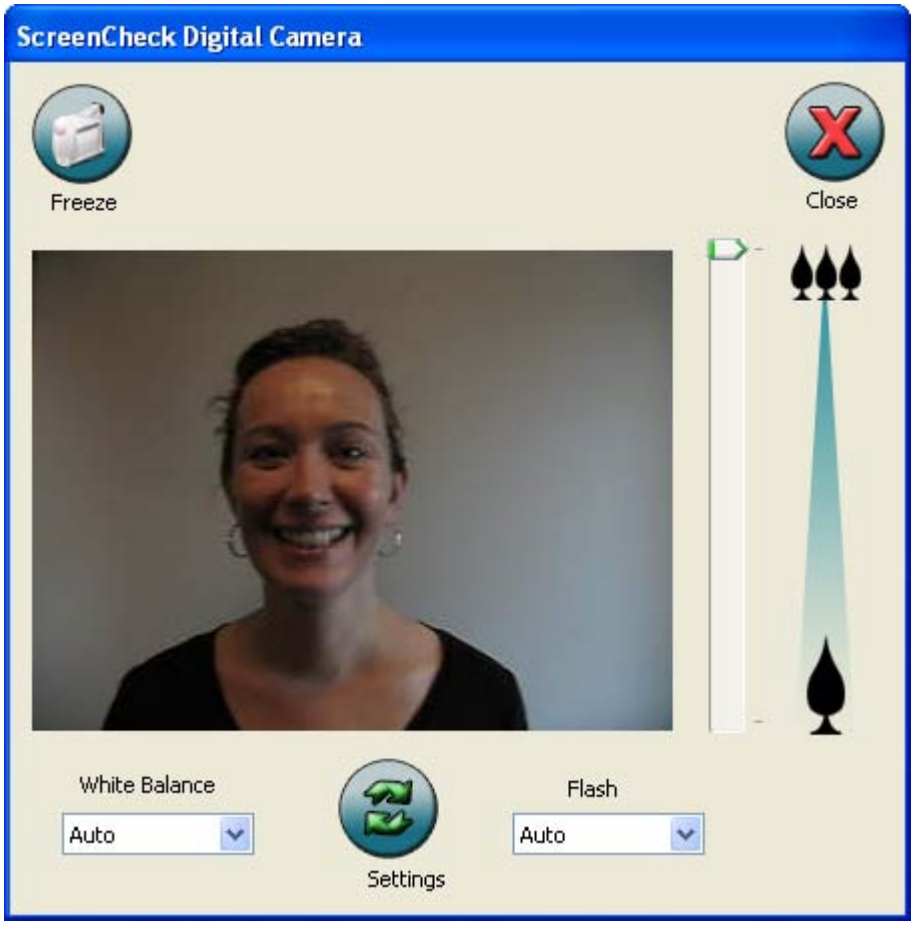
In this way graphic files of different formats can be selected and linked directly to a record. Keep in mind that the graphic files already must have the correct ratio set in the Badge Layout (*an incorrectly set ratio results in parts of the photo missing*).

Acquire Image from Digital Camera

To acquire a photo from a **Digital Camera** select **Image Menu**, then click **Select Source**.

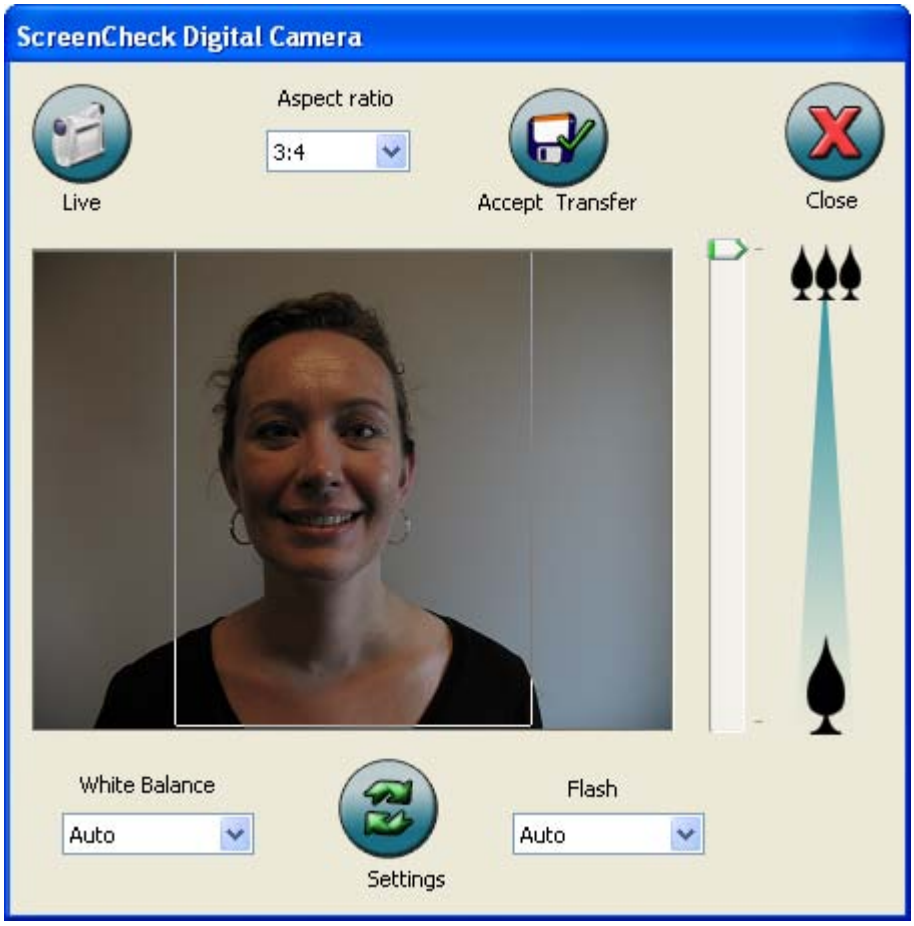
Once you have selected the correct **Image Source** to the **Image type** (*Photo*), select **Acquire** to capture photos using the **SC Digital Camera plug-in**.

The **SC Digital Camera** window is presented to capture images.



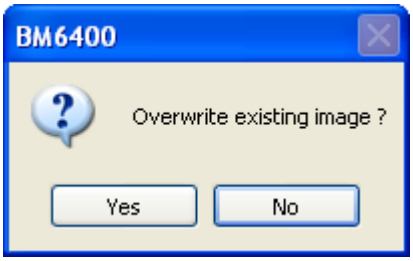
SC Digital Camera plug-ins

Place the subject in the image frame until you are happy with the position. Click **Freeze** to take a snapshot.



SC Digital Camera plug-ins

Next you must **crop** the image as required and click **Accept Transfer**.

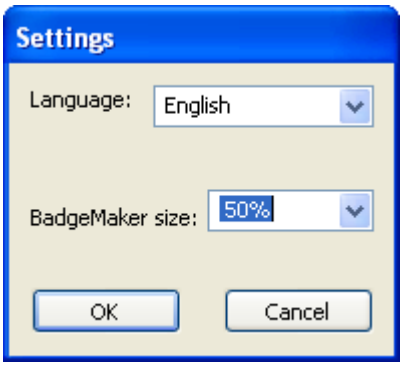


Click **Yes** to accept the captured image or **No** to cancel transferring the image.

Click **Yes**, the photo is now added to your database and bound to a record.

Captured Image

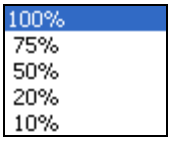
Settings



Settings

Select your desired language by clicking the Language dropdown menu.

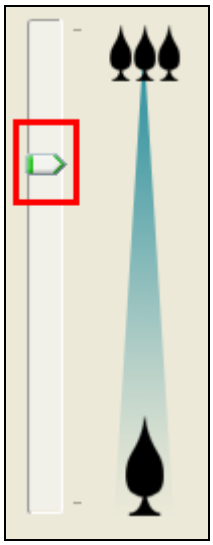
Select a **BadgeMaker Size** from the drop down menu. You can select various sizes to store your photos.



Selecting a lower value scales down the image size stored. This is advisable if working with large databases with many images.

Zoom In & Zoom Out

Use the slider on the right hand side to **zoom in** and **zoom out** to adjust the image.



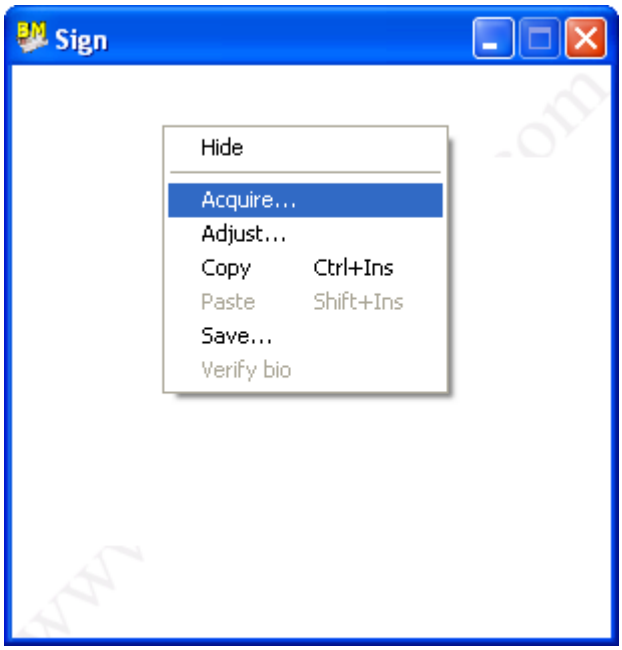
If your camera is not connected or switched on, you will receive the following dialog box.

Click **OK**, and make sure the camera is powered on and connect to the computer.

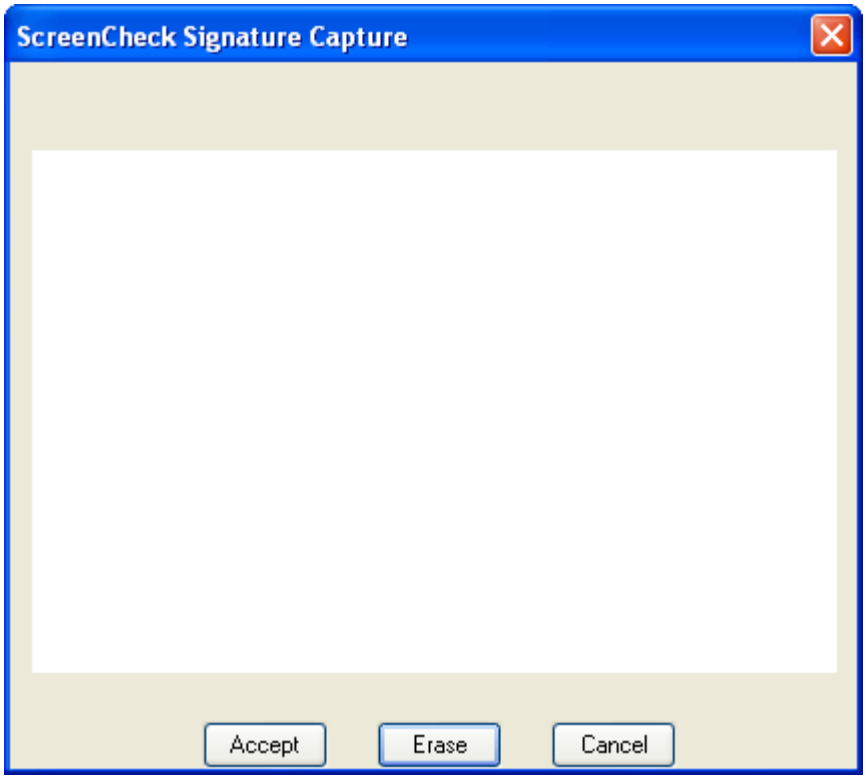
Acquire SC Signature

To acquire a signature image you must configure a source.

Once you have selected the correct **Image Source** to the **Image Type** (Signature), select **Acquire** to capture signatures using the **SC Signature plug-in**.



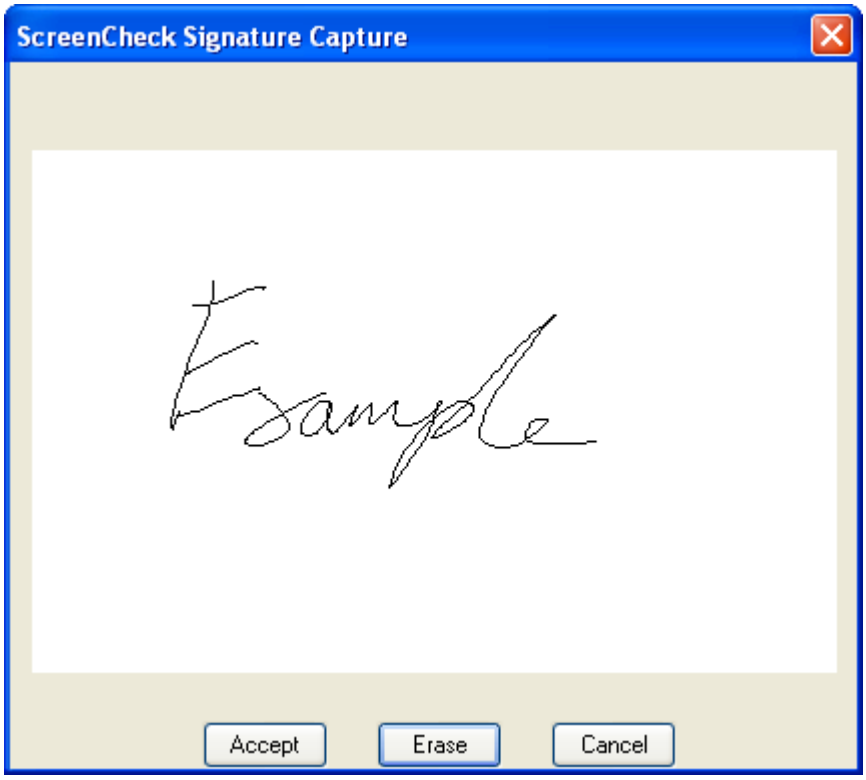
The **SC Signature Capture** window is presented to capture signatures.



SC Signature Capture dialog

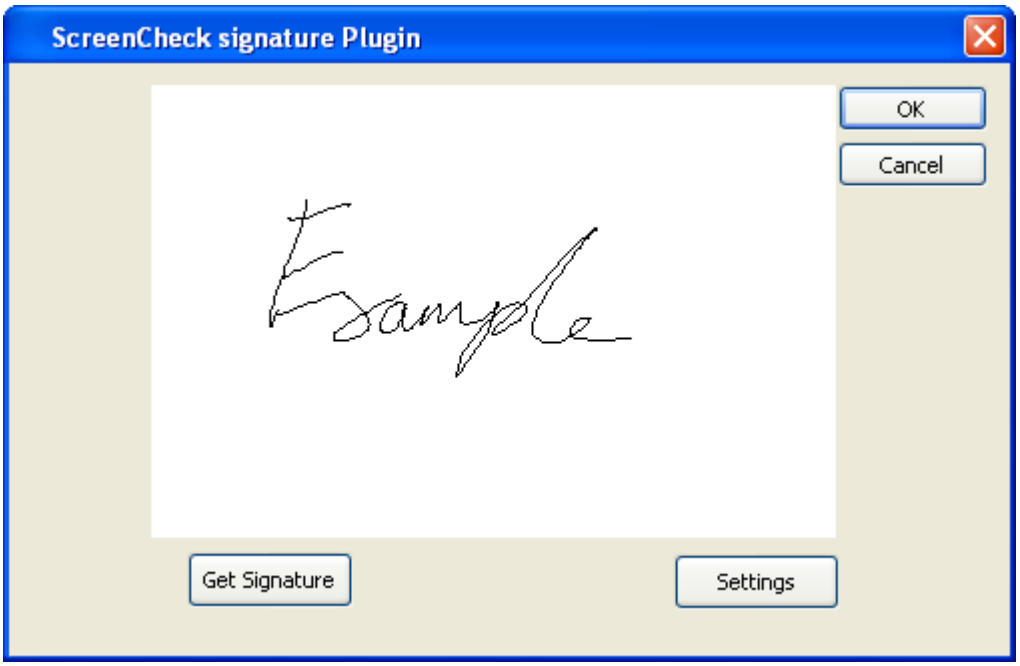
Using the signature pad create a signature as shown below.

The signature window size may change depending on what tablet is being used.



Once you are happy with the quality of signature click **Accept** to keep the image or if not content with the signature quality click **Erase** to create another.

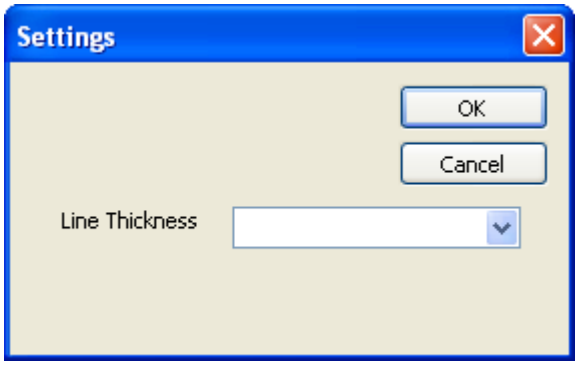
Click **Accept**, the following screen is presented.



SC Signature Capture dialog

Select **Settings** to adjust the image if required. The following dialog is presented.

The default Line Thickness is good for most signature capturing. Only adjust if needed.

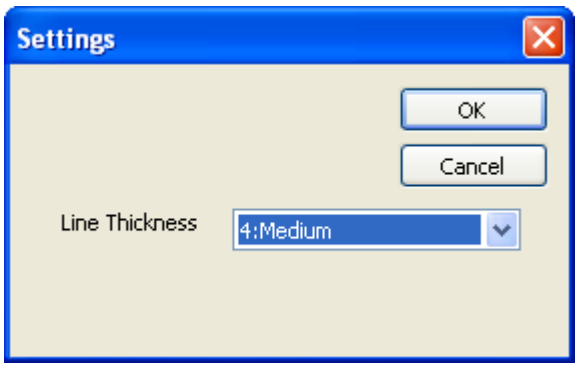


Settings

Select a **Line Thickness** from the drop down menu.

The following choices are presented.

1:Thinest
2:Very Thin
3:Thin
4:Medium
5:Thick
6:Very Thick
7:Thickest



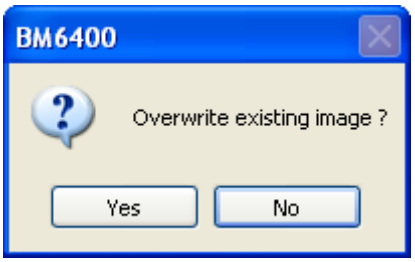
Choose line thickness

For this example **Medium (4)** is selected which gives a good overall image quality for signatures.

Selecting a higher value such as **Thickest** could cause the signature image to become unreadable. Selecting **Thinnest** could cause the image to degrade in quality and fade.

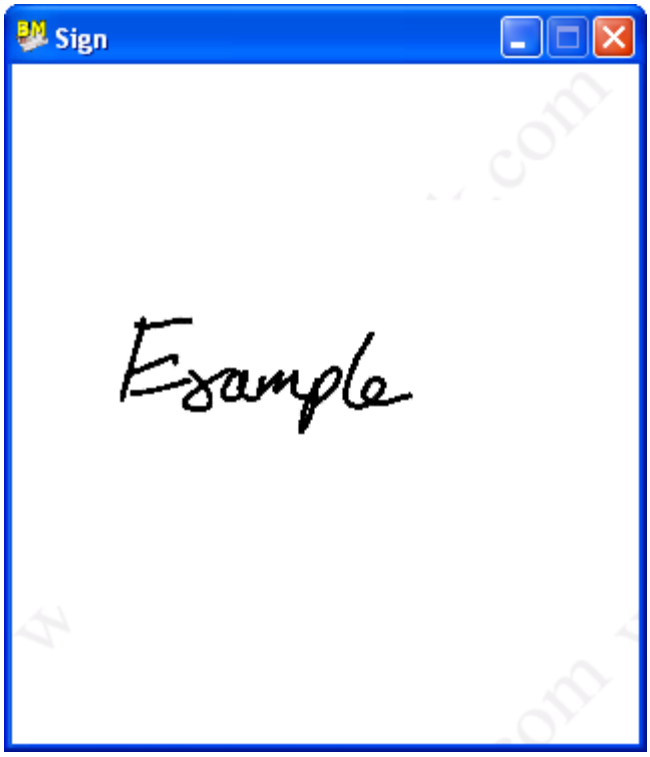
Once you have selected a **Line Thickness** click **OK** to close and return to the SC Signature Plug-in window.

Select **OK** to transfer the image.



Confirm you want to overwrite by clicking **Yes**.

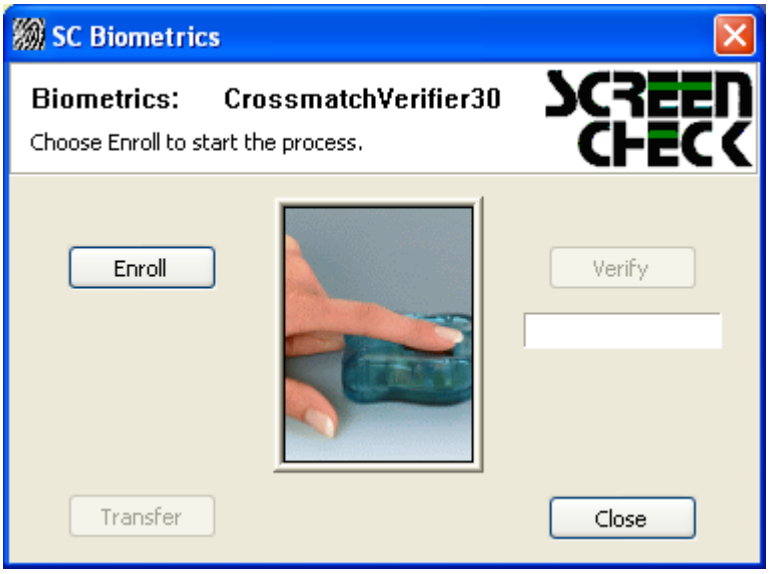
The following Image window is updated and your new Signature is saved into BadgeMaker.



Acquire SC Biometrics

Select the correct image type such as the "*Finger Image*" window for example, and click **Acquire**.

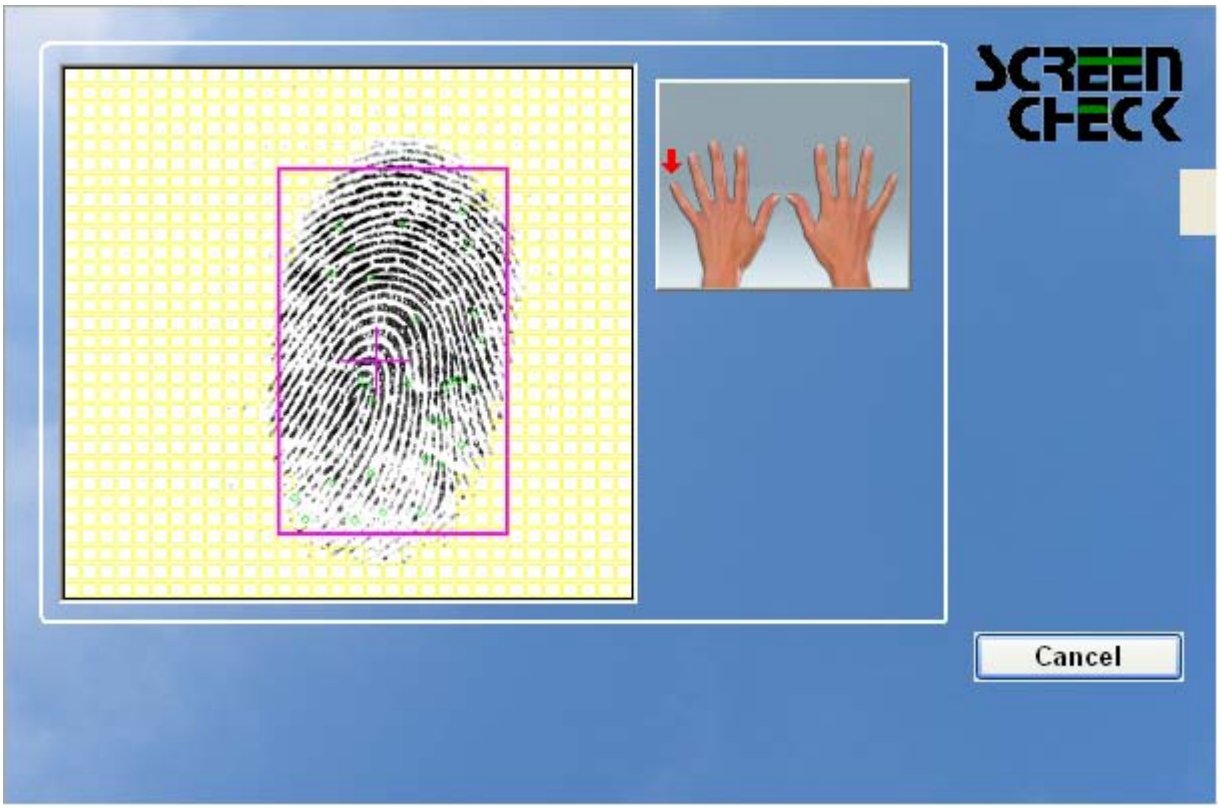
The Crossmatch finger scanner will initialize. After a short communication with the scanner, the **SC Biometrics** window will appear.



Biometrics plug-in

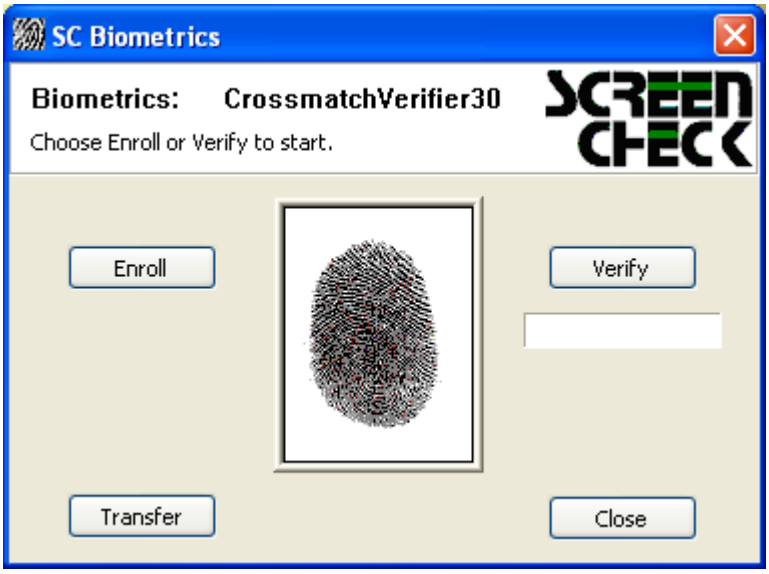
Follow the instructions on the screen carefully and scan all required fingers.

When a finger is scanned successfully it will be displayed with a green border around it. The red arrow on the right of the screen will indicate which finger should be scanned. Each finger is displayed on a separate row. The columns represent the number of scans.



If you scan the same finger by mistake, you will receive an error message.

When all fingers were scanned successfully, you will see the following dialog.



Select **Transfer** to save the scanned fingers in the database. The images and templates of the scanned fingers will be stored in one BLOB (*Binary Large Object*).

In the image window the text *template* will be displayed.

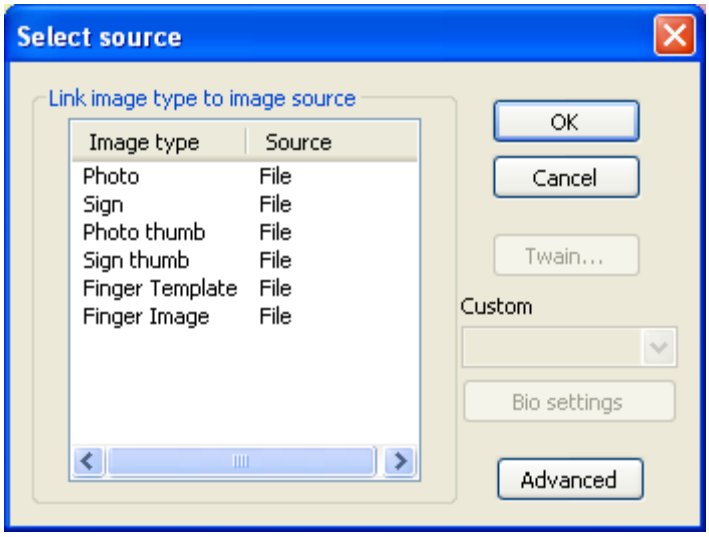
Finger images can then be displayed on a badge. Finger images and templates can be stored in **2D Barcode**, in a **contact chip** or in a **Mifare chip**.

Please note that the finger images in general are too big to store in a barcode or Mifare chip and is not commonly done unless requirements insist.

After saving the biometrics data, you can begin finger verification to **Verify Biometrics**.

Select Source

BadgeMaker can use various input devices to obtain images. Select **Image Menu** and click **Select Source** or select from the toolbar the  icon.

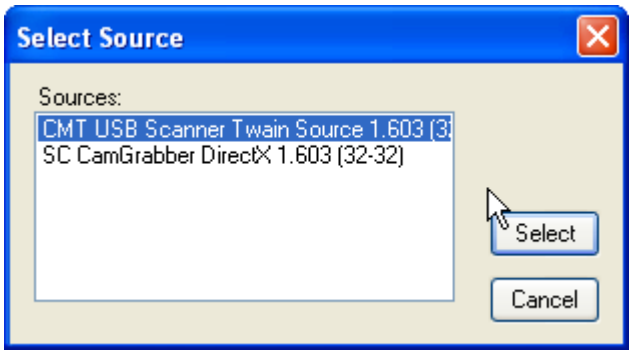


Select source

Select an **Image type** to link to an **Input source**.

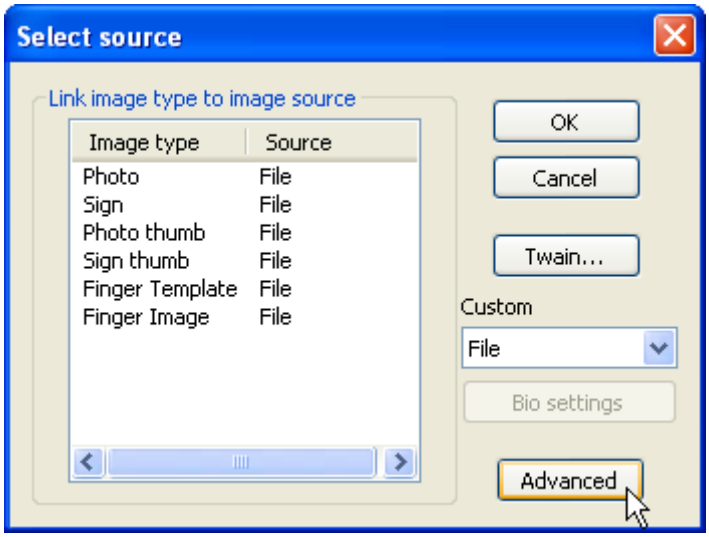
If these devices use a **TWAIN driver** you can select the TWAIN driver as a source by clicking the **TWAIN button**, otherwise click the **Custom button** for a list of other input sources.

Open **Select Source** to select the TWAIN driver for your input device.



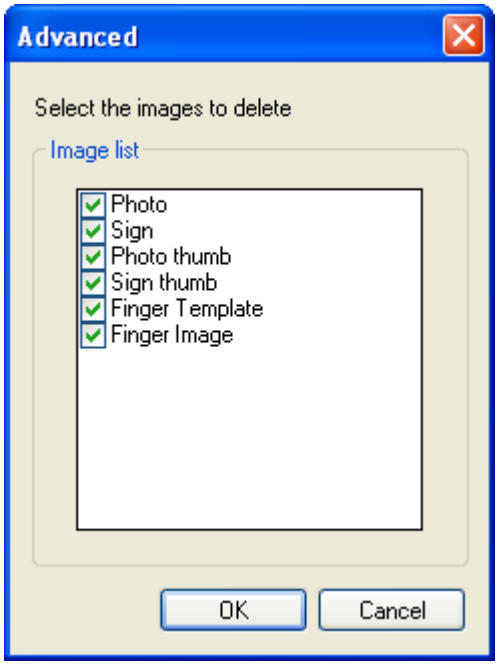
Sources

Select and click **Advanced** at the bottom.



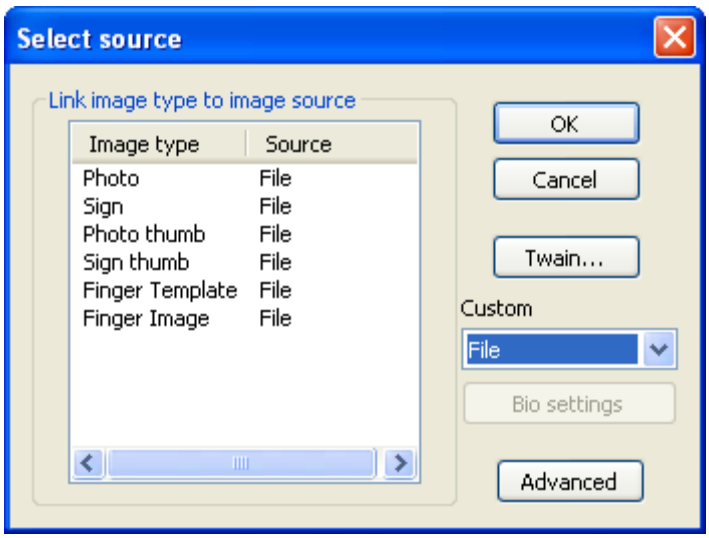
Advanced button

You can select which sources will generate an "*Overwrite existing Image*" confirmation message. The operator must input **Yes** to confirm or **No** to cancel overwriting.



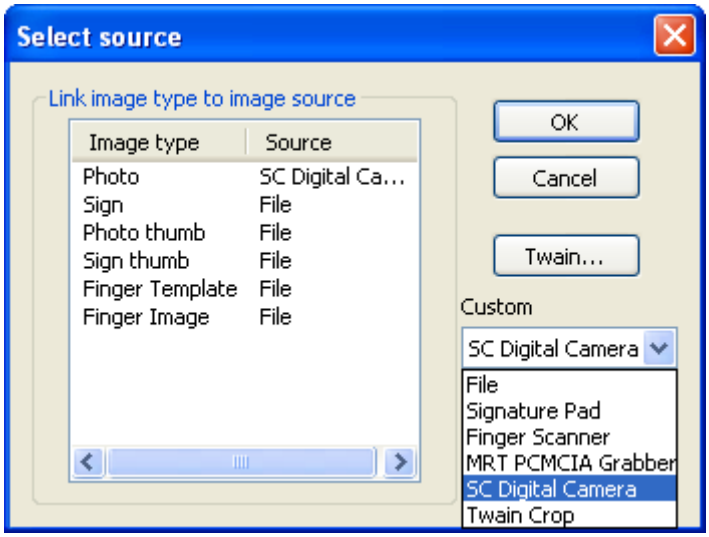
Select Source for Digital Camera

Choose **Select Source** from the **Image Menu**.



Select source

Select the desired image type **Photo** to link to the **SC Digital Camera image source**.

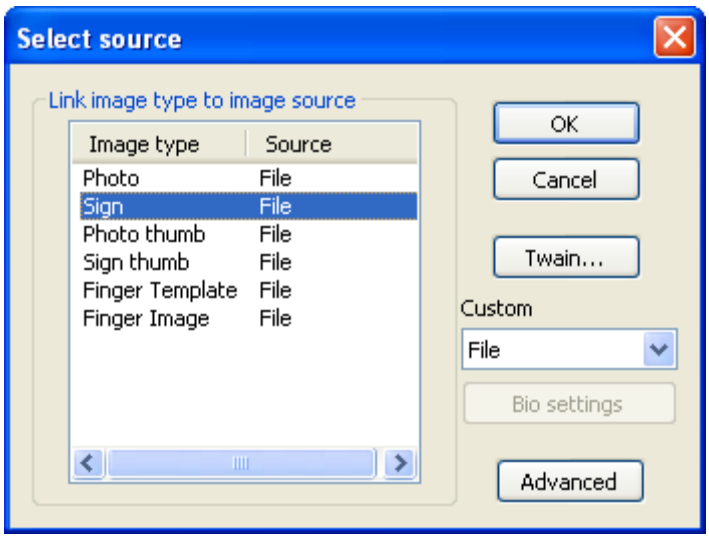


Custom

Select **SC Digital Camera** from the **Custom** dropdown list.

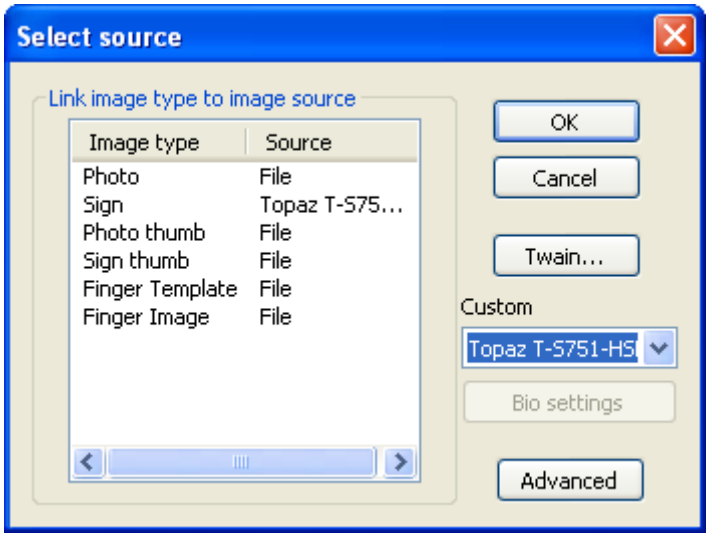
Select Source for SC Signature Pad

Choose **Select Source** from the **Image Menu**.



Select source

Select the desired image type (*Sign*) to link to the **SC Signature Pad source**.

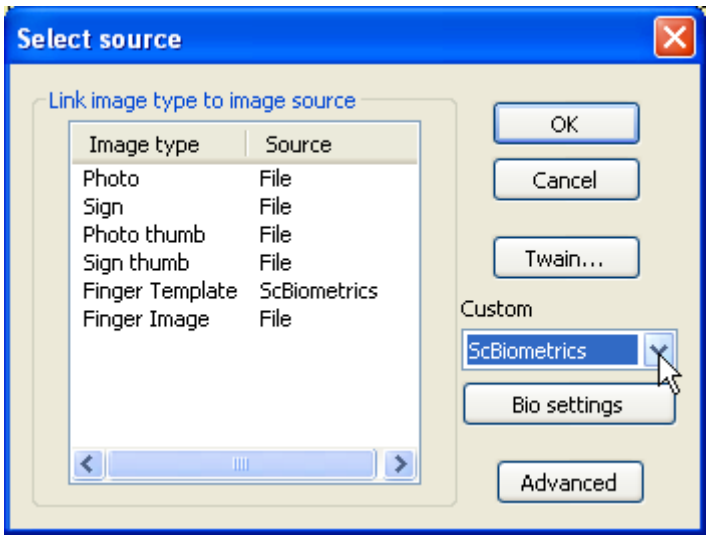


Custom

Select the product driver from the **Custom** dropdown list. In this case a TOPAZ signature board has been installed, the corresponding device driver must be selected to initiate the device and begin capturing signatures.

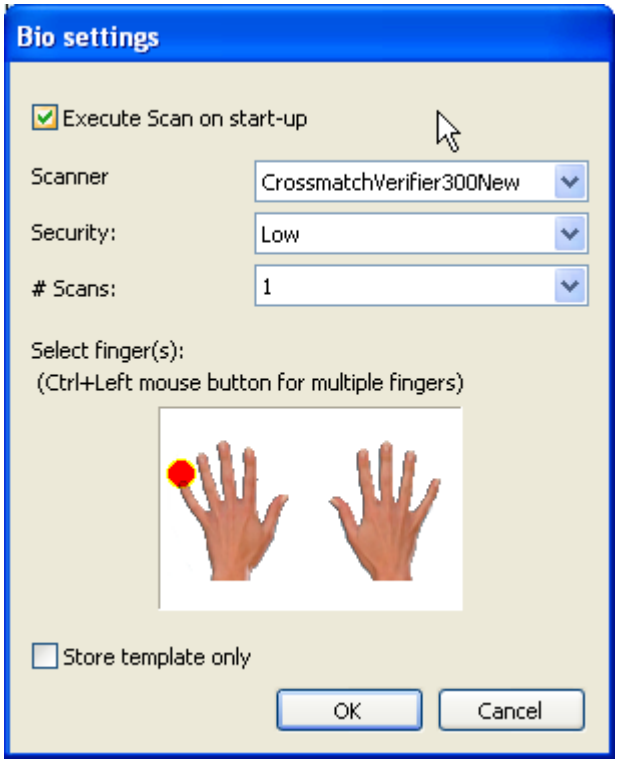
Select Source for SC Biometrics

Choose **Select Source** from the **Image Menu**. Select the desired image type to link to the **SC Biometric image source**. Select **SC Biometrics** from the **Custom** dropdown list.



Select source

Click the **Bio Settings** button. To modify device settings.



Bio Settings

If you check **Execute Scan** on start-up the scanner will directly start after selecting **Acquire**.

Scanner

Select your device model from the drop down list.

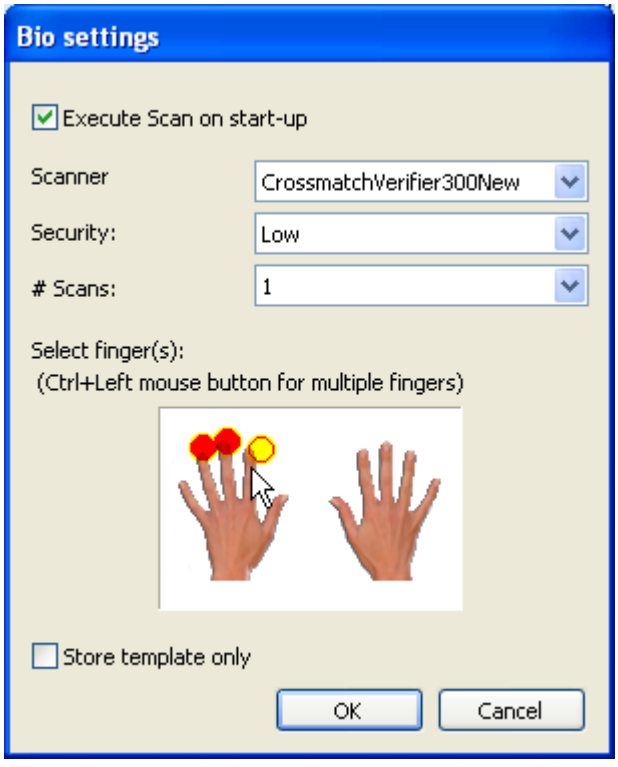
Security

Select the level of security. Low security will allow easy and quick scanning but there is a chance different fingers will give a positive match. If you select the maximum security the verification is more secure but sometimes it is difficult to enroll all fingers. It is best to start with a high level of security, in the case the finger enrollment causes errors you can step down a level on security.

Scans

ScreenCheck advise to make at least two scans. If you do only one scan, there is a good chance that a finger is unsuccessfully enrolled.

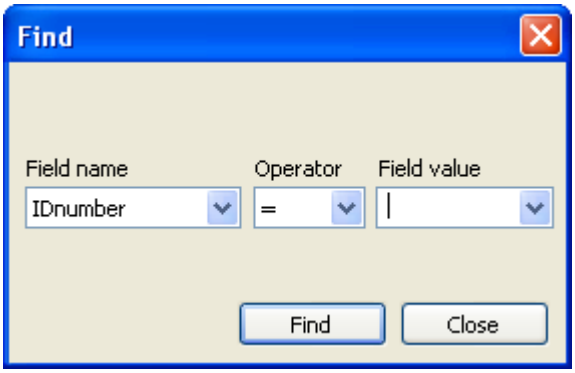
By clicking with your mouse pointer on a finger tip you can select a finger to be scanned. You can scan up to four fingers. To select multiple fingers hold down the <CTRL> button whilst clicking with the left mouse button on a finger.



Bio Settings

Bulk Input

Select the **Image Menu** and then click on **Bulk Input**, or on the toolbar click  and the following screen will be presented.



Bulk Input can give the operator an easy option to add photos to a database from a photo form with a barcode.

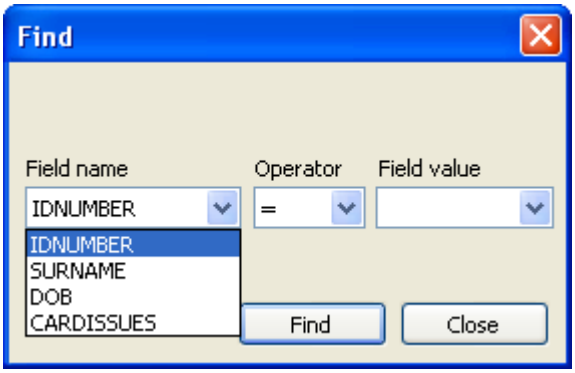
The bulk input option was made to make the grabbing of photo from input forms easier and quicker. Photos are attached on a form with a barcode. The photo must be exactly positioned in the frame printed on the form. The barcode used on the form must be positioned on the top right or top left corner of the form. It will be recognized automatically by the barcode scanner. Each barcode will be a unique identifier for a record in the database.

The dialogue has three drop down boxes (*one to select a field, one to select an SQL operator:* **=, >,<, LIKE etc**. *and another to select a field value recently used*). This dialogue is modeless and will remain visible until it is closed. With the mouse it can be moved to the position on the screen where it will be best visible during the process. The default field name will always be the argument the user last worked with.

The operator can type in a Field value or scan the barcode on the form. To do so the inquiry form will be laid under a video camera and a barcode scanner mounted in a repro standard. The barcode scanner must be programmed to be always active. As soon as the input form is laid under the repro stand and the barcode is recognized by the scanner, the value will be displayed in the Field value box.

When a form has been scanned the photo capturing window will be presented where the photo can be edited or cropped further using TWAIN. When satisfied with the image click **Transfer**. The photo will be captured from the form and saved as a BLOB (*Binary Large Object*) in the Image table.

In case no record matching the barcode can be found, a warning dialogue will popup. Click **Close** to close the pop up, now the user will have the possibility to try a new barcode scan or to search for a different field by selecting one of the available fields from the drop down list.

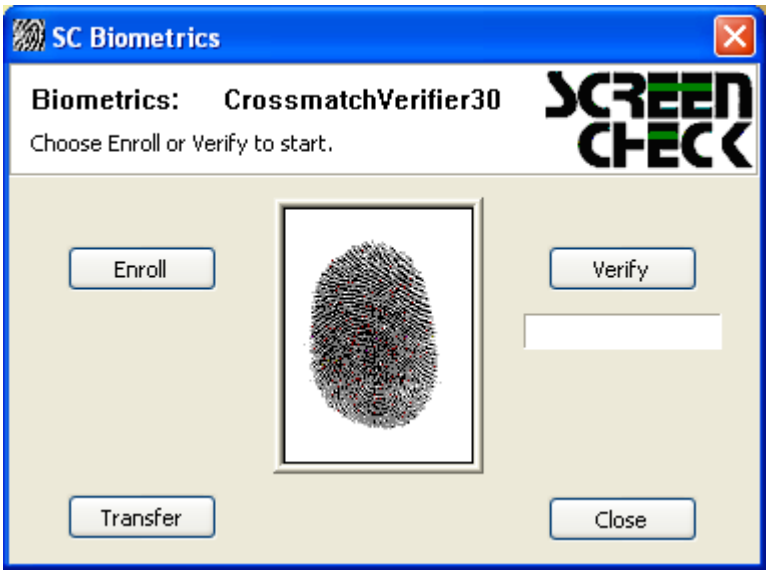


The number of Field names will differ depending on the size of the database and how many fields are configured.

Verify Bio

The option **Verify Bio** is only available when **SC Biometrics** has been installed, if SC Biometrics is not installed than **Verify Bio** will remain disabled.

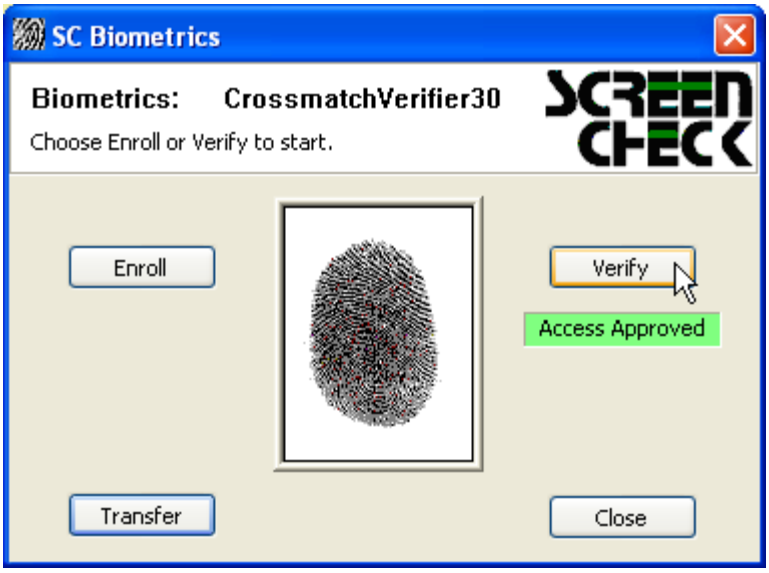
SC Biometrics can carry out verification matching a current taken scan with the saved characteristics of a scan in the database. This is useful to identify an existing person in the database or to verify scan is operating successfully.



SC Biometrics

To verify a taken fingerprint for example click **Verify**.

Present one of the indicated fingers and lay it onto the surface of the scanner. The finger is scanned and matched to the current selected image in the database. If the verification was successful you will see **Access Approved in green**. If the verification process is unsuccessful you will see **Access Approved in red**.



SC Biometrics

Verify does not acquire an image. You must select **Acquire** to obtain an image.

Identify Bio

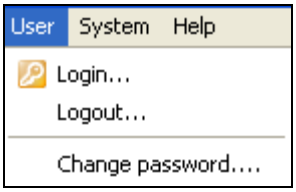
To access select **Identify Bio** from the **Image Menu**.

Select this feature to search the database for an individual record based upon his/her fingerprint. Record details of the individual are presented when the biometric fingerprint has been scanned and verified.

This feature is only available if a Fingerprint template exists in the database. The Finger Template window must be active in order to select Identify Bio from the Image Menu.

User Menu

The **User Menu** appears as the fifth item on the menu bar, and contains commands relating to the handling of logging on and logging out of BadgeMaker. You can change your password from here.



User menu

Login

To be able to open a project *(*.BM file*), you must login first.

To logon click  from the **Toolbar**. The following logon screen is displayed.

Login dialog

Features and functionality are heavily restricted without logging into BadgeMaker.

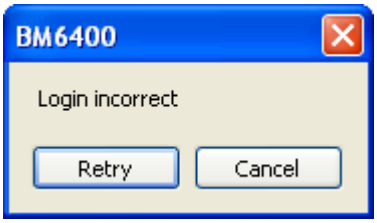
The login procedure also gives you an authorization level. Each user is a member of a group. The group determines the user level. (*Security*)

User: Type your user name and press <TAB>
Password: Type your password and press <ENTER>

The default user name for BadgeMaker is: **SUPERVISOR**
The default password for BadgeMaker is: **SUPERVISOR**

To secure access to BadgeMaker we advise to change the password as soon as possible.

If you type a password incorrectly the following message is displayed.



If the default user/password combination does not work, the system administrator (*operator who installed BadgeMaker*). Refer to him/her for your login name and password. You can also start BadgeMaker by opening a project file (*click Open from the File Menu*); the login screen will be displayed. You must first login before it is possible to open and create projects.

If you stop working with BadgeMaker, please close the project or exit the program, to prevent improper use.

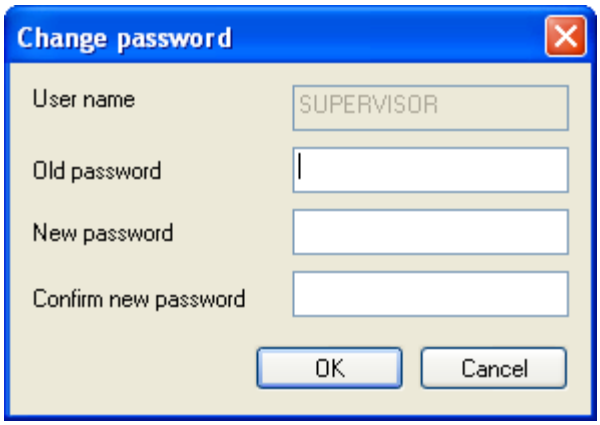
Logout

To logout click  from the Toolbar.

Use this option to logout from BadgeMaker and to close the currently opened database. BadgeMaker will stay open for a new user to log in.

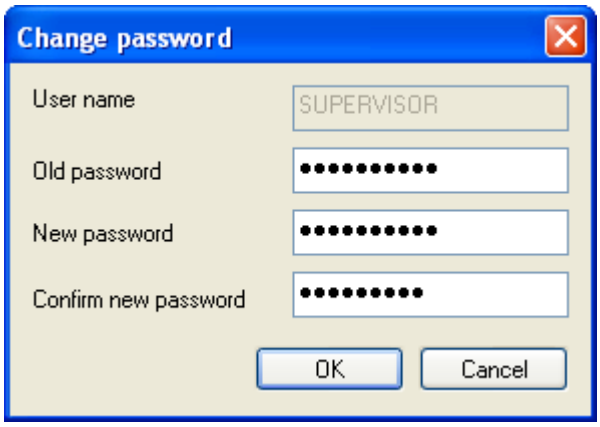
Change Password

Select the **User Menu** and click **Change Password**. The following dialog box will be displayed. (*Operator must already be logged into BadgeMaker*)



This option enables a user to change his/her password without the assistance of the supervisor. Type your old password and then type a new password.

Confirm your new password and click **OK** to save changes.



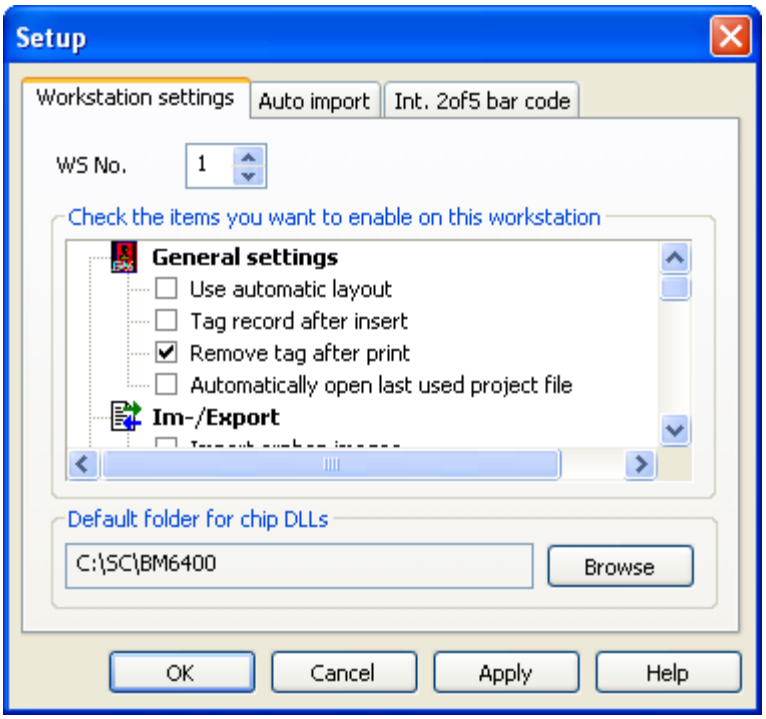
You can now login using your new password.

System Menu

The **System Menu** appears as the sixth item on the menu bar, and contains commands relating to the handling of creating users, adding favorites and configuring auto login to BadgeMaker. You can configure BadgeMaker system settings from here.

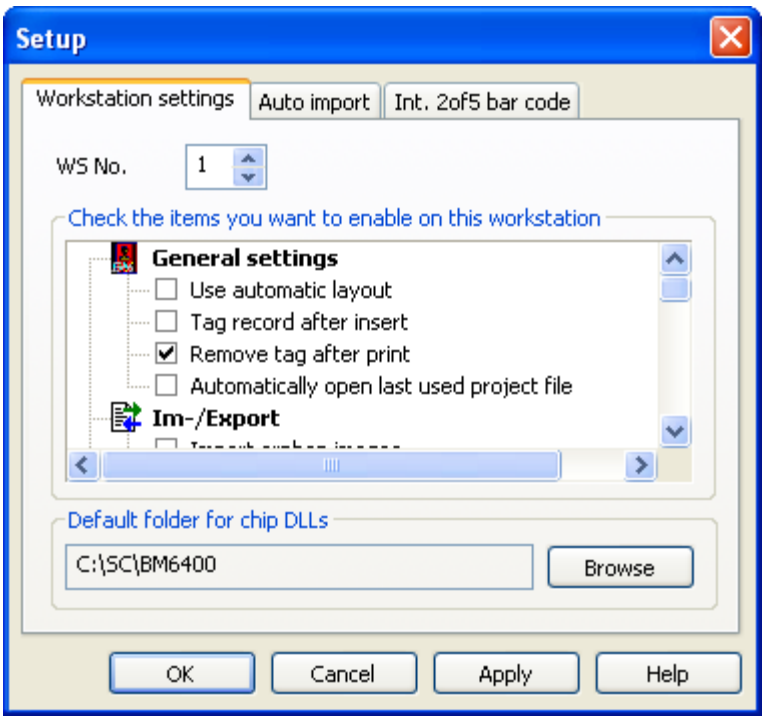
Setup

The Setup dialog box is used to specify and configure **Workstation settings**, **Auto Import settings**, **Int. 2of5 bar code** settings.



Workstation Settings

To use select the **System Menu**, then click **Setup**, and then click **Workstation Settings**.



Workstation settings

WS No.

This is important when working in a multi user environment with BadgeMaker. Every workstation number has to be unique in order to ensure user independent access to the database is achieved. One computer will set a WS No of **1**, another computer will set a WS No of **2** and so on.

Settings

General Settings

Use Automatic Layout: If an extra field with a layout name is added to the database this field can be used for automatic layout selection when printing. This field must be configured as the layout field. The layouts (*as displayed in the layout selection drop list in BadgeMaker, see Layout Selection*) must be filled in manually in this field. Another option is to create a dropdown list with a number of various available layouts.

Tag Record After Insert: New and imported records will be automatically tagged when inserted.
Remove Tag After Print: Tags will be removed as soon as records are printed.
Automatically Open Last Used Project File: Enable this option to open the last used project file automatically the next time you enter BadgeMaker.

Import/Export

Import Orphan Images: Use this option to import images without a related index file. The link between image and record will be made based on the image name and the value in the primary index field.

Printing

Print One Card Per Document: Enable this option when you use chip encoding. For every card sent to the printer a document will be created. Disable this option when you want to use pipeline printing on a multi station printer.
Enable Direct Print: This option must be checked in order to correctly print and encode in one single run, without the printer spooler interfering in the process.
Normal Print (do not mirror): Normal printing (*print as designed*)
Mirror Horizontally: Mirror image (*flip horizontal*) is used to reverse an image left to right.
Mirror Vertically: Mirror image (*flip vertical*) is used to reverse an image top to bottom.

As soon as you click Apply the mirrored preview will be visible at the right part of the BadgeMaker main screen. The full size preview will also be displayed as mirrored.

Laser Engraving

Enable: Enable this option if you are using a Optical Laser Engraver instead of a normal card printer. The print dialog will be different in this case and BadgeCreator will have some extra features to configure the settings for the engraver.

Chip Encoding

Disable Number of Copies in Print Dialog: Prevents user from printing copies of a card (*without being noticed*).
Disable print to file in print dialog: Prevents a user from sending graphic information to a file.
Chip encode only (no print): Use this option if you wish to encode a chip on a card without printing graphical information on it. This is useful when testing an encode layout.
Continue with next card after chip encode error: When you enable this option, the print process will not be stopped after a chip encode error. Instead the card with the encode error will be ejected and BadgeMaker will continue the process with the next card. This option is particularly useful when your direct card printer has a separate card hopper for faulty cards.
Advanced Print: This option can be used to retrieve records and print cards based on the information read from the chip embedded on the card.
Bulk Encoding OMC Manually: Check this option if the Lasercard OMC reader and software is installed. With this option a series of cards can be encoded Manually.
Bulk encoding (and printing) OMC inside printer: Check this option if the Lasercard OMC reader and software is installed. With this option a series of cards can be encoded inside the printer.

Find and Select Options

Match Case: Find and select arguments which are case sensitive.
Ascending: By default search results are set to ascending.
Descending: Set the order of a search in descending order.

Bulk Input

Bulk Input Image: The selected image source will be opened automatically when a record is retrieved.
Bulk Input Data: The selected Image source will not be opened but instead the Edit dialog will be opened automatically when a record is retrieved. Select which type of bulk input you would like to use for your barcode forms.

Record set

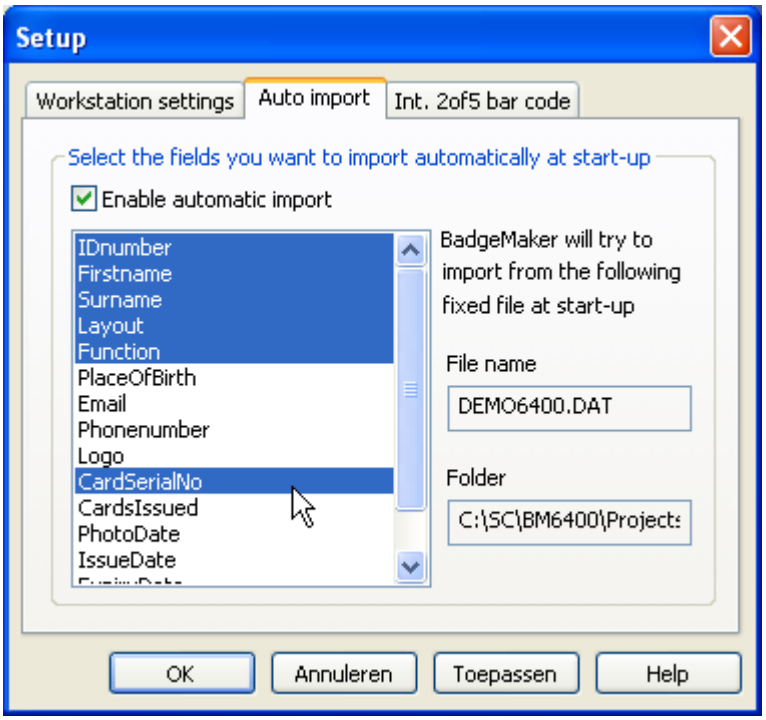
Database Update Fix: Some specific ODBC drivers could return update errors in combination with BadgeMaker. Since most current ODBC drivers work without problems, we advise to leave this option unchecked unless you receive update error messages from your ODBC driver.

Automatic Import

To use select the **System Menu**, then click **Setup**, and then click **Auto Import**.

By clicking on the field names, the fields to be imported will be highlighted in the list. The highlighted fields will be imported; fields which are not highlighted will be ignored.

You can select all fields at once by pressing the **CTRL <A>** key combination.



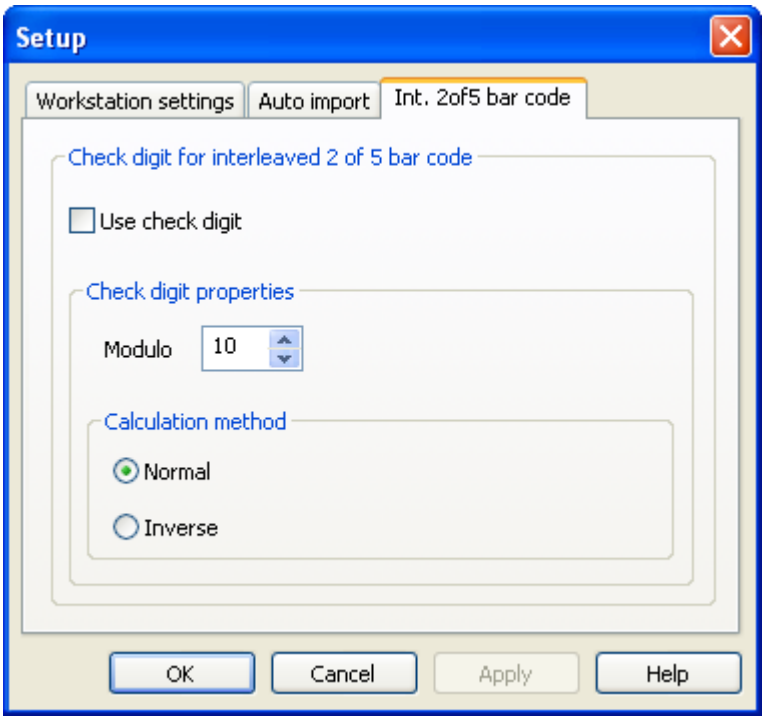
Automatic Import

When this check box is set a **DAT** file is placed in the data directory with the same name as the *.BM file and will be automatically imported after the *.BM file is opened. After an import the DAT file will be deleted automatically. When no DAT file is available when opening a *.BM file, BadgeMaker will start up as normal without prompts.

Int. 2of5 Barcode

To use select the **System Menu**, then click **Setup**, and then click **Int. 2of5** bar code.

Interleaved 2 of 5 bar codes is a numeric only barcode used to encode pairs of numbers into a self checking barcode format. The Interleaved part is a digit encoded in the bars and the next digit is encoded in the spaces. The encoded digits are "*Interleaved*" together to form a number's only barcode.



Int. 2of5 bar code

Check digit for interleaved 2 of 5 bar code

Use Check Digit: When using the 2 of 5 bar code, you can choose to use a check digit, an extra verifiable control if the bar code number is correct.

Interleaved 2 of 5 is a self-checking barcode type, meaning that a check character is not required for a barcode scanner to read it. However many implementations include a Check Digit to assure data integrity.

Check Digit Properties

Modulo: Specify a checksum. Default is **10**.

Calculation Method

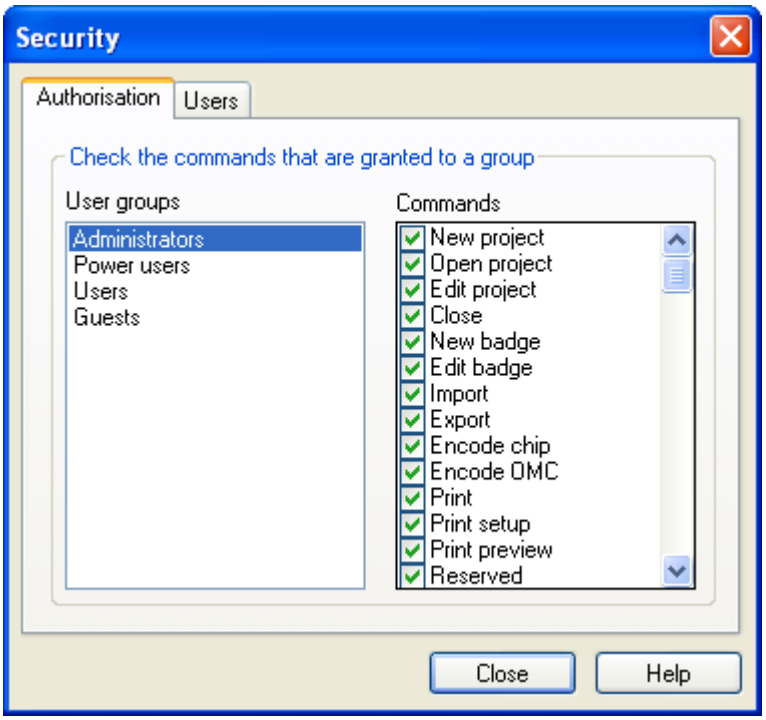
Normal: The check digit is the remainder of the sum of digits of the barcode divided by the modulo.
Inverse: Inverted, the modulo of 10 will be placed before the barcode.

The number 10 is converted to 0

Example of a Int 2of5 Bar Code

Security

Select **System Menu** and then click **Security**. The following window will be presented.



Authorization

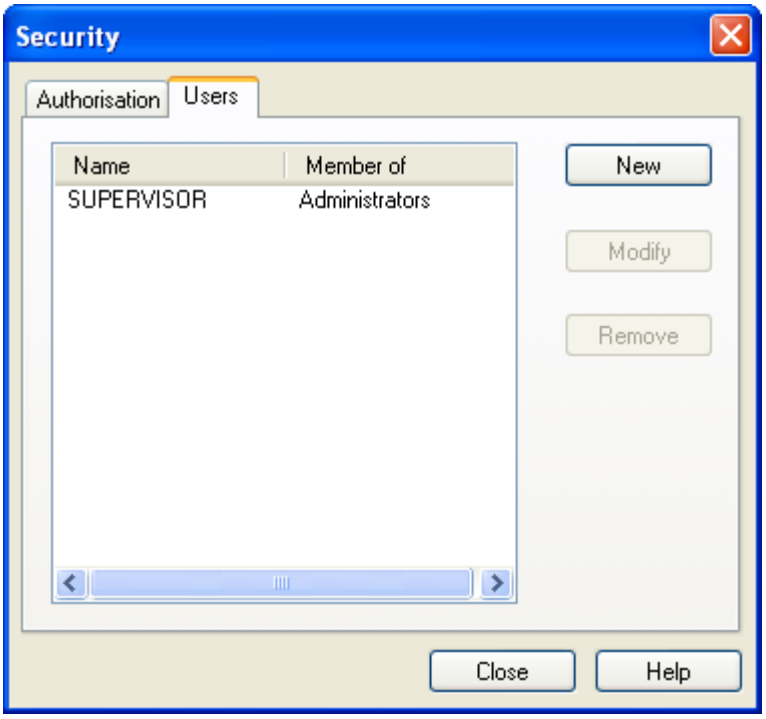
In order to secure and restrict users from accessing certain features in BadgeMaker you must decide what tasks and actions users and groups will perform. Tasks and actions that a user or group of users can perform are determined by the rights assigned to them.

For example a user who is a member of the Administrators group can create a new badge and edit projects whereas a user who is a member of the Users group cannot modify projects or create new badges.

To create new users and specify user groups, you must be a member of the Administrator's group.

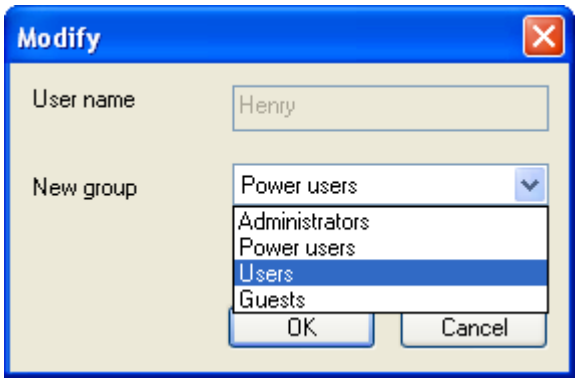
Click the **User's** tab.

A list of users already configured in BadgeMaker are shown here.



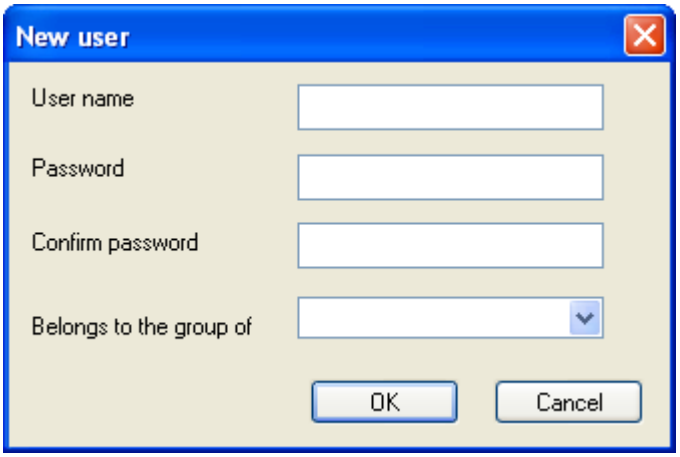
Users

To modify a group a user is already a member of select the user and click **Modify**.



You can change the current user group to another group, select **OK** to save the change.

To create a new user click **New**. Specify a **User name** and a **password**, this will be used to log into BadgeMaker, assign the new user to a group.

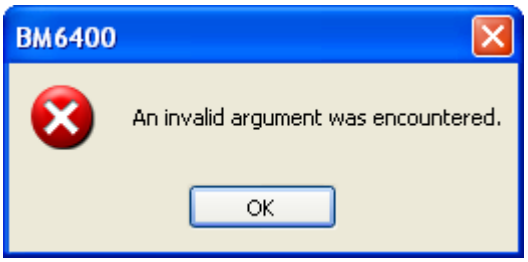


New user

Choose from the following groups listed.

- **Administrators:** Full access, add users with caution.
- **Power Users:** Lightly restricted access.
- **Users:** Restricted Access, members can perform the common tasks.
- **Guest:** Heavy restricted access.

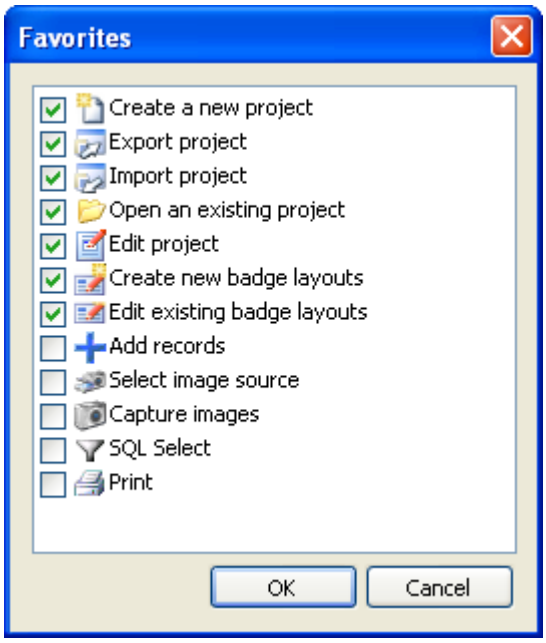
If a new user is added and already exists you will receive the following error.



Click **OK**.

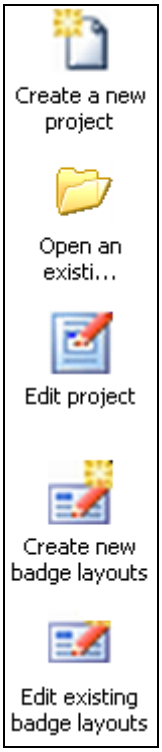
Favorites

To add/remove items from the favorites list select **System Menu**, and click **Favorites**.



Favorites

Choose what items will be listed in the far right windowpane.



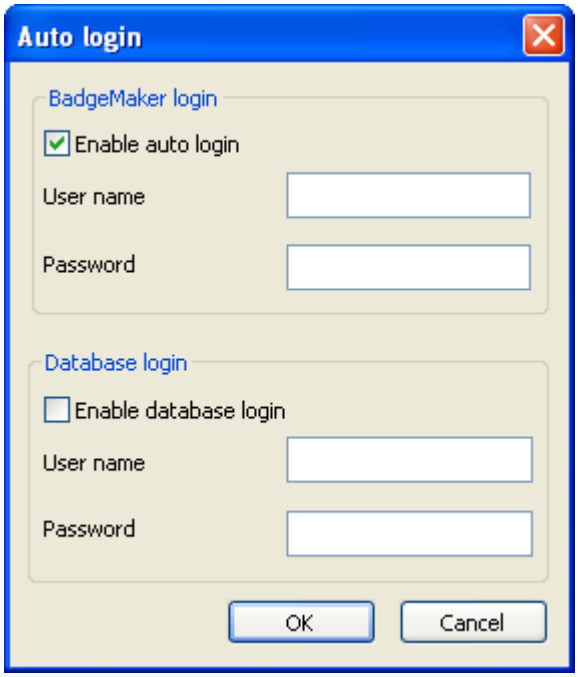
List favorites

Auto Login

Auto login is very useful when a database is used that already requires a password to obtain access to it and only one operator is normally working with BadgeMaker.

To enable **Auto Login** click on **System Menu**, and then click **Auto Login**.

Fill the following dialog box with your login credentials (*Username and Password*).



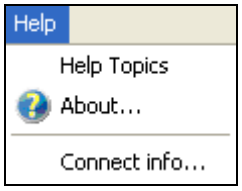
Auto login

The operator needs a user name and password to access BadgeMaker to access projects. If enabled the operator will automatically log on to BadgeMaker.

Access rights to BadgeMaker's features are determined by which group the operator has been assigned to via Security.

Help Menu

The Help Menu appears as the last item on the menu bar, and contains commands relating to the handling of help files and information about BadgeMaker such as hardware fingerprint, and version number.

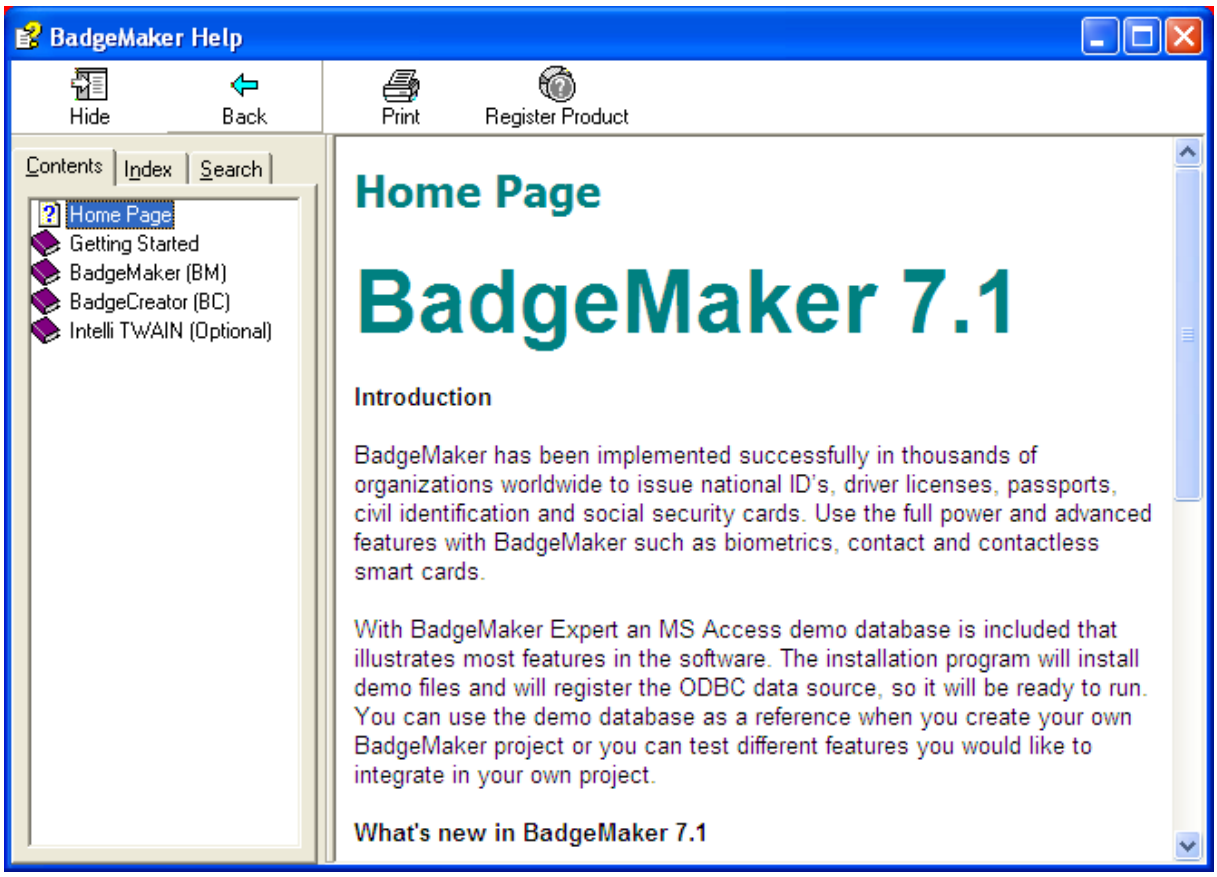


Help menu

Help Index

Select **Help Menu** and click **Help Index** to open the Help File.

Click  on the BadgeMaker **Toolbar** or click **F1** on your keyboard. The following dialog is displayed.



Help Files

About BadgeMaker

To open select **Help Menu**, and then click **About**.

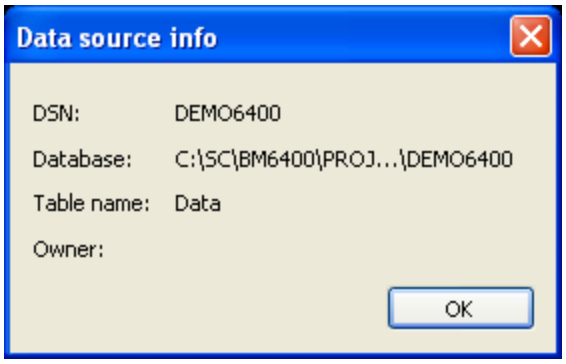
Use this function to retrieve the version number and information about BadgeMaker. Also the Enter Key can be found here, which enables the registration of the BadgeMaker Software.

About box

Connect Info

To open click **Help Menu**, and then click **Connect info…**.

By choosing this option you can obtain information about the **Data source**, the information is presented in the following dialog box.

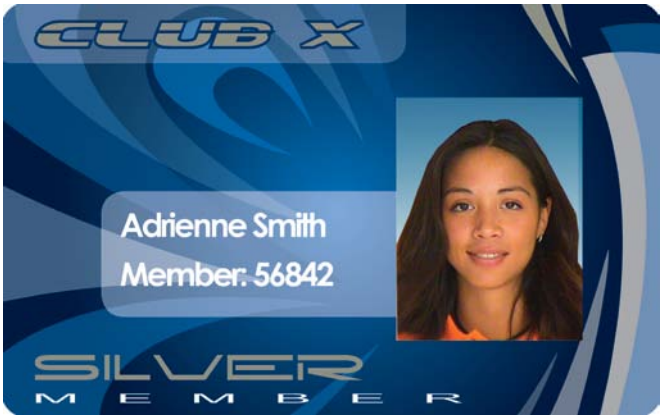


Data source info

BadgeCreator

In the previous chapter we have discussed and explained how to create a project (**BM**) file with the necessary settings for BadgeMaker. In order to be able to produce cards, you need to have at least one card layout.

In this chapter will be explained how to create badge (**card**) layouts and how to integrate encode information in the card.

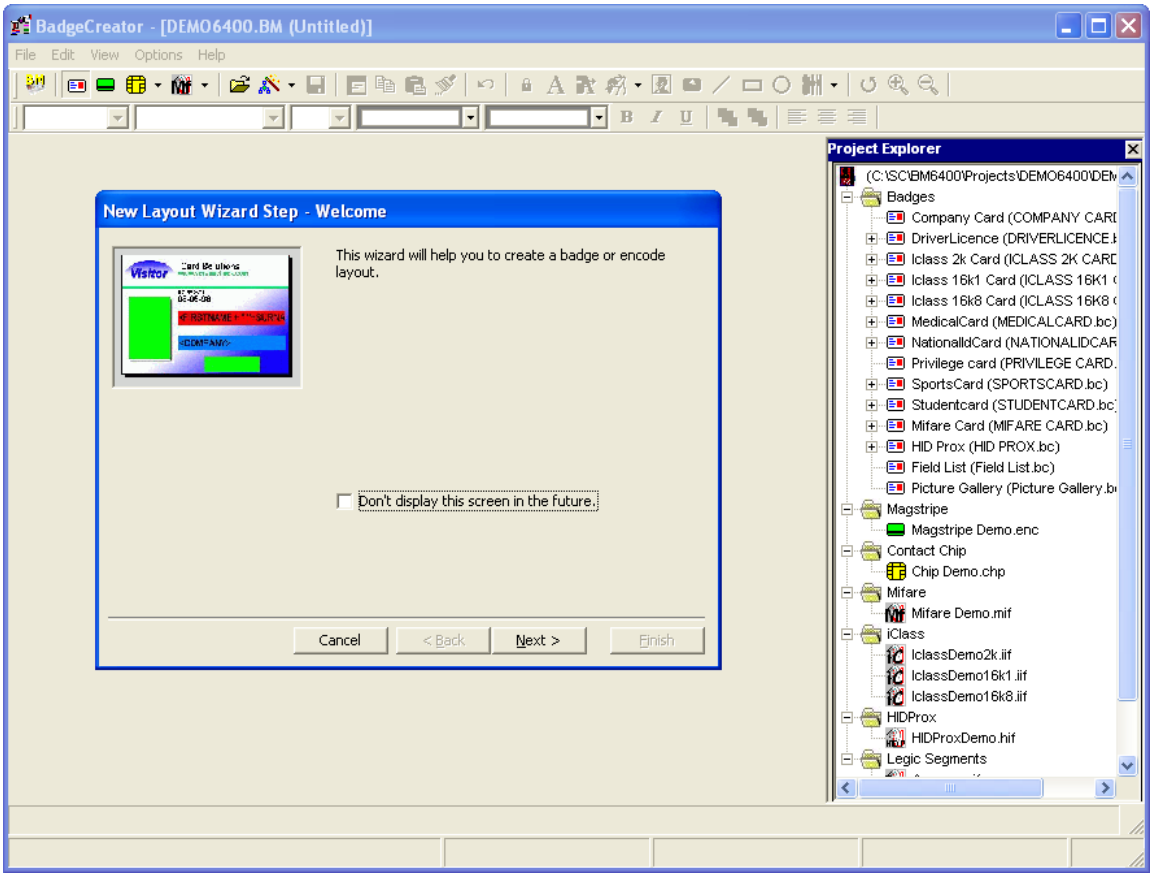


Starting BadgeCreator

To open BadgeCreator you must already be logged into BadgeMaker. From the BadgeMaker **File Menu** select either **New badge** to open BadgeCreator.

You must create a project first in BadgeMaker before creating card layouts and forms.

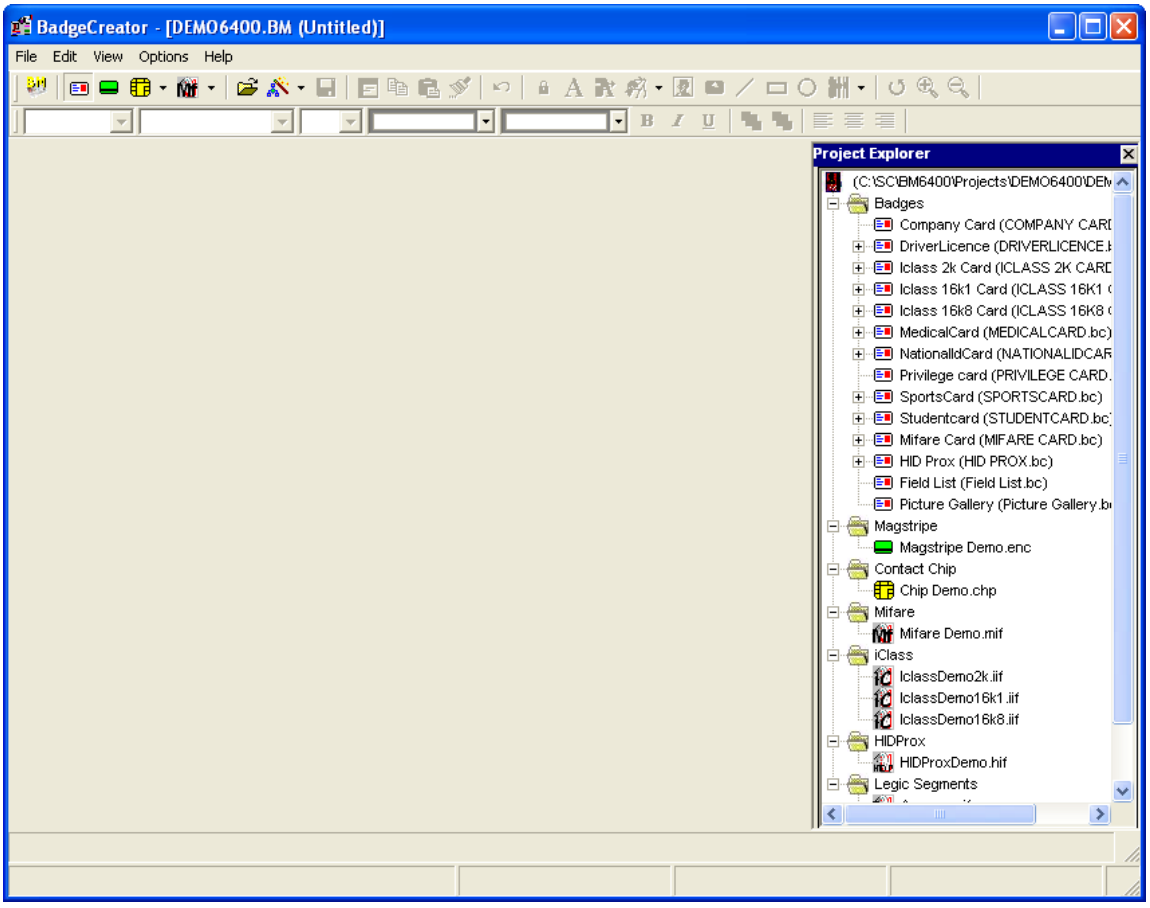
When you have started BadgeCreator the following window is displayed.



BC Main screen

BadgeCreator Main Screen

Once you have started BadgeCreator the main screen is presented.



BC Main screen

Use these Help files to understand how to create a badge (card) layout and integrate encode information onto a badge layout.

In the main screen the **Badge Layout** will be displayed. From here you can design **graphics**, **logos**, **barcode layouts**, **magstripe layouts**, **chip encoded layouts**. Set **dynamic** and **static text** on a layout. Images acquired in BadgeMaker can be added and linked to layouts.

It is not possible to create a badge layout before a project file has been created.

On the right side of the main screen **Project Explorer** is located listing the current project file, linked badge layouts, and encode layouts.

Working with the mouse

In BadgeCreator the mouse is used to position and resize objects and to open the properties of an object by double clicking them. More than one item can be selected with the mouse by using **CTRL+ Left Click**. The selected items can be moved, copied or deleted as needed.

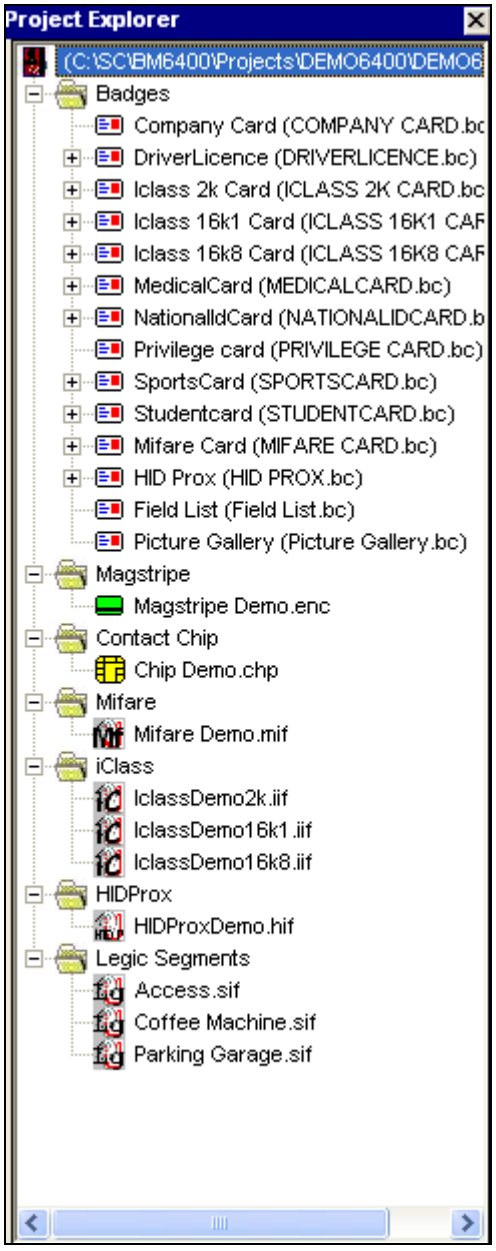
Working with cursor keys

In BadgeCreator you can move objects on a badge layout using the cursor keys (←↑↓→).

Project Explorer

Project Explorer lists the currently opened project file layouts. The location of the project file is located at the root (*Top of the list*). All layouts linked to the project are listed beneath.

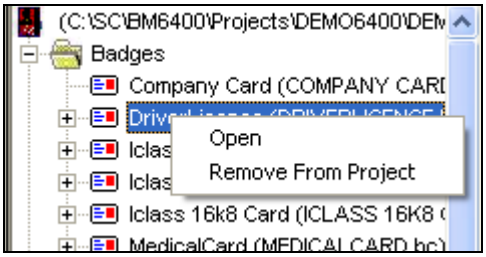
To show **Project Explorer** select **View Menu** and click **Show project Explorer**.



Project explorer

Layouts can be accessed and opened by double clicking on a specific layout item.

Right-click a layout to **Open** or **Remove From Project**.



Quick Access Toolbar

The **Quick Access Toolbar** in BadgeCreator can be used to quickly start formatting text by clicking on the desired button.

BadgeCreator Toolbar

The Toolbar in BadgeCreator can be used to quickly start a function by clicking on the desired button.

Back to Main Screen
Click on this button to return to the BadgeMaker main screen.

Badge Layout Mode
Click on this button to enter the badge layout mode to configure/create badge layouts.

Magnetic Layout Mode
Click on this button to enter the magnetic layout mode to configure/create magnetic encode layouts.

Chip Mode
Click on this button to enter the chip layout mode to configure/create chip encode layouts.

Mifare Mode
Click on this button to enter the mifare layout mode to configure/create mifare layouts.

Open Layout
Click on this button to open an existing layout linked to the current project (*.BM) file.

New Layout
Click on this button to start the New layout Wizard.

Save Layout
Click on this button to save the current layout.

Send to Other Side
Click on this button to send a selected item to the back of the badge or, send a selected item from the back of the badge to the front side of the badge.

Copy
Click on this button to copy an image to the clipboard.

Paste
Click on this button to paste data from the clipboard to your current records.

Undo

Click on this button to undo last action.

 **Lock Items**

Click on this button to lock items on the layout from being moved or edited such as images and text. This is a useful tool once you have completed a new layout. Select this button to lock the layout down.

 **Add Static Text**

Click on this button to add static text. Static items are non-unique and fixed such as Company Name, Address, Logo.

 **Add Dynamic Text**

Click on this button to add dynamic text to your badge layout. Dynamic text is a placeholder that automatically pulls text from the database. Dynamic items are unique and not fixed such as an Individual's name, e-mail, phone number or department.

 **Add Logo**

Click on this button to add a logo to the badge layout.

 **Add Image**

Click on this button to add an image to the badge layout.

 **Add Background Image**

Click on this button to add a background image to the badge layout.

 **Add Line**

Click on this button to add a line to the badge layout.

 **Add Rectangle**

Click on this button to add a rectangle to the badge layout.

 **Add Circle**

Click on this button to add a circle to the badge layout.

 **Add Barcode**

Click on this button to add a barcode to the badge layout.

 **Change Layout Side**

Click on this button to switch views between the back and front side of the card layout.

 **Zoom In**

Click on this button to zoom in on the badge layout.

 **Zoom Out**

Click on this button to zoom out on the badge layout.

File Menu

The **File Menu** appears as the first item in the menu bar, and contains commands relating to the handling of layouts such as open, create new and save. You can close layouts and return to BadgeMaker from here.

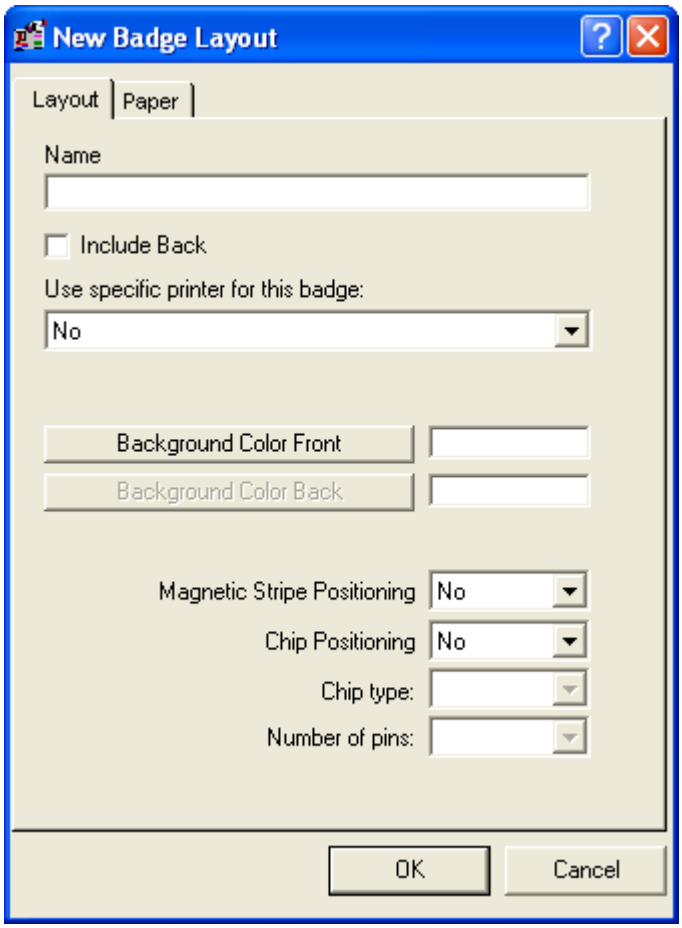
New Layout

To create a New Badge Layout *(*.BC file*) select **File Menu**, and click **New Layout**.

Click  from the BadgeCreator **Toolbar**.

The following dialog box is presented providing options which allow you to create a **New Layout**.

Layout



New badge layout

Name: Enter a unique name for your badge layout.

The name is not case sensitive and limited to 30 characters are allowed.

Include Back: Select this option to define a double sided badge layout. If this option is not checked your badge layout will only consist of a front side.
Use specific printer for this badge: Specify a specific printer.
Background Colour Front: Select a colour for the front side of the badge layout.
Background Colour Back: Select a colour for the back side of your badge layout.

This option is disabled if Include Back Side is selected.

Magnetic Stripe Positioning: Select the way the magnetic stripe will be positioned on the badge layout. If no magnetic stripe is to be used in the layout select **No**.
Chip Positioning: Select the layout side the chip will be positioned. If no chip is to be used in the layout select **No**.
Chip Type: Select a chip type from the list. The following types can be selected from the drop down list.

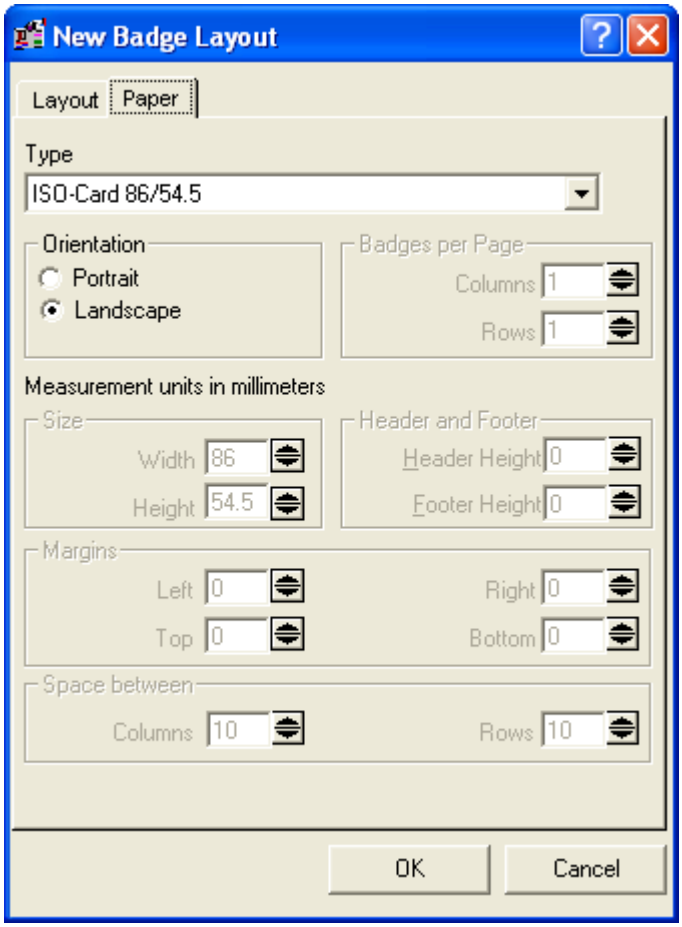
- **ISO**
- **AFNOR**
- **Plug-in SIM**

The chip type option can only be selected if Chip Positioning is set to Front or Back.

Number of Pins: Select the number of pins for the chip. For ISO and AFNOR both 6 pin and 8 pin can be selected. For Plug-in SIM only 8 pin is available.

The Number of Pins option can only be selected if Chip Positioning is set to Front or Back.

Paper



Paper

Type: Define the size of the badge by selecting a predefined **Type** from the drop down list or select **Manual Size** to define your own badge size.

- **ISO-Card 86/54.5:** Select this if you want to design an ISO standard card.
- **A4:** Select this if you want to design a layout on A4 paper. If you print the layout on A4 paper it is possible to print more than one record on a sheet.
- **Letter:** Select this if you want to design a layout for Letter paper. If you print the layout on Letter paper it is possible to print more than one record on a sheet.
- **Manual Size:** If you have selected ISO-card, you can define your own badge size. The badge dimensions can now be filled in the dialog.

Select one of these if you want to design an ISO standard card and use a *Magicard Turbo* or *Rio/Tango printer*. You can also select to print edge to edge or print with a white border.

- **ISO-Card Magicard Turbo White Border**
- **ISO-Card Magicard Turbo Edge To Edge**
- **ISO-Card Magicard Rio/Tango White Border**
- **ISO-Card Magicard Rio/Tango Edge To Edge**
- **Mitsubishi 110/110:** Select this if you have a Mitsubishi CP100 with sheets of 110x110mm.
- **Mitsubishi 150/100:** Select this if you have a Mitsubishi CP100 with sheets of 150x100 mm.
- **ISO-Card Fargo:** Select this if you want to design an ISO standard card and you use a Fargo printer.
- **ISO-Card DNP:** Select this if you want to design an ISO standard card and you use a DAI Nippon printer.

Orientation: Configure the orientation of the layout.

Select Portrait: to set a layout in portrait.
Select Landscape: to set the layout in landscape.

Badges Per Page: Set the number of columns and number of rows on a badge.

Columns: Enter a value to set the number of columns.
Rows: Enter a value to set the number of rows.

Size: Set the width and height of the badge.

Width: Enter a value to set the width of the badge.
Height: Enter a value to set the height of the badge.

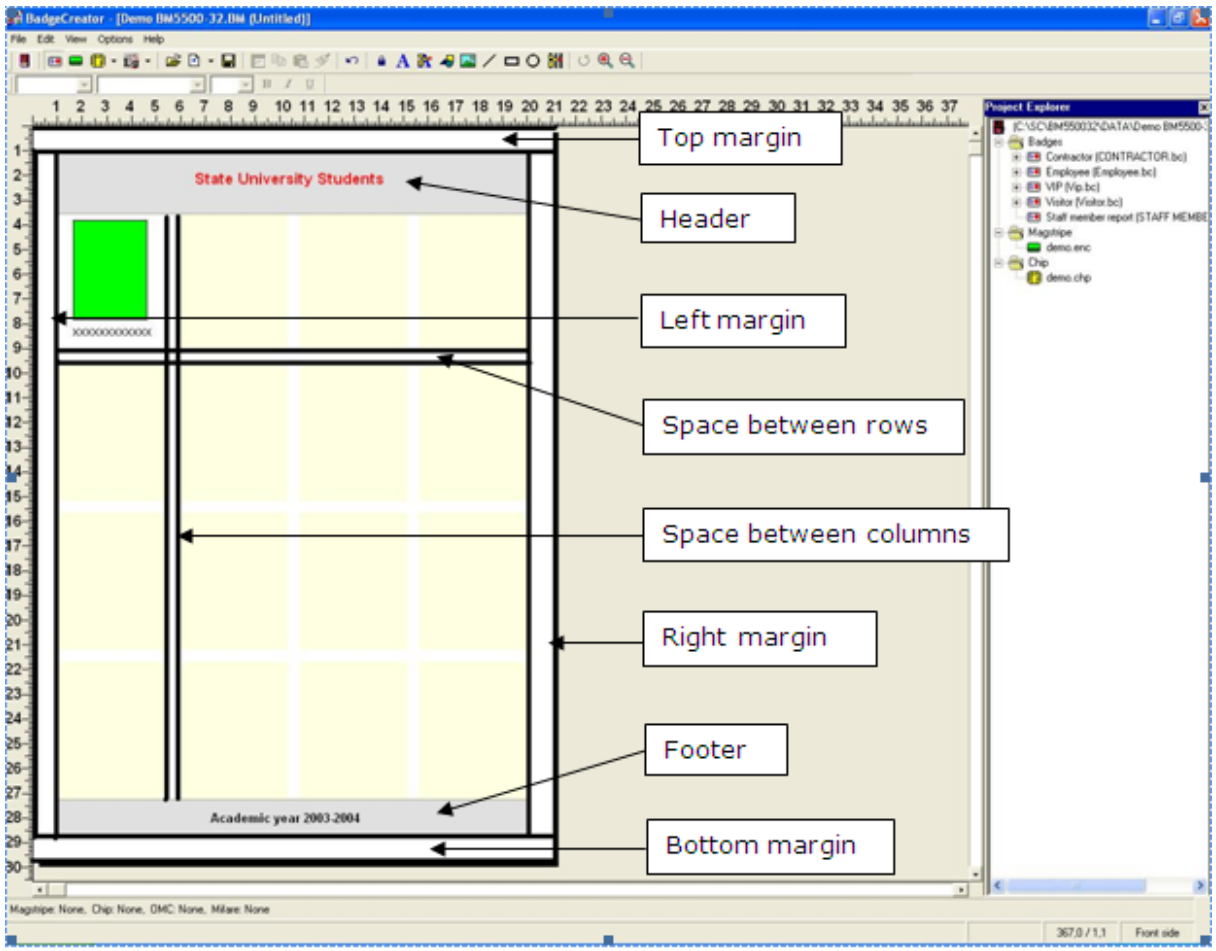
Header and Footer: Define the height of a Header and a Footer.

This option is only available for the types A4 and Manual.

Margins: Configure the left, top, right and bottom margins of a layout.

Left: Enter a value to set the left margin of a layout.
Top: Enter a value to set the top margin of a layout.
Right: Enter a value to set the right margin of a layout.

Bottom: Enter a value to set the bottom margin of a layout.



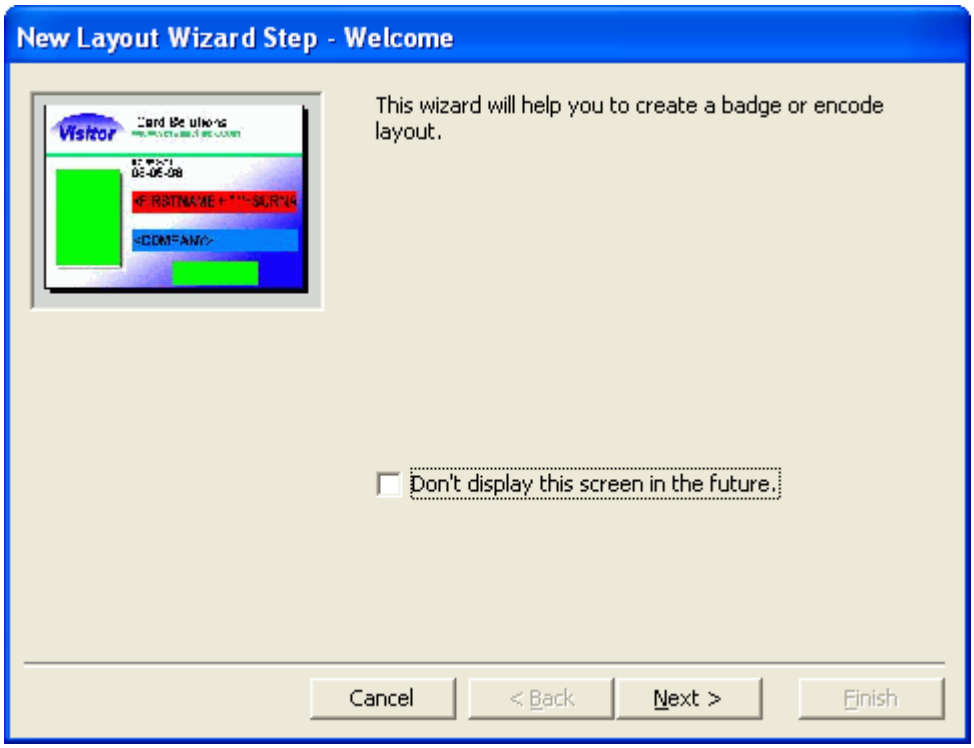
Space Between: Configure the space between the columns and rows.

Column: Enter a value to change the space between columns. This affects the width of the badge.
Rows: Enter a value to change the space between rows. This affects the height of the badge.

Click **OK** to confirm and close. Click **Cancel** to discard changes.

New Layout Wizard

Select **File Menu** and click **New Layout Wizard** to open the Badge Layout Wizard, the following screen is presented.



BC New layout wizard

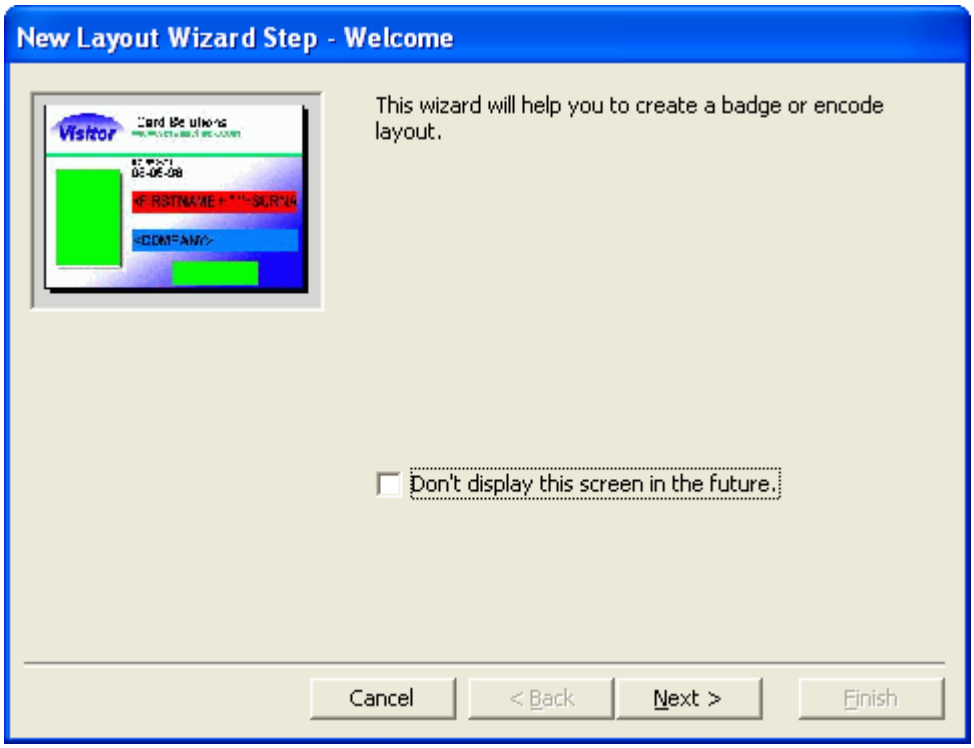
Click **Next** to and select the type of layout to create.

New Layout Wizard (Badge)

Select **File Menu** and click **New Layout Wizard** to open the wizard, the following screen is presented.

Click  from the BadgeCreator **Toolbar**.

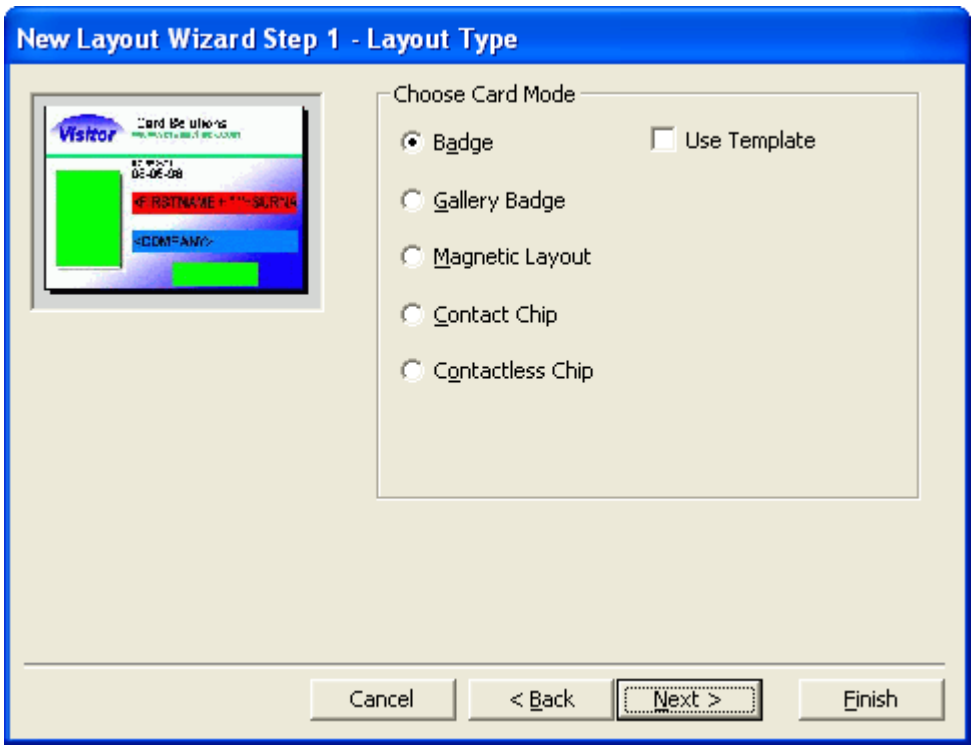
The Welcome screen can be skipped in future by selecting **Don't display this screen in the future**.



BC New layout wizard

Click **Next** to proceed to the next screen and begin configuring a New Layout.

Step 1

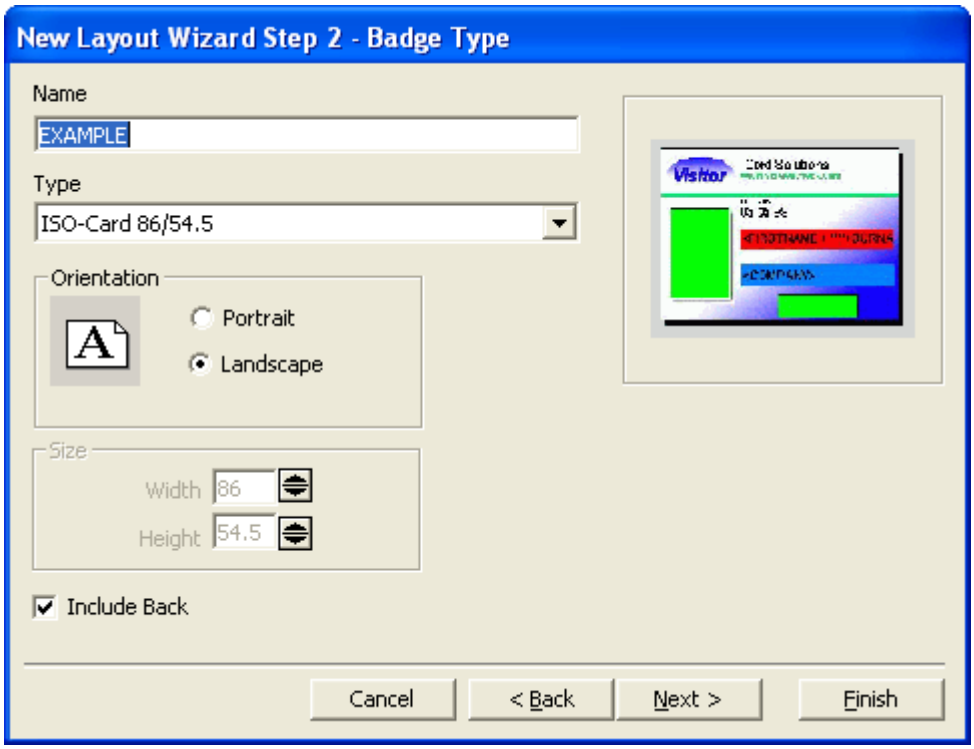


Layout type

Select **Badge** to create a Badge layout and click **Next** to proceed.

Step 2

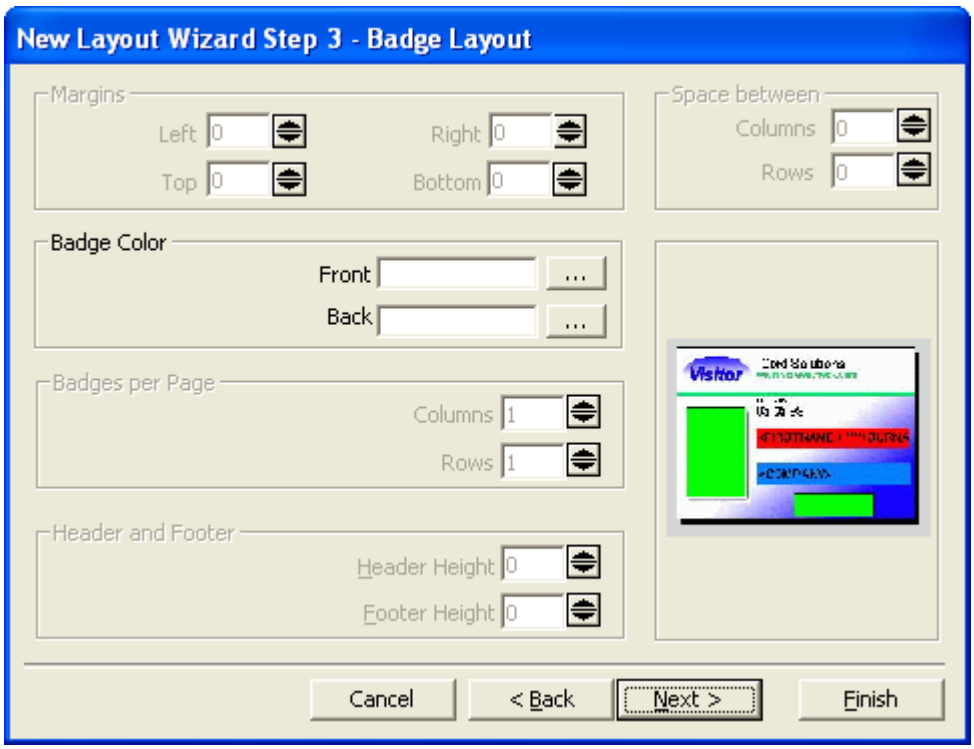
Type a name for your desired layout and select which Type (Card Type) you want to use.



In this example **Include Back** has been selected, this creates a double sided card layout.

Click **Next** to proceed to the next screen.

Step 3

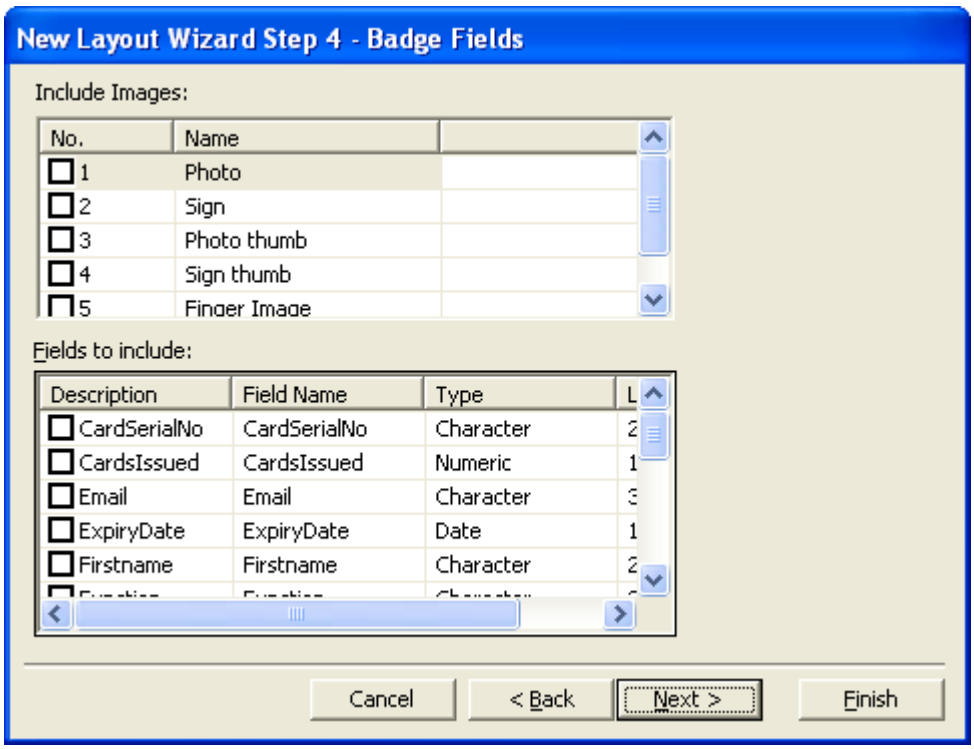


Badge layout

When selecting Badge Layout in Step 1 a number of input fields are not available. These are greyed out.

Click **Next** to proceed to the next screen.

Step 4



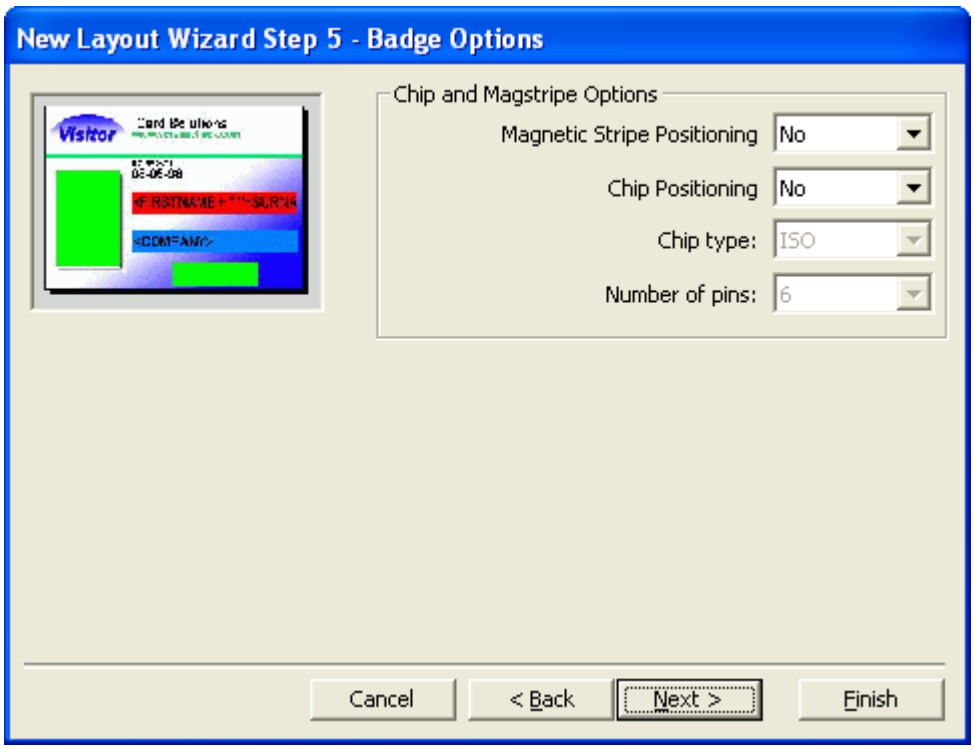
Badge fields

Select which images to include into the badge layout, and below select which fields from the database to include into the badge layout.

Fields chosen will be shown in the layout as dynamic text linked to data fields in the database, not static text which is fixed information set on a layout.

Click **Next** to proceed to the next screen.

Step 5



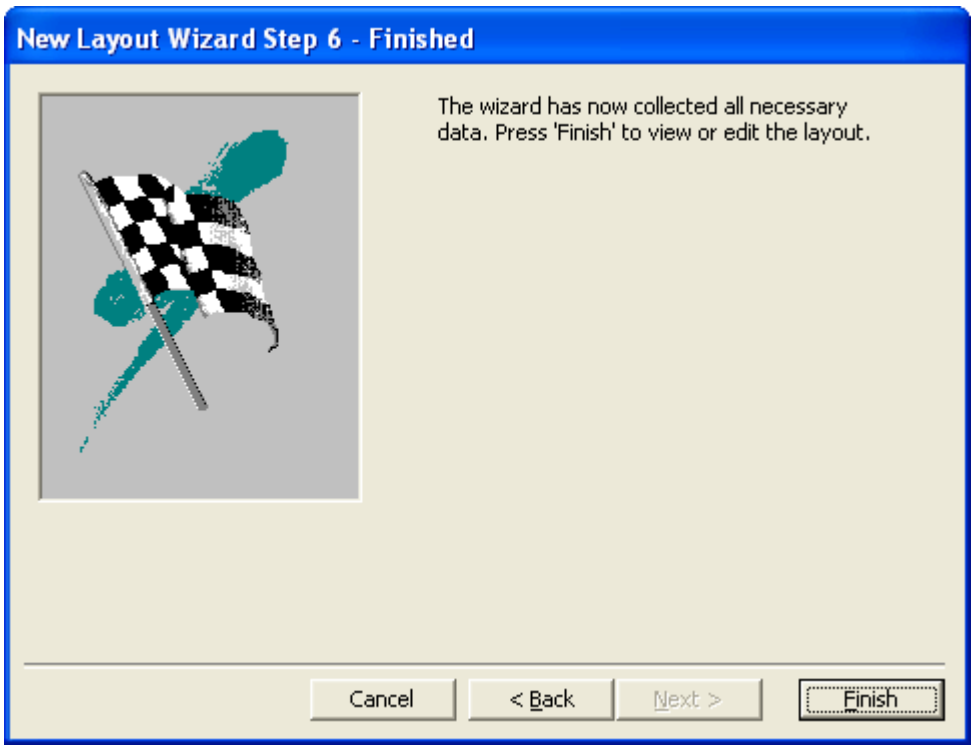
Badge options

Chip and **Magstripe Options** configure where on the layout place holders will be positioned for the magnetic stripe and the chip. This prevents other items and objects being placed on top of the chip or magstripe.

Note that these place holders are only indicating the position of the chip and magstripe.

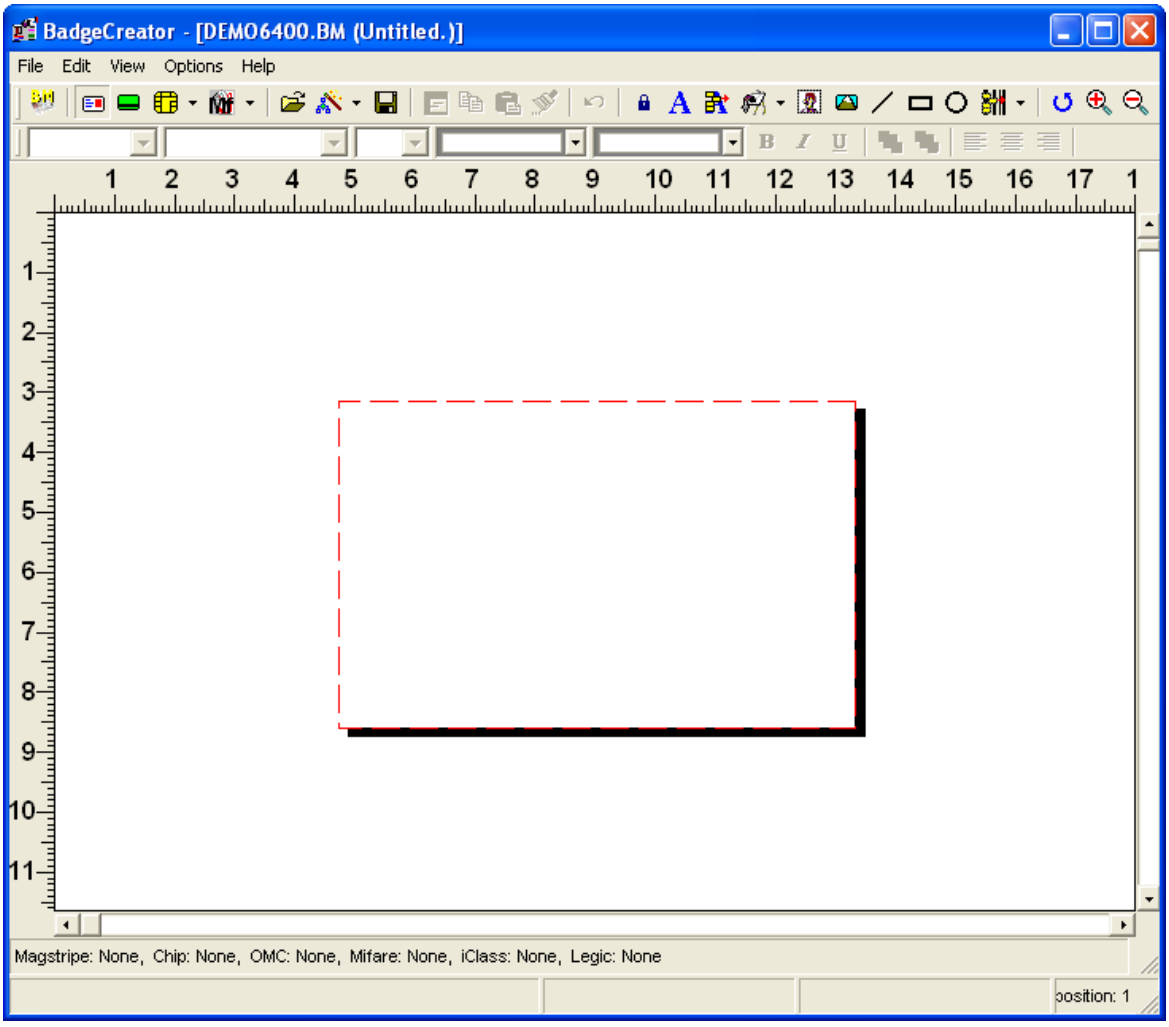
Click **Next** to proceed to the next screen.

Step 6



Once all settings have been defined and configured the final dialog is presented.

Click **Finish** to complete the Wizard or click **Back** to change settings. When you click **Finish** a new layout is presented in BadgeCreator.



BC Main screen

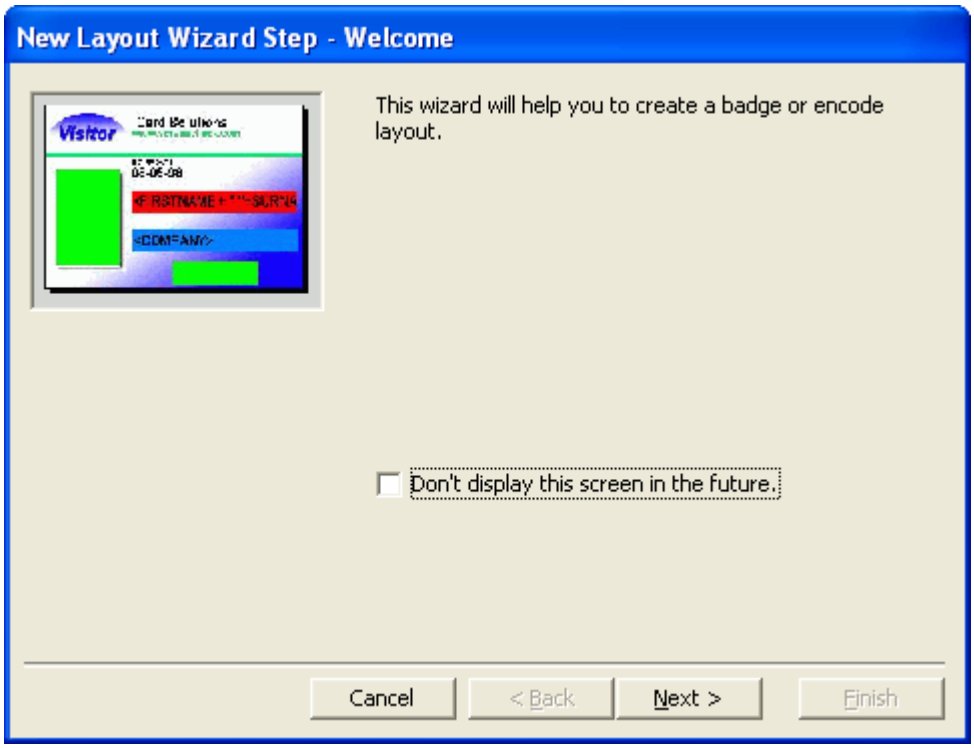
Form the BadgeMaker **Toolbar** click  , this will open BadgeCreator and start the **New Layout Wizard.**

New Layout Wizard (Gallery Badge)

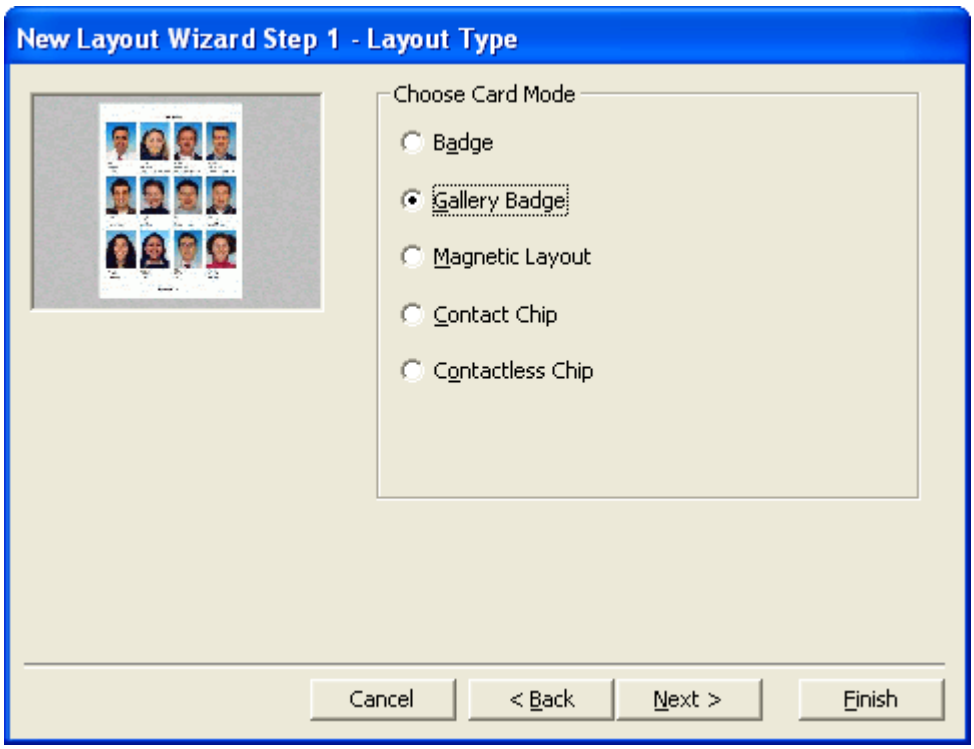
Select **File Menu** and click **New Layout Wizard** to open the wizard, the following screen is presented.

Click  from the BadgeCreator **Toolbar**.

The Welcome screen can be skipped in future by selecting **Don't display this screen in the future**.



Click **Next** to proceed to the next screen and begin configuring a New Layout.

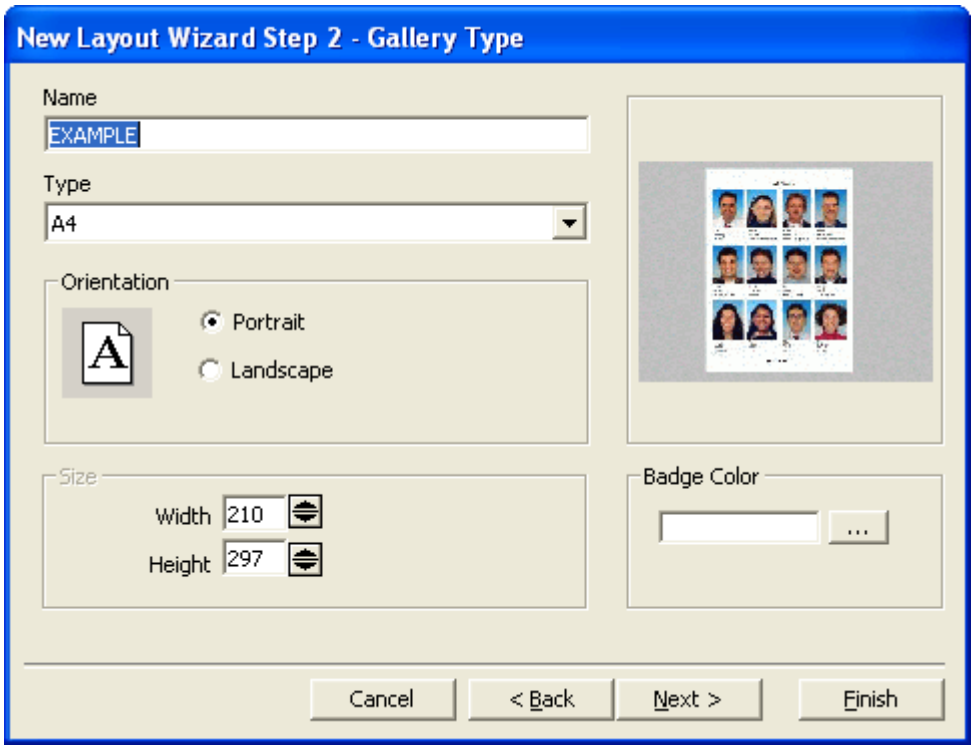


Choose type

Select **Gallery Badge** to create a gallery badge and click **Next** to proceed.

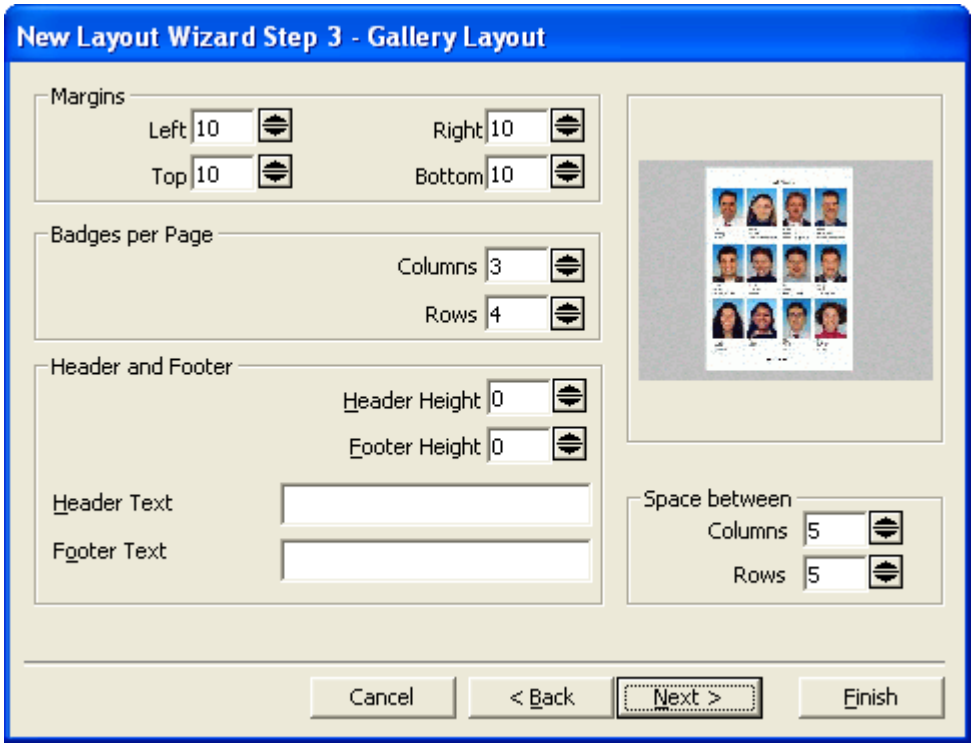
Type a name for your desired layout and select which Type (*Card Type*) you want to use.

Choose between the following **Type A4**, **Manual Size** and **Letter**.



Click **Next** to proceed to the next screen.

Step 3



Gallery layout

Click **Next** to proceed to the next screen.

Step 4

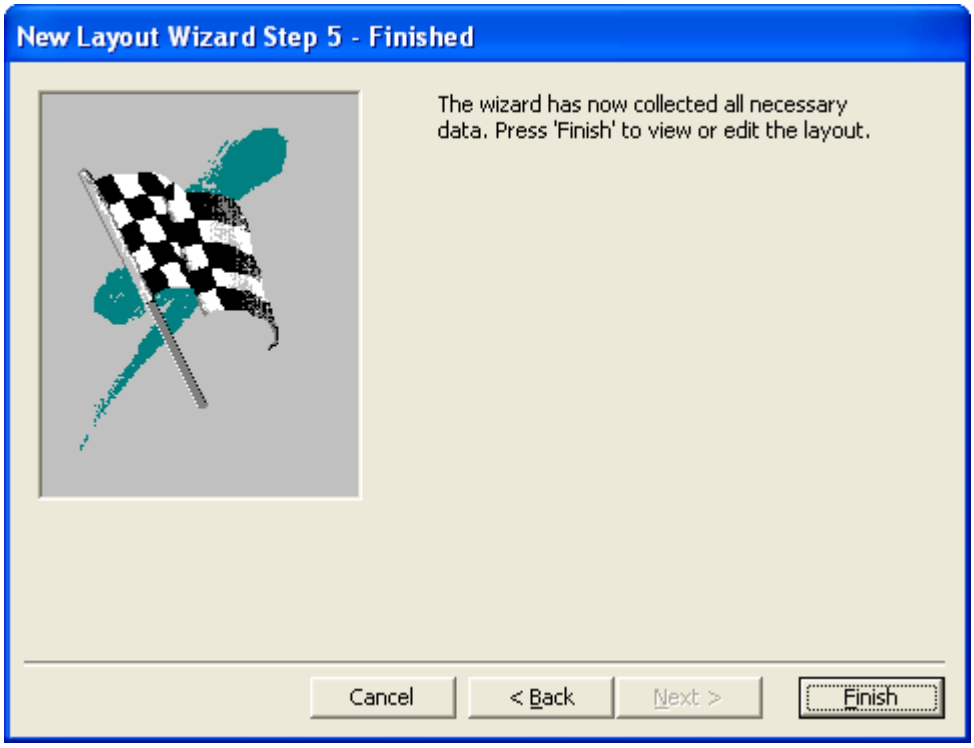
Gallery fields

Select which images to include into the badge layout, and below select which fields from the database to include into the badge layout.

Fields chosen will be shown in the layout as dynamic text linked to data fields in the database, not static text which is fixed information set on a layout.

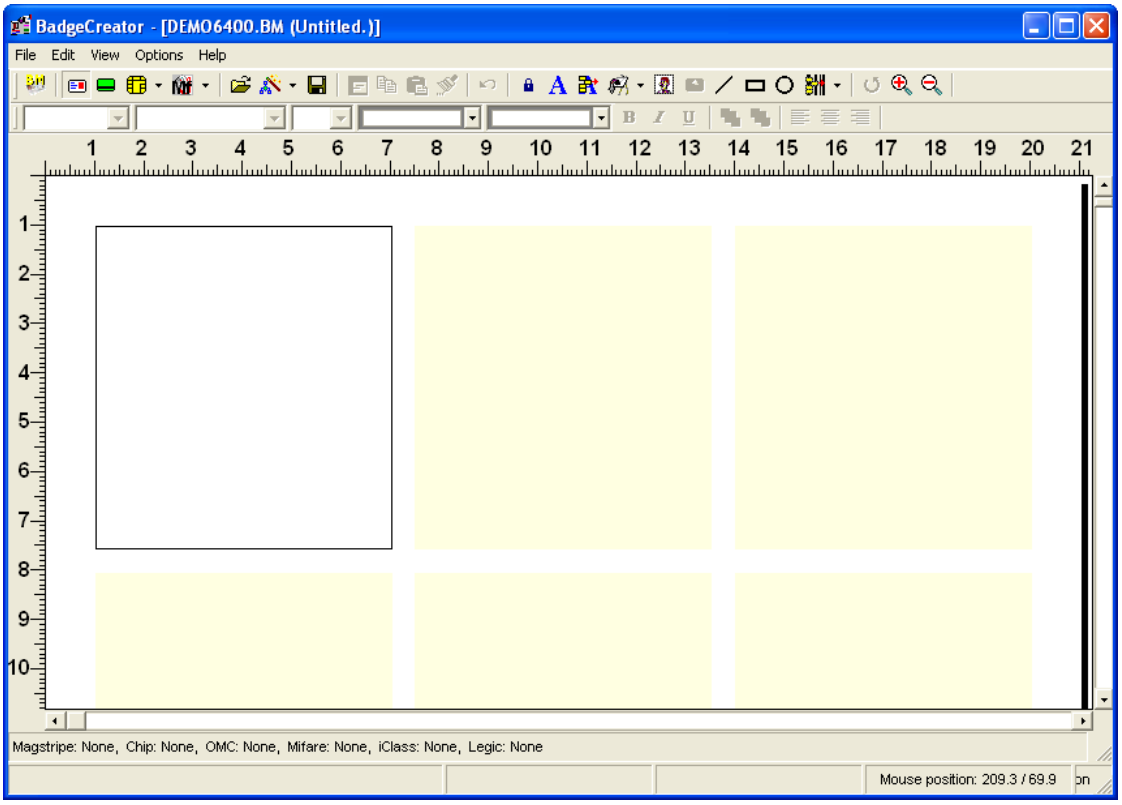
Click **Next** to proceed to the next screen.

Step 5



Once all settings have been defined and configured the final dialog is presented.

Click **Finish** to complete the Wizard or click **Back** to change settings. When you click **Finish** a new layout is presented in BadgeCreator.



BM main screen

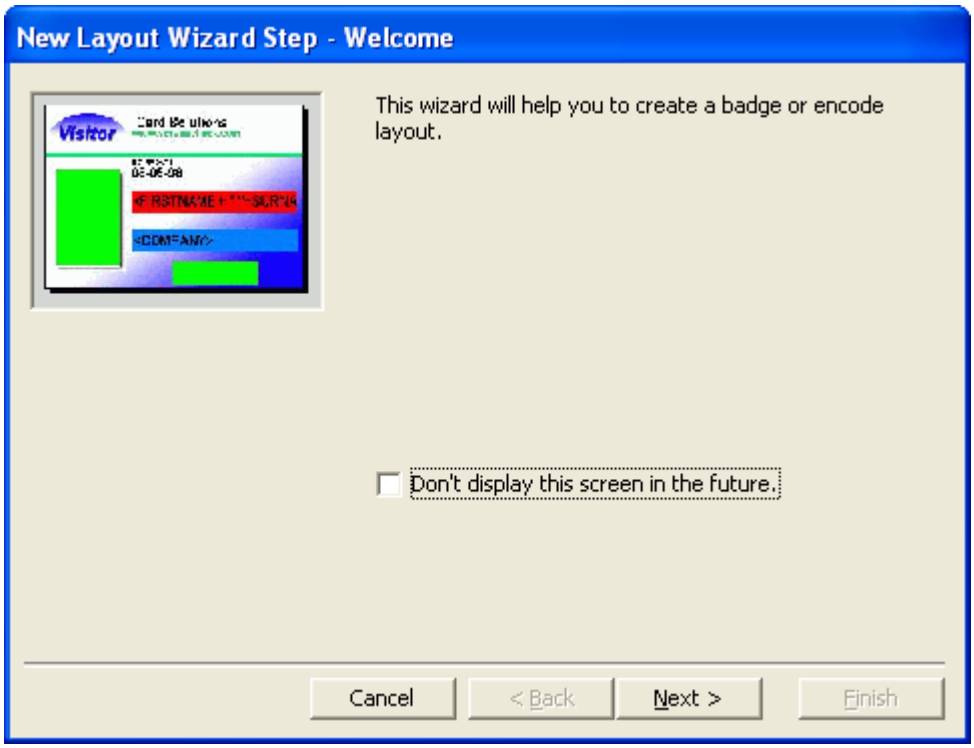
Form the BadgeMaker Toolbar click  **, this will open BadgeCreator and start the New Layout Wizard.**

New Layout Wizard (Magnetic Layout)

Select **File Menu** and click **New Layout Wizard** to open the wizard, the following screen is presented.

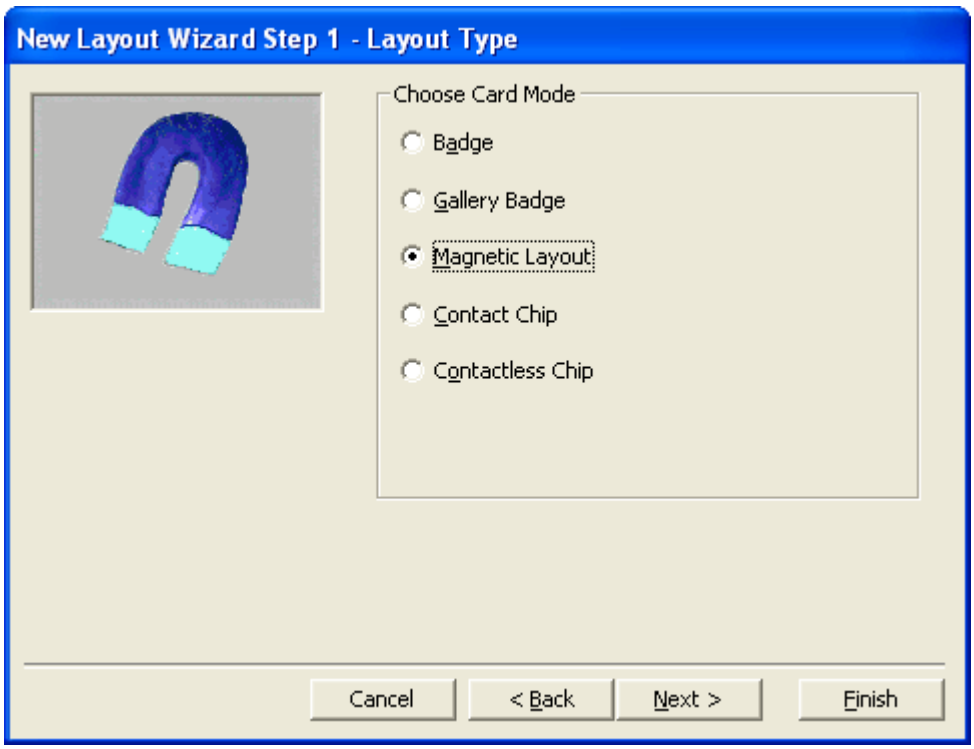
Click  from the BadgeCreator **Toolbar**.

The Welcome screen can be skipped in future by selecting **Don't display this screen in the future**.



Click **Next** to proceed to the next screen and begin configuring a New Layout.

Step 1



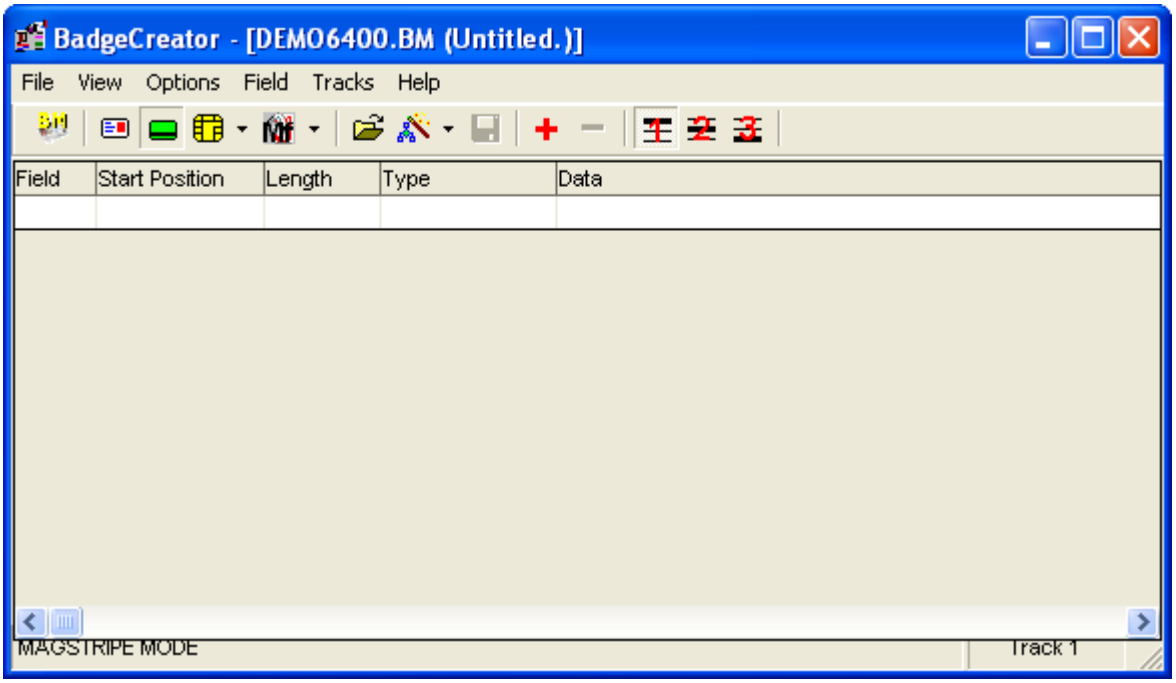
Choose layout

Select **Magnetic Layout** to create a magstripe badge and click **Next** to proceed.

Step 2

Click **Finish** to complete the Wizard or click **Back** to change to another Card Mode.

When you click **Finish** a new layout is presented in BadgeCreator.



Magnetic layout mode

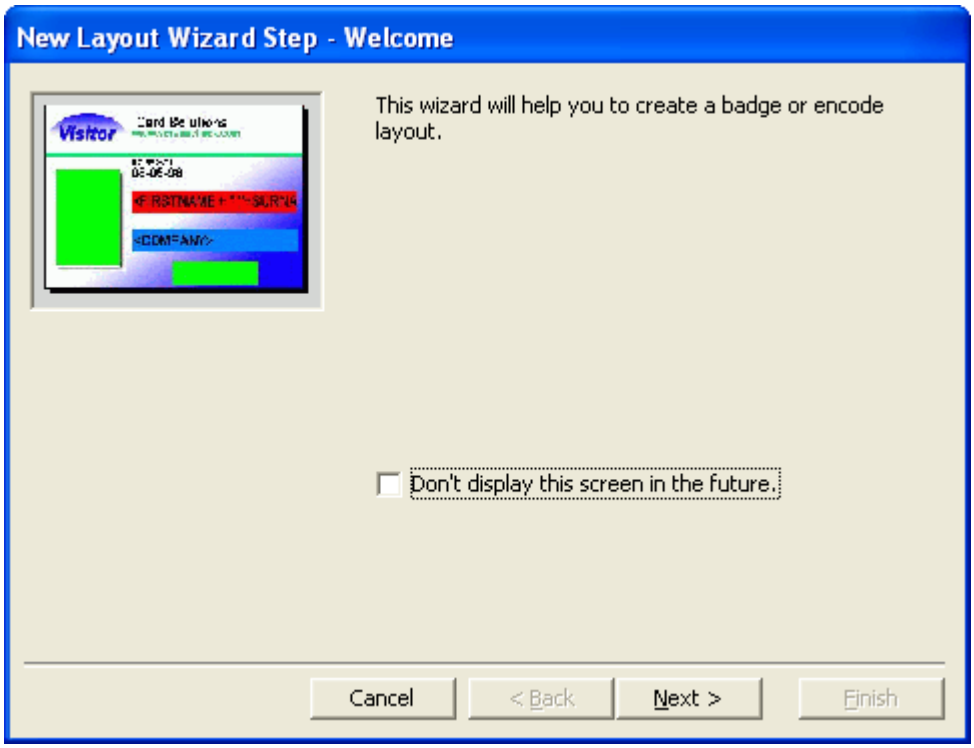
Form the BadgeMaker Toolbar click , this will open BadgeCreator and start the New Layout Wizard.

New Layout Wizard (Contact Chip)

Select **File Menu** and click **New Layout Wizard** to open the wizard, the following screen is presented.

Click  from the BadgeCreator **Toolbar.**

The **Welcome screen** can be skipped in future by selecting **Don't display this screen in the future**.



Click **Next** to proceed to the next screen and begin configuring a New Layout.

Choose layout

Select **Contact Chip** to create and click **Next** to proceed.

Step 2

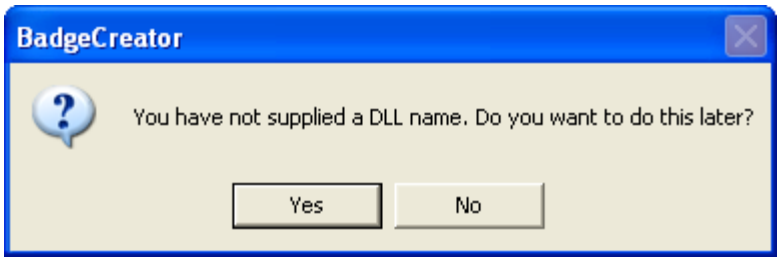
Chip options

A *dll must be specified in order for a contact chip to be encoded with images and data specified in the layout. Specify bmchip.dll under Dll Name.

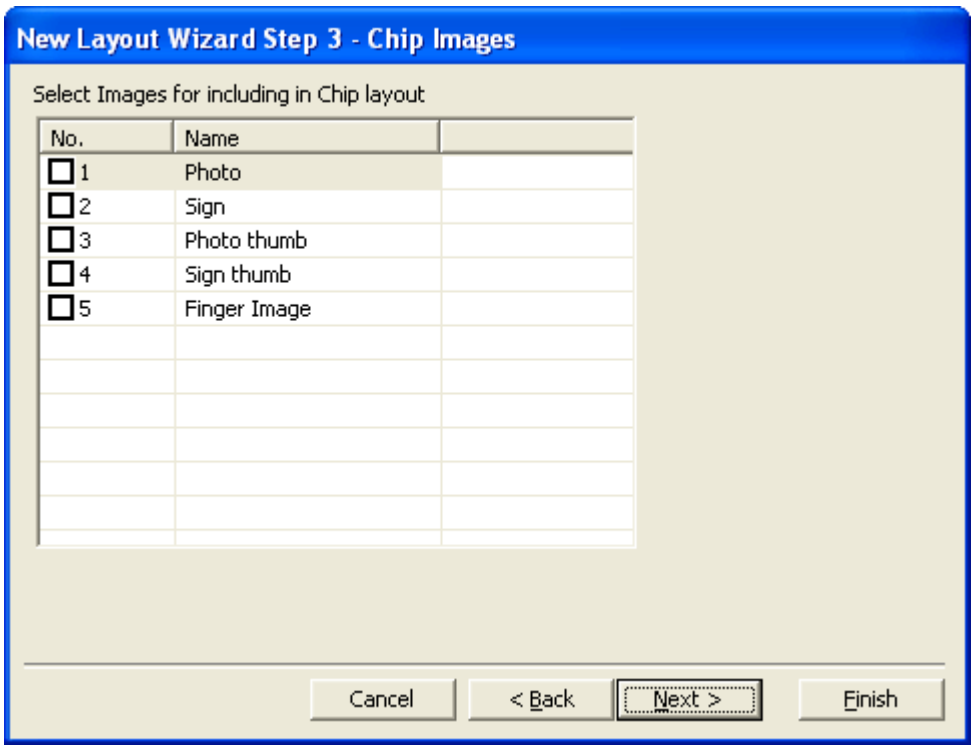
BMChip32.dll is shipped with BadgeMaker, specify this *.dll unless you have created your own specific *.dll.

A *.Dll name is required. If it is empty, the chip encode layout cannot be saved.

If no chip is specified and you choose to proceed, the following dialog is presented. Click **Yes** to supply a *.dll at a later time or **No** to return to Step 2 and specify a *.dll.



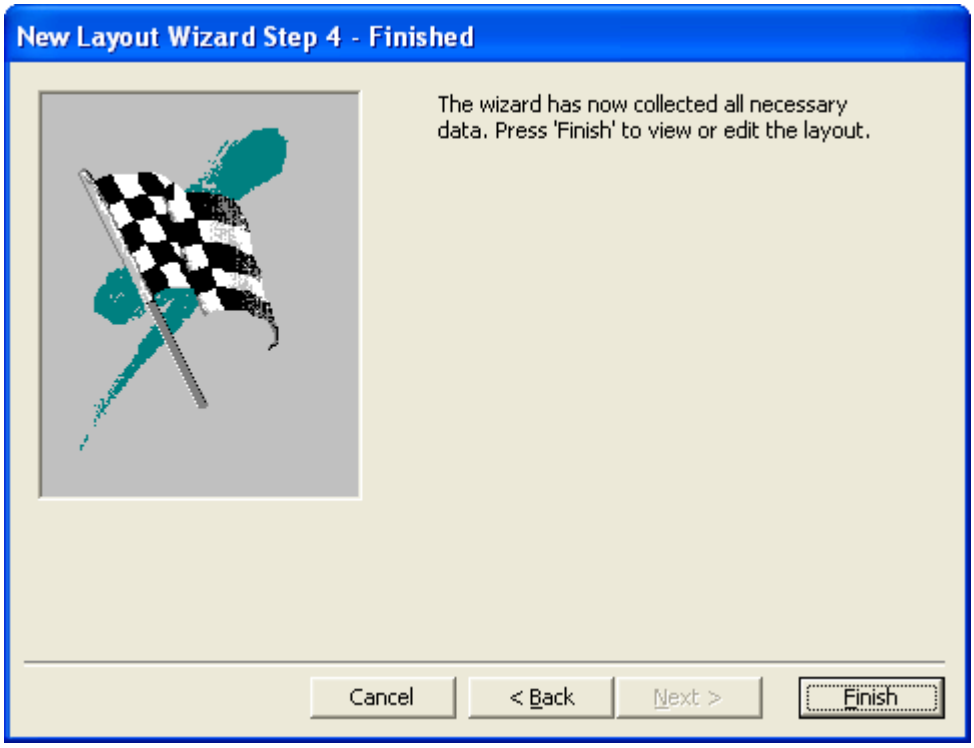
Step 3



Chip images

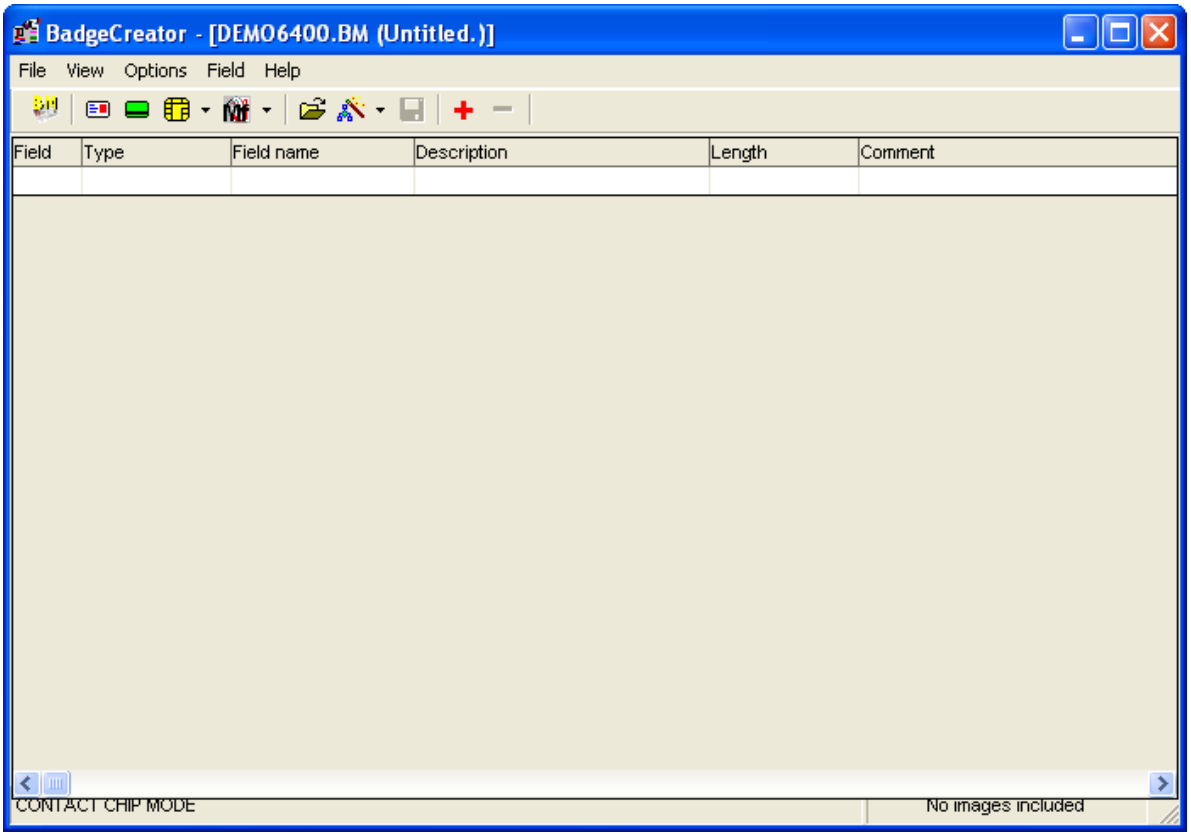
Select the required **Images** to include into the chip encoding. When this option is specified the name and directory of the Image will be stored into the chip layout.

Click **Next** to proceed.



Once all settings have been defined and configured the final dialog is presented.

Click **Finish** to complete the Wizard or click **Back** to change settings. When you click **Finish** a new layout is presented in BadgeCreator.



Chip layout mode

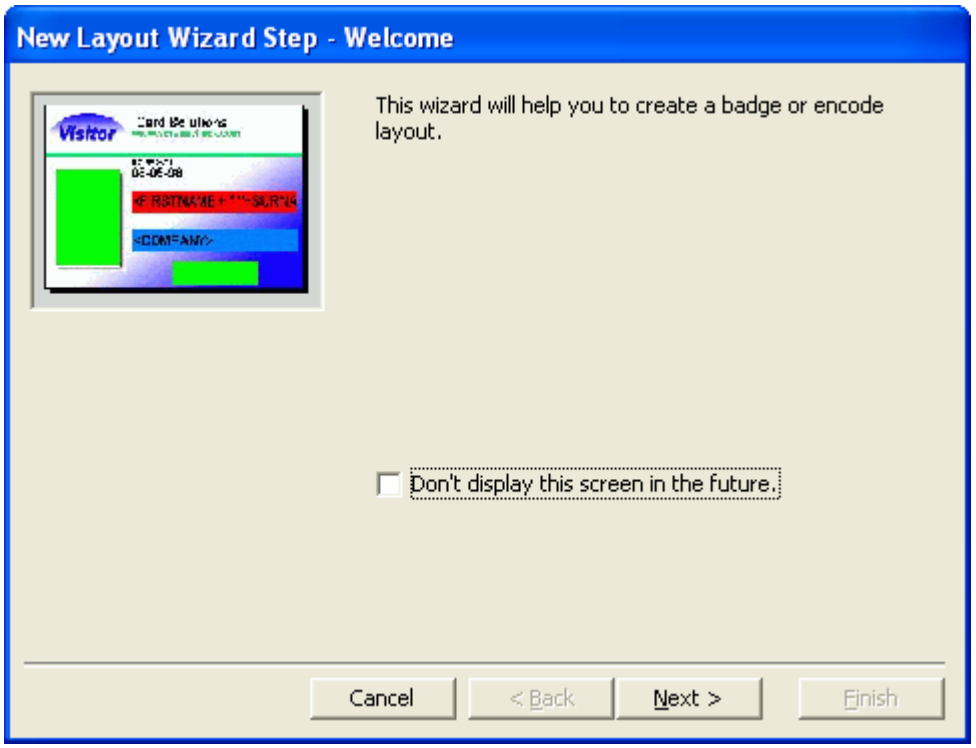
From the BadgeMaker **Toolbar** click  , this will open BadgeCreator and start the New Layout Wizard.

New Layout Wizard (Mifare)

Select **File Menu** and click **New Layout Wizard** to open the wizard, the following screen is presented.

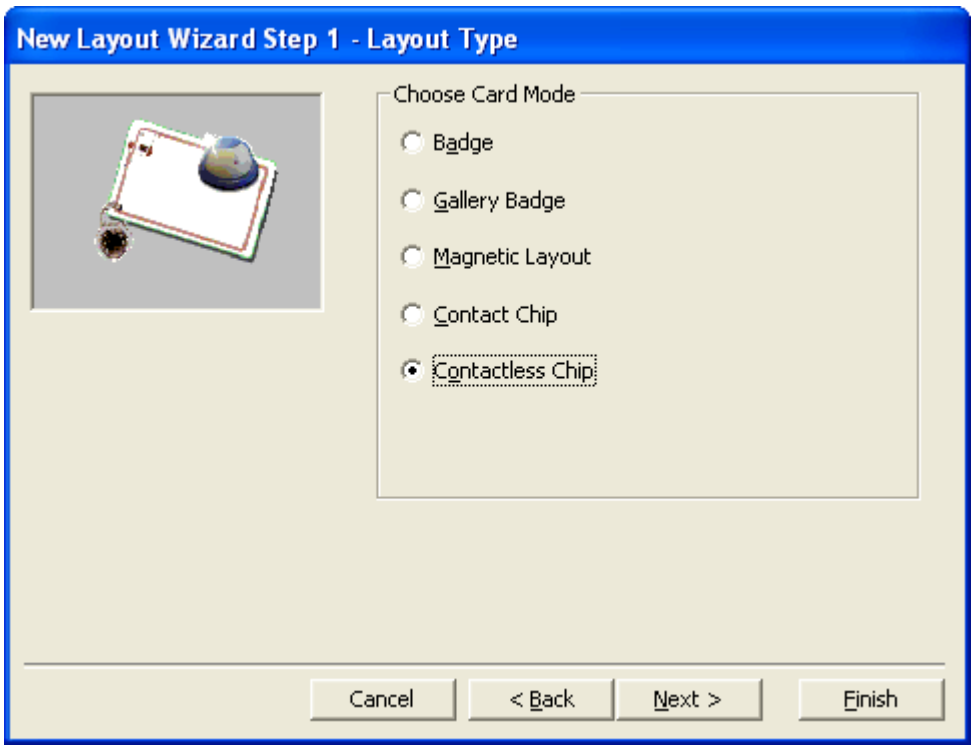
Click  from the BadgeCreator **Toolbar**.

The Welcome screen can be skipped in future by selecting **Don't display this screen in the future**.



Click **Next** to proceed to the next screen and begin configuring a New Layout.

Step 1



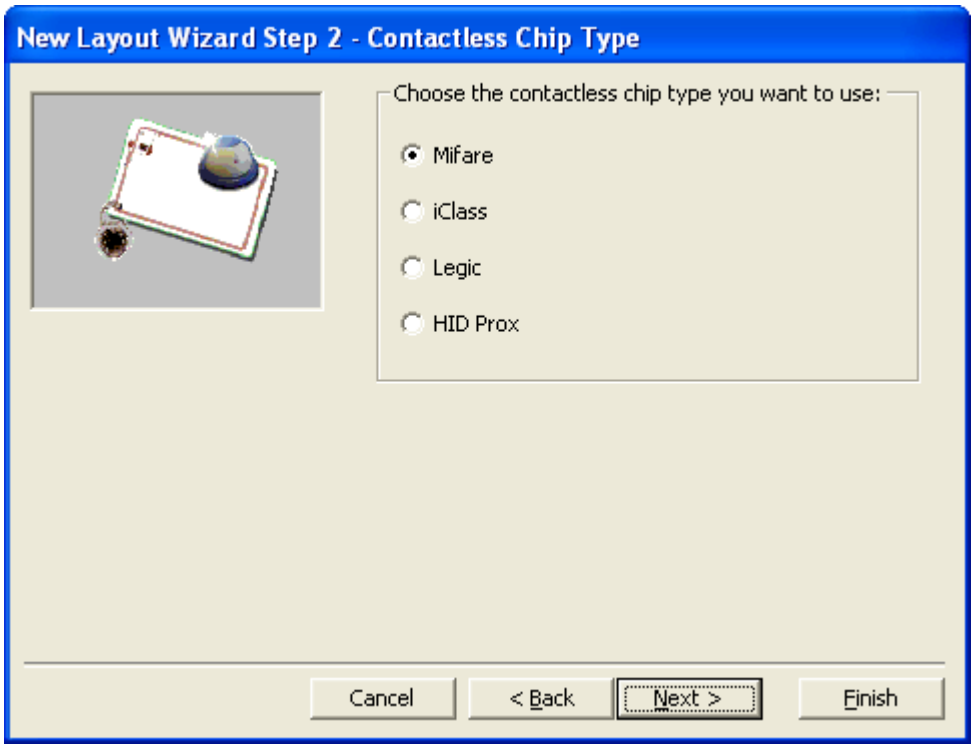
Choose card type

Select **Contactless Chip** to create and click **Next** to proceed.

Step 2

In this dialog choose the type of contactless chip to use.

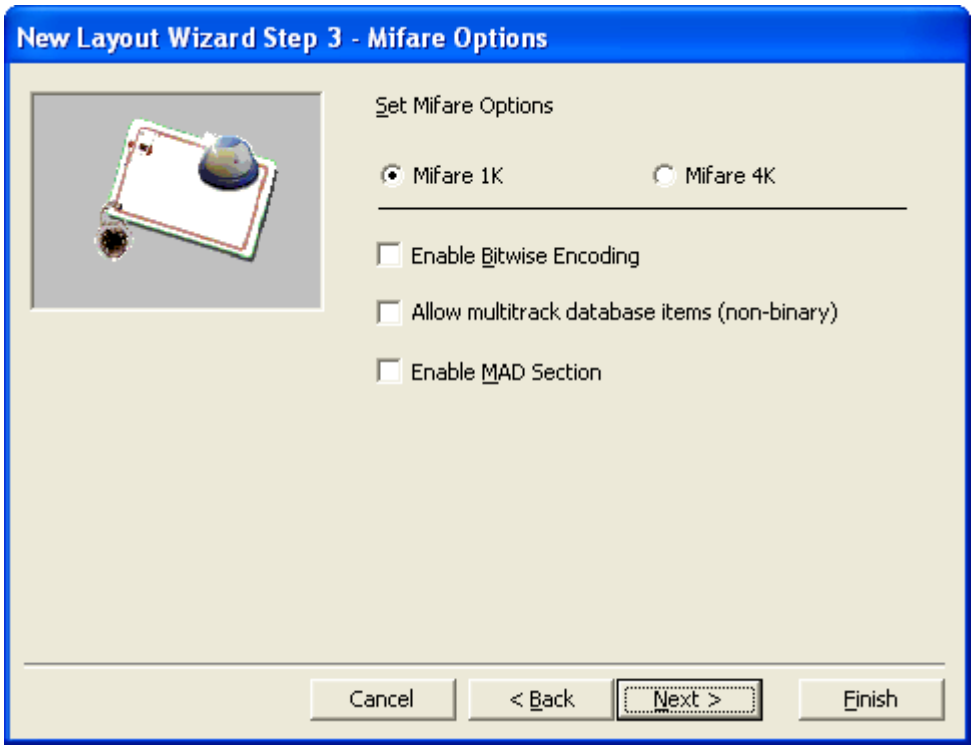
Select **Mifare** and click **Next** to continue.



Chip type

Step 3

Select which type of **Mifare chip** to use.



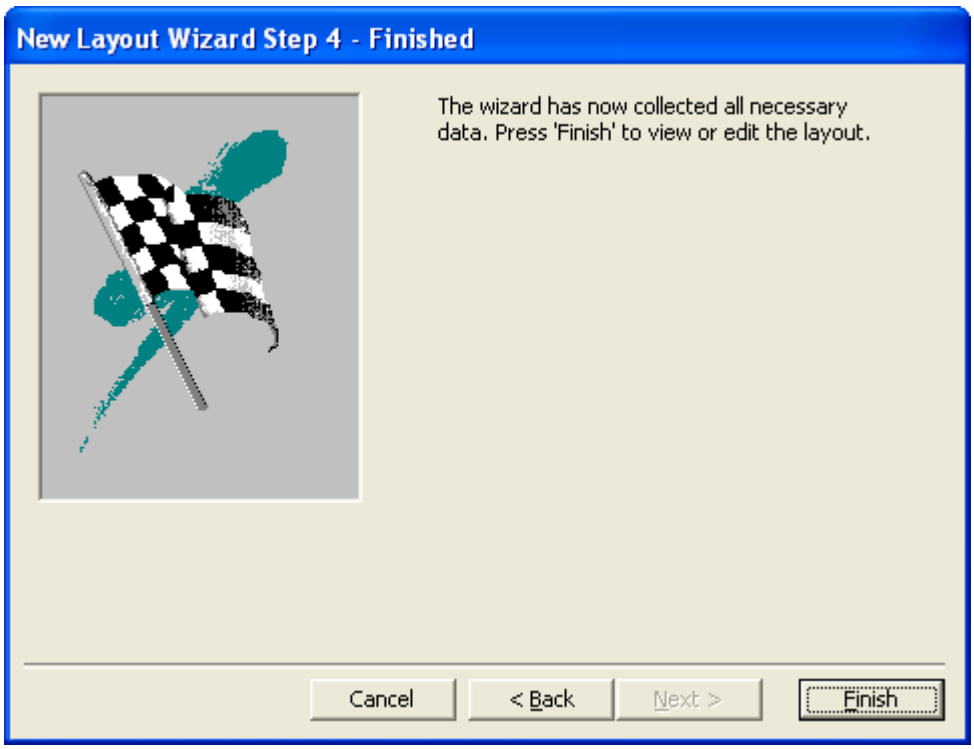
Mifare options

For this example **Mifare 1k** is selected.

Allow multitrack database items (non-binary): Select this option to scan a field across multiple tracks (*for large segments of information*).

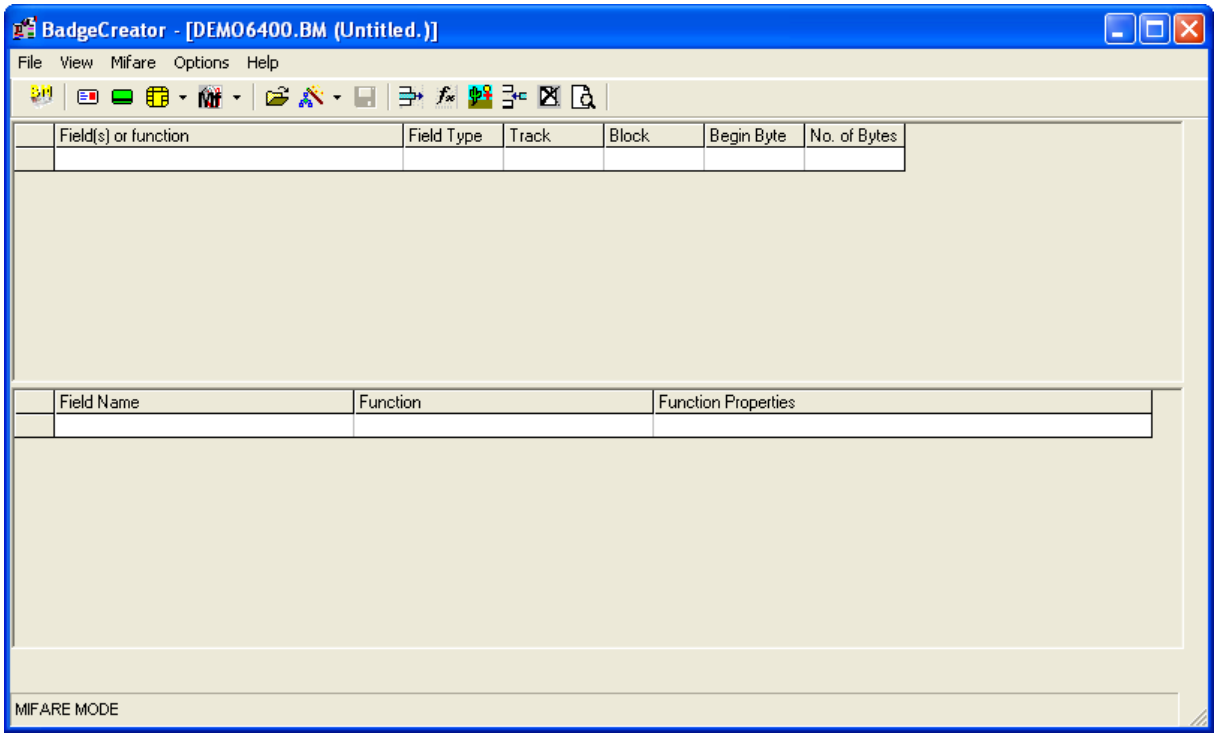
Enable MAD Section: Enable MAD (*Mifare Application Directory*) to define common data structures for multi application directory entries.

Step 4



Once all settings have been defined and configured the final dialog is presented.

Click **Finish** to complete the Wizard or click **Back** to change settings. When you click **Finish** a new layout is presented in BadgeCreator.



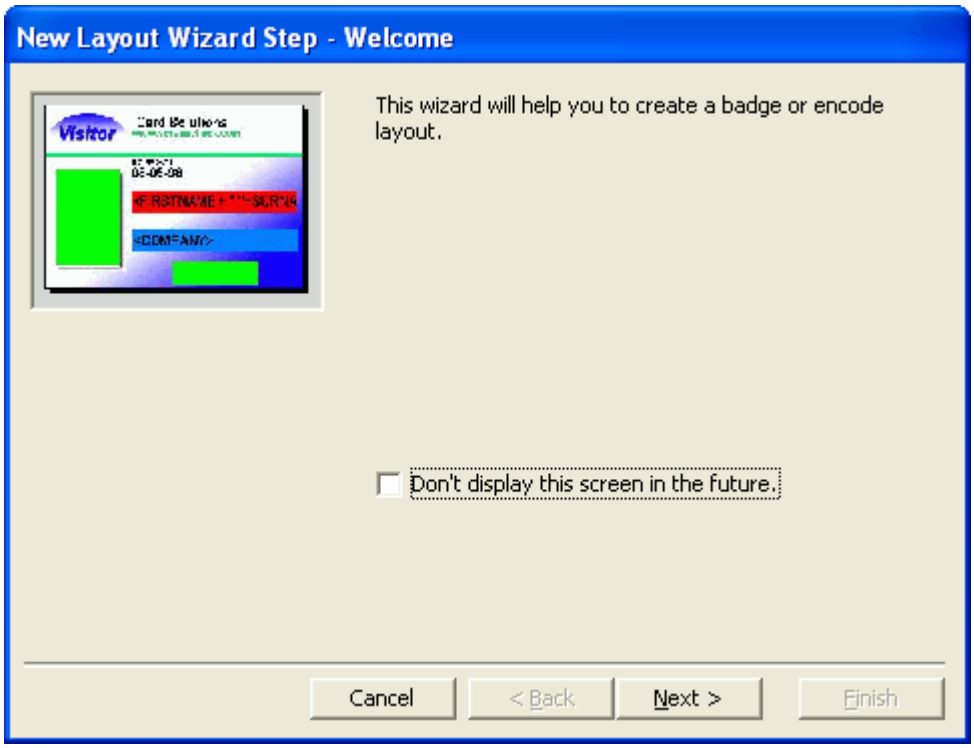
From the BadgeMaker Toolbar click  , this will open BadgeCreator and start the New Layout Wizard.

New Layout Wizard (iClass)

Select **File Menu** and click **New Layout Wizard** to open the wizard, the following screen is presented.

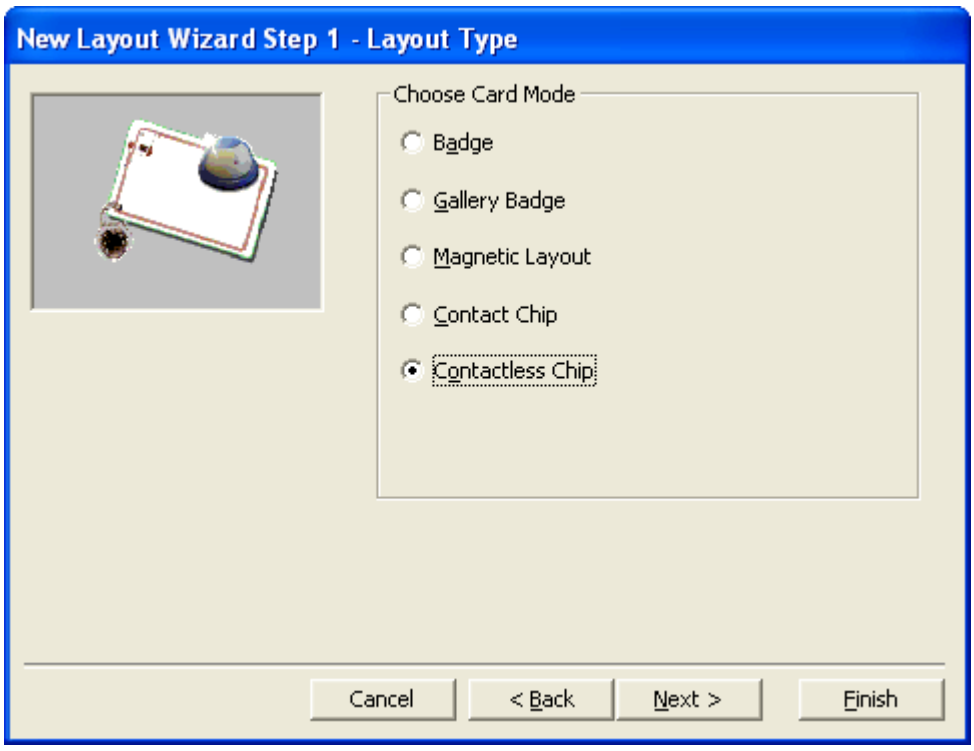
Click  from the BadgeCreator **Toolbar**.

The Welcome screen can be skipped in future by selecting **Don't display this screen in the future**.



Click **Next** to proceed to the next screen and begin configuring a **New Layout**.

Step 1



Choose type

Select **Contactless Chip** and click **Next** to proceed.

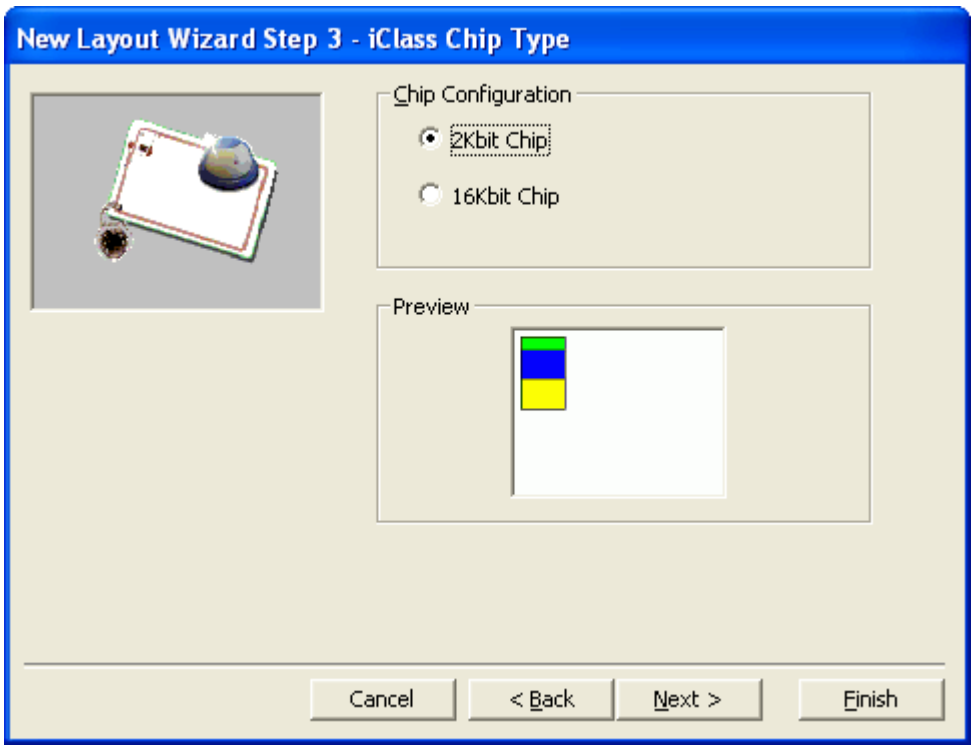
Step 2

In this dialog choose the type of contactless chip to use.

Choose contactless chip type

Select **iClass** and click **Next** to continue.

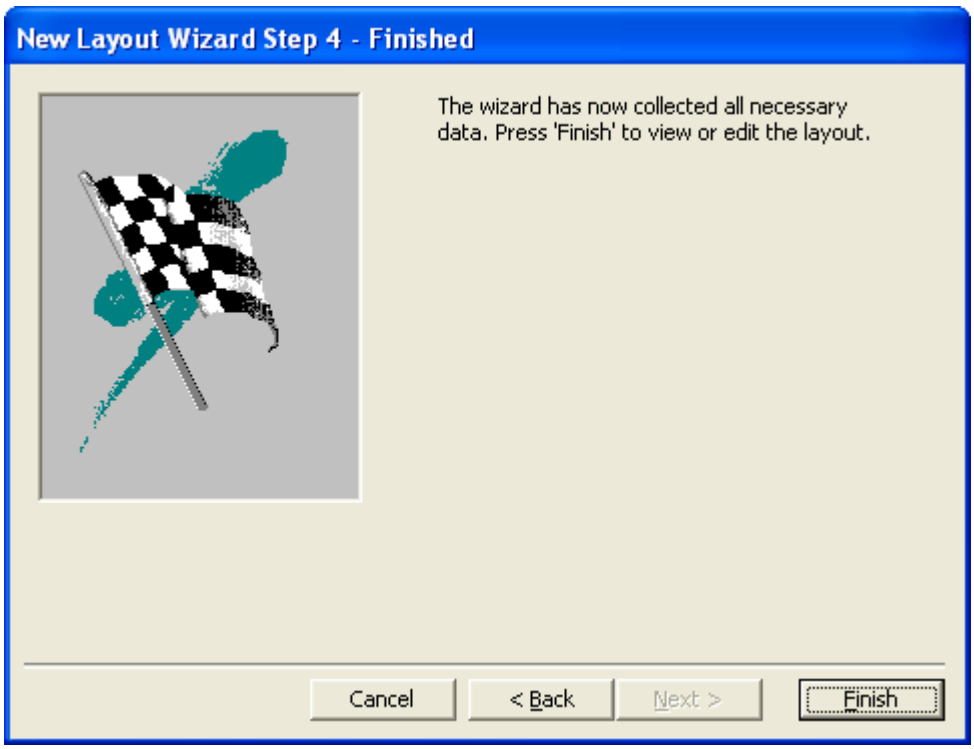
Step 3



Select a **Chip Configuration** in relation to the **iClass** chip type being used. Choose between **2Kbit Chip** and a **16Kbit Chip**.

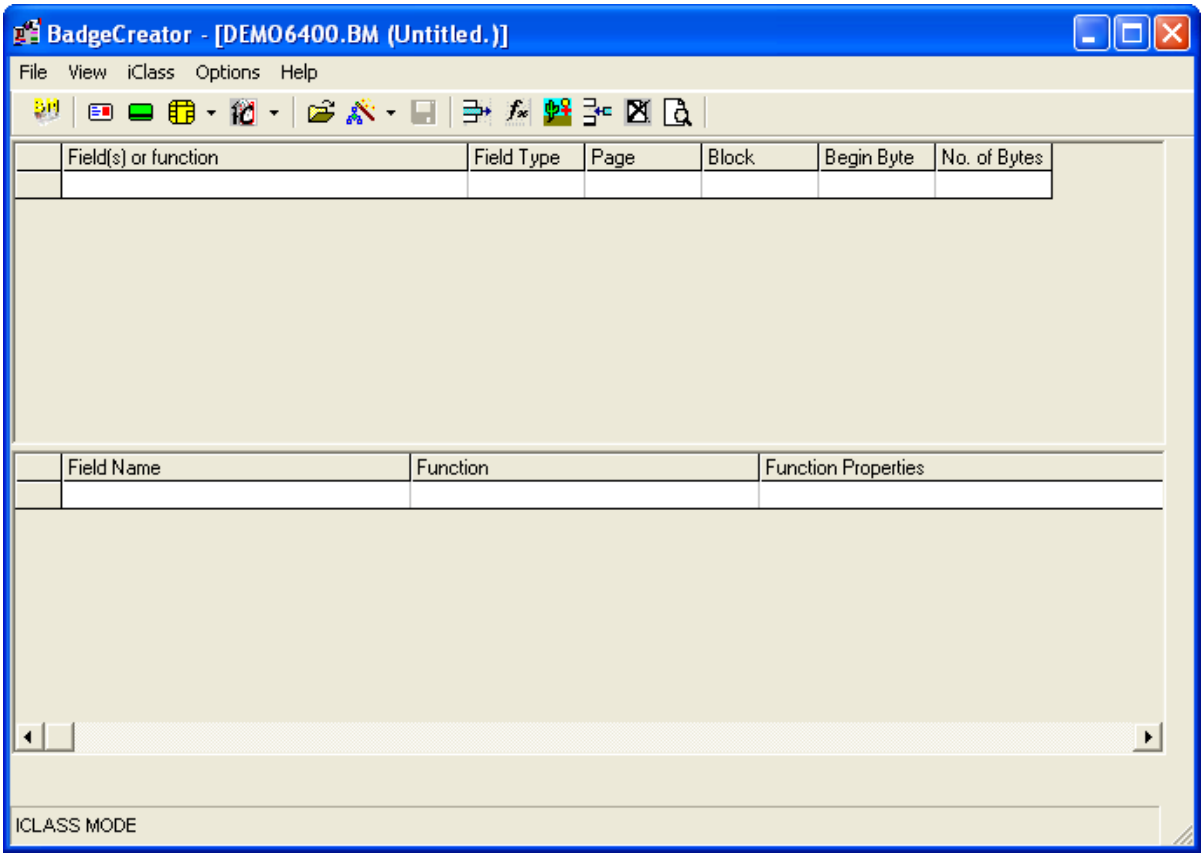
Click **Next** to proceed.

Step 4



Once all settings have been defined and configured the final dialog is presented.

Click **Finish** to complete the Wizard or click **Back** to change settings. When you click **Finish** a new layout is presented in BadgeCreator.



iClass layout mode

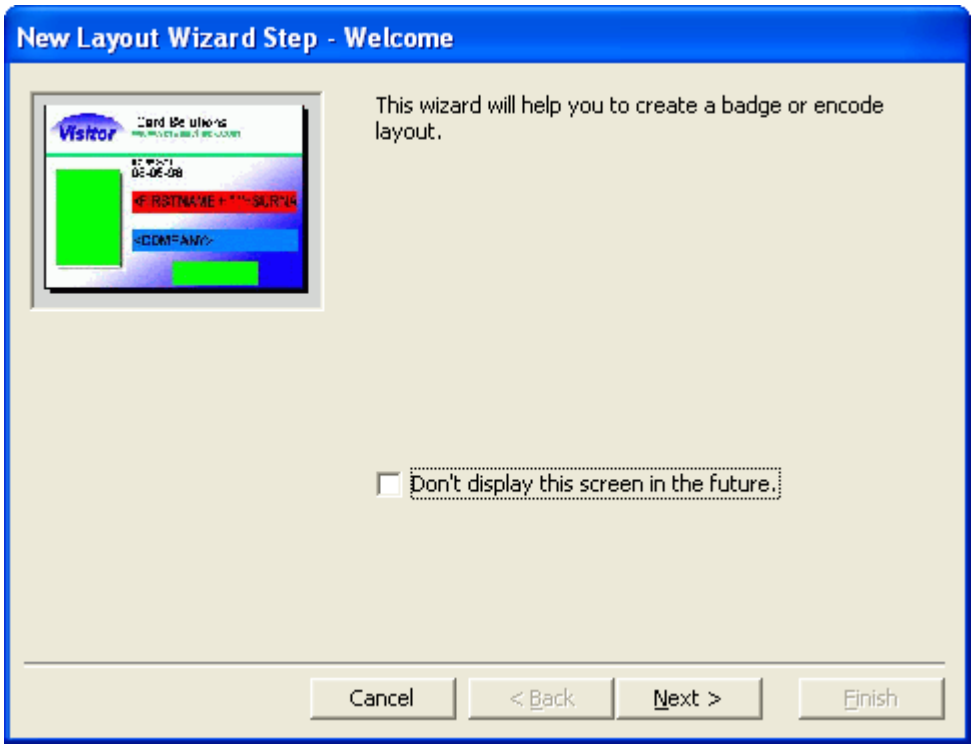
From the BadgeMaker Toolbar click , this will open BadgeCreator and start the New Layout Wizard.

New Layout Wizard (Legic)

Select **File Menu** and click **New Layout Wizard** to open the wizard, the following screen is presented.

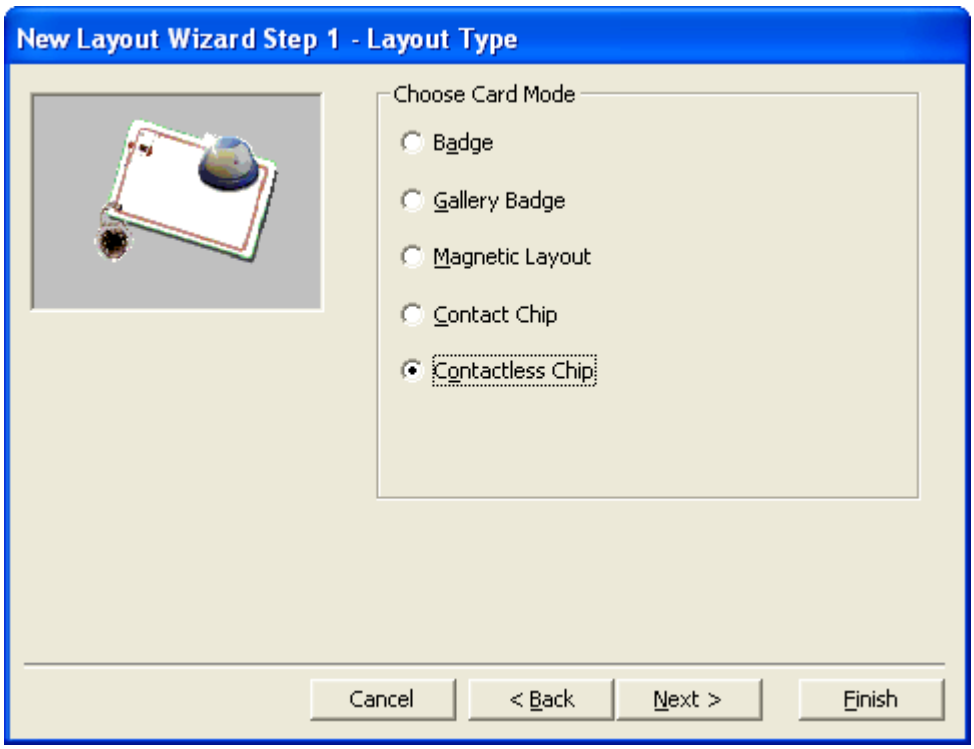
Click  from the BadgeCreator **Toolbar**.

The Welcome screen can be skipped in future by selecting **Don't display this screen in the future**.



Click **Next** to proceed to the next screen and begin configuring a **New Layout**.

Step 1



Choose layout type

Select **Contactless Chip** and click **Next** to proceed.

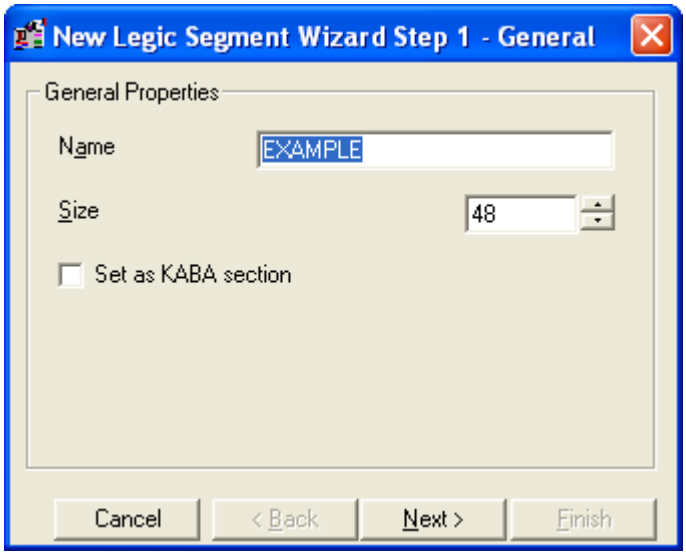
Step 2

Select **Chip Type Legic** and click **Next** to proceed.

BadgeMaker supports Legic cards with a capacity of 256 bytes, 1024 bytes and up. Cards with a capacity of 22 bytes are not supported, since this media does not support segmentation.

A Legic card can be divided into segments. Each segment can be used for different application and the size of a segment is variable.

Step 3

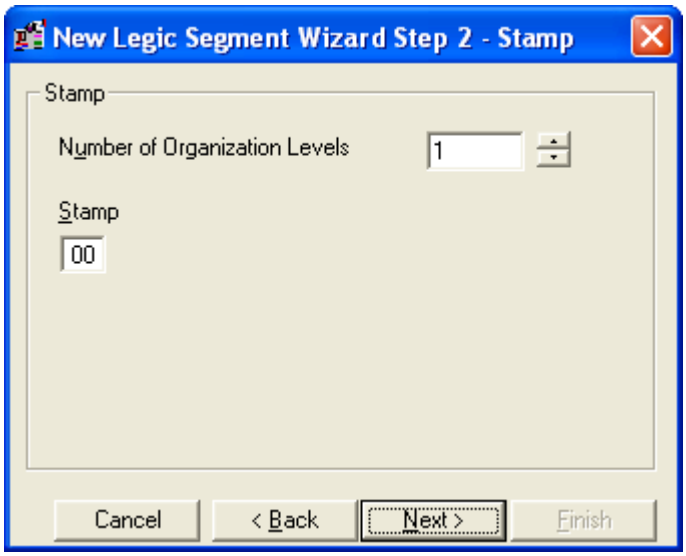


Type a **Name** for the Legic segment and define the **Size**. The size of a Legic segment is variable, but should not exceed the capacity of the medium.

Do not make a segment larger than needed.

Click **Next** to proceed.

Step 4



Stamp

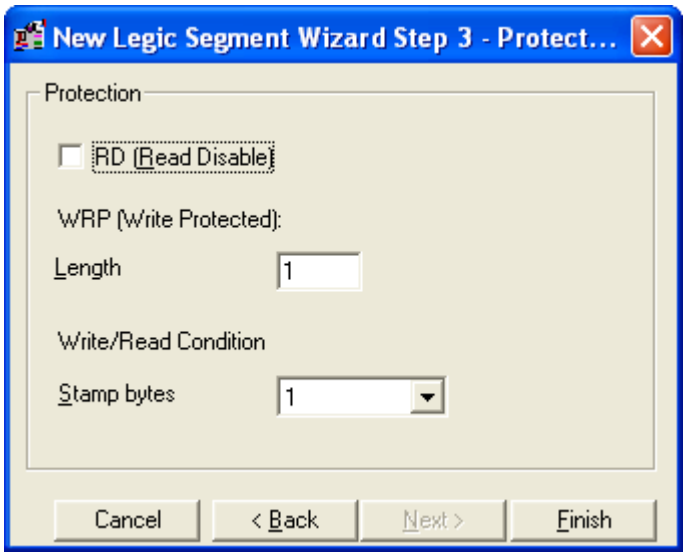
Define the **Number of Organizational Levels**.

If you select one level only, the Stamp is **1 Byte**. For each additional level, the stamp will increase with one byte. A byte can have a value between **00** and **FF**.

You can define up to **12 Organizational Levels**.

Step 5

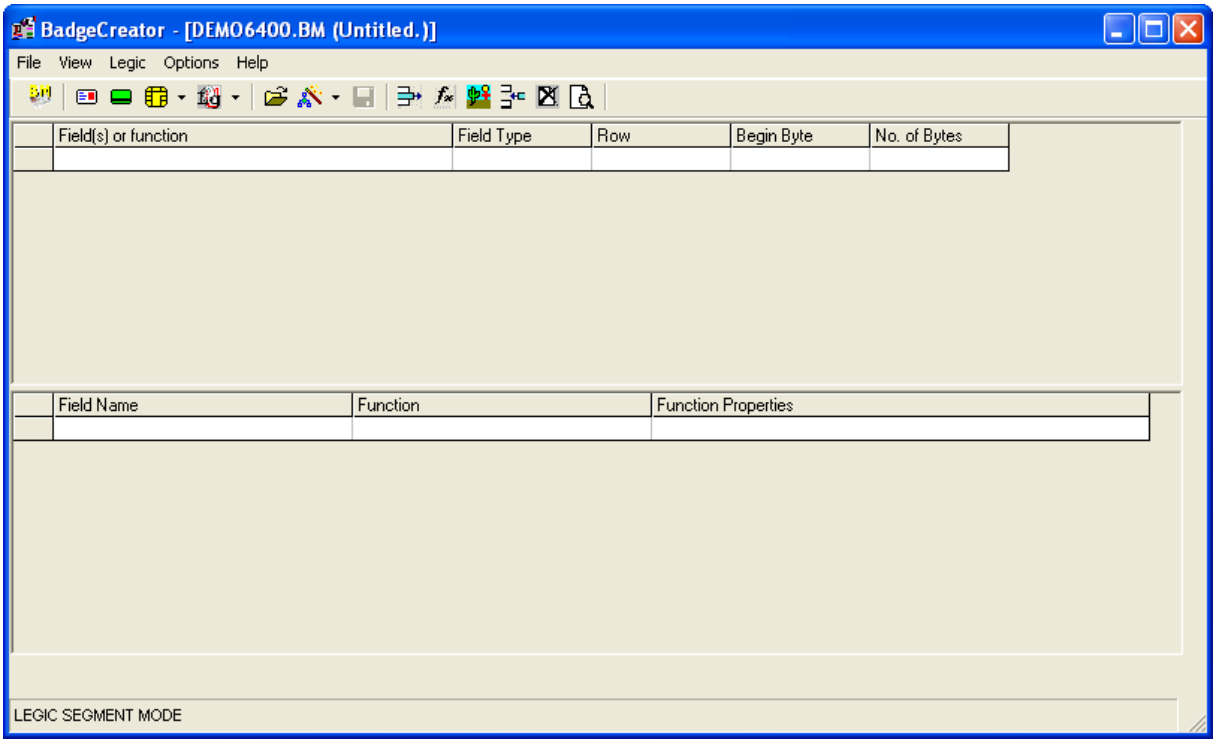
In the following dialog various levels of protection can be set to keep encoded information from easily being read.



Protection

Once all settings have been defined and configured the final dialog is presented.

Click **Finish** to complete the Wizard or click **Back** to change settings. When you click **Finish** a new layout is presented in BadgeCreator.



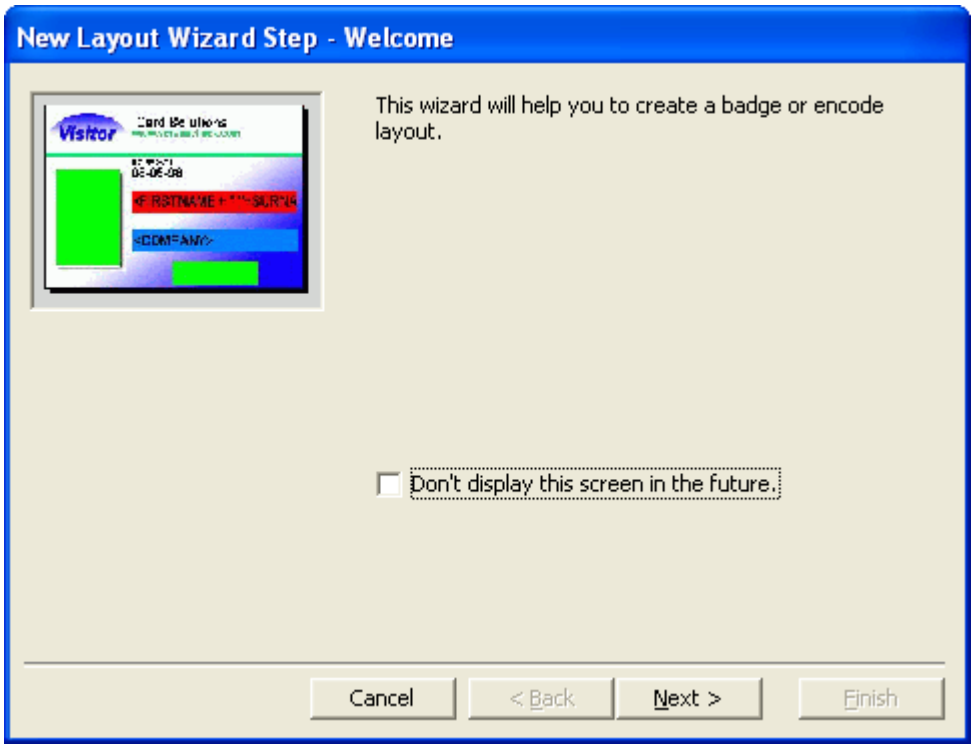
Legic layout mode

New Layout Wizard (HID Prox)

Select **File Menu** and click **New Layout Wizard** to open the wizard, the following screen is presented.

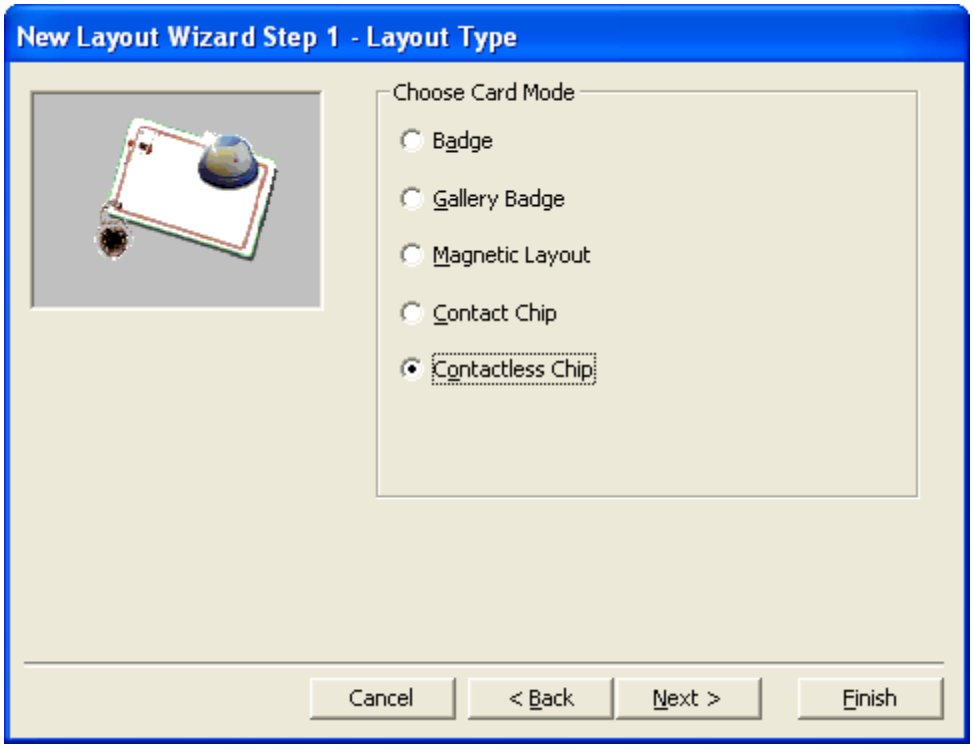
Click  from the BadgeCreator **Toolbar**.

The Welcome screen can be skipped in future by selecting **Don't display this screen in the future**.



Click **Next** to proceed to the next screen and begin configuring a New Layout.

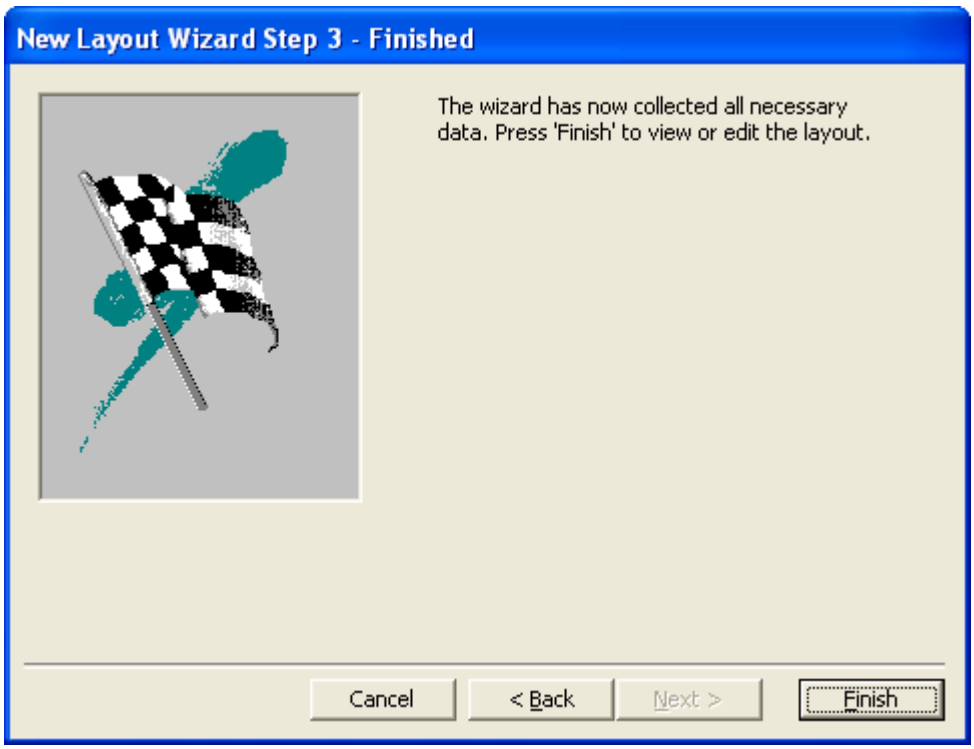
Step 1



Select **Chip Type HID Prox**.

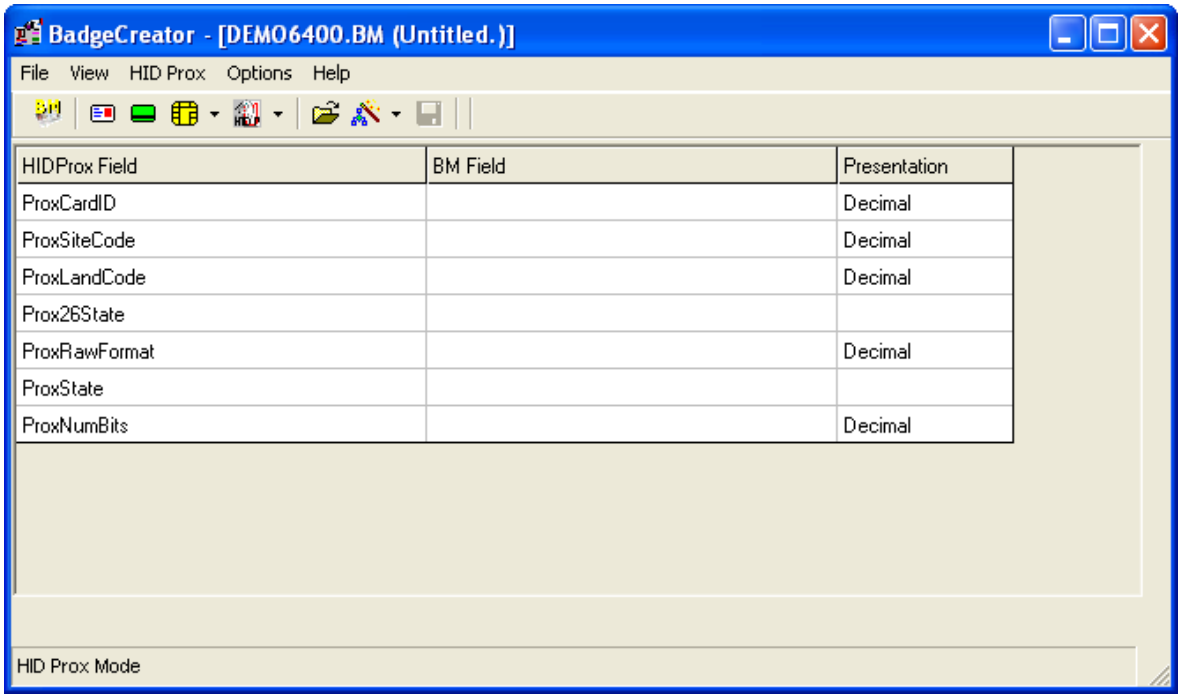
Click **Next** to proceed.

Step 4



Once all settings have been defined and configured the final dialog is presented.

Click **Finish** to complete the Wizard or click **Back** to change settings. When you click **Finish** a new layout is presented in BadgeCreator.



HID Prox layout mode

Click BM Field to link a HID Prox Card field to a field defined in BadgeMaker.

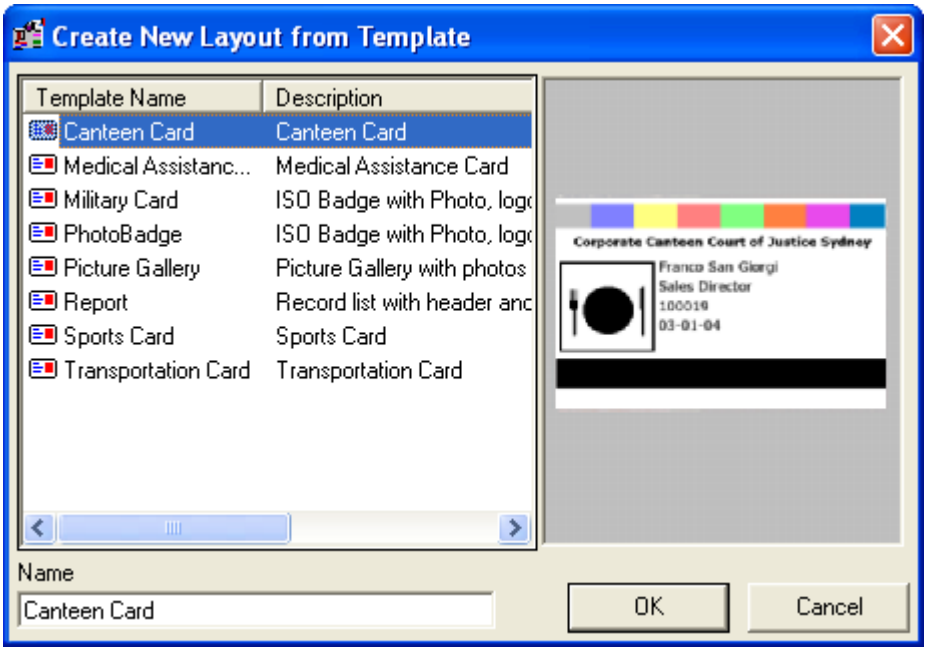
In the list only character fields will be presented. The HIDProx fields can contain leading zeros which cannot be stored in a numeric field.

Form the BadgeMaker Toolbar click  , this will open BadgeCreator and start the New Layout Wizard.

New From Template

Select the **File Menu** and click **New From Template**, the following dialog is presented.

Click  from the BadgeCreator **Toolbar**.



BC card templates

When the **Create New Layout** from Template opens select from the list a template card design.

- **Canteen Card**
- **Medical Assistance Card**
- **Military Card**
- **Photo Badge**
- **Picture Gallery**
- **Report**
- **Sports Card**
- **Transportation Card**

Picture Gallery template is **A4** in size. it contains several row and columns to display a group of photos for example on one sheet.

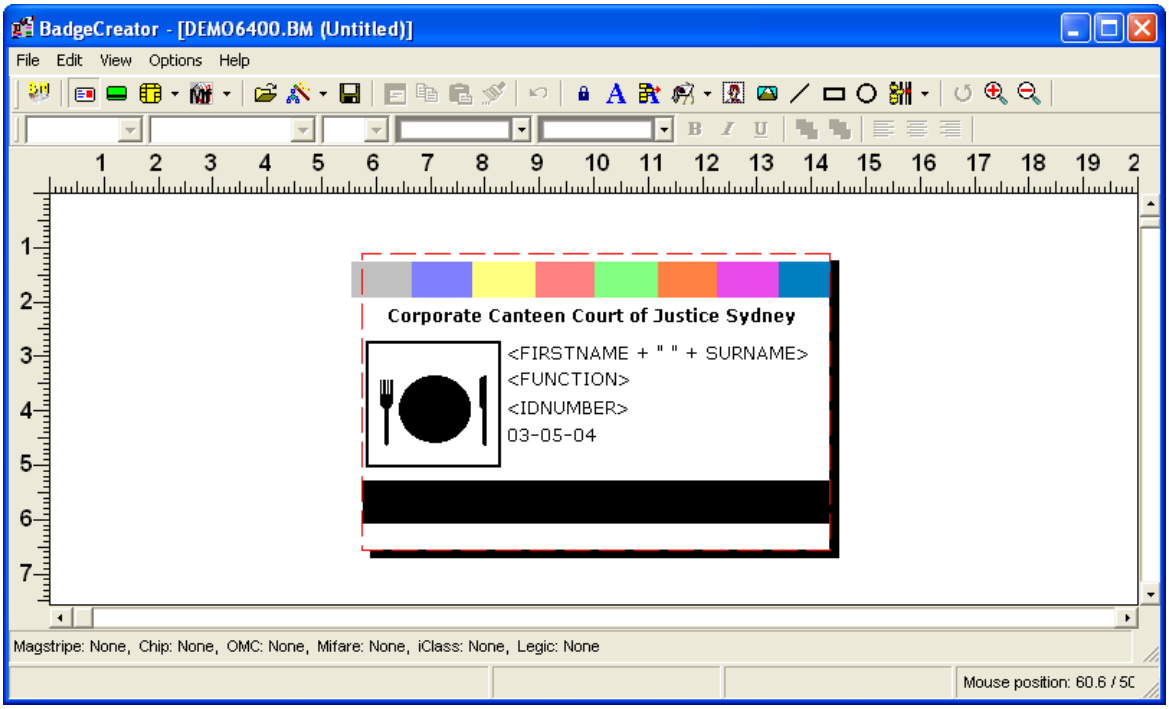
Photo Badge is a traditional **ID Card** with a standard **Photo**, **Logo** and **data** placed into the layout.

Report is a record list containing a **Header** and a **Footer**.

These cards are all examples and will present a good basis on which to begin designing your card layout.

Dynamic fields configured in the template's design are linked to the Demo project. The following warning will be shown.

Select **OK** to proceed. You must replace field names on the layout to correspond to your own database.

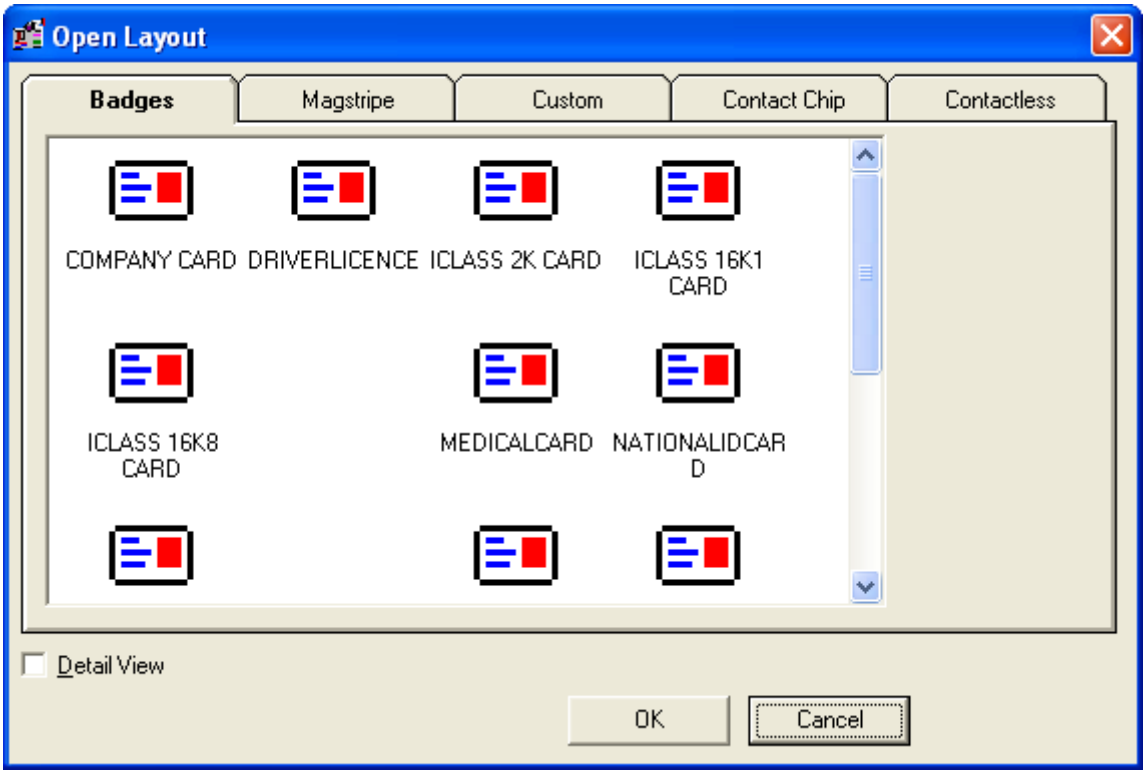


BC main screen

Open Layout

Select the **File Menu** and click **Open Layout**, the following dialog is presented.

Click  from the BadgeCreator Toolbar.



Open layout

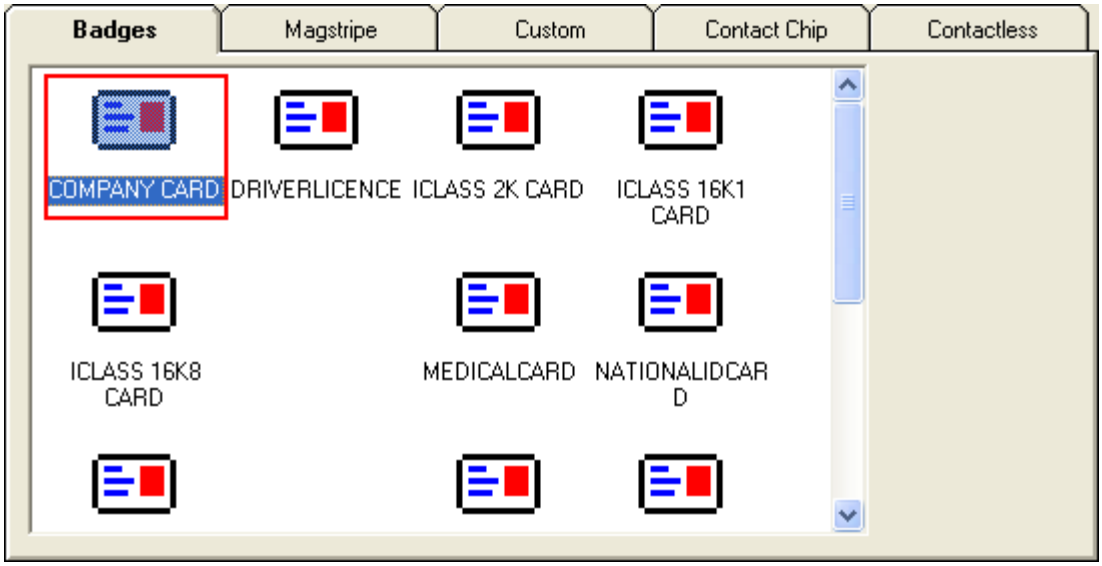
All layouts created in BadgeCreator can be accessed in the **Open Layout** dialog box.

- **Badge Layouts**
- **Magstripe Layouts**
- **Custom Layouts**
- **Contact Chip Layouts**
- **Contact Chip Layouts**
- **Contactless Layouts**

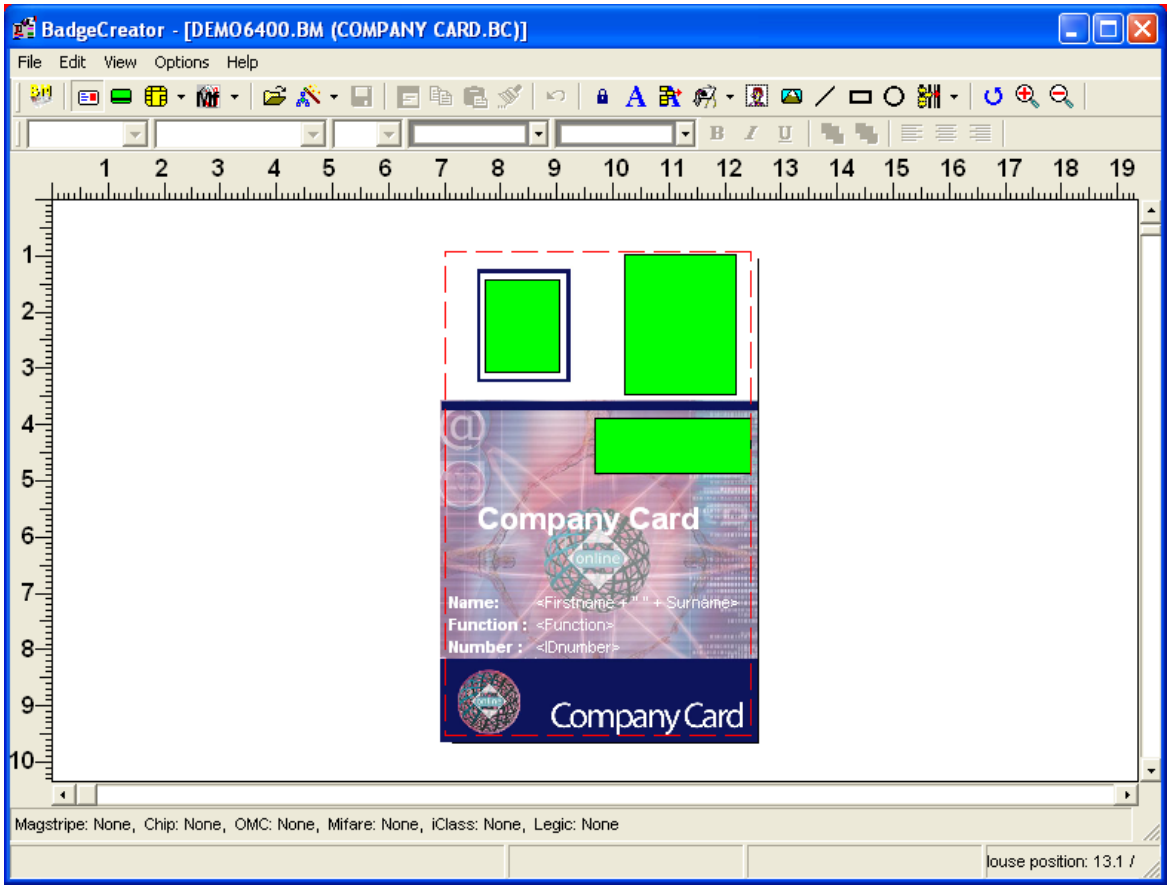
Badge layouts

Select a previously configured Badge design layout which is linked to the project *(*.BM)* file.

For this example **COMPANY CARD** is selected.



Select **OK** to open the layout in BadgeCreator.

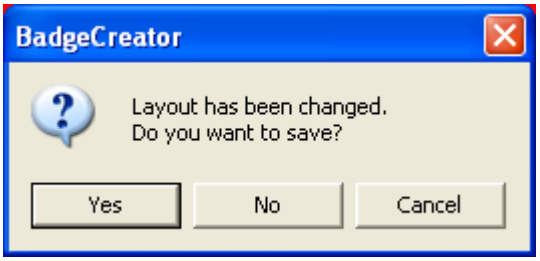


BC main screen

Close Layout

Select the **File Menu** and click **Close Layout** to close the current opened layout.

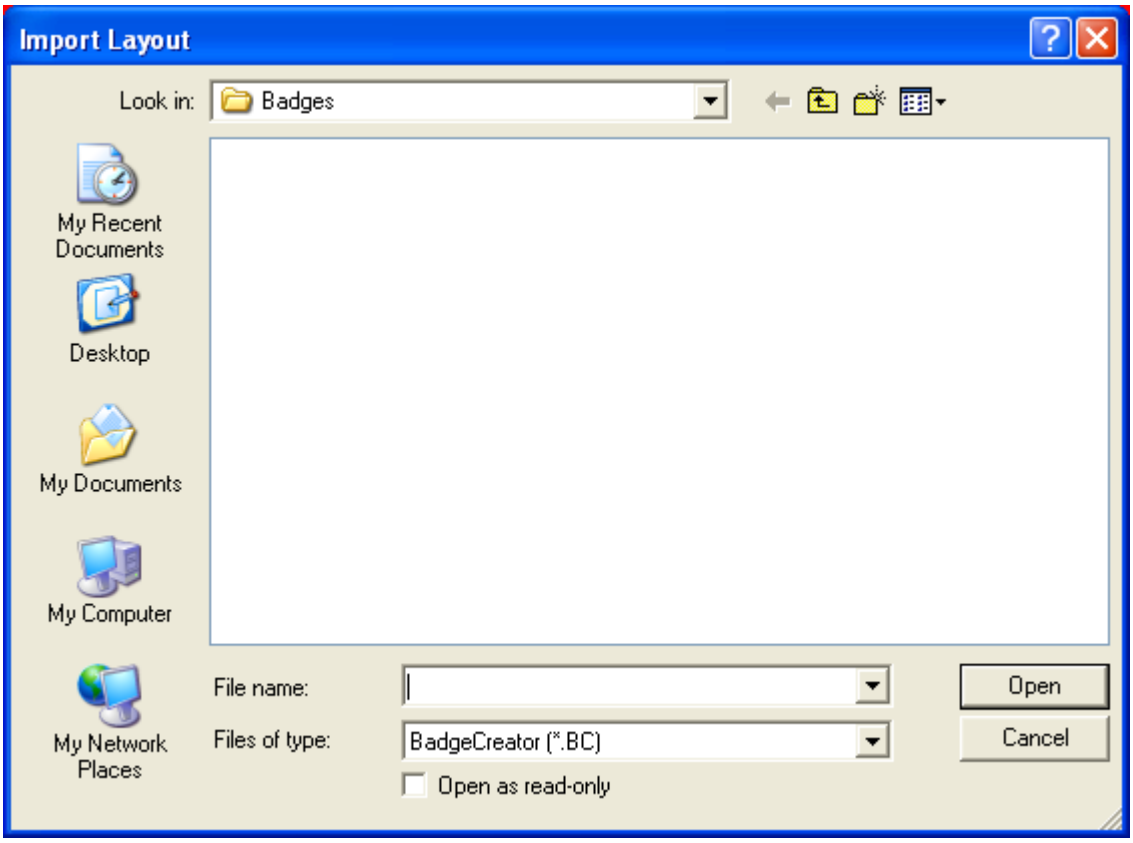
Before the layout is closed, BadgeCreator will prompt the operator to save before closing, this will ensure data is not lost



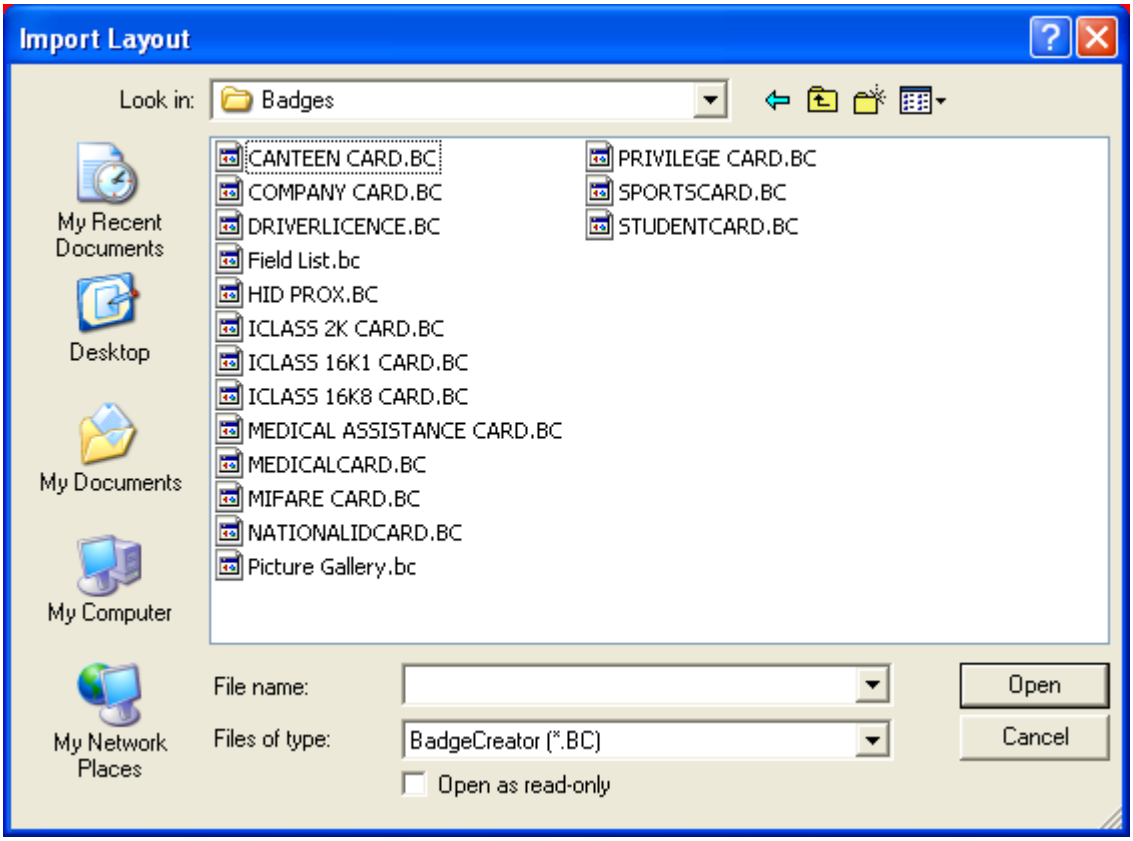
Select **Yes** to save or **No** to exit without saving.

Import Layout

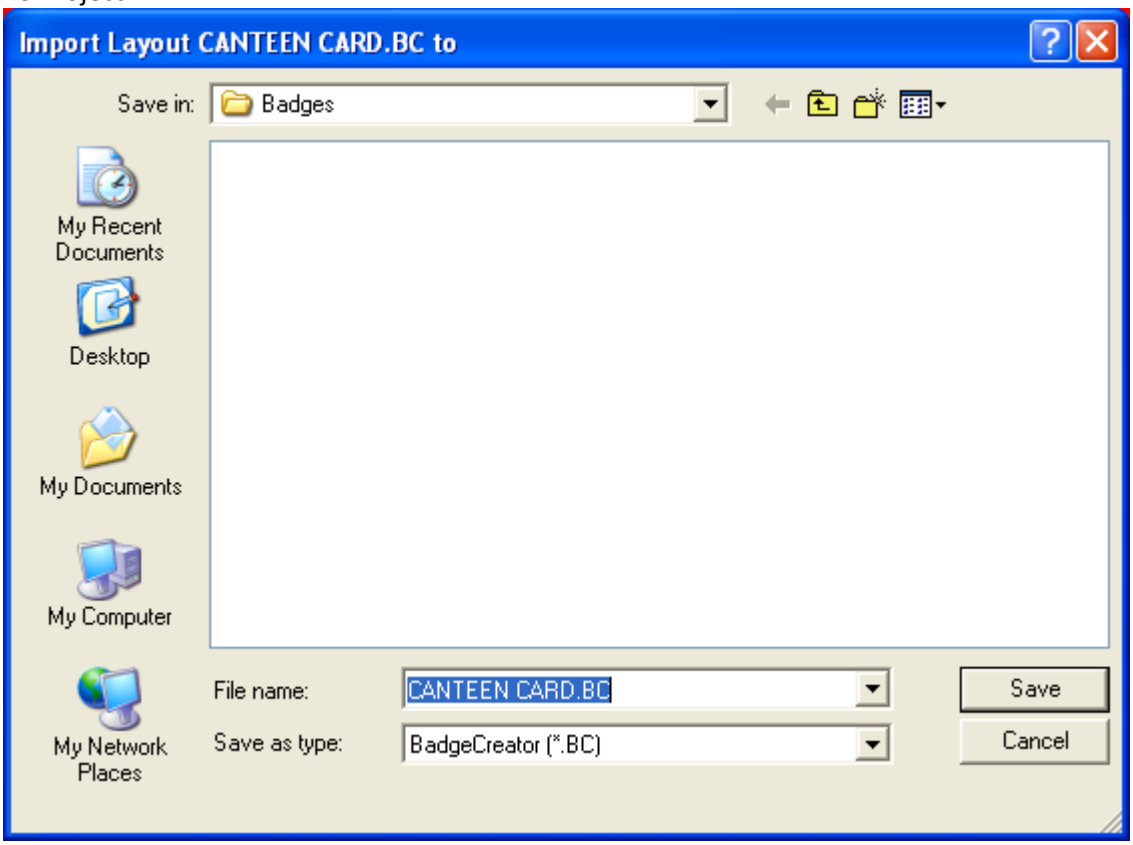
Select the **File Menu** and click **Import Layout** to close the current opened layout.



Navigate to the directory where the *.BC file is located.



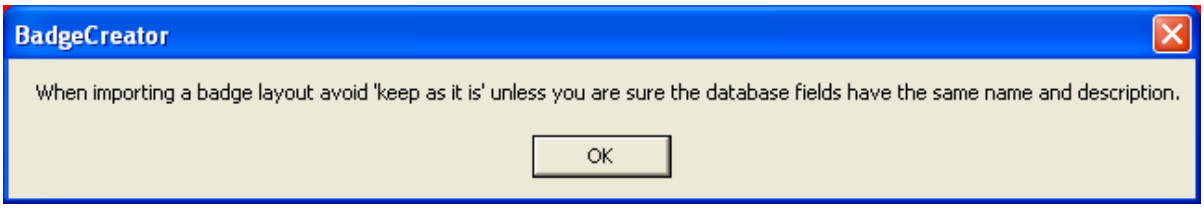
Select the file and click **Open** to begin importing. For this example **Canteen Card** is chosen from the Demo Project.



The operator can rename the layout or keep the same name, select the location his to save.

Badge Layouts are normally stored under *Projects*\<*Project*>*Badges*.

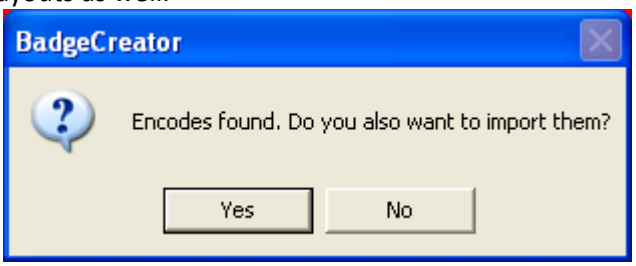
Select **Save** to continue. The following dialog is presented.



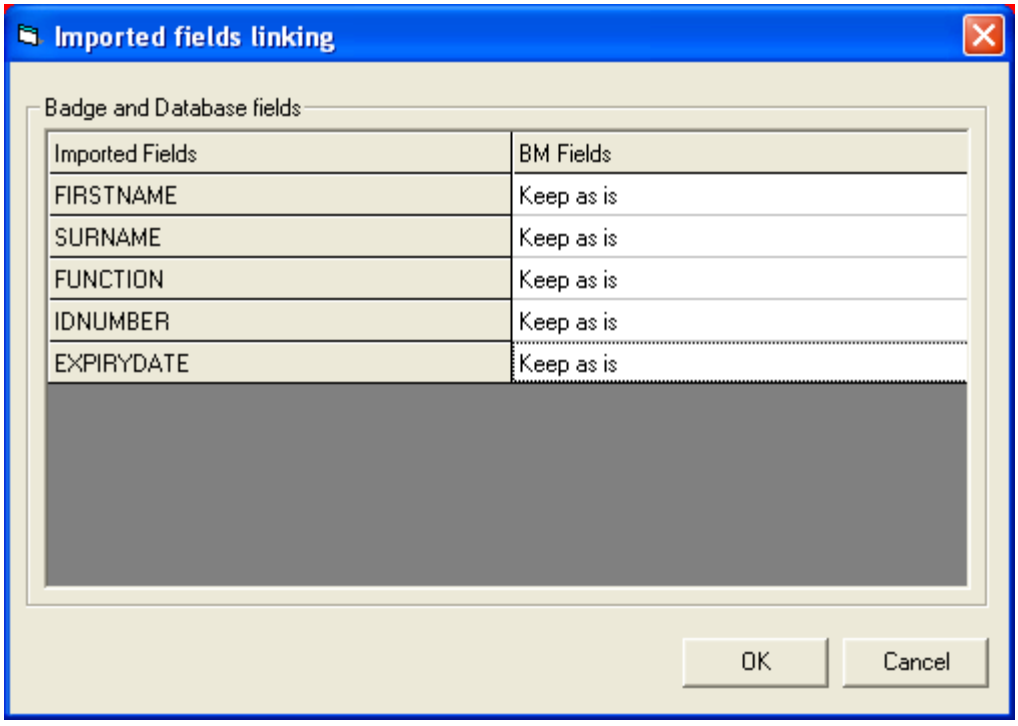
Import layout files (*.BC) linked to another project file (*.BM). Of course the databases belonging to the specific *.BM file will differ, therefore the operator must adjust the database fields after importing another layout. If this is not carried out then errors will occur when printing the layouts.

Click **OK** to proceed.

If importing a badge layout which has encode layouts attached then the operator is given the option to import the encoded layouts as well.

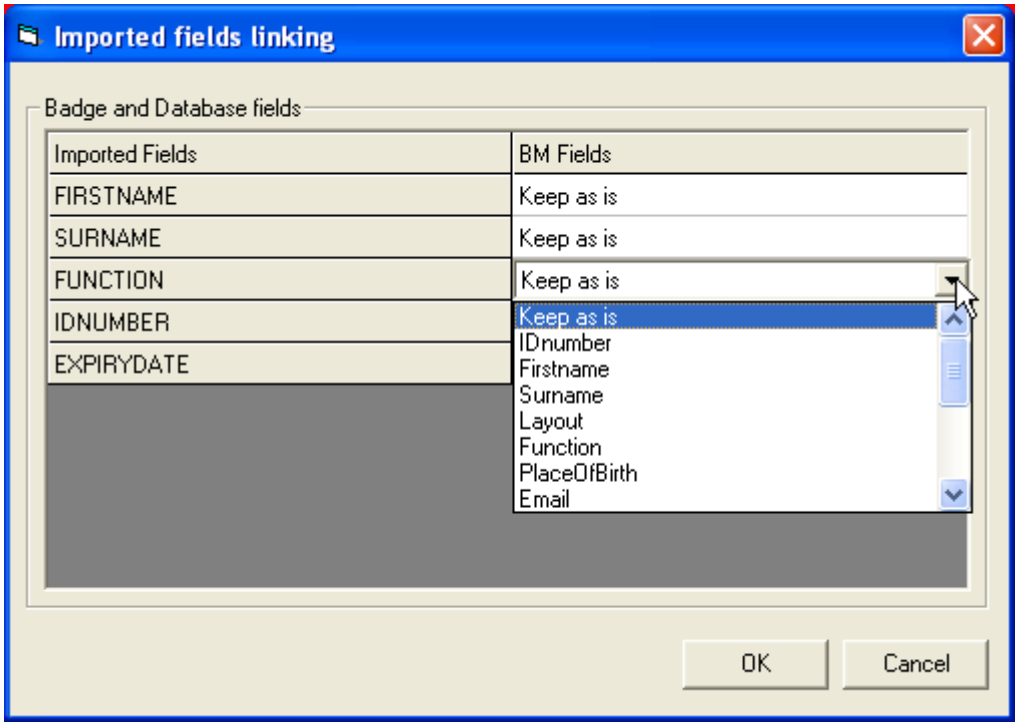


Click **Yes** to confirm importing encodes or **No** to import the badge layout only with no encode layout.



Imported fields linking

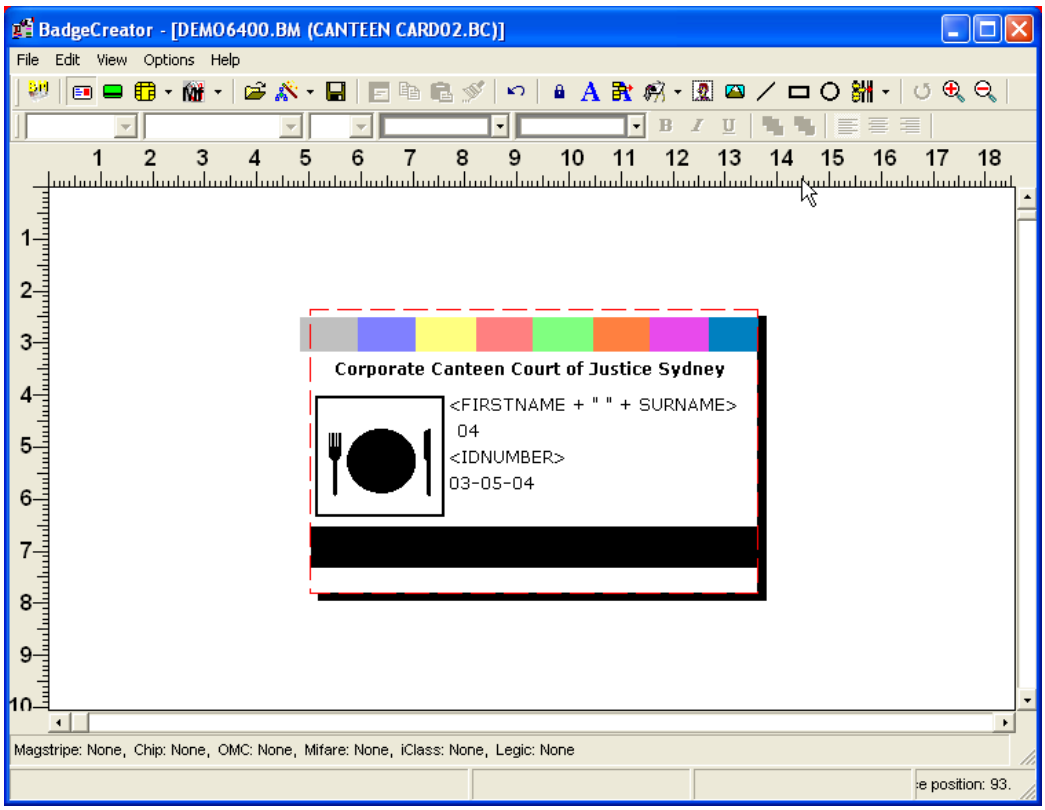
If fields configured in the imported layout do not match the fields in the current database, select the drop down menu to re-link imported fields set in the current project or if no change is needed leave **Keep as is**.



Imported fields linking

Click **OK** to finish configuring **Badge** and **Database Fields**.

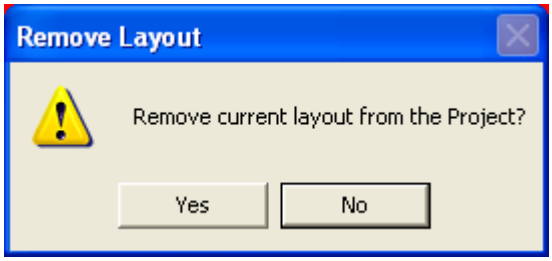
When you click **OK** a new layout is presented in BadgeCreator.



Remove Layout

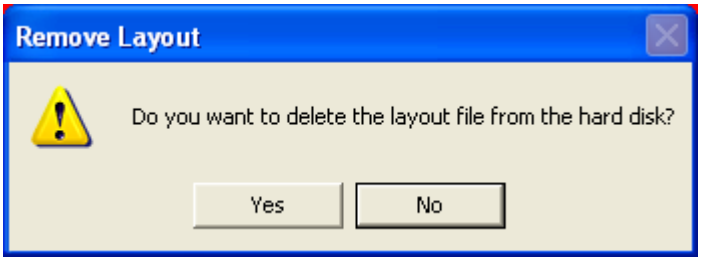
Select the **File Menu** and click **Remove Layout** to close the current opened layout.

Use this option to remove the current layout from the current project . The following dialog is presented.



Click **Yes** to confirm removal or click **No** to cancel removal. At this point the current layout is removed from the current project.

A second dialog box is presented to confirm deletion of the current layout from the actual Hard Disk.



Click **Yes** to confirm removal or click No to cancel removal.

It cannot be restored anymore using Import Layout if the layout is deleted.

Save

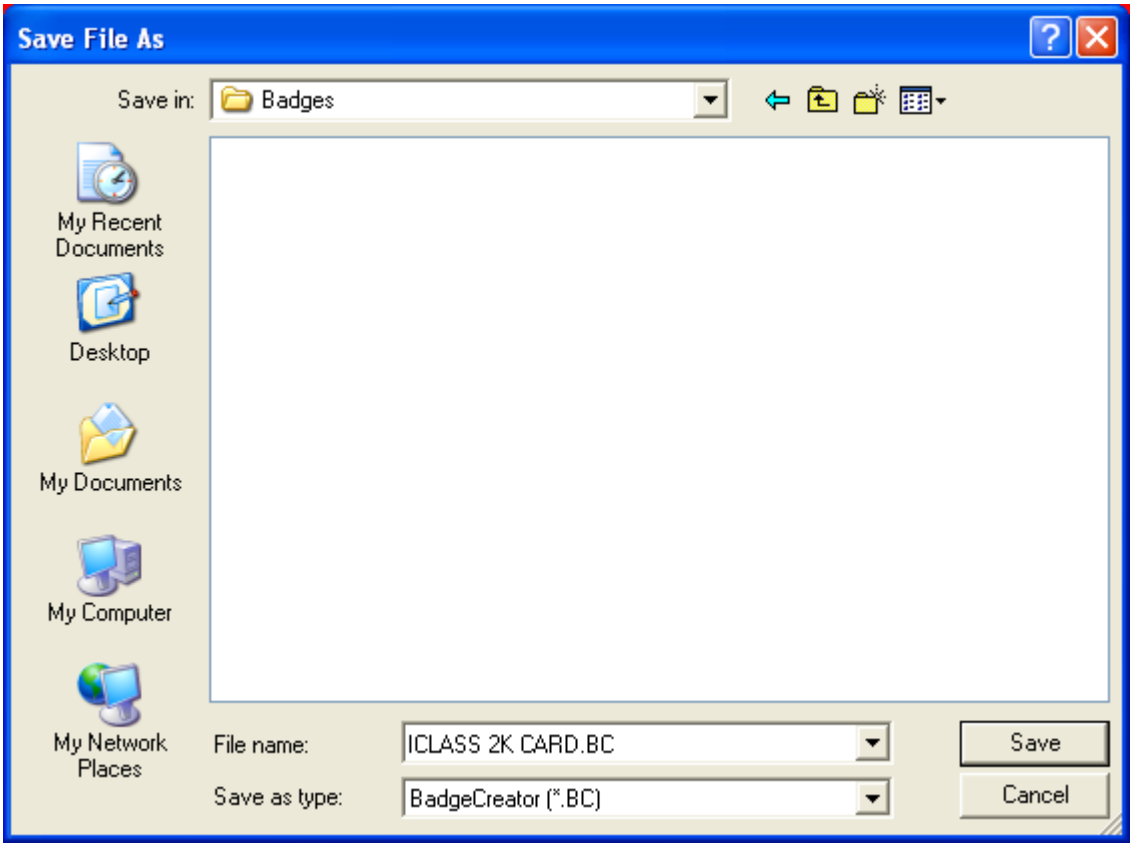
Select the **File Menu** and click **Save** to Save the current layout.

Click  from the BadgeCreator **Toolbar**.

Save As

Select the **File Menu** and click **Save As** to save the current layout and define a name and location.

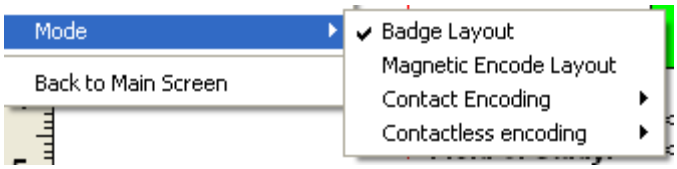
Click  from the BadgeCreator Toolbar.



Select **Save** to finish.

Mode

Select the **File Menu**, click **Mode**, and then select a layout type to begin designing and configuring.



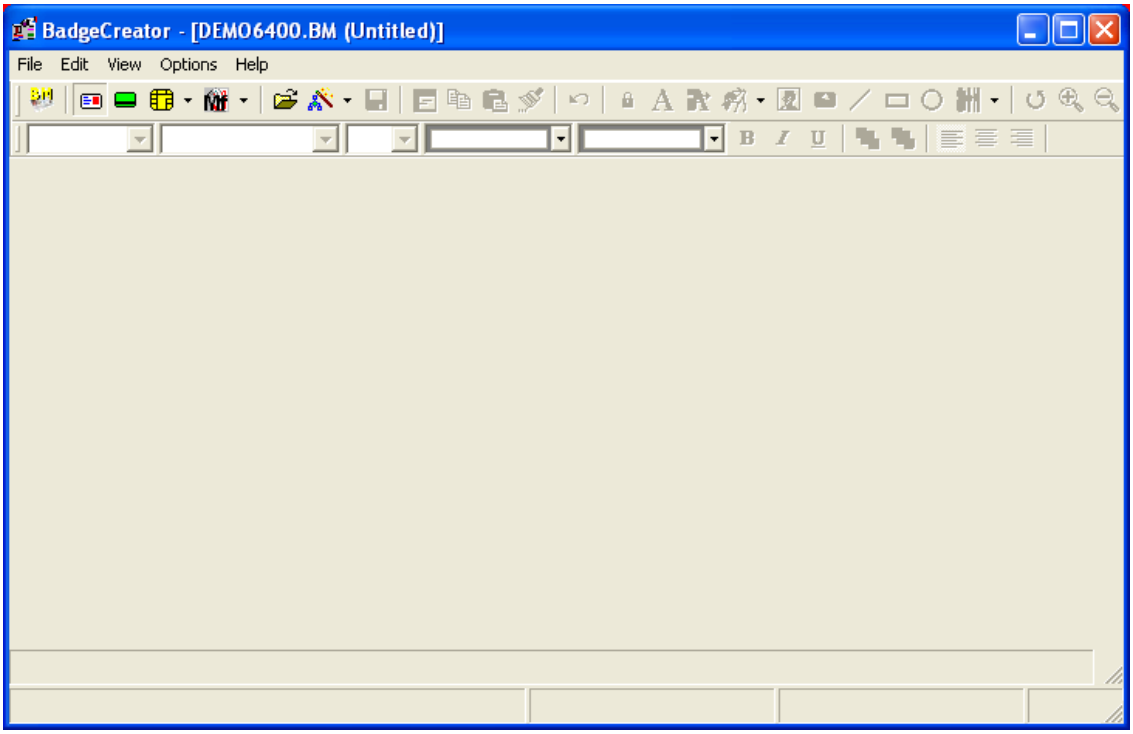
The operator can switch between.

- **Badge Layout Mode**
- **Magnetic Encode Layout Mode**
- **Contact Encode Layout Mode**
- **Contactless Encode Layout Mode**

Badge Layout

Select the **File Menu**, click **Mode**, and then click **Badge Layout** to open Badge Layout Mode.

Click  from the BadgeCreator **Toolbar**.



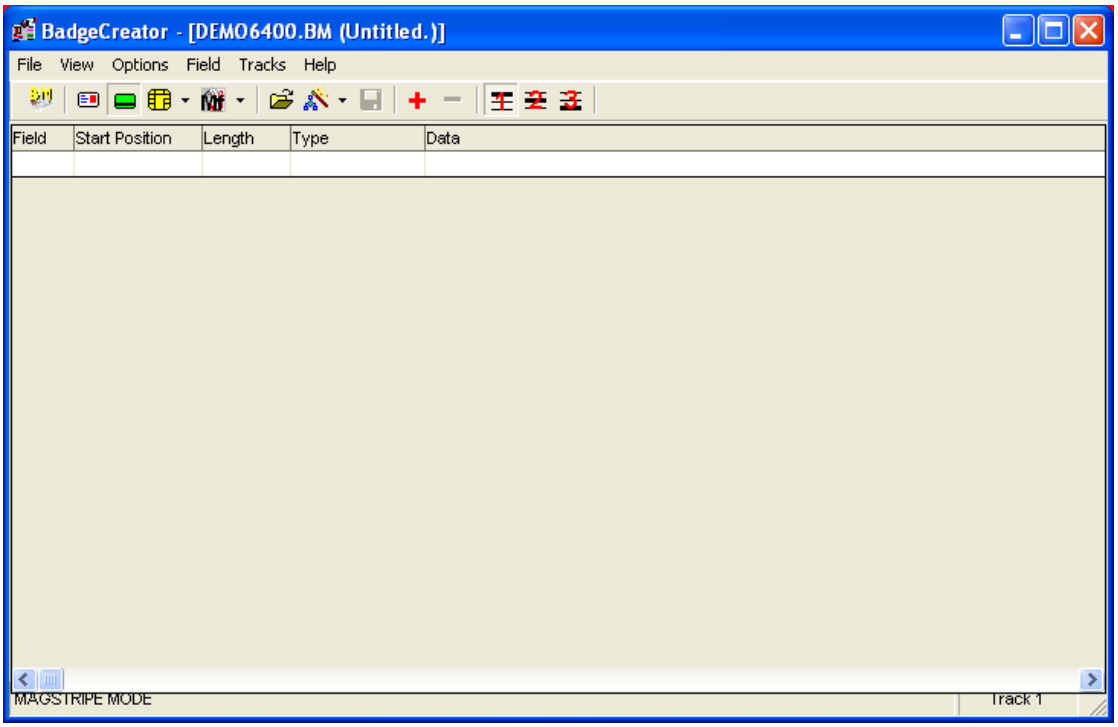
Badge layout mode

In Badge Layout mode, badge layouts are created and edited.

Magnetic Encode Layout

Select the File Menu, click Mode, and then click Magnetic Layout to open Magnetic Layout Mode.

Click  from the BadgeCreator Toolbar.



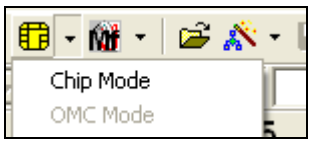
Magnetic layout mode

In **Magnetic Layout mode**, magnetic layouts are created and edited.

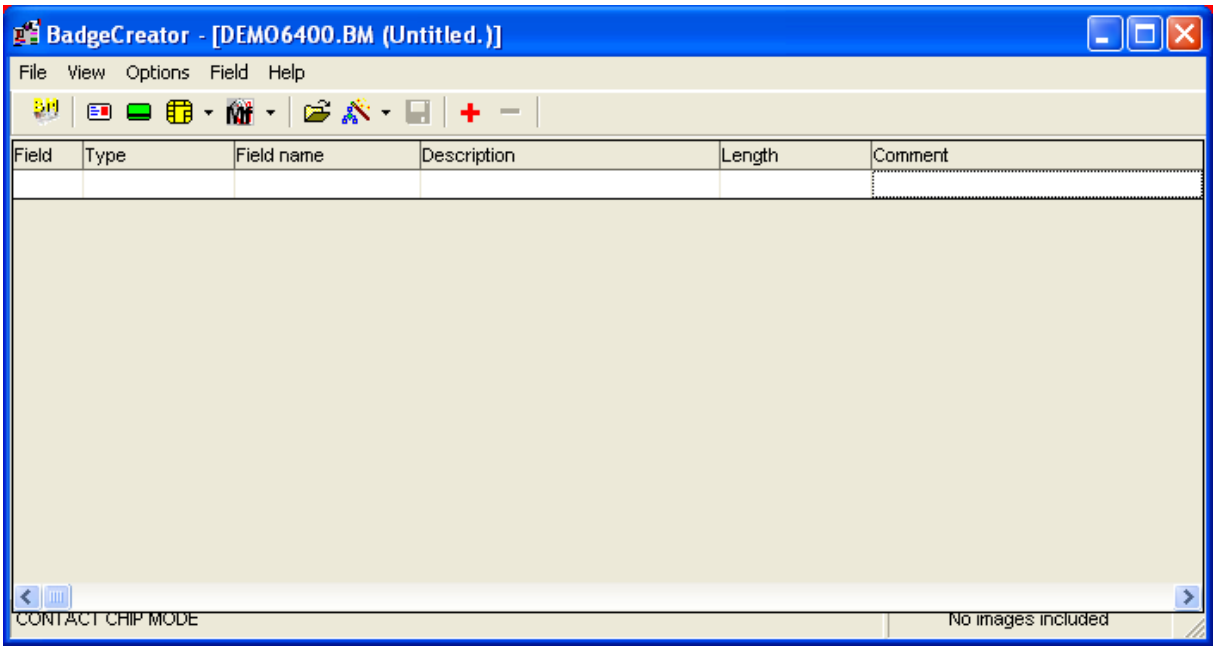
Chip Encode Layout

Select the **File Menu**, click **Mode**, and then click **Chip Encode Layout** to open Chip Encode Layout Mode.

Click  from the BadgeCreator **Toolbar** and select **Chip Mode** from the drop down menu.



In **Chip Encode Layout mode**, chip layouts are created and edited.

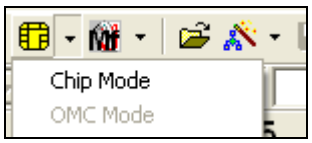


Chip layout mode

OMC Encode Layout

Select the **File Menu**, click **Mode**, and then click **OMC Encode Layout** to open OMC Encode Layout Mode.

Click  from the BadgeCreator **Toolbar** and select **OMC Mode** from the drop down menu.



In **OMC Encode Layout mode** define the contents of the Optical Memory Card file or edit a previously made file. The Optical Memory Card file contains the data that will be placed on the Optical Memory Card info file when a print or encode command is given. The OMC *.dll must to read the information from this file to encode the Optical Memory Card.

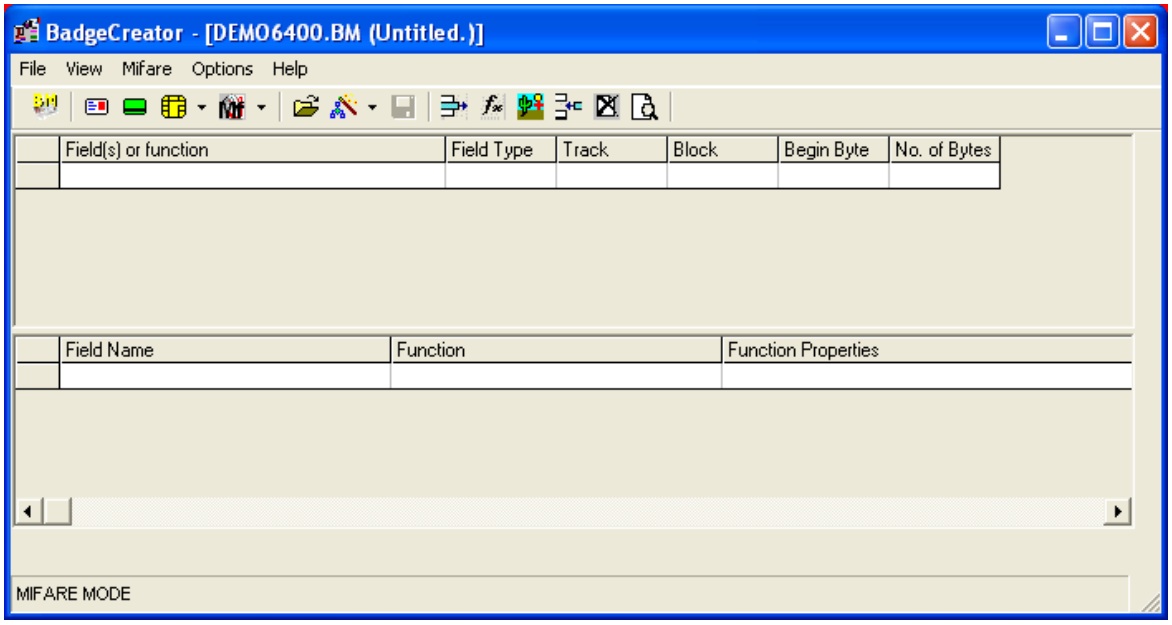
OMC functionality is disabled by default, it will only work in combination with a Lasercard ® optical memory card reader/writer and related software.

Mifare Encode Layout

Select the **File Menu**, click **Mode**, and then click **Mifare Encode Layout** to open Mifare Encode Layout Mode.

Click  from the BadgeCreator **Toolbar** and select **Mifare Mode** from the drop down menu.

In **Mifare Encode Layout** mode, mifare layouts are created and edited.



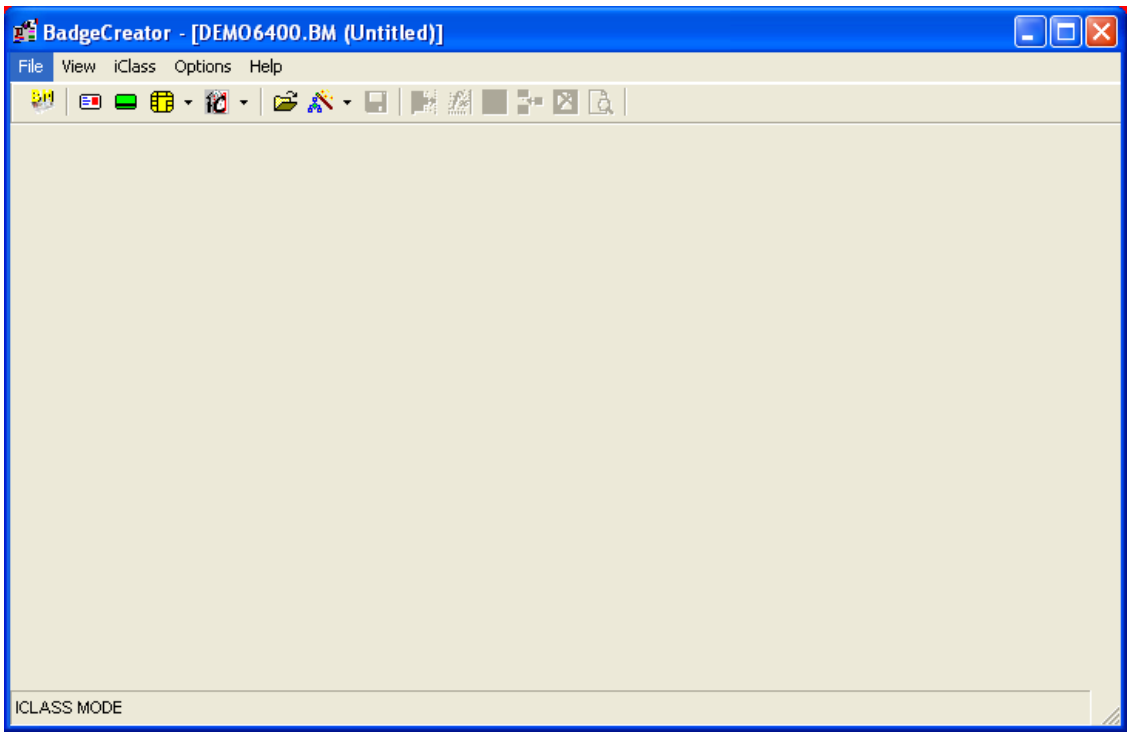
Mifare layout mode

iClass Encode Layout

Select the **File Menu**, click **Mode**, and then click **iClass Encode Layout** to open iClass Encode Layout Mode.

Click  from the BadgeCreator **Toolbar** and select **iClass Mode** from the drop down menu.

In **iClass Encode Layout** mode, iClass layouts are created and edited.



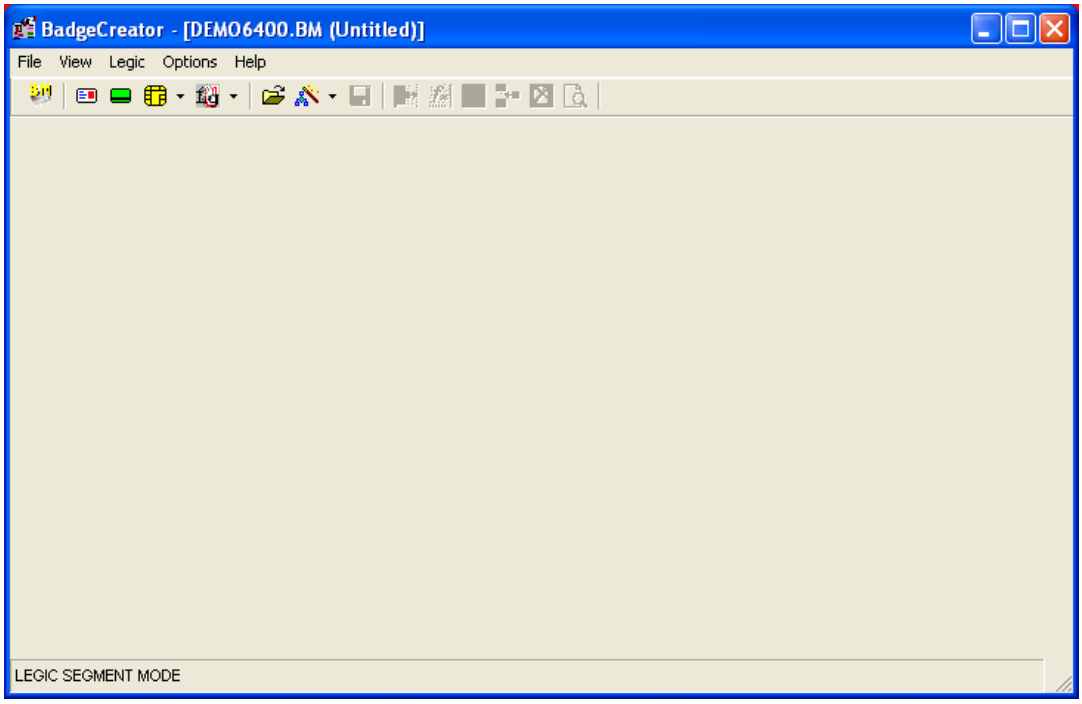
iClass layout mode

Legic Encode Layout

Select the **File Menu**, click **Mode**, and then click **Legic Encode Layout** to open Legic Encode Layout Mode.

Click  from the BadgeCreator **Toolbar** and select **Legic Mode** from the drop down menu.

In **Legic Encode Layout mode**, Legic layouts are created and edited.

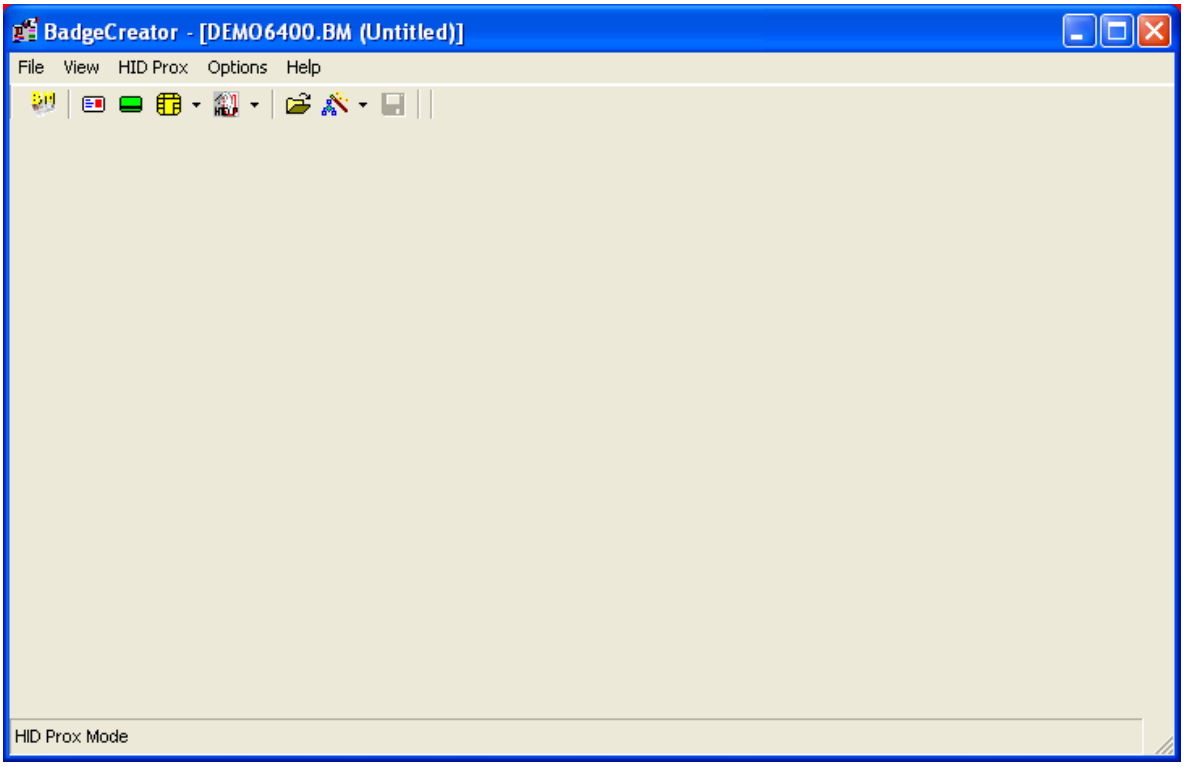


HID Prox Encode Layout

Select the **File Menu**, click **Mode**, and then click **HID Prox Encode Layout** to open HID Prox Encode Layout Mode.

Click  from the BadgeCreator **Toolbar** and select HID Prox Mode from the drop down menu.

In **HID Prox Encode Layout mode**, HID Prox layouts are created and edited.



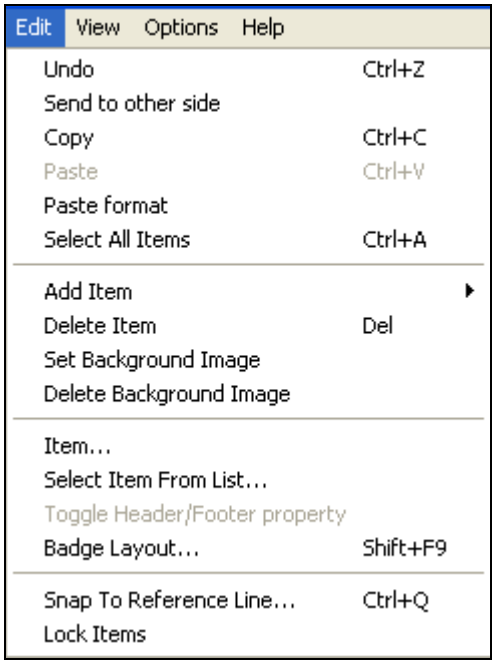
Back To Main Screen

Select the **File Menu** and click **Back to main Screen** to close BadgeCreator and return to BadgeMaker.

Click  from the BadgeCreator **Toolbar** to return to BadgeMaker's Main Screen.

Edit Menu

The **Edit Menu** appears as the second item in the menu bar, and contains commands relating to the handling of data and images such as adding images, edit the current layout, copy and paste text and items. You can run a lock items on a layout from here.



Undo

Use  option from the toolbar or select **Edit Menu** and click **Undo** to undo an action in BadgeCreator.

Using Undo will erase the last change made, reverting it back to an older state.

Send To Other Side

Use  option from the toolbar or select **Edit Menu** and click **Send To Other Side**.

This option allows you to move an item to the other side of a badge layout if the layout includes a front and back side.

Copy

Use  option from the toolbar or select **Edit Menu** and click **Copy** to copy data onto the clipboard.

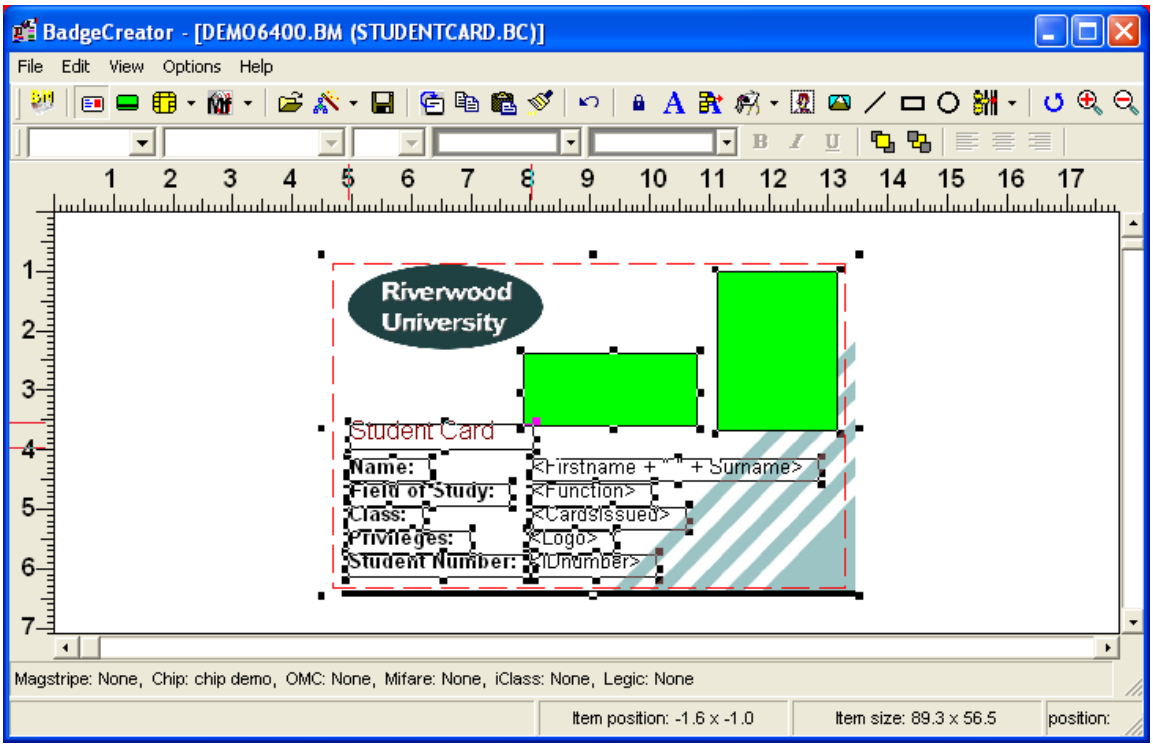
When you copy an image or data, you are making a duplicate of the original item, you can then modify, delete or save images independently of the original.

Paste

Use  option from the toolbar or select **Edit Menu** and click **Paste** to paste data from the clipboard which you have copied previously.

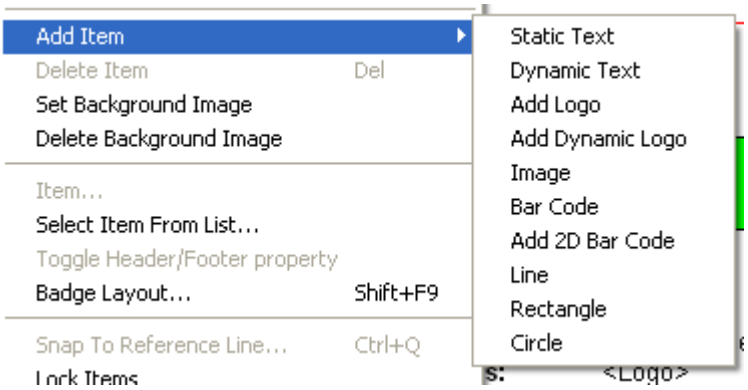
Select All Items

Select **Edit Menu** and click **Select All** Items to select all objects and text on the currently opened badge layout.



Add Item

Select **Edit Menu** and select **Add Item** to add an item to a layout in BadgeCreator.

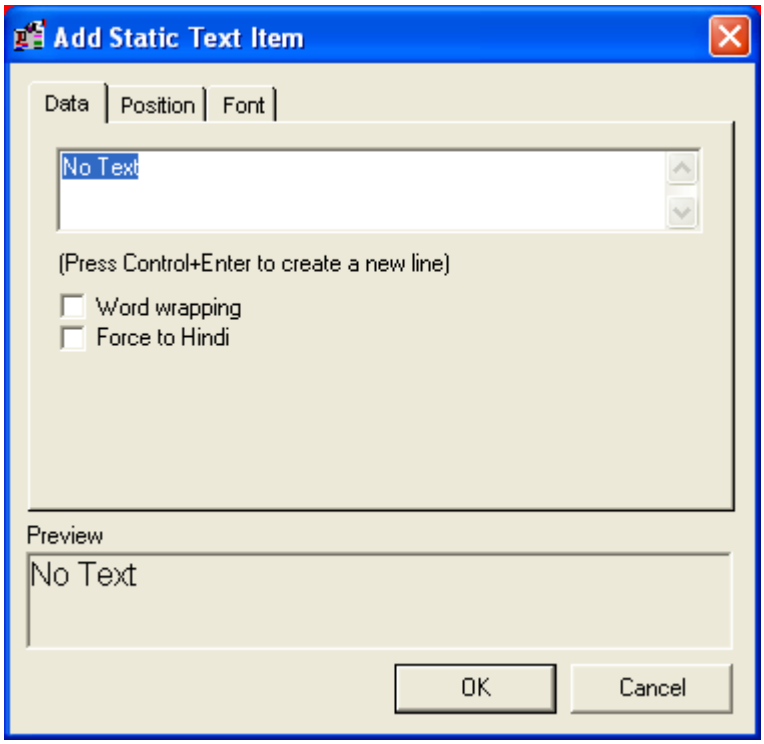


Add item menu

Static Text

Use  option from the toolbar or select **Edit Menu>Add Item** and click **Static Text** to add static text to the currently opened layout. The following dialog is presented.

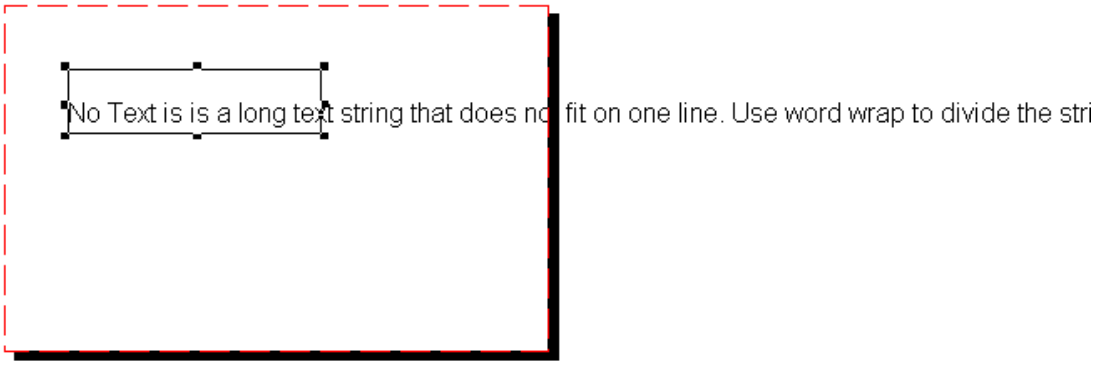
Data



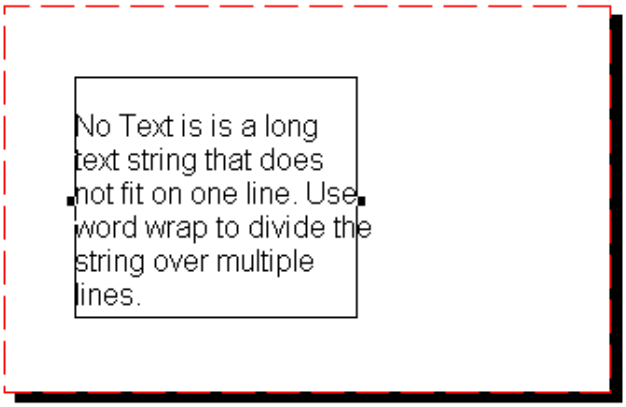
Enter text to create a static text field on a badge layout. At the bottom of the dialog in the preview box this text will be displayed with selected font and color.

Word Wrap: If the length of text is too long to fit on one line it will spread across multiple lines to fit into the text box on the badge layout.

Word Wrap not selected

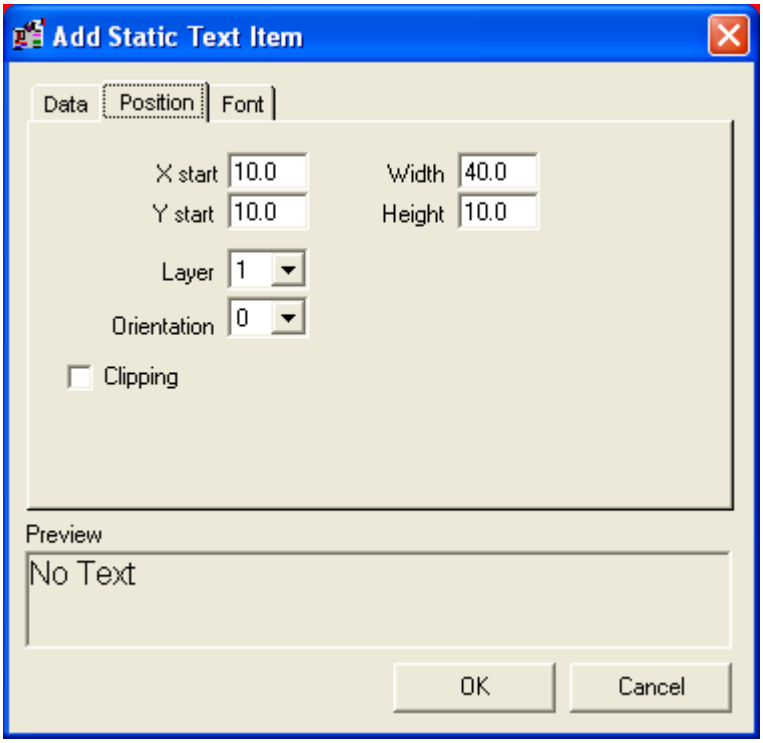


Word Wrap selected



Only the width can be changed, the height will be adjusted automatically to make the text fit into the box.

Position

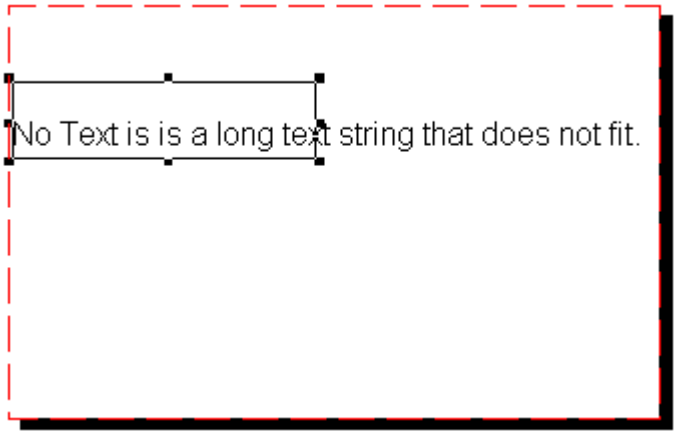


Add Static text

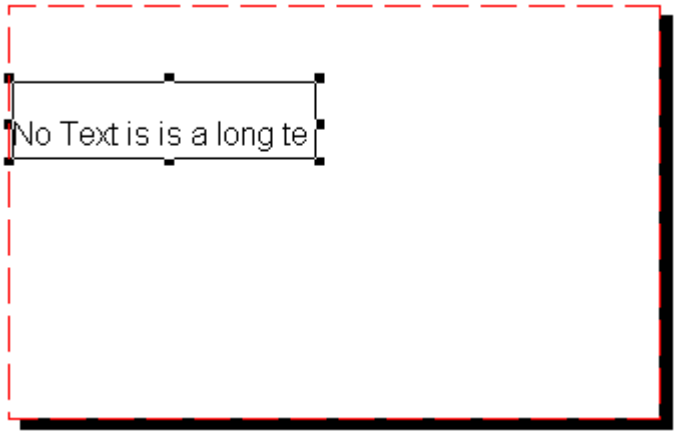
Set the position of the text box on the badge layout. Text will be positioned within a rectangle box, (*as seen below*).

Layer: Items can be placed on several transparent layers. Items created with a higher value will be placed on top of items with a lower value. Values must be set within range **0 - 9**.
Orientation: Text can be rotated in increments of 90 degrees.
Clipping: Text outside the text box is clipped - only text inside the text box will be visible any text shown outside the text box will be clipped automatically.

Not Clipped



Clipped



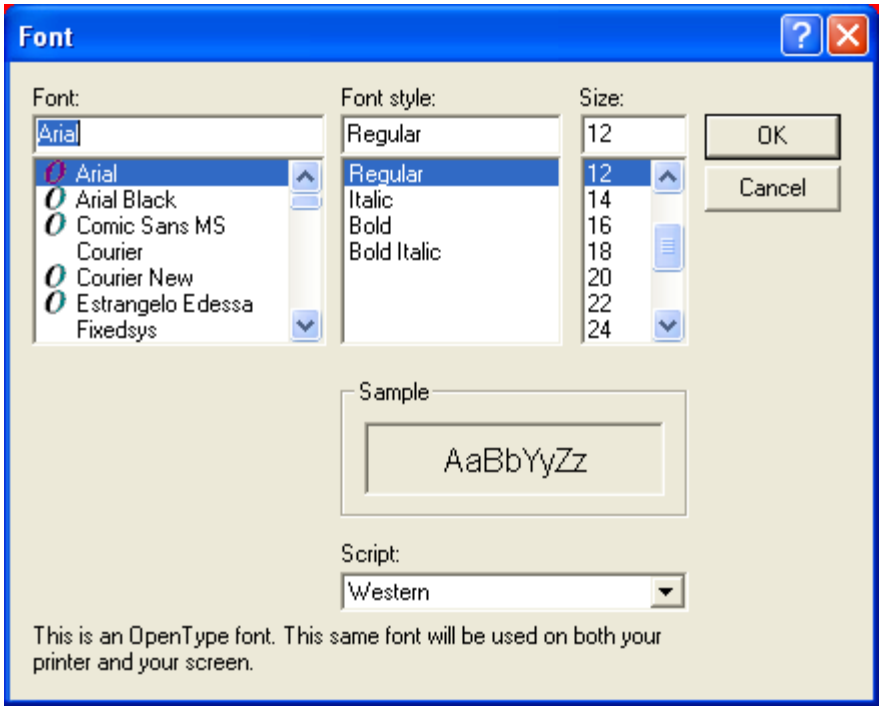
Font

Edit static text properties

Click Font, the following dialog is presented.

Alignment: Defines how the text is positioned within the bounds specified by **X start**, **Y start**, **Width** and **Height**.

- **Left:** for left alignment.
- **Center**: for alignment in the middle.
- **Right** : for right alignment.

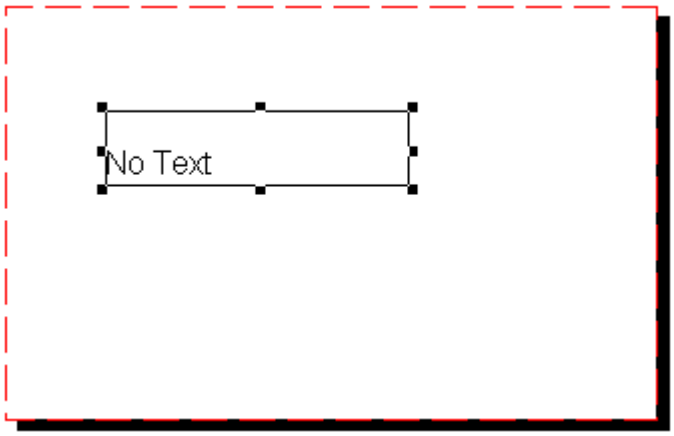


Font dialog

Define the font in which the text will be displayed on the badge layout.

Font: Specifies a text font. In the box select a font name. Your choice will appear in the Sample Box.
Font Style: Specifies a font style such as Bold, Italic, Regular. Your choice will appear in the Sample Box.
Size: Specifies a font size in points. Select a size in the list. To ensure readability for most designs use a size of 8 points or larger. Your choice will appear in the **Sample Box**.

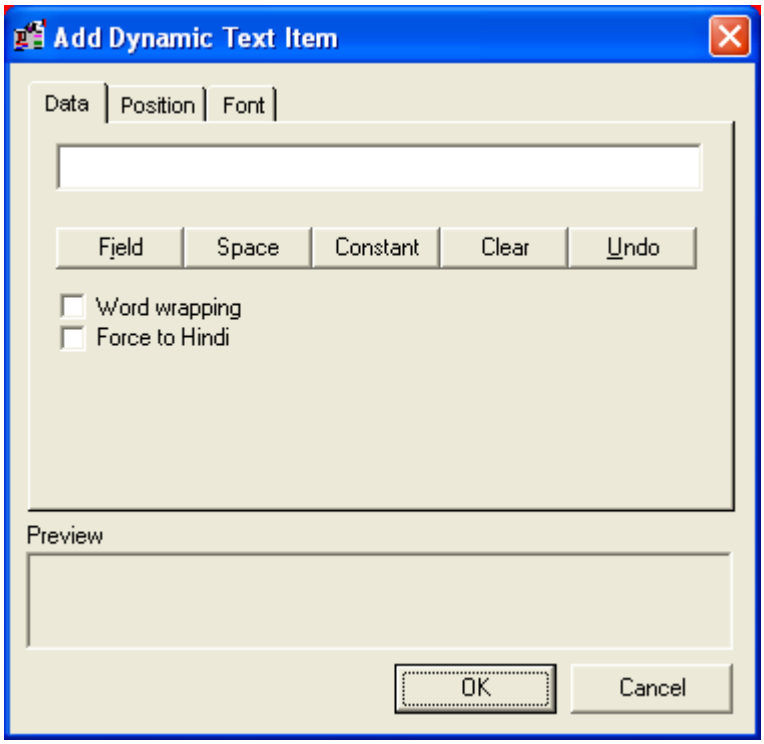
Static Text will be shown on the badge layout as the following.



Dynamic Text

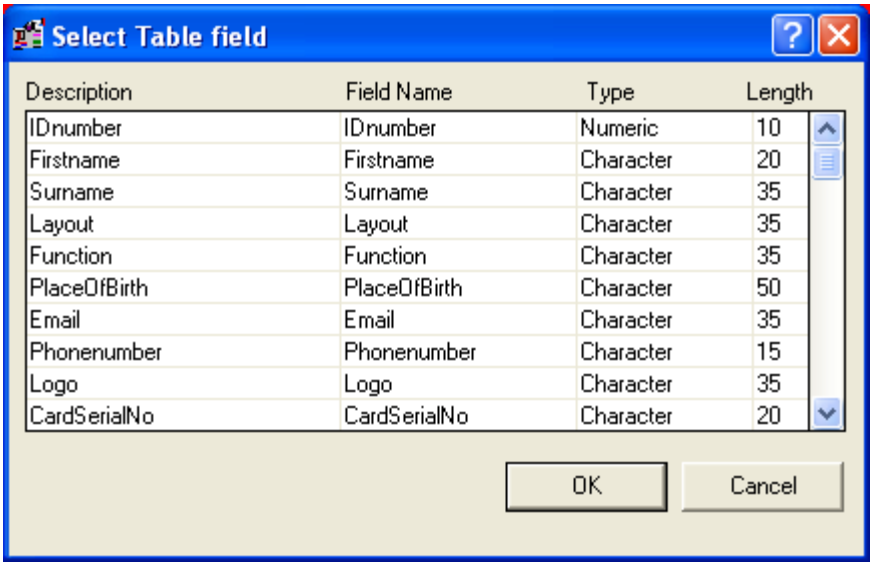
Use  option from the toolbar or select **Edit Menu>Add Item** and click **Dynamic Text** to add dynamic text to the currently opened layout. The following dialog is presented.

Data



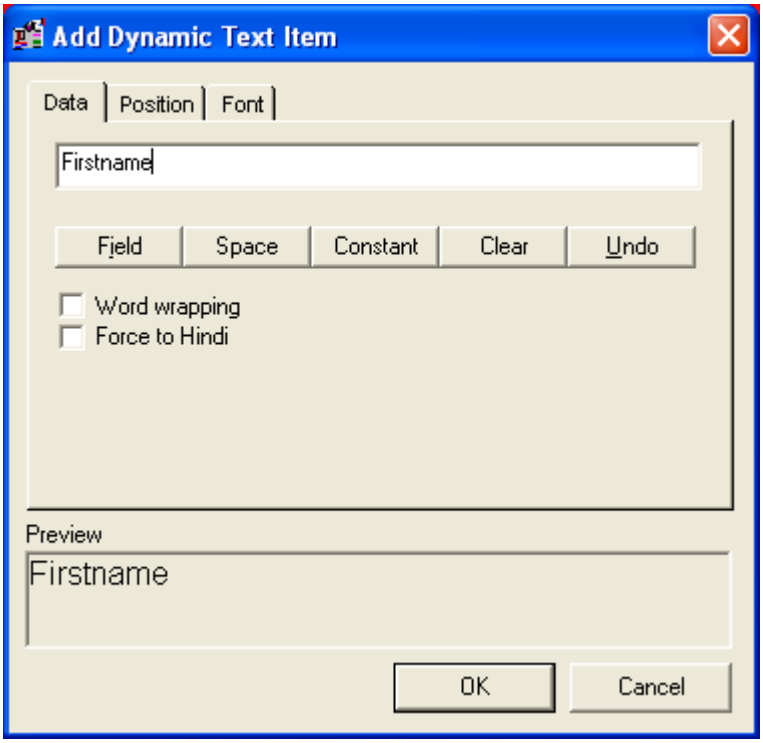
Dynamic Text Item

Click **Field**. The following dialog is displayed.



Select a field from your BadgeMaker Database to create a dynamic text field on a badge layout.

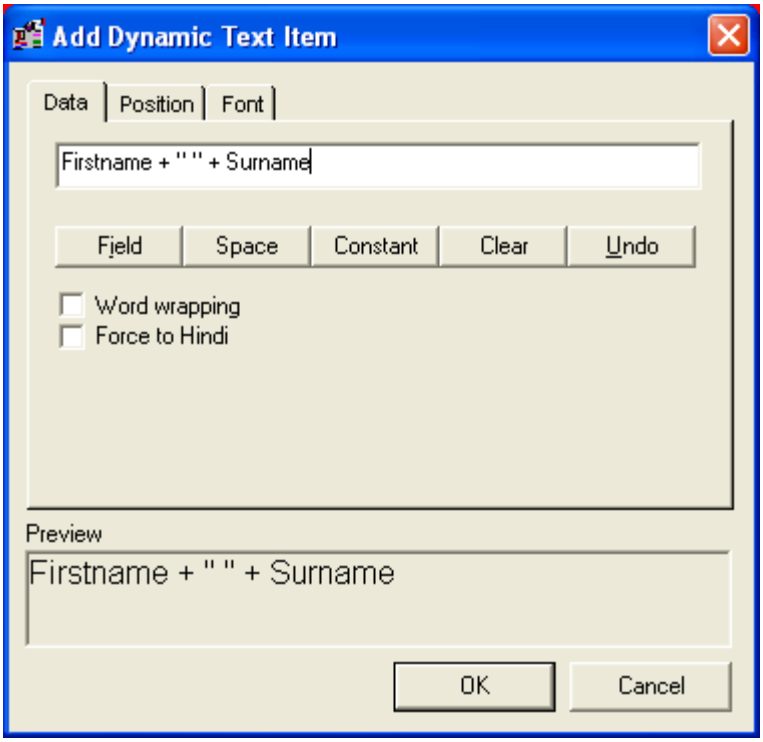
For this example *Firstname* is chosen.



Add dynamic text item

At the bottom of the dialog in the preview box this text will be displayed with selected font and color.

You can also type a string that can be built of one or more database fields in combination with constants. With the space button a **+" "+** will be added to the string. Now another database filed or constant can be added to the string. In this example Field "*Firstname*" and Field "*Surname*" are entered.



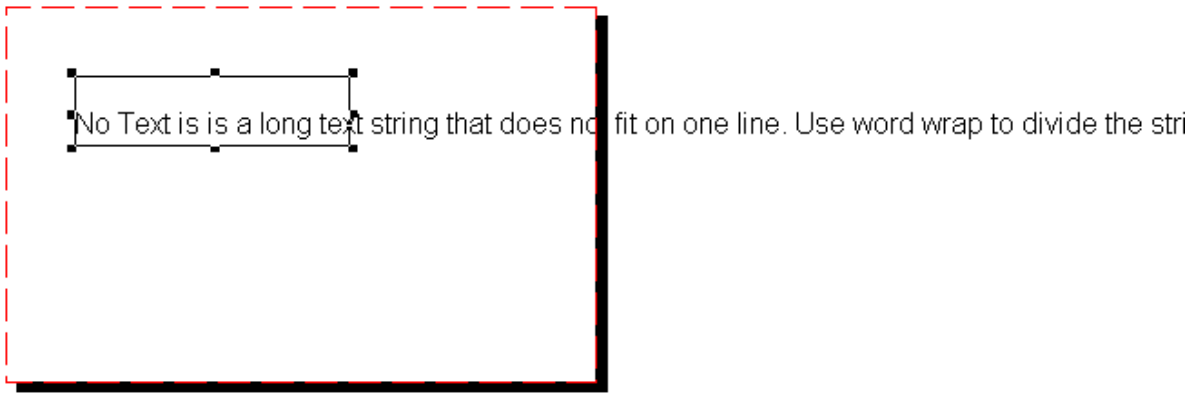
Data

Click **Clear** to erase field entries and start over again.

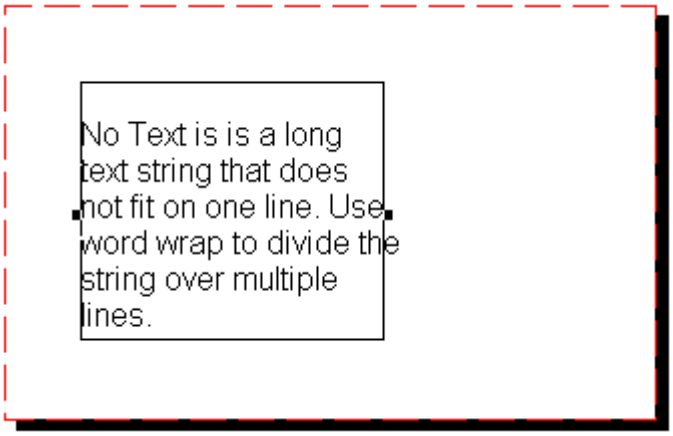
Click **Undo** to undo last action.

Word Wrapping: If the length of text is too long to fit on one line it will spread across multiple lines to fit into the text box on the badge layout.

Word Wrap not selected

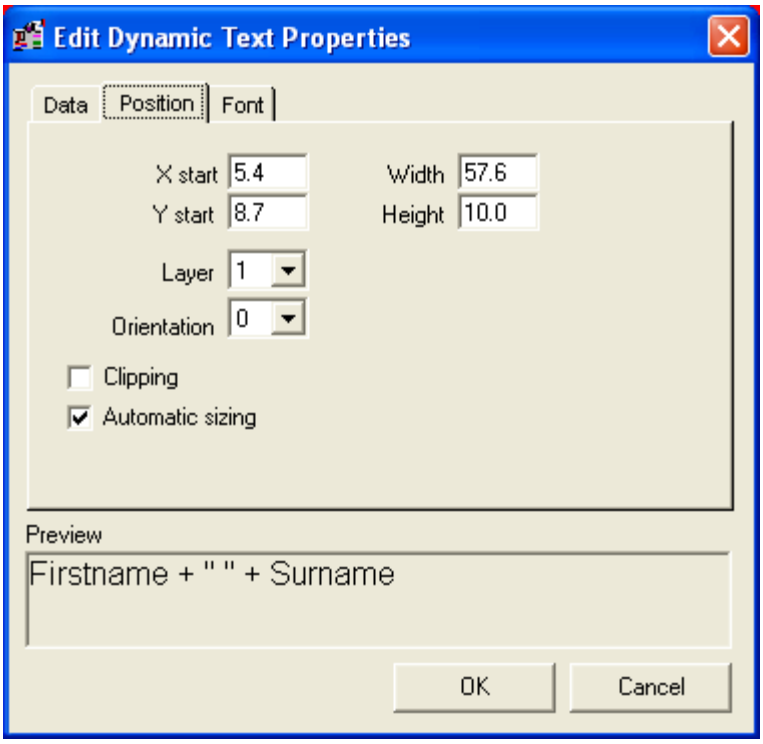


Word Wrap selected



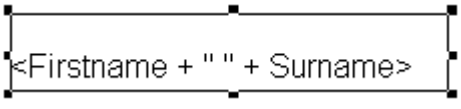
Only the width can be changed, the height will be adjusted automatically to make the text fit into the box.

Position



Position

Set the position of the text box on the badge layout. Text will be positioned within a rectangle box, (as seen below).

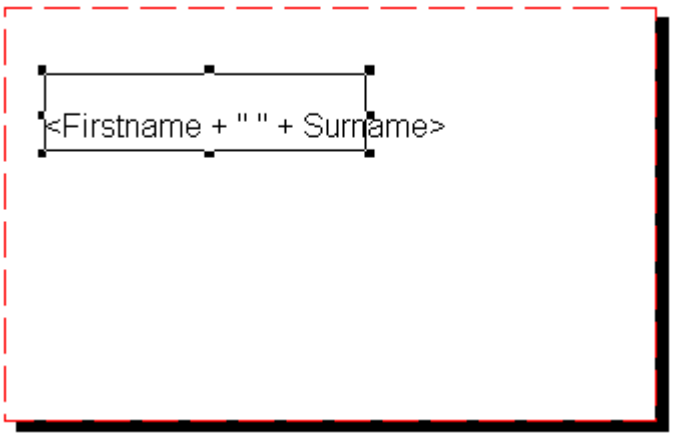


Layer: Items can be placed on several transparent layers. Items created with a higher value will be placed on top of items with a lower value. Values must be set within range **0 - 9**.

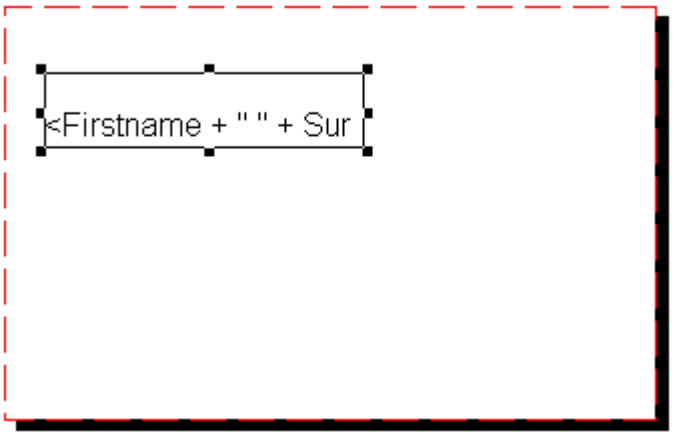
Orientation: Text can be rotated in increments of **90 degrees**.

Clipping: Text outside the text box is clipped - only text inside the text box will be visible any text shown outside the text box will be clipped automatically.

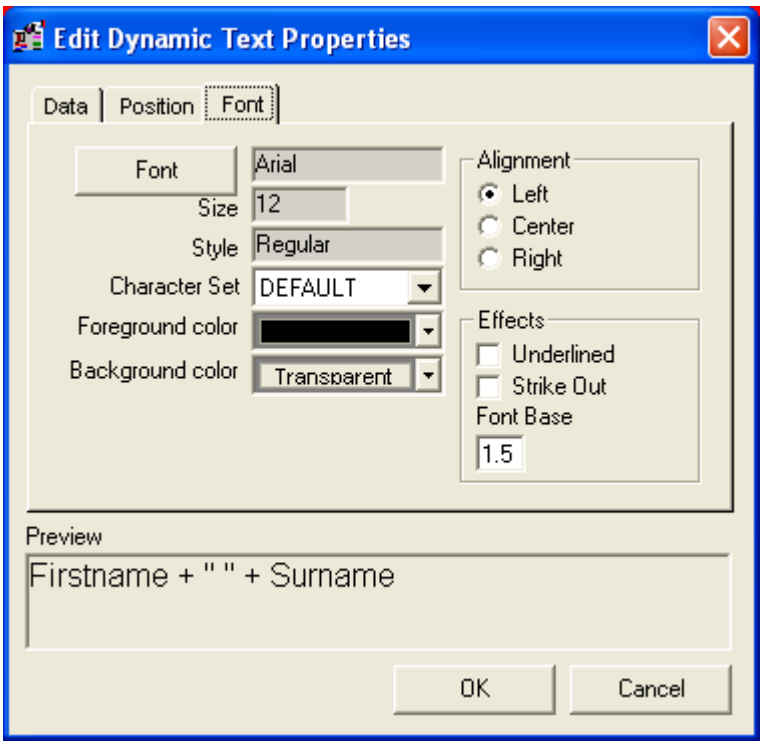
Not Clipped



Clipped



Font

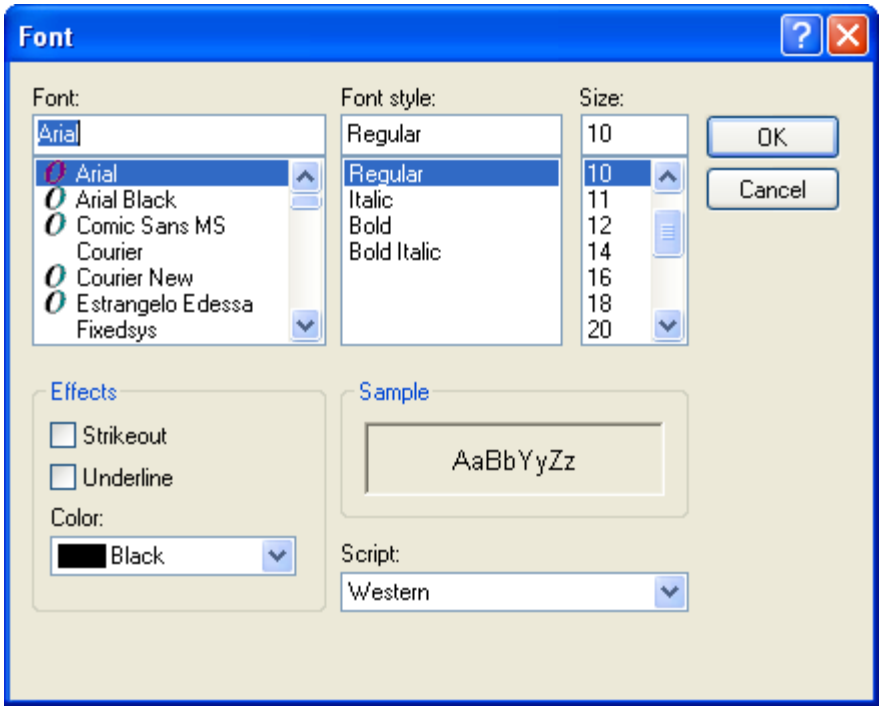


Font

Click **Font**, the following dialog is presented.

Alignment: Defines how the text is positioned within the bounds specified by **X start**, **Y start**, **Width** and **Height**.

Left: for left alignment.
Center: for alignment in the middle.
Right: for right alignment.

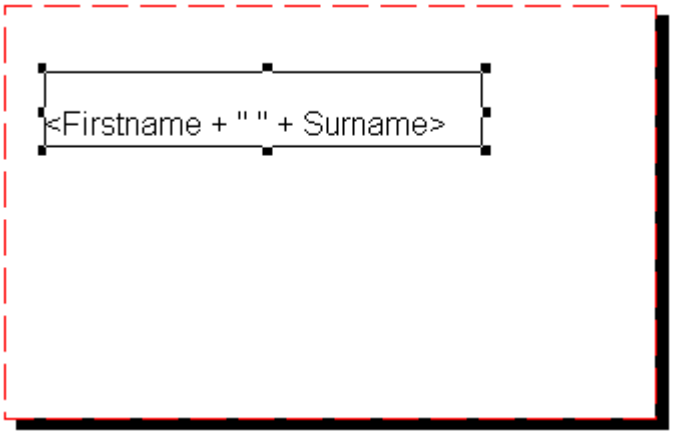


Font properties

Define the font in which the text will be displayed on the badge layout.

Font: Specifies a text font. In the box select a font name. Your choice will appear in the Sample Box.
Font Style: Specifies a font style such as Bold, Italic, Regular. Your choice will appear in the Sample Box.
Size: Specifies a font size in points. Select a size in the list. To ensure readability for most designs use a size of 8 points or larger. Your choice will appear in the Sample Box.
Strikeout: Draws a line through the selected text.
Underline: Specifies whether the selected text is underlined.

Dynamic Text will be shown on the badge layout as the following.



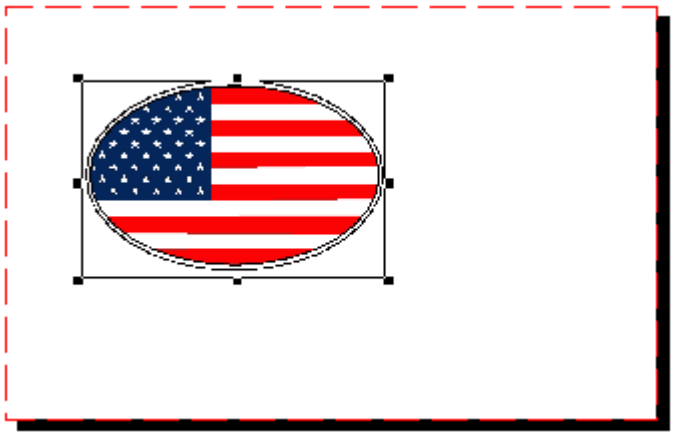
Add Logo

Use  option from the toolbar or select **Edit Menu>Add Item** and click **Add Logo** to add a logo to the currently opened layout.

The following dialog is presented.

Select a logo to use and click **Open**.

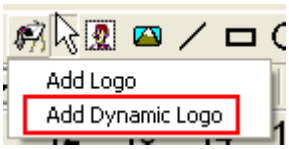
The logo is now added to your badge layout.



Logo added

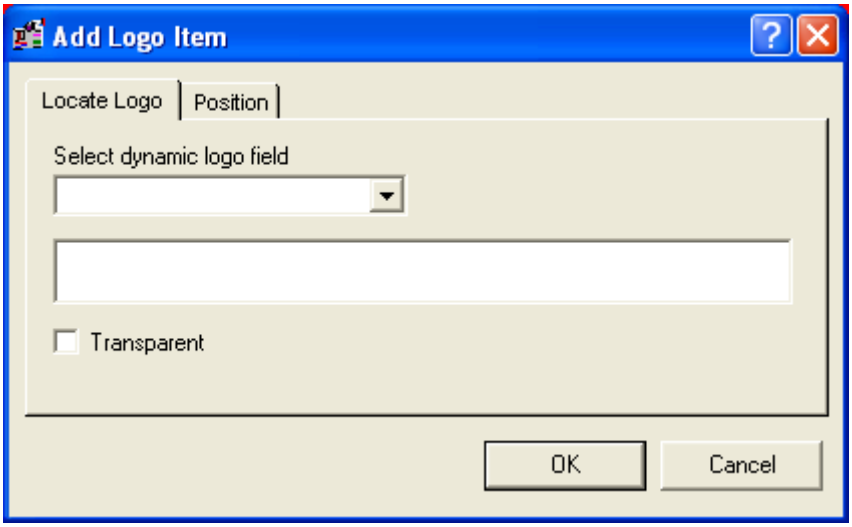
Add Dynamic Logo

Use  option from the toolbar or select **Edit Menu>Add Item** and click **Add Dynamic Logo** to add a dynamic logo to the currently opened layout.



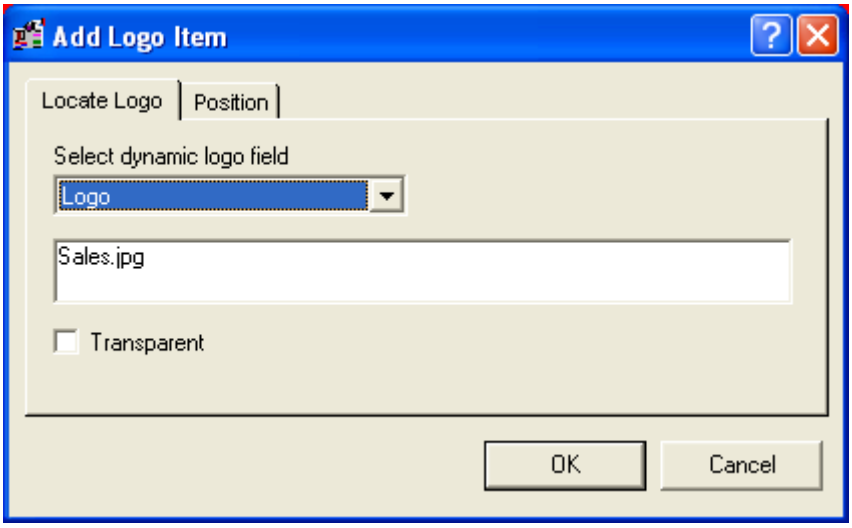
The following dialog is presented.

Locate Logo



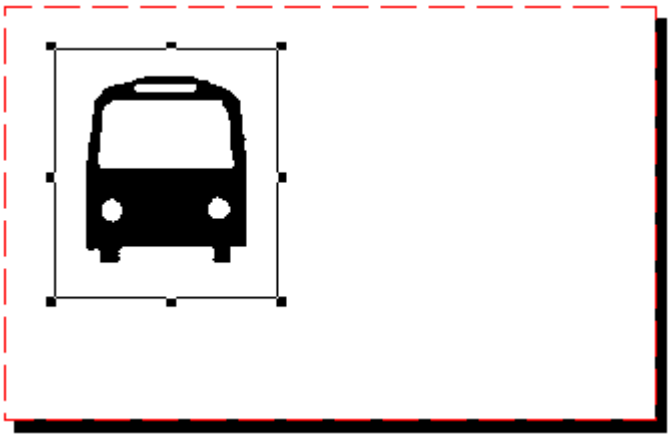
Locate logo

Select dynamic logo field: If a dynamic logo is used, select a dynamic logo from the dropdown list. The fields marked as dynamic logo fields (*Options Has pick list and Has logo enabled in BadgeMaker*) can be selected from this list. Make sure the logos corresponding with the logo names available in the Logos directory (*Only one logo file for each logo field*).



Sales.jpg added

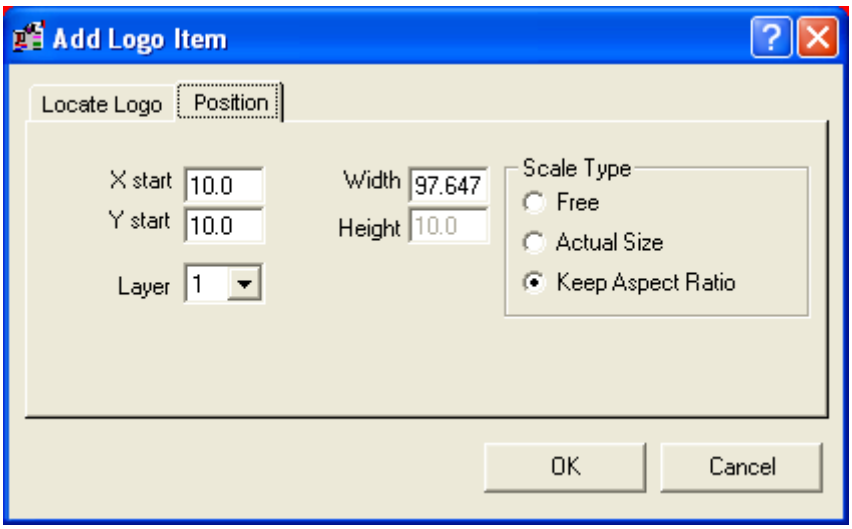
Select **OK** to show the result.



Transparent: If this option is selected, the logo will become transparent. Logo's will mingle with the background when made transparent.

The transparent option will work best with black and white logos.

Position



Position

Set the position of the logo on the badge layout.

Layer: Items can be placed on several transparent layers. Items created with a higher value will be placed on top of items with a lower value. Values must be set within range **0 - 9**.

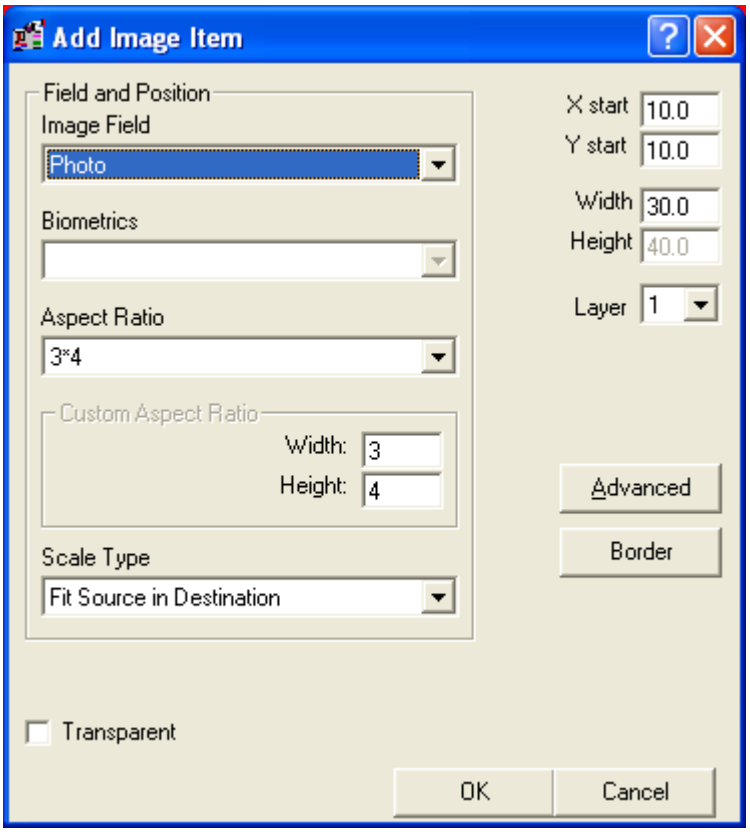
Scale Type: Three options are available: **Free**, **Actual Size**, **Keep Aspect Ratio**.

- **Free:** Logo is freely scalable.
- **Actual Size:** Logo will be displayed on the layout in actual size based on the original logo size.
- **Keep Aspect Ratio:** The original size of the logo can be scaled, but only within the original width/height ratio. These options are available as soon as a logo file has been selected.

Image

Use  option from the toolbar or select **Edit Menu>Add Item** and click **Add Image** to add a image to the currently opened layout. The following dialog is presented.

The following options allow you to add or edit an image.

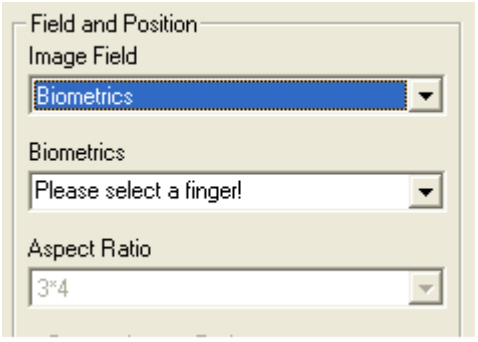


Field and Position

Image Field: Select one of the available image types from the drop down list..

- **Photo**
- **Sign**
- **Photo Thumb**
- **Sign Thumb**
- **Finger Image**

Biometrics: This drop down box is only activated if a biometrics image field is selected. In a biometrics image field, multiple finger scans can be stored. In this drop down field, one of the scanned fingers can be selected to display on the badge. If you wish to display more than one finger image on the badge, you have to insert an image for each finger.



Aspect Ratio: The image proportion restricts the size of the image on the layout to one of the following proportions.

- **3*4:** Width * Height ratio, commonly applied for identity card photos
- **4*1:** Width * Height ratio, commonly applied for signature images
- **Custom Proportion:** Allows you to define your own Width * Height ratio's. The value for Width and Height should be between 1 and 999.
- **Free:** The size of the image is not restricted.

Default ratio is set to 3*4

Scale Type: Define how the image is drawn in a rectangle defined by **X start**, **Y start**, **Width** and **Height**.

Clip Destination On Source: The rectangle is fully covered by the image by enlarging the image so that the image width or height fits exactly in the frame width or height. The parts which are outside the rectangle are clipped (*No image distortion*).

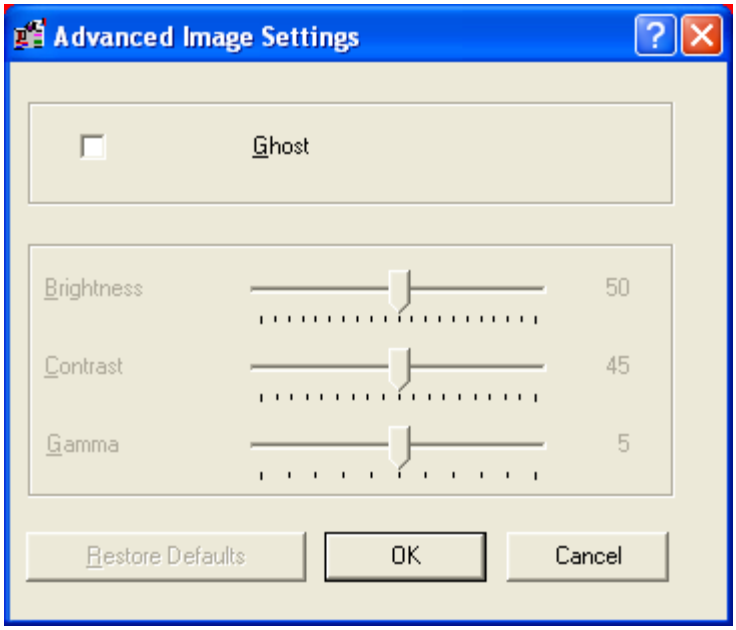
Fit Source In Destination: The image size is reduced so that the width or height fits on the width or height of the rectangle. (*No image distortion*)
Scale Source To Destination: The rectangle is filled with the image by re-sizing the image width and height to the width and height of the rectangle. (*Image distortion*)

Default scale type is set to Fit Source in Destination.

Transparent: If this option is selected, the image will become transparent. Image's will mingle with the background when made transparent.

Advanced Image Settings

Click **Advanced**, the following dialog is displayed. Additional settings can be configured in this dialog.



Advanced image settings

Select **Ghost** to enable the following settings.

- **Brightness**
- **Contrast**
- **Gamma**

When **Ghost** becomes enabled the image will become transparent. The Image can then be altered by adjusting the settings to morph the image into the background.

Image Border Settings

Click **Border** the following dialog is displayed. Additional settings can be configured in this dialog.

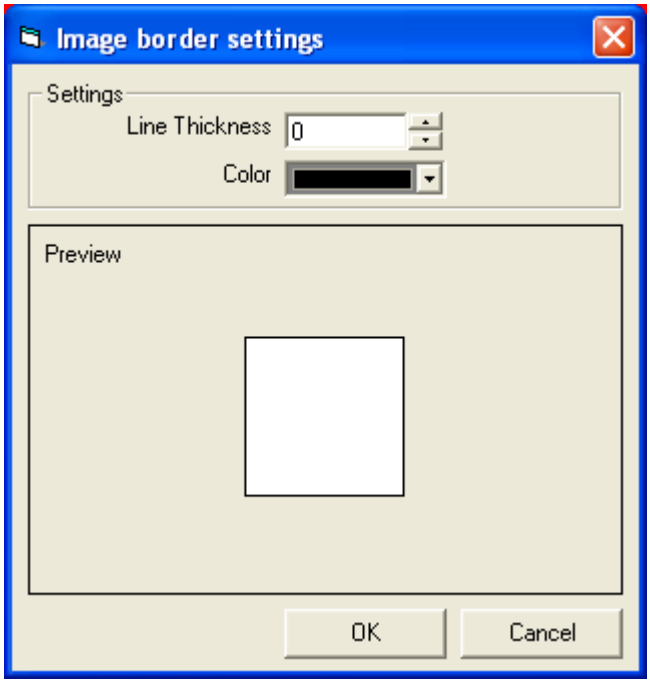
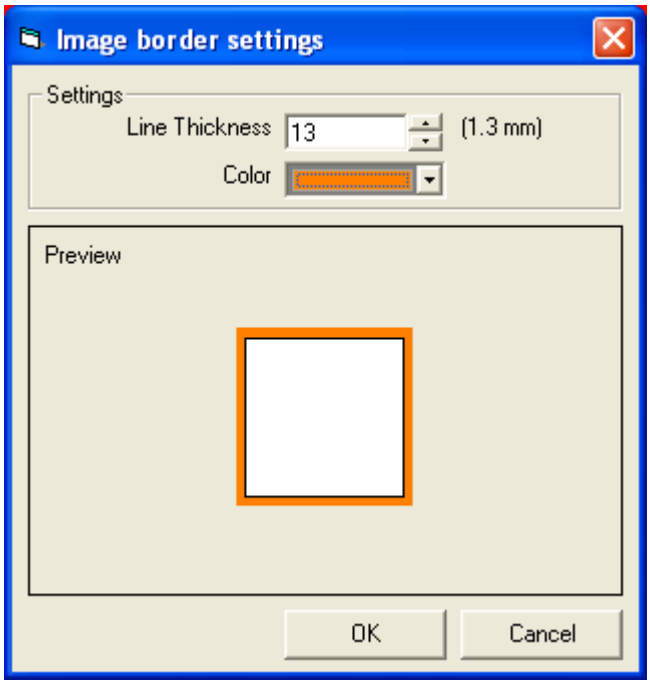
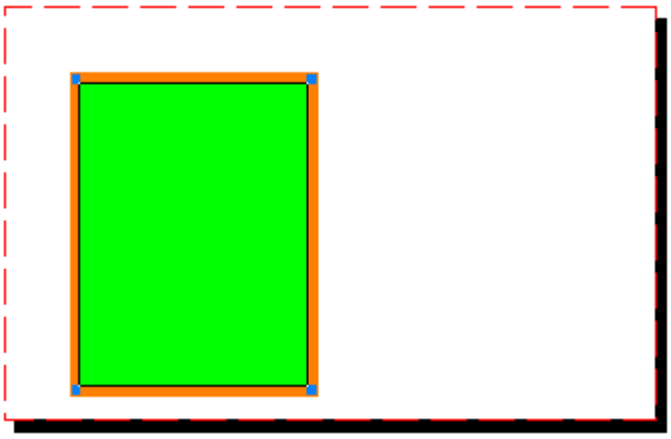


Image border settings

Define a border line **color** and **thickness**.



Click **OK** to confirm settings. The result on the layout will look similar to this...



Result of adding border

Bar Code

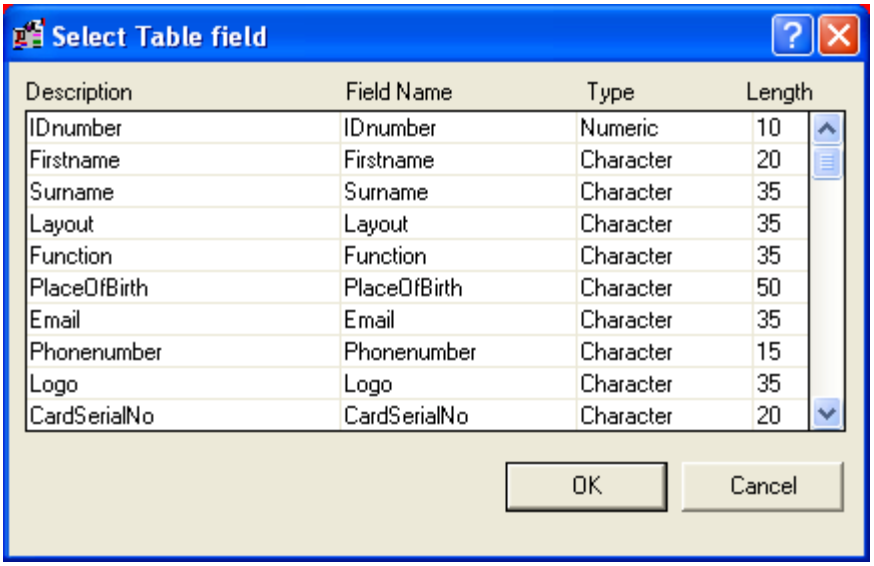
Use  option from the toolbar or select **Edit Menu>Add Item** and click **Bar Code** to add a bar code to the currently opened layout.

The following dialog is presented.

Data

Add bar code item

Click **Select Field** to enter a database field and bring up a list of fields.



Select table field

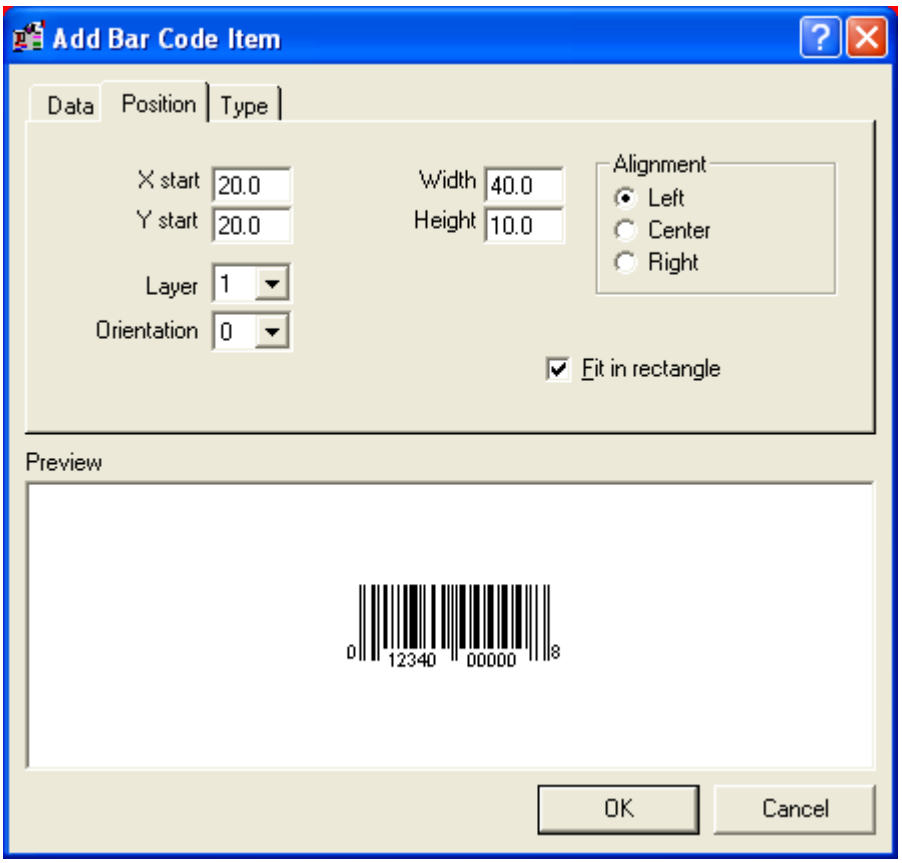
Click **OK** once a field has been selected.

Data

Transparent: If this option is selected, the barcode will become transparent.

Position

Set the position of the barcode on the badge layout.



Position

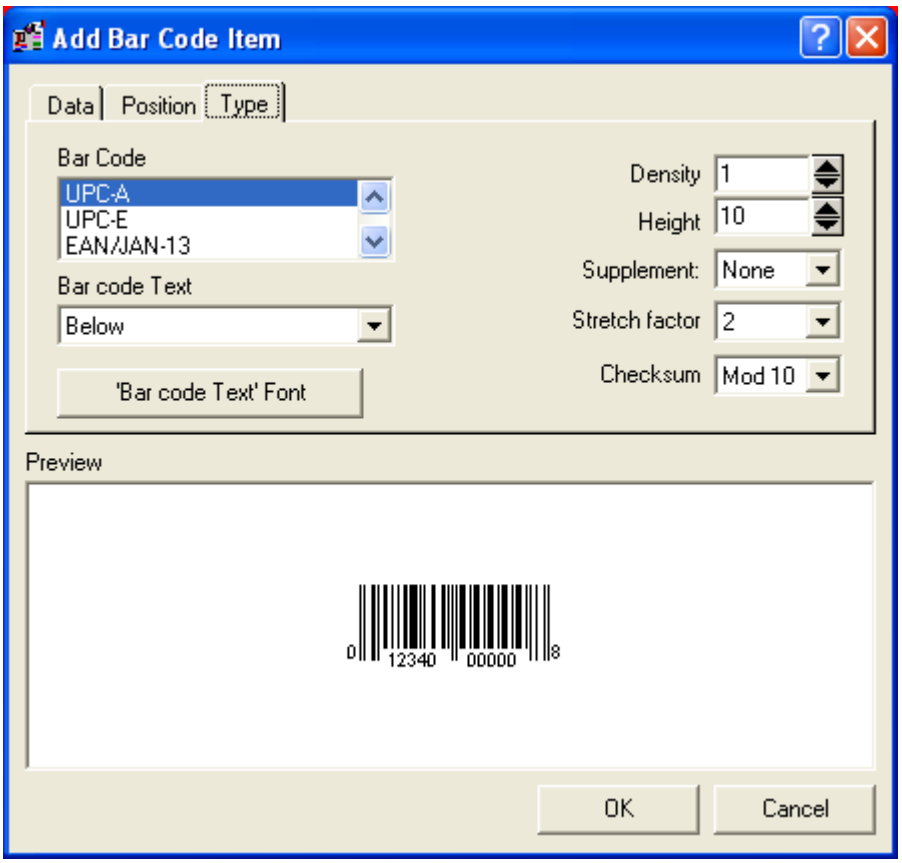
Layer: Items can be placed on several transparent layers. Items created with a higher value will be placed on top of items with a lower value. Values must be set within range **0 - 9**.

Orientation: The Bar code can be rotated in increments of **90 degrees**.

Alignment: Defines how the Bar Code is positioned within the bounds specified by **X start**, **Y start**, **Width** and **Height**.

- **Left:** for left alignment.
- **Center:** for alignment in the middle.
- **Right:** for right alignment.

Type



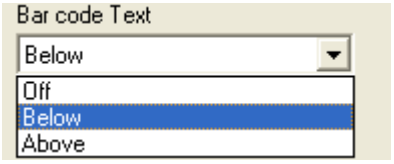
Type

Bar Code: Select a barcode from the available list.

- **UPC-A**
- **UPC-E**
- **EAN/jan-13**
- **EAN/jan-8**
- **Code 3 of 9**
- **Extended code 3 of 9**
- **Interleave 2 of 5**
- **Code 128 Auto**
- **Codabar**
- **Zip**
- **MSI Plessey**
- **Code 93**
- **Extended Code 93**
- **UCC -128**
- **HIBC**
- **PDF417**
- **UPC-E0**
- **UPC-E1**
- **Code 128 Subset A**

- **Code 128 Subset B**
- **Code 128 Subset C**

Bar Code Text: Select from the drop down list where to position readable text in combination with the barcode.



Example – Off

Example – Above

Example – Below

Density: Determines the width off the bar code stripe.

Before

After

Height: Determines the height of the barcode layout.

Before

2 Digit

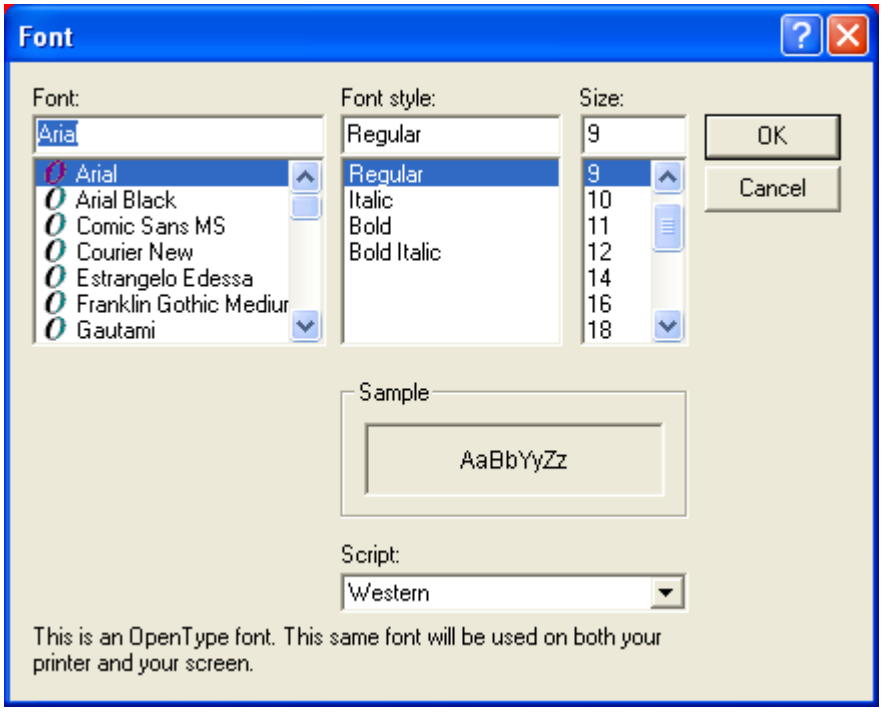
5 Digit

Stretch Factor: Determines the length of the barcode as an addition to the density setting.

The result of this setting is visible in the Preview of BadgeMaker and on printed cards, but not in the Add Barcode dialog.

Checksum: To increase the reading accuracy, some barcode types can use checksum's. The availability of a checksum is dependent on the barcode type. The calculated value is added to the barcode.

Bar Code Text Font



Define the font in which the text will be displayed on the badge layout.

- **Font:** Specifies a text font. In the box select a font name. Your choice will appear in the Sample Box.
- **Font Style:** Specifies a font style such as Bold, Italic, Regular. Your choice will appear in the Sample Box.
- **Size:** Specifies a font size in points. Select a size in the list. To ensure readability for most designs use a size of 8 points or larger. Your choice will appear in the Sample Box.

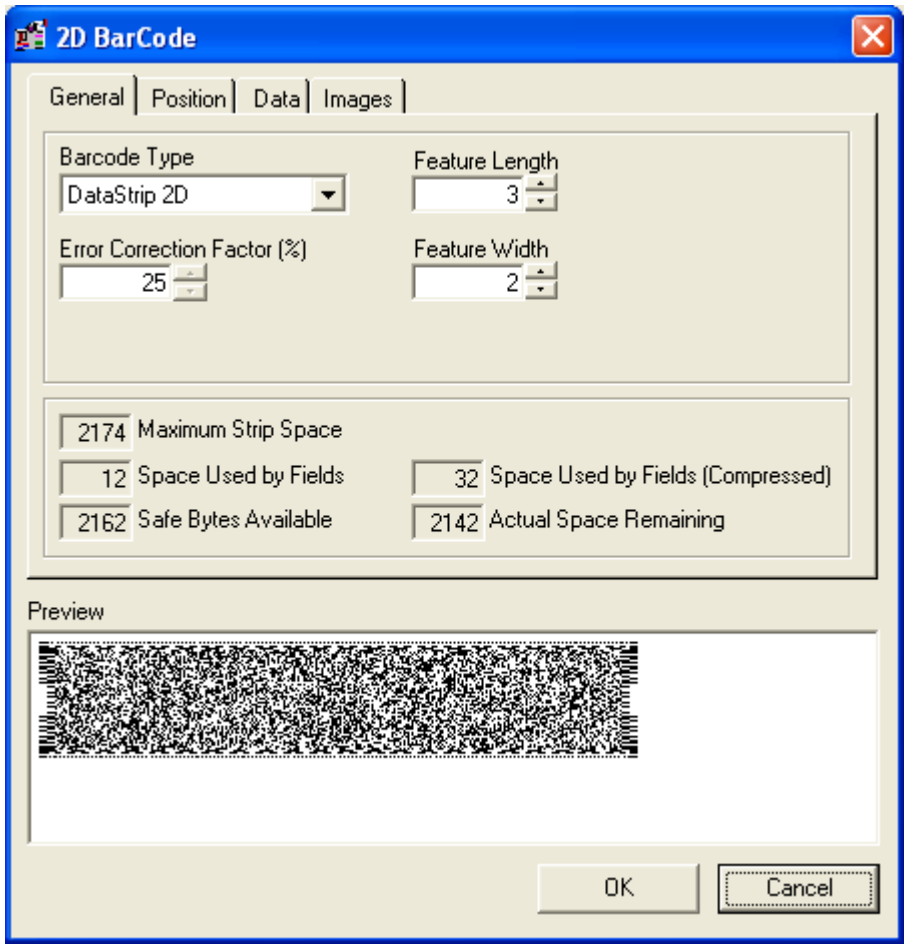
Add 2D Bar Code

Use  option from the toolbar or select **Edit Menu>Add Item** and click **Add 2D Bar Code** to add a 2D bar code to the currently opened layout.

This option is only available if the DataStrip plug in is installed!

The following dialog is presented.

General



General

Barcode Type: Only DataStrip 2D is available at the moment.
Error Correction Factor: Set a value between 25 and 50 for the error correction.

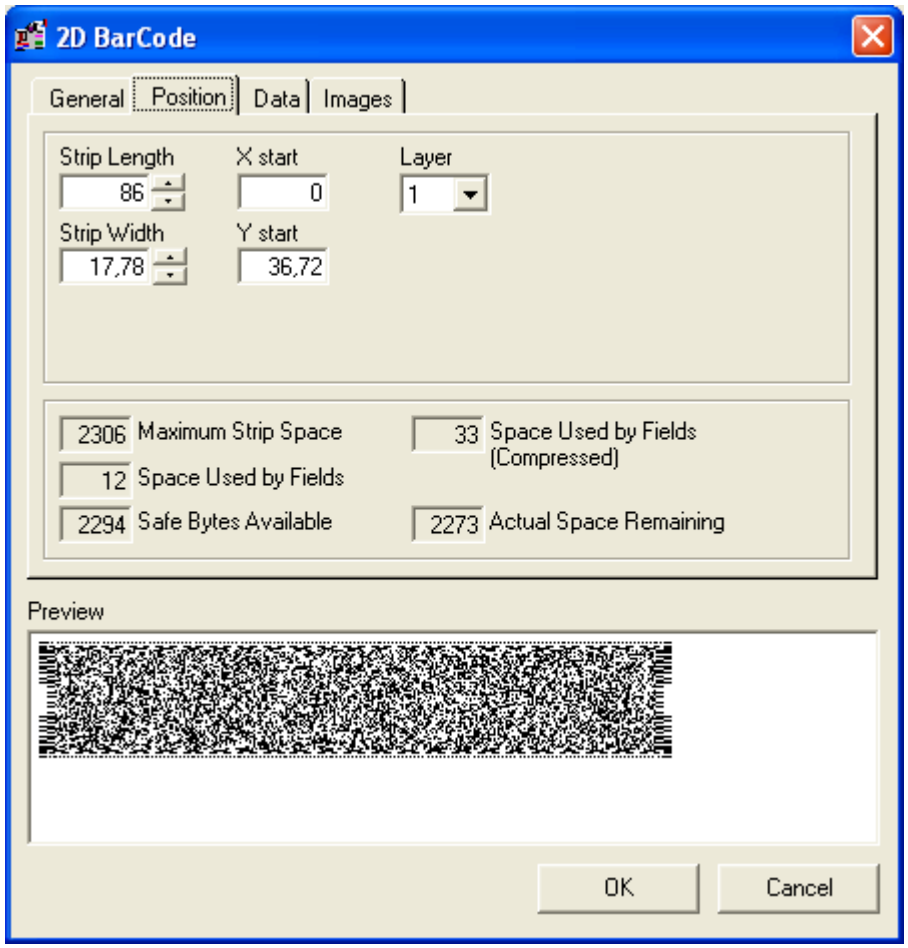
Increasing this value will reduce the amount of information that can be stored in the barcode.

Feature Length: Length in pixels of particles of which the barcode is composed of.
Feature Width: Width in pixels of particles of which the barcode is composed of.

In the middle section of the dialog the available space for data is indicated. If you decrease the feature length or width the strip space will grow.

Readability will worsen if you adjust the feature properties too small.

Position

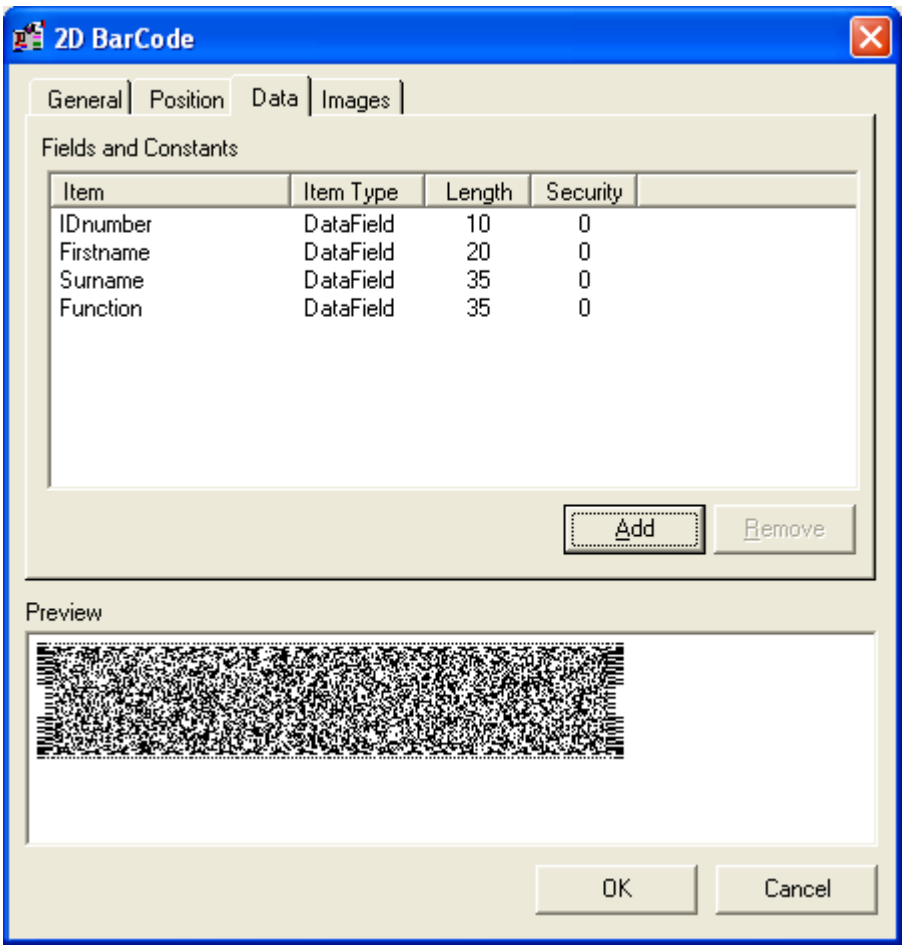


Position

The strip width and length will also affect the amount of data that can be stored in the bar code.

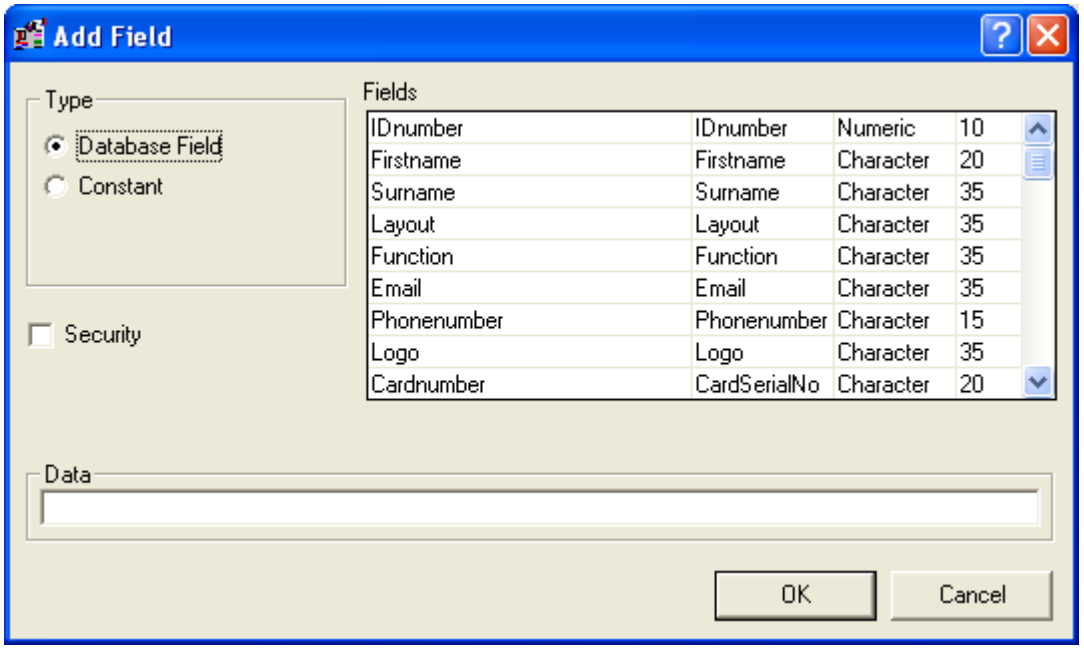
Layer: Items can be placed on several transparent layers. Items created with a higher value will be placed on top of items with a lower value. Values must be set within range 0 - 9.

Data



Data

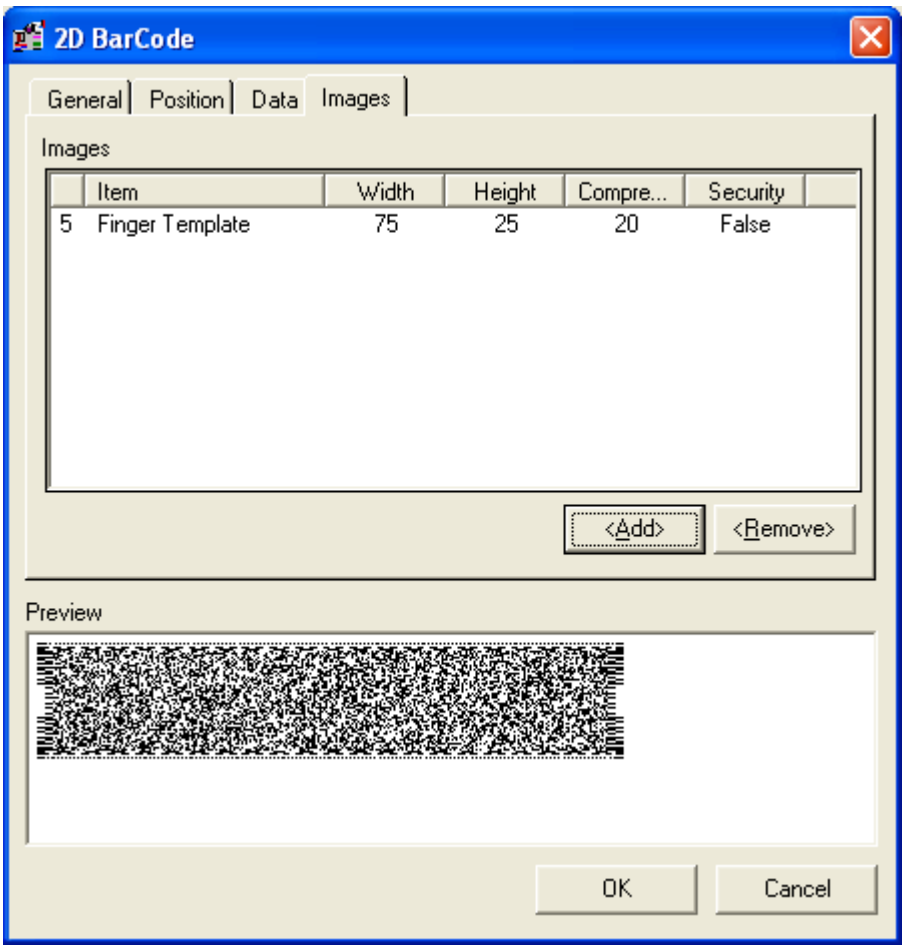
Click **Add** to add a **Field** or a **Constant** to the barcode.



Security: Select this option if the barcode scanner should not display the database field (*or constant*).

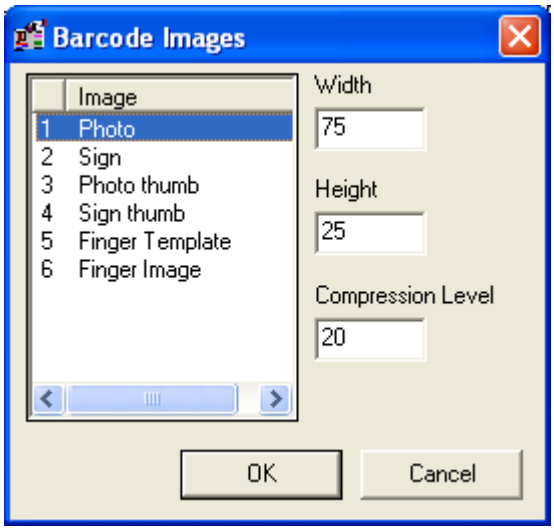
The data will still be processed by a scanner.

Images



Images

Add an image to the bar code. Select **Add** to obtain a list of images to add. Select **Remove** to delete an Image for the barcode.



Barcode images

Images with a maximum width of 120 pixels and a maximum height of 160 pixels can be stored into the barcode.

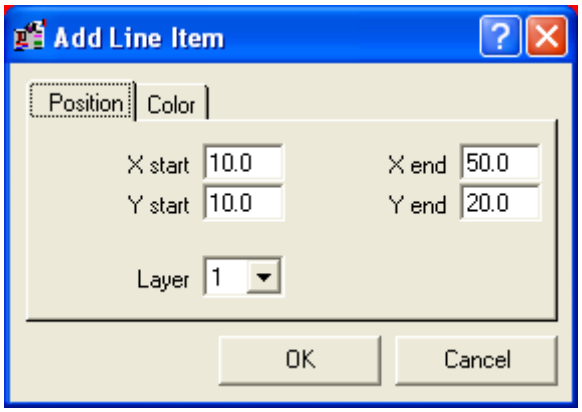
Compression Level: Set a value between 0 and 100. The default value is 20.

Templates can also be stored in the bar code. In that case the width, height and compression level will not be used.

Line

Use  option from the toolbar or select **Edit Menu>Add Item** and click **Line** to add a line to the currently opened layout. The following dialog is presented.

Position

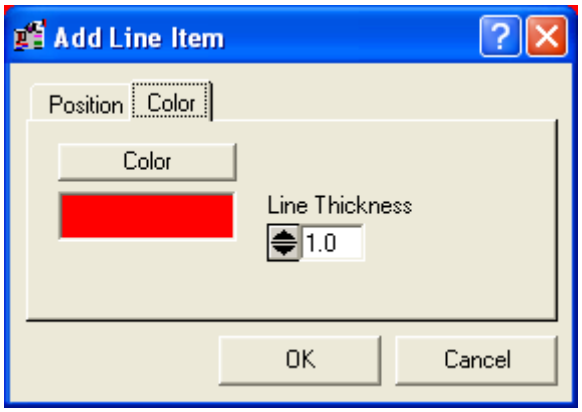


Position

The **X start** and **X end** value, will determine the length of the line.
The **Y start** and **X end** value, will determine the angle of the line.

Layer: Items can be placed on several transparent layers. Items created with a higher value will be placed on top of items with a lower value. Values must be set within range **0 - 9**.

Color



Color

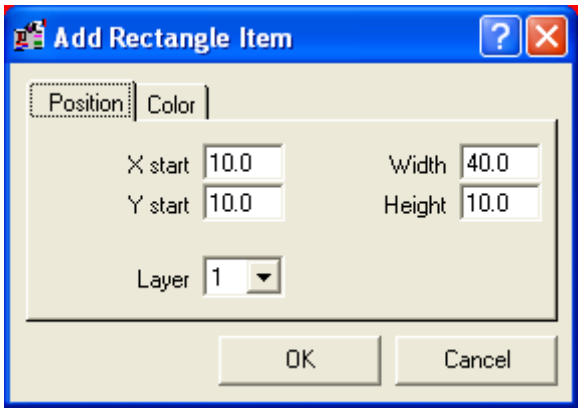
Click **Color** to select a color for the line. Set the Line Thickness of the line.

Click **OK** to confirm, Click **Cancel** to cancel changes.

Rectangle

Use  option from the toolbar or select **Edit Menu>Add Item** and click **Rectangle** to add a rectangle to the currently opened layout. The following dialog is presented.

Position

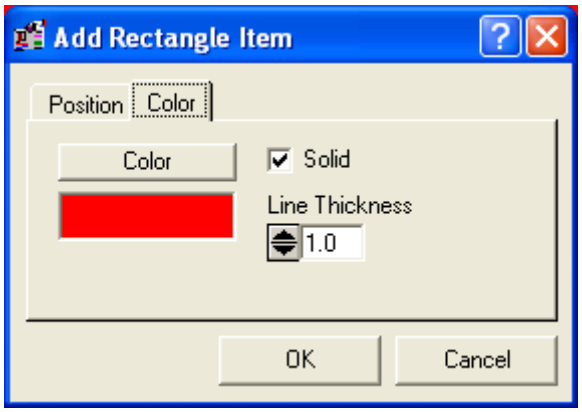


Position

The **X start** and **X end** value, will determine the length of the line.
The **Y start** and **X end** value, will determine the angle of the line.

Layer: Items can be placed on several transparent layers. Items created with a higher value will be placed on top of items with a lower value. Values must be set within range **0 - 9**.

Color



Color

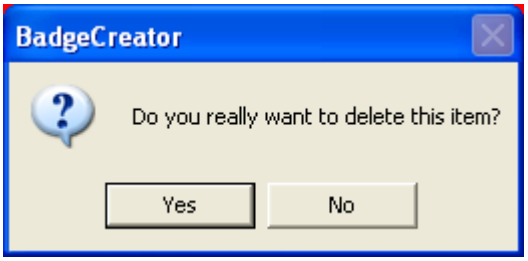
Click **Color** to select a color for the line. Set the **Line Thickness** of the line.

Click **OK** to confirm, Click **Cancel** to cancel changes.

Delete Item

Select **Edit Menu** and click **Delete** to delete an item in the opened layout.

The following dialog is presented.



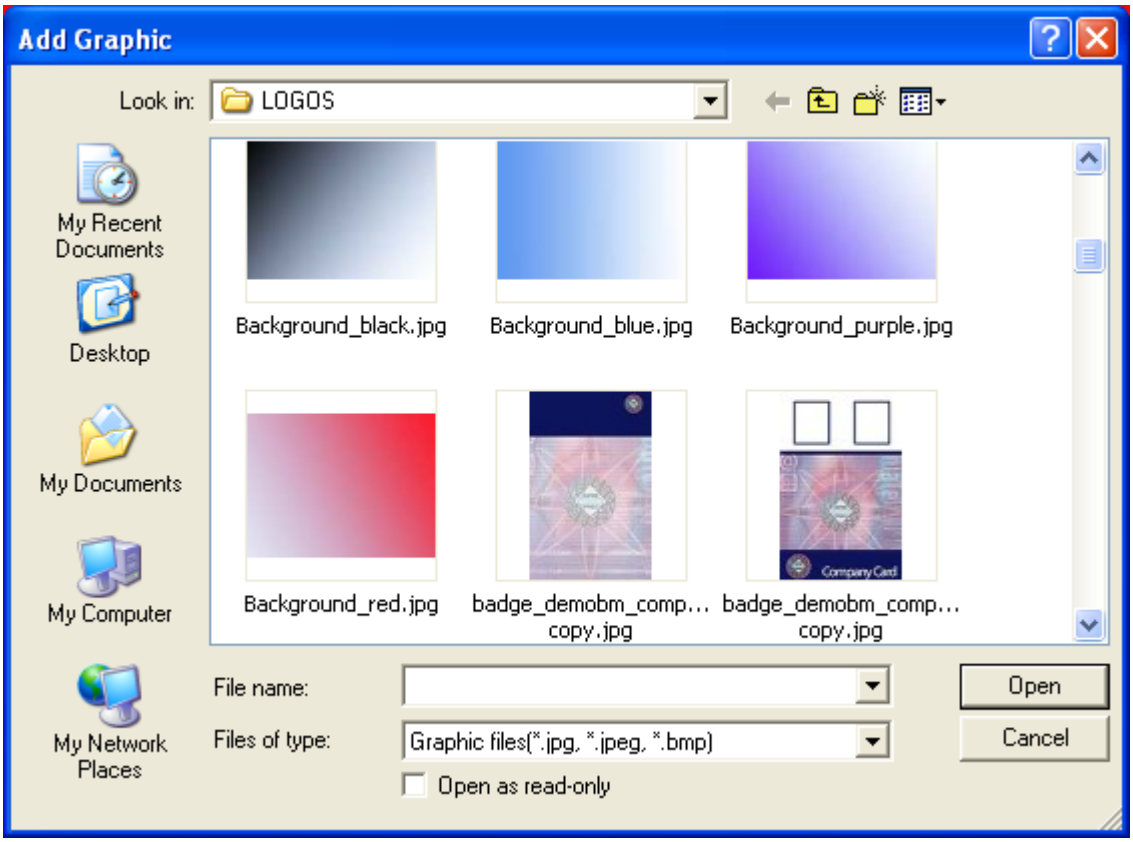
Select **Yes** to confirm delete or No to cancel deleting.

Set Background Image

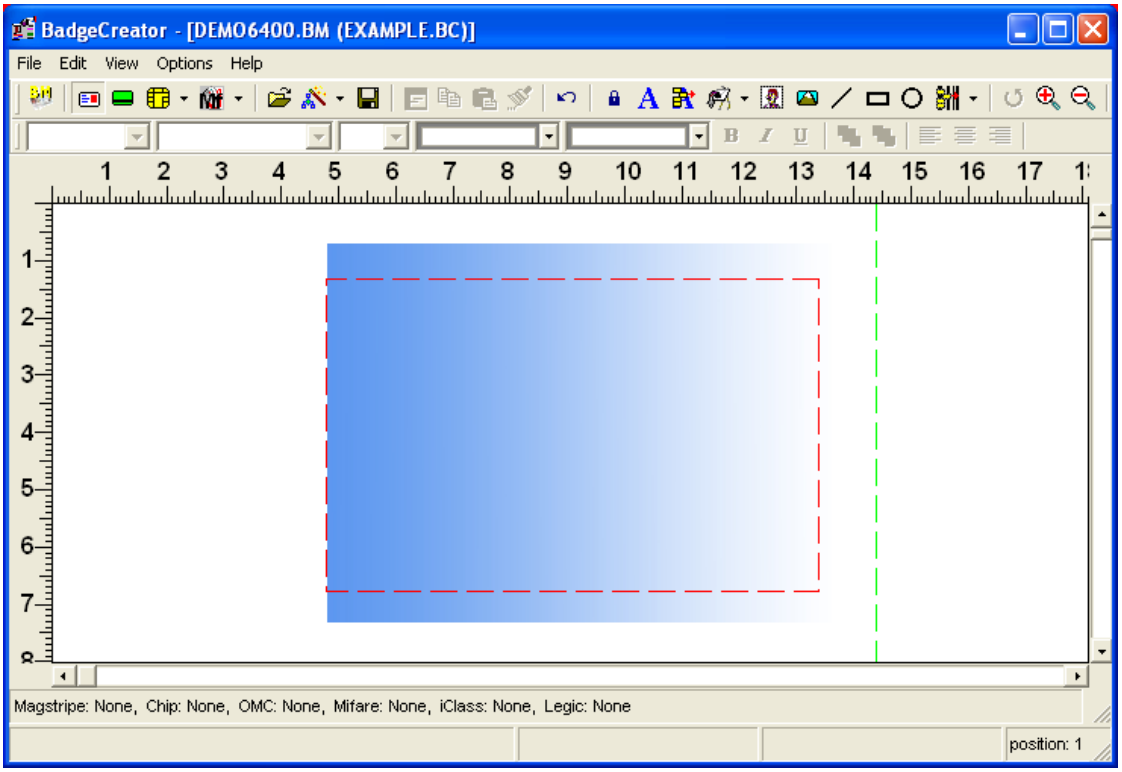
Select **Edit Menu** and click **Set Background Image** to set a background to your badge.

Click  on the BadgeCreator **Toolbar** to set a background image on your layout.

The following dialog is presented.



Select a graphic and click **Open** to set as a background.

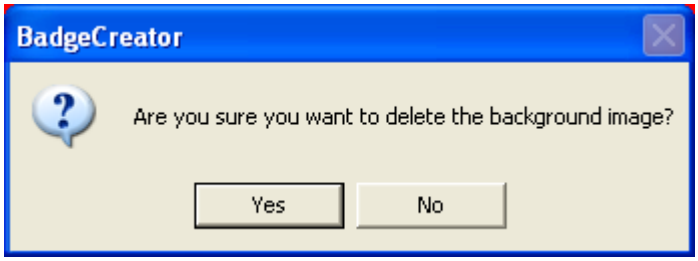


BC layout screen

Delete Background Image

Select **Edit Menu** and click **Delete Background Image** to delete a background to your badge.

The following dialog is presented.



Click **Yes** to delete the background image or **No** to cancel deleting.

Item

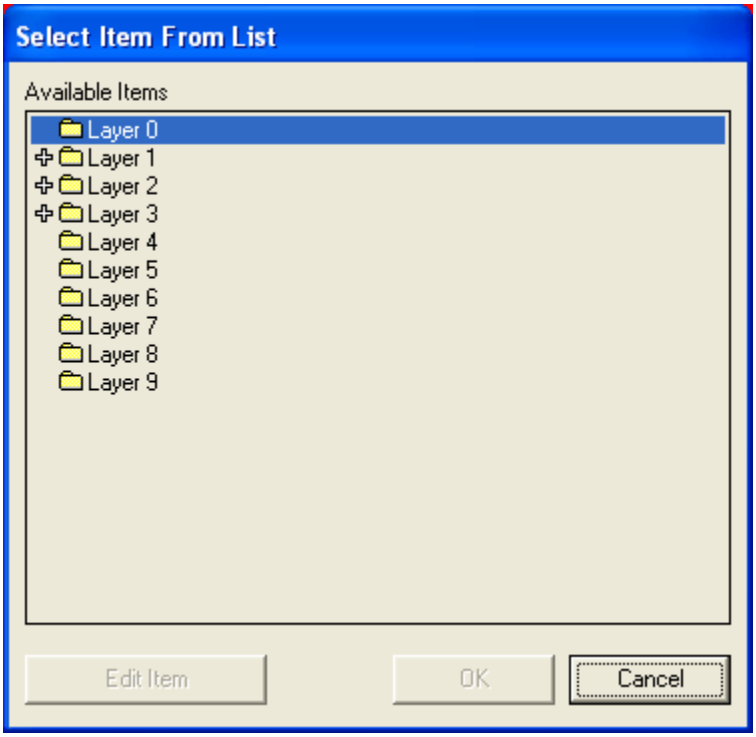
Select **Edit Menu** and click **Item** to select an item on your badge.

Use this option to edit the properties of an item in the badge layout..

Select item From List...

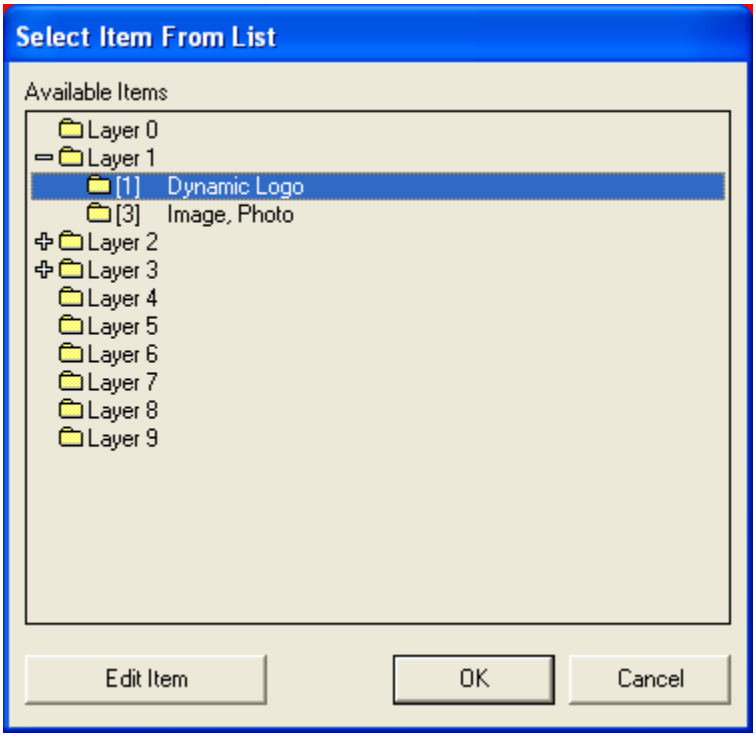
Select **Edit Menu** and click **Select Item From List** to select an item in the opened layout.

The following dialog is presented.



Available items

In this dialog you can either select an item by double clicking on a selected item or directly edit the selected item by selecting **Edit**.



Clicking on **+** will show the items associated with this layer and allow you to edit these particular items. If no **+** is displayed, no items are available on this layer to select.

This option is particularly handy if items are positioned close together on a layout for more precision.

Toggle Header/Footer Property

Select **Edit Menu** and click **Toggle Header/Footer Property** to change the property of a static text from **header/footer** text to body text or the other way round.

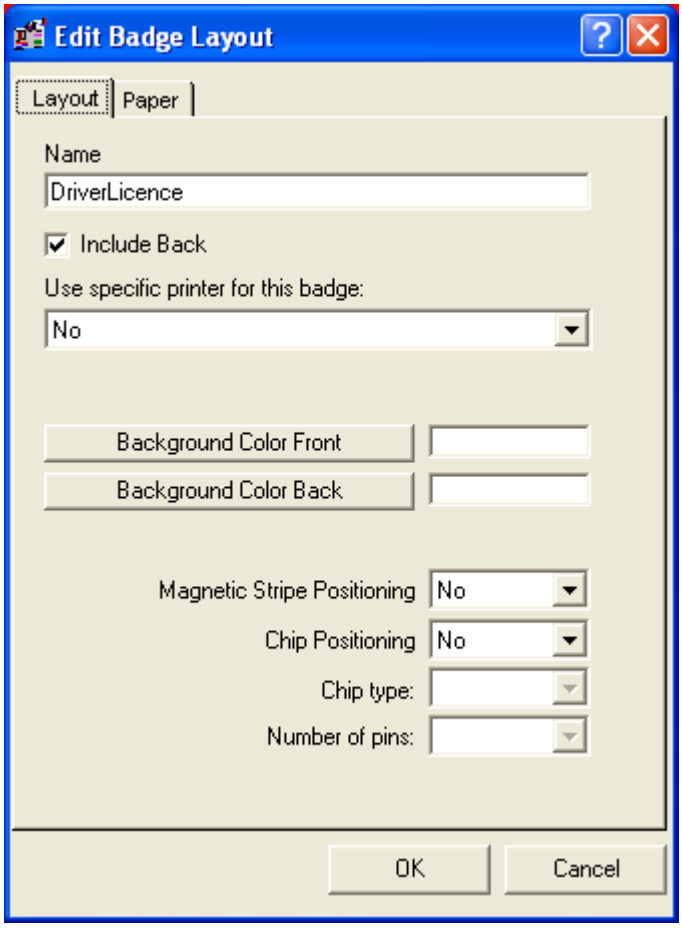
This option is only valid for layouts in A4 or Letter.

This option will only work with static text items! The property of dynamic fields cannot be changed to header/footer item.

Badge Layout

Select **Edit Menu** and click **Badge Layout** to edit settings of the current open badge layout.

The following dialog is presented.



Edit badge layout

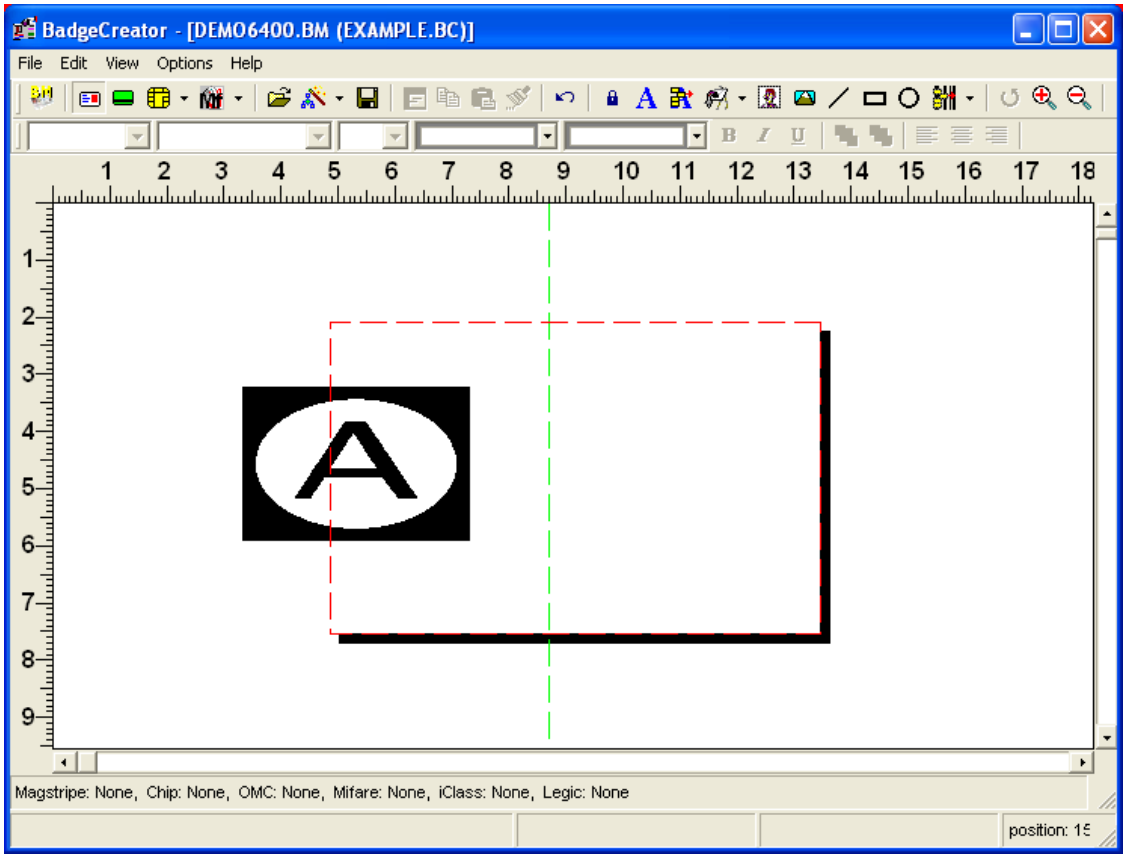
Select **OK** to close.

The **Edit Badge Layout dialog** is show in the same format as New Layout

Snap To Reference Line...

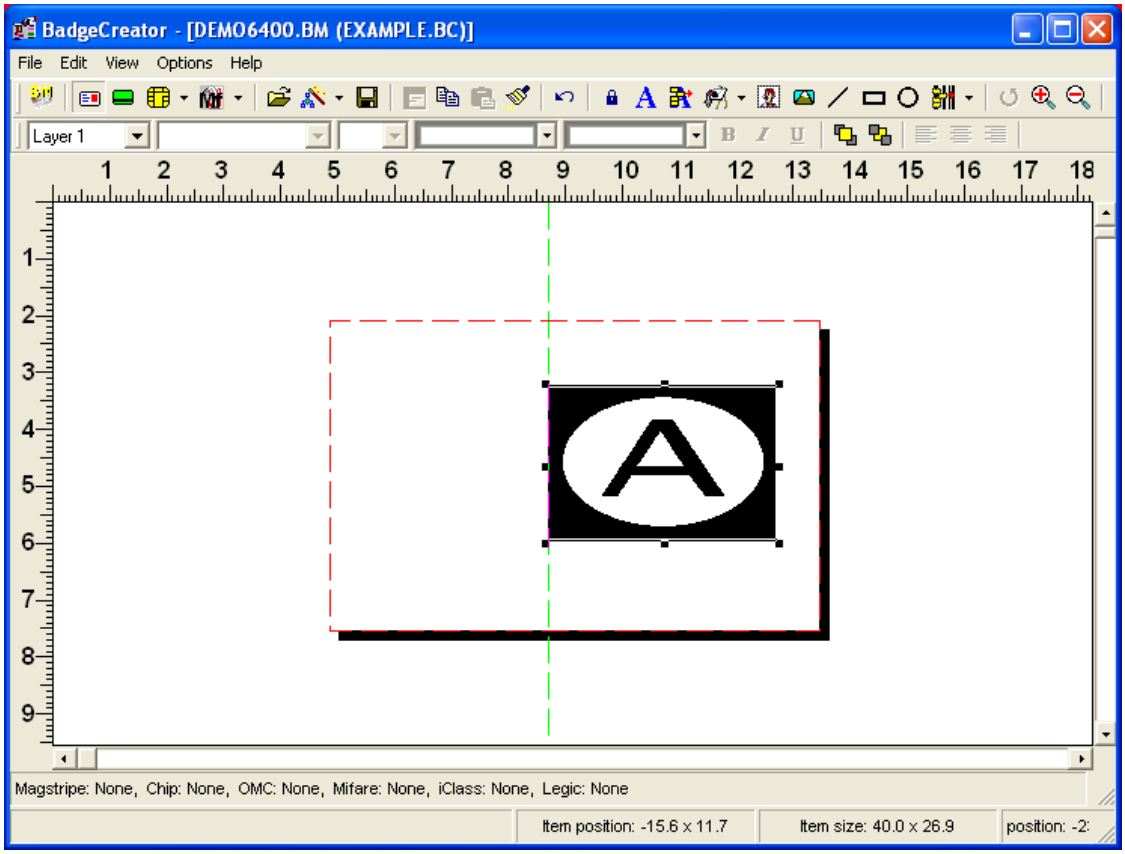
Select **Edit Menu** and click **Snap To Reference Line** to delete an item in the opened layout.

The following dialog is presented.



The **Reference Line** is shown in the **Main Screen** as a **Green dotted line** .

Use this command to position an item according to the position of the **Reference Line**. After selecting this command the item is repositioned when the layout is redrawn.



The item is snapped to the **Reference Line**.

This command is only available if an item is selected and the Reference Line Options is set to Vertical or Horizontal.

Lock Items

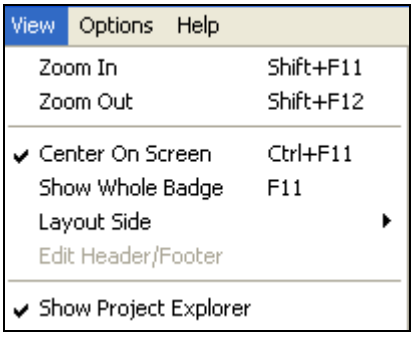
Select **Edit Menu** and click **Lock Items** to lock all items from being edited or altered on your badge layout.

Use  option from the **toolbar**.

Use this option to lock items to protect them from moving them by mouse. By clicking once you enable the option, by clicking again you disable the option. When the items are locked, you still can edit them by double clicking on the item.

View Menu

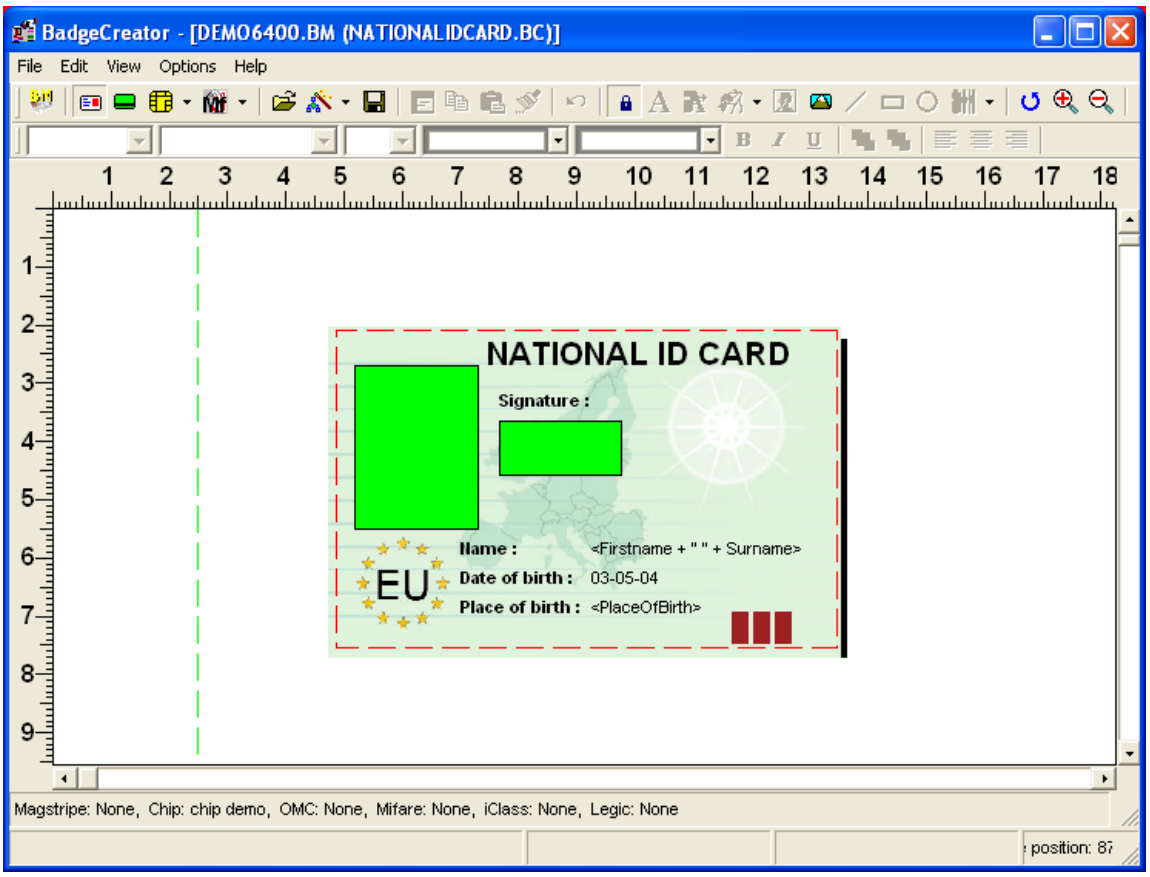
The **View Menu** appears as the third item in the menu bar, and contains commands relating to hiding or showing **Project Explorer**. You can **Zoom In** and **Zoom Out** of a badge layout, and can select either the front or back side of a card.



Zoom In

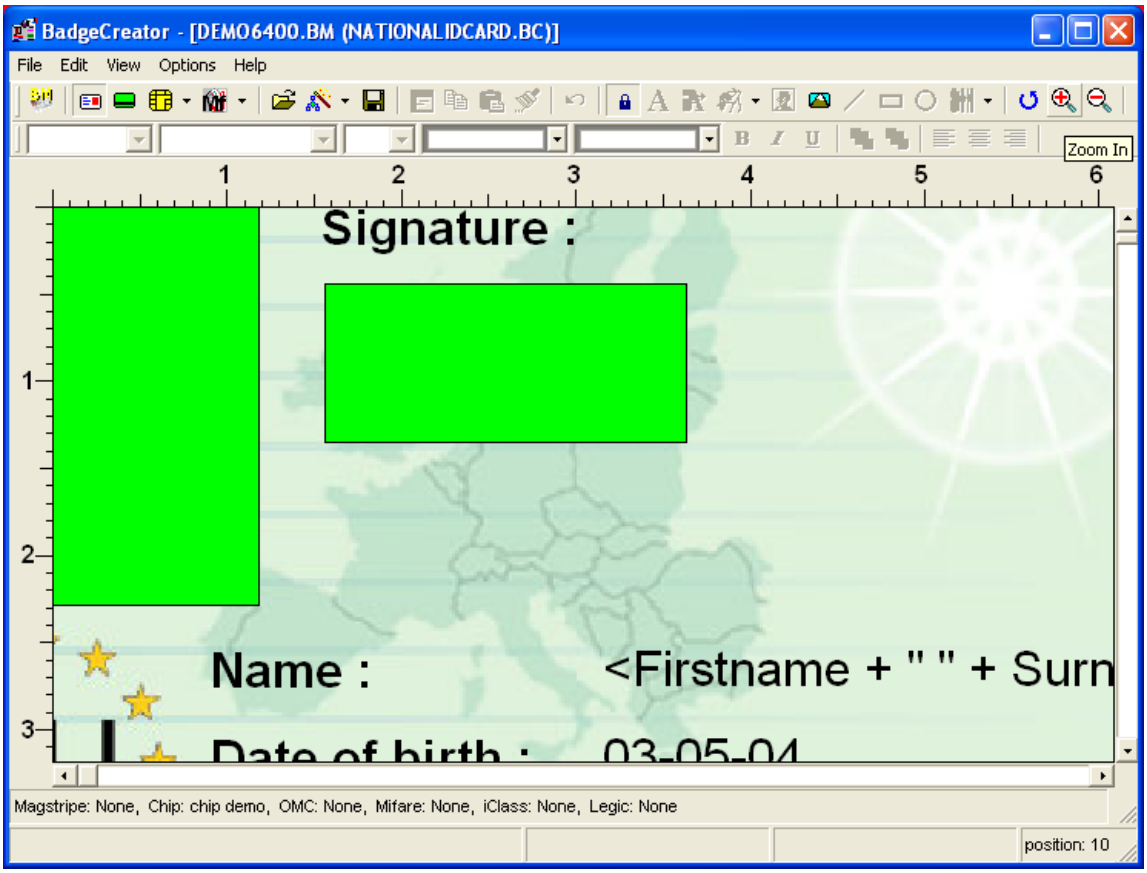
Use  option from the toolbar or select **View Menu** and click **Zoom In** to zoom in closer on the design view of the currently opened layout.

Normal View



Zoom In

Select **Zoom In** to view the layout on a larger scale.

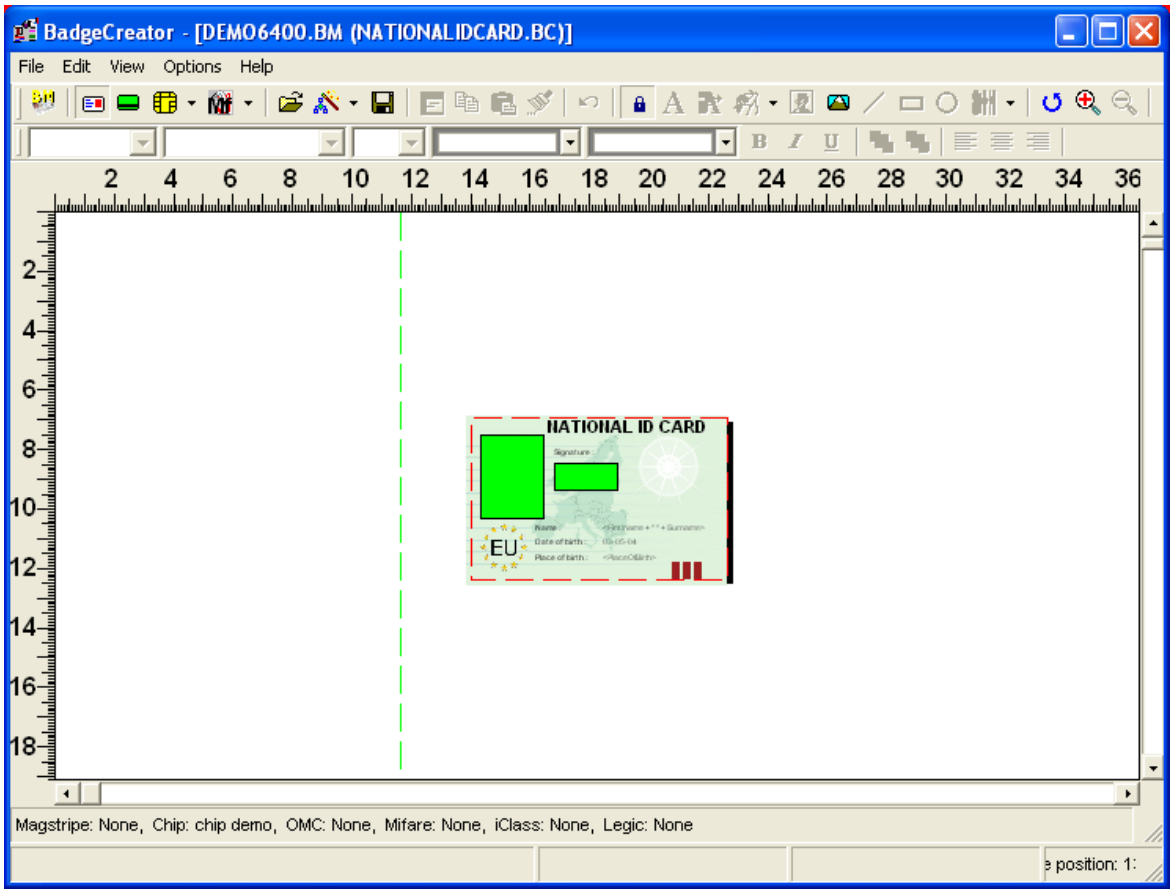


Zoom Out

Use  option from the toolbar or select **View Menu** and click **Zoom Out** to zoom out further from the design view of the currently opened layout.

Zoom Out

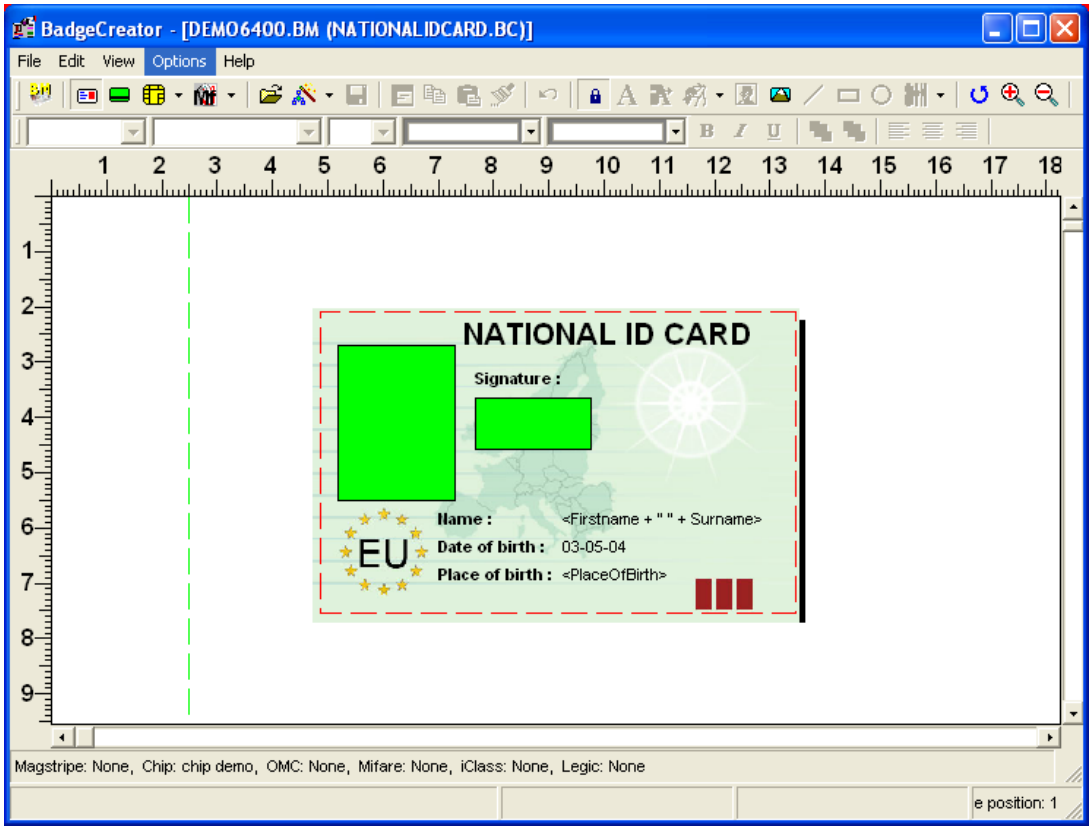
Select **Zoom Out** to make the image smaller, giving an overall view of the layout.



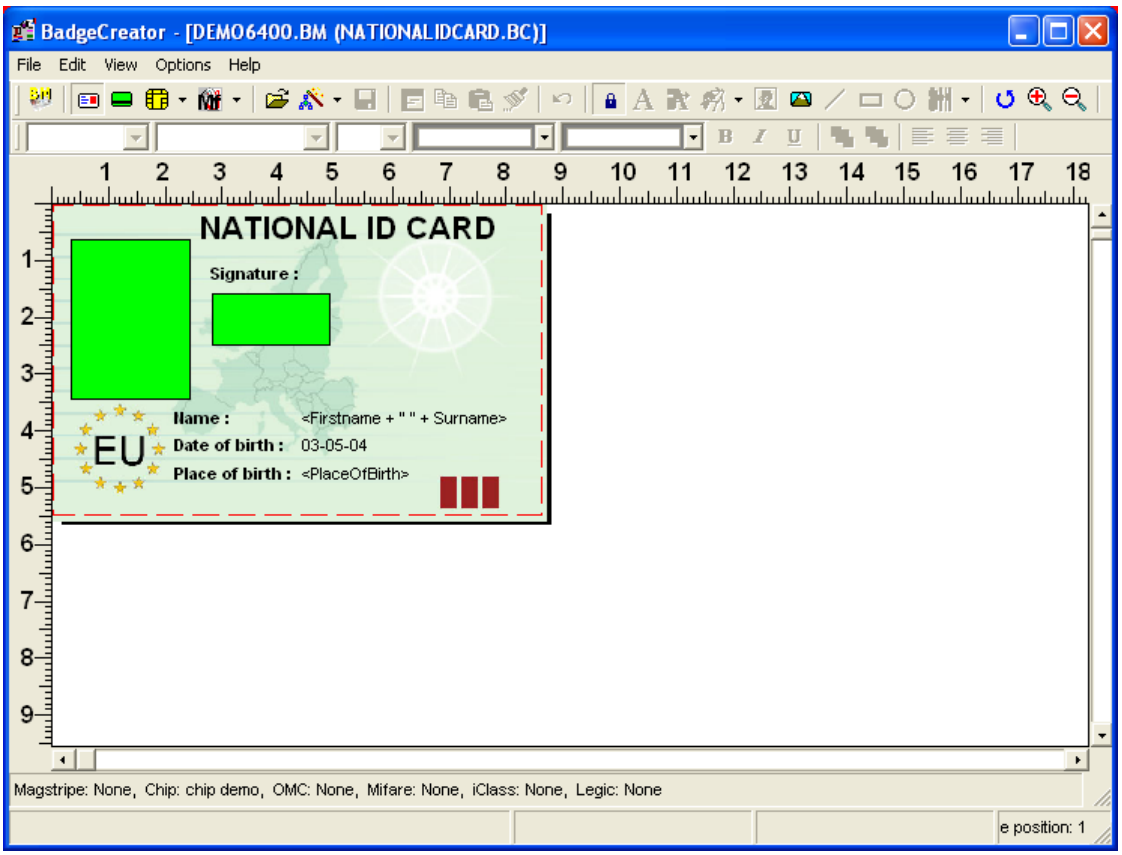
Center On Screen

Select **View Menu** and click **Center On Screen** to center the current badge layout in the middle of the Main Screen.

Center On Screen enabled



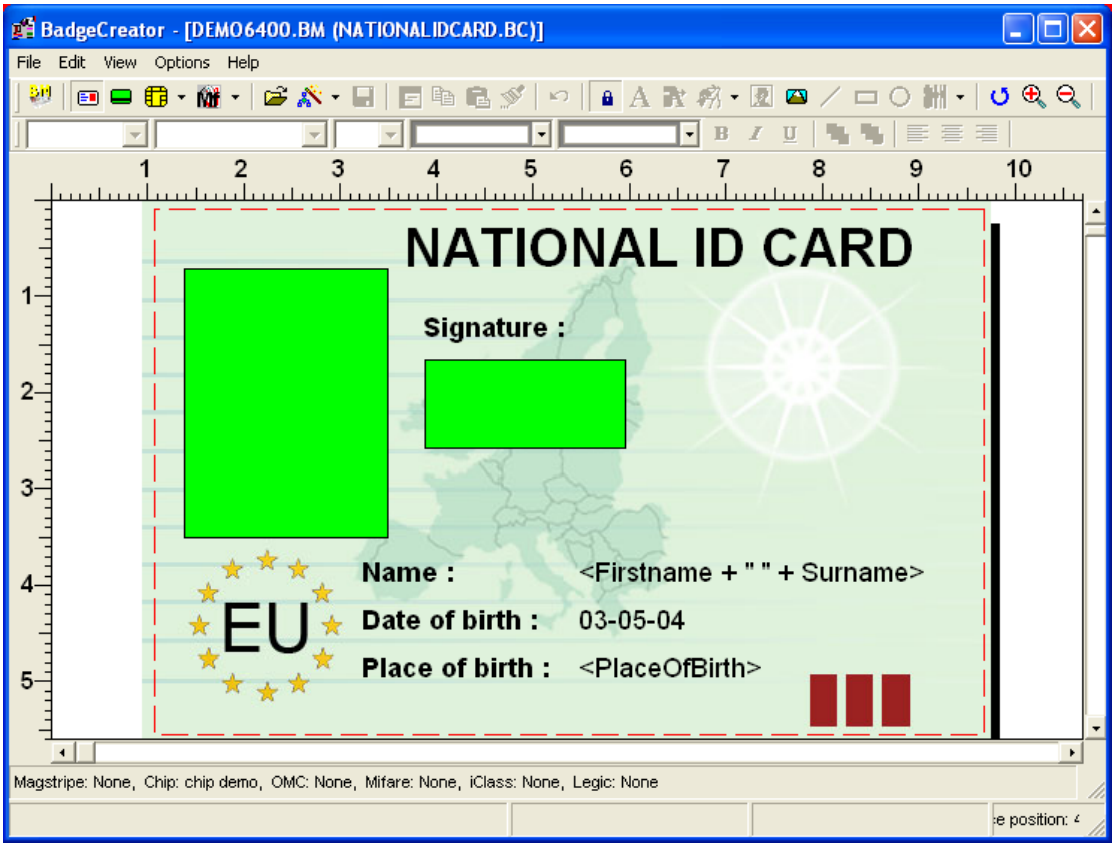
Center On Screen disabled



Show Whole Badge

Select **View Menu** and click **Show Whole Badge**.

Use this option to fit the layout into the window. Use this option again (*or press **F11***) if the window is resized. The size of the layout will be adjusted to the new size of the window.



Layout Side

Front

Use  option from the **toolbar** or select **View Menu**, then select **Layout Side** and click **Front** to view the front side of the open layout.

Back

Use  option from the toolbar or select **View Menu**, then select **Layout Side** and click **Back** to view the front side of the open layout.

Edit Header/Footer

Select the **View menu** and click **Edit Header/ Footer**. Use this option to edit the header and footer of a badge layout or an **A4** or **Letter** badge layout.

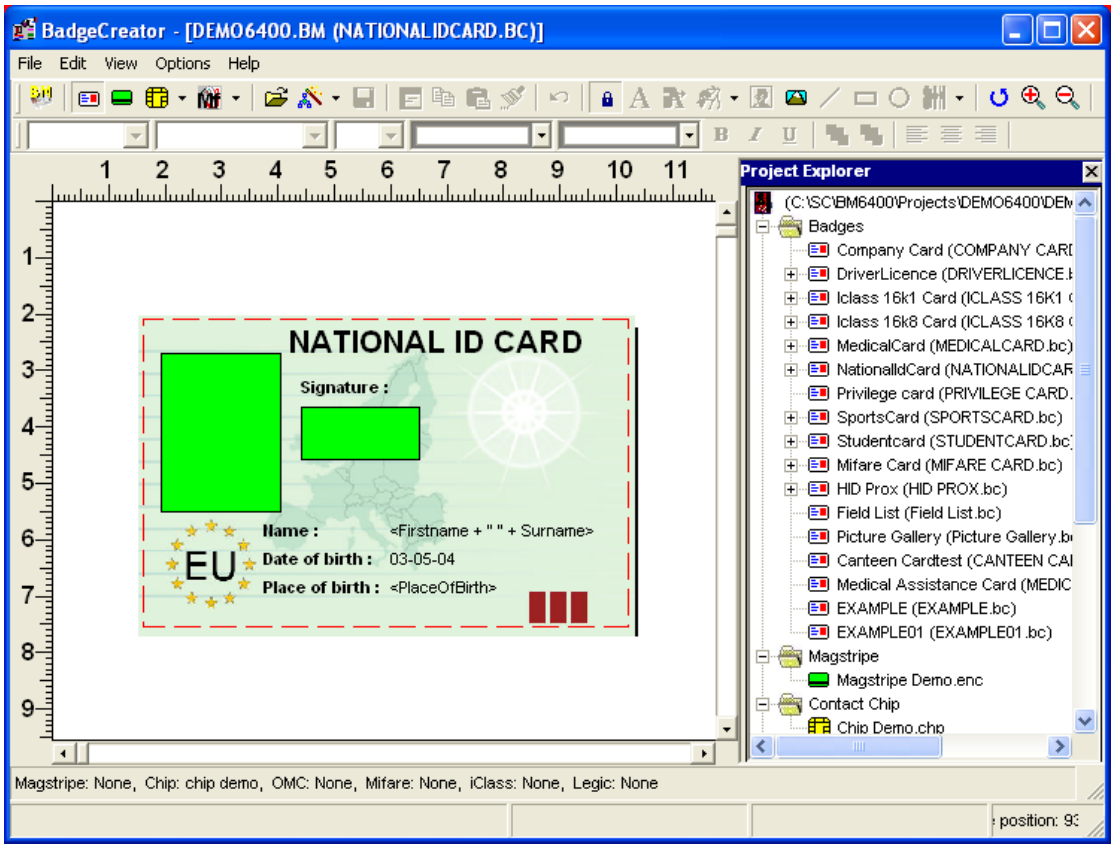
In the header and footer only fixed items can be placed.

Dynamic items like database fields, image fields and barcodes are disabled.

Click again on this menu option to disable it. You can also double click within the layout area to return to it. By double clicking on the header or footer you will enable Edit Header/Footer.

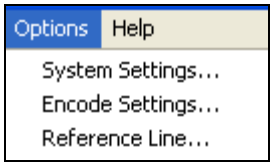
Show Project Explorer

Select the **View Menu** and click **Show Project Explore** to show **Project Explorer** in the Main Screen.



Options Menu

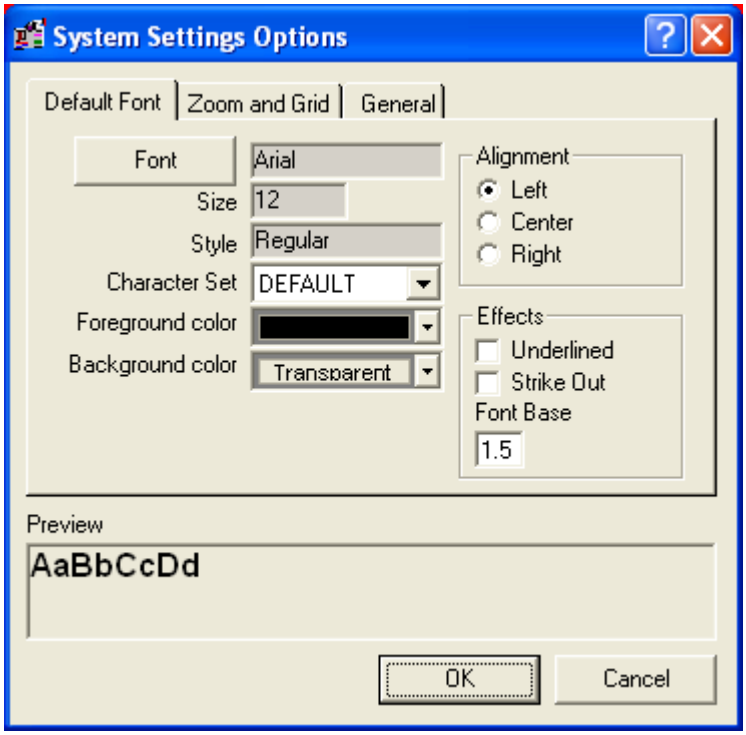
The **Options Menu** appears as the fourth item on the menu bar, and contains **System Settings**, **Encode Settings**.



System Settings...

Select **Options Menu** and click **System Settings**.

Default Font



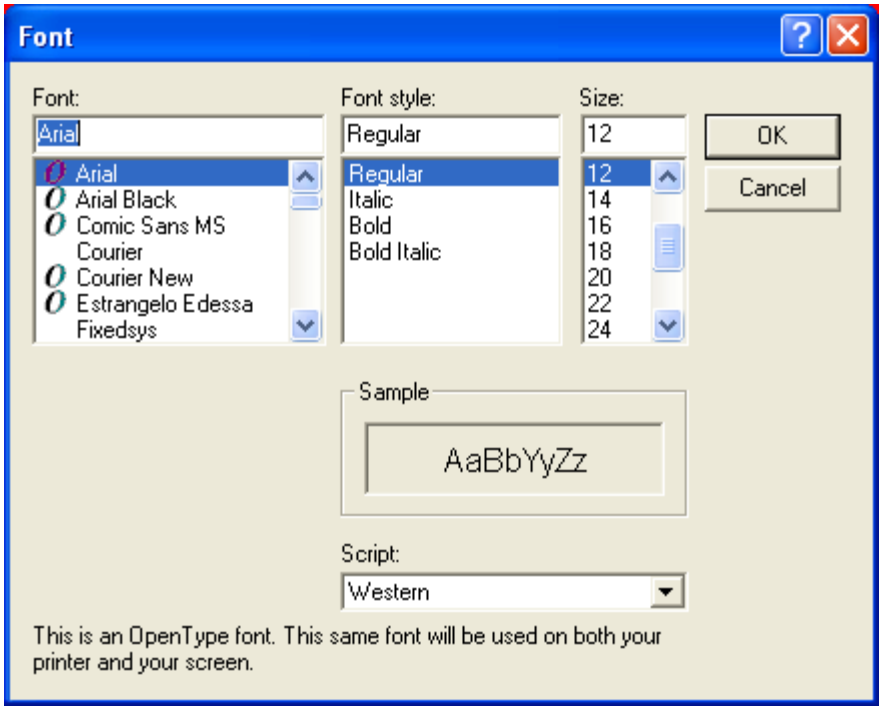
Default font

Select and define a default **font**, **font size**, **font style** and **color** for static text and database fields. At the bottom of the dialog in the preview box this text will be displayed with selected font and color.

Alignment: Defines how the text is positioned within the bounds specified by **X start**, **Y start**, **Width** and **Height**.

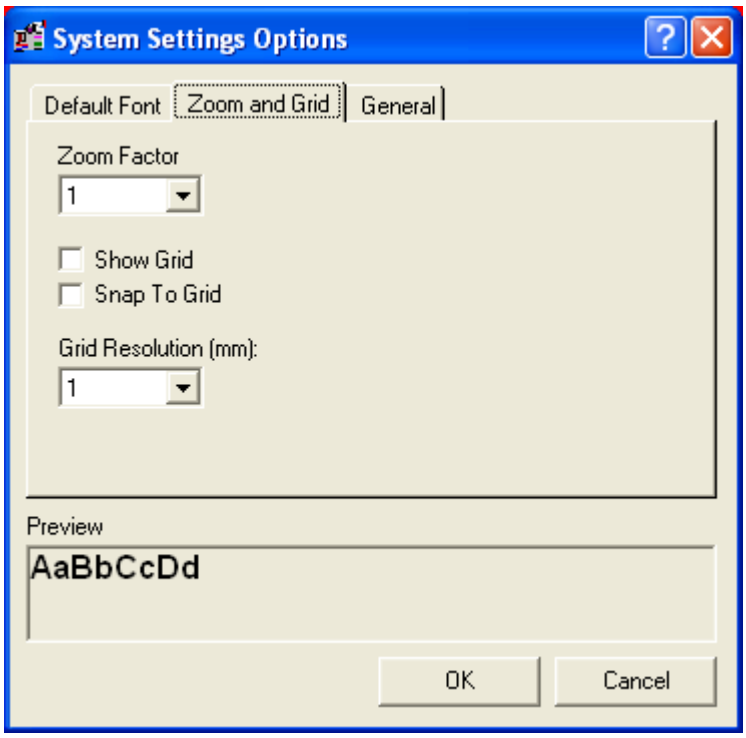
- **Left:** for left alignment.
- **Center:** for alignment in the middle.
- **Right:** for right alignment.
- **Strikeout:** Draws a line through the selected text.
- **Underline:** Specifies whether the selected text is underlined.

Click **Font** to define.



- **Font:** Specifies a text font. In the box select a font name. Your choice will appear in the Sample Box.
- **Font Style:** Specifies a font style such as Bold, Italic, Regular. Your choice will appear in the Sample Box.
- **Size:** Specifies a font size in points. Select a size in the list. To ensure readability for most designs use a size of 8 points or larger. Your choice will appear in the Sample Box.

Zoom and Grid



Zoom & Grid

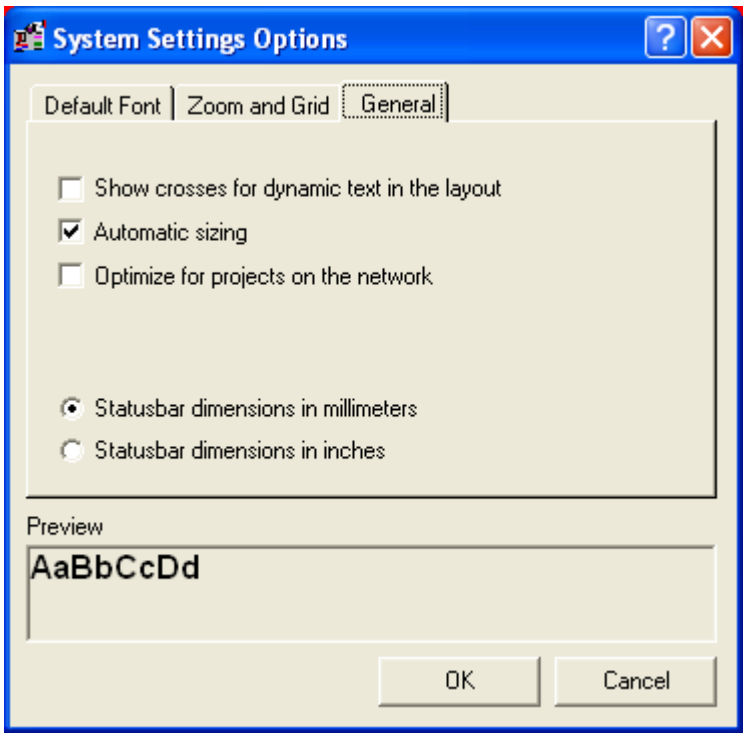
Zoom Factor: Select the default zoom factor for BadgeCreator, the zoom factor of the opened badge can be adjusted accordingly.

Show Grid: Use this option to show a grid in the layout to help position items.
Snap To Grid: When this option is activated existing items will be aligned to the closest point on the grid when they are moved. New items can be positioned on an in between value. This option will also work when the grid lines are not displayed.

Grid Resolution: Select a grid resolution (mm).

At the bottom of the dialog in the preview box this text will be displayed with selected font and color.

General



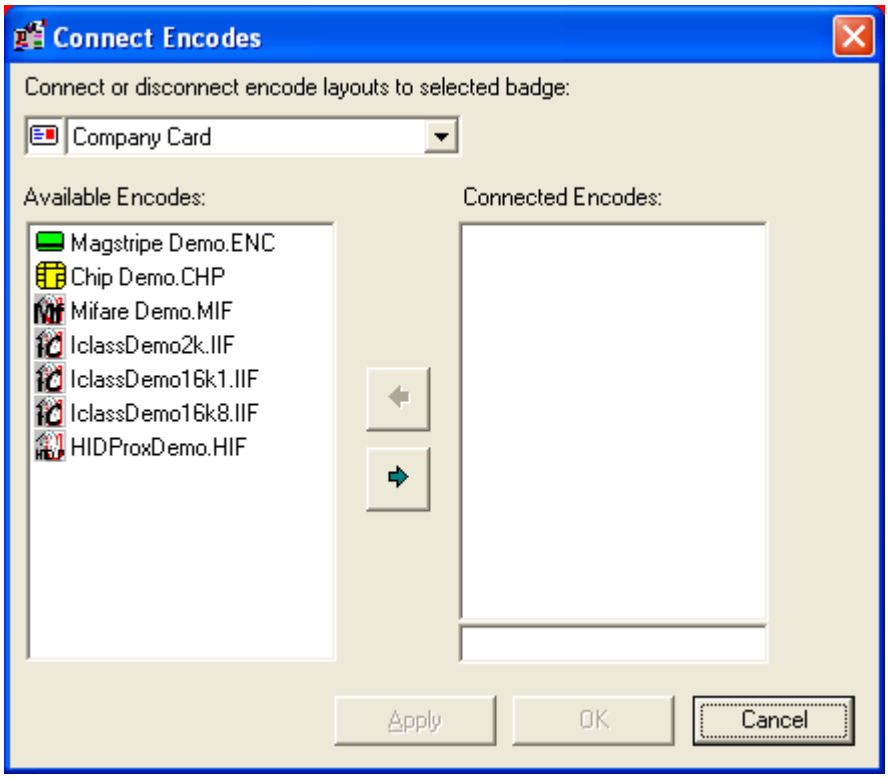
General

Show crosses for dynamic text in the layout: Use this option to represent the dynamic text by crosses. If this option is not checked, the field names are presented.

We advise to leave settings in the General dialog as default.

Encode Settings...

Select **Options Menu** and click **Encode Settings**. The following dialog is presented.

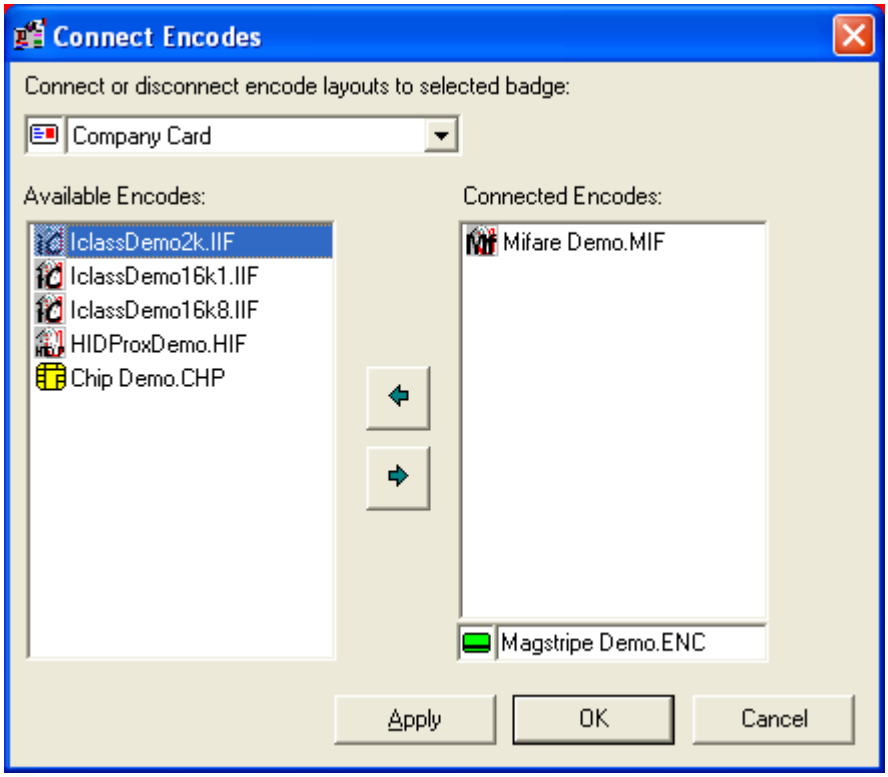


Connect Encodes

In the Connect Encodes dialog link an encode layout to a badge layout. Check the right badge is selected. On the left-hand side of the window, the available configured encode layouts are displayed.

Select one and click the transfer right button.

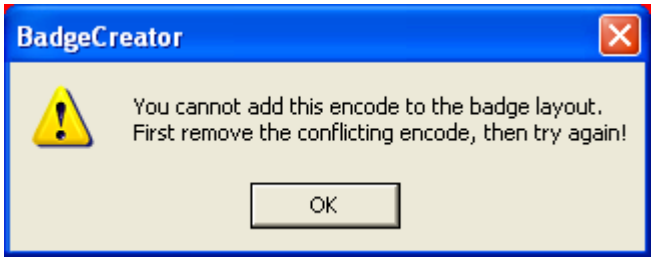
Now the encode layout will be displayed on the right-hand side of the window.



Encode added

Click **Apply** to save.

A combination of one chip encode layout and one magstripe layout is possible. Only one contact or contactless chip encode layout can be connected at a time. If you try to connect them both to a layout the following warning message is displayed.

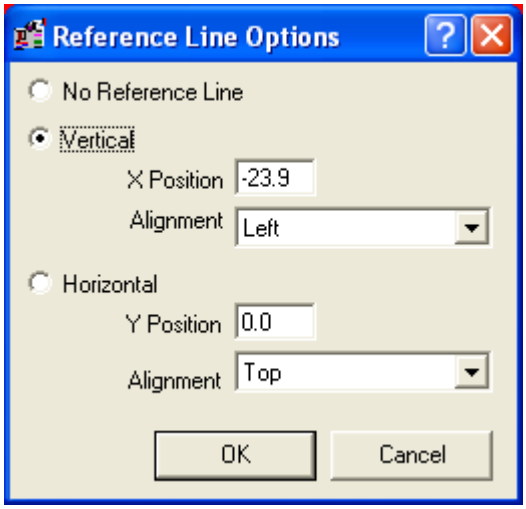


To disconnect an encode layout, select the layout on the right side and click the transfer left button.

Click **OK** to close and save settings.

Reference Line...

Select **Options Menu** and click **Reference Line**. The following dialog is presented.



Reference line options

No Reference Line: No reference line is created to align items too.

Vertical: A vertical reference line is displayed, starting at the X position.

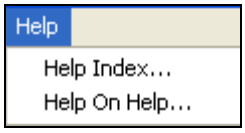
There are three ways to align: Left (*the left side of the item aligns with reference line*), Centre (*the centre of the item aligns with the reference line*) or Right (*the right side of the item aligns with the reference line*).

Horizontal: A horizontal reference line is displayed, starting at the X position.

There are three ways to align: Top (*the top of the item aligns with reference line*), Centre (*the centre of the item aligns with the reference line*) or Bottom (*the bottom of the item aligns with the reference line*).

Help Menu

The **Help Menu** appears as the last item on the menu bar, and contains commands relating to the handling of Help files.



Help Index

Select **Help Menu** and click **Help Index** to open the Help File.

Click  on the BadgeMaker Toolbar or click **F1** on your keyboard. The following dialog is displayed.

BM Help files

Introduction to Encoding

Magnetic Stripe Encoding

Magstripe cards is based on the International Standard ISO/IEC 7811/2.

Information is stored on a magnetic stripe laminated in the card. The stripe is swiped through a reader and the information encoded can be read. Magneticstripe cards can be placed in either a swipe or motorized reader/encoder to be read, rewritten, and verified in a fraction of a second. magstripe is also very easy to implement and cost effective.

Contact Chip Encoding

Contact Chip cards is based on the International Standard ISO/IEC 7816.

Contact Chip cards contain a memory chip that can be read or encoded. Chips can consist of a chip O/S (COS) managing memory and a microprocessor for encoding data and storing data. Storage will differ in capacity depending on the type of chip being encoded.

OMC Encoding

OMC (*Optical Memory Cards*) is based on the International Standard ISO/IEC 11693 and 11694.

OMC (*Optical Memory Cards*) utilize technology used to create CD's or CD ROM's. Laser sensitive material is laminated in the card and used to store information. An OMC card can store a large amount of data between 4 and 6.6MB. Photos, logos and fingerprints can be encoded into the card. The media is a write once read many (WORM) media.

MIFARE Encoding

MIFARE is based on the International Standard ISO/IEC 14443 Type A.

MIFARE is used for contactless smart card systems. MIFARE typically has a maximum read and write distance of 10cm. It is highly secure and reliable as there are no moving parts and no battery involved in MIFARE.

MIFARE 1k features

- MIFARE 1k has a storing capacity of 1 KB of information (768 Bytes).
- Unique serial number of 4 Bytes
- 16 secure sectors each sector consisting of 4 blocks with a length of 16 Bytes.
- 2 x 48 bit keys per sector for key hierarchy.
- Data Retention is around 10 years.

MIFARE 4k features

- MIFARE 4k has a storing capacity of 4 KB of information (3480 Bytes).

- Unique serial number of 4 Bytes.
- 40 secure sectors. 32 sectors consist of 4 blocks with a length of 16 Bytes and 8
- sectors consisting of 16 blocks with a length of 16 Bytes.
- 2 x 48 bit keys per sector for key hierarchy.
- Data Retention is around 10 years.

iClass Encoding

iClass is based on the International Standard ISO/IEC 15693 and 14443.

With iClass you can add biometrics, logging onto a PC, data storage and retrieval and other on-card applications.

iClass consists of two types.

- 2 KB chip
- 16 KB chip

A 2 KB chip will have 32 blocks of 8 bytes; 6 blocks are occupied by the manufacturers configuration and key storage data. Another 13 blocks are mostly occupied by the HID Access Control application.

A 16 KB chip has 256 blocks of 8 bytes. Depending on the configuration defined, there can be 2 or 16 application areas.

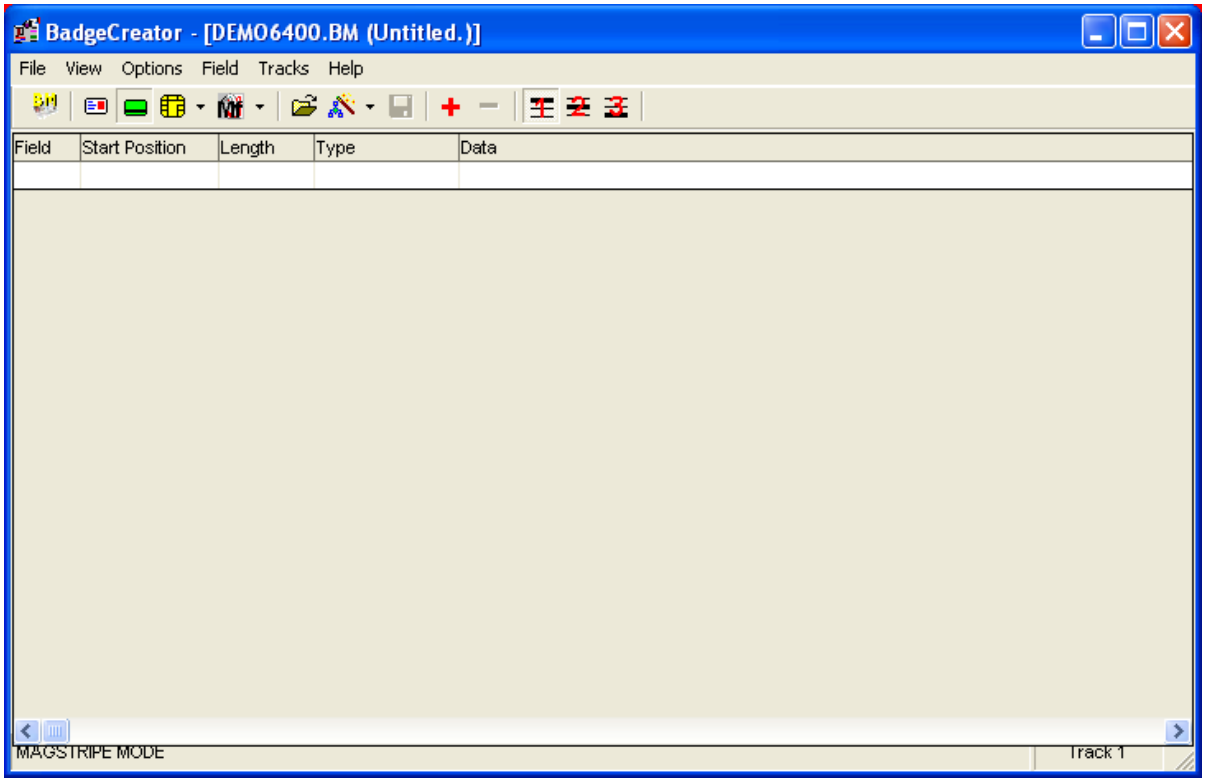
- 13.56 MHz interface.
- Unique Serial number of 8 bytes.
- Information encoded is encrypted through the use of secure algorithms.
- Data Retention is around 10 years.

Magnetic Encoding

Select the **File Menu**, click **Mode**, and then click **Magnetic Layout** to open Magnetic Layout Mode.

Click  from the BadgeCreator **Toolbar** to create a Magnetic encode layout.

Main Screen



Mag encode screen

In Magnetic Layout mode, magnetic layouts are created and edited.

Magnetic Encode Layout Toolbar

The Toolbar in Magnetic Layout Mode can be used to quickly start a function by clicking on the desired button.

Back to Main Screen
Click on this button to return to the BadgeMaker main screen.

Badge Layout Mode
Click on this button to enter the badge layout mode to configure/create badge layouts.

Magnetic Layout Mode
Click on this button to enter the magnetic layout mode to configure/create magnetic encode layouts.

Chip Mode
Click on this button to enter the chip layout mode to configure/create chip encode layouts.

Mifare Mode
Click on this button to enter the mifare layout mode to configure/create mifare layouts.

Open Layout
Click on this button to open an existing Magnetic layout linked to the current project (*.BM) file.

New Layout
Click on this button to start the New layout Wizard.

Save Layout
Click on this button to save the current layout.

Add Field
Click on this button, to add a field to the current track.

Delete Field
Click on this button, to remove the selected field.

Track 1
Click on this button to select track 1.

 **Track 2**

Click on this button to select track 2.

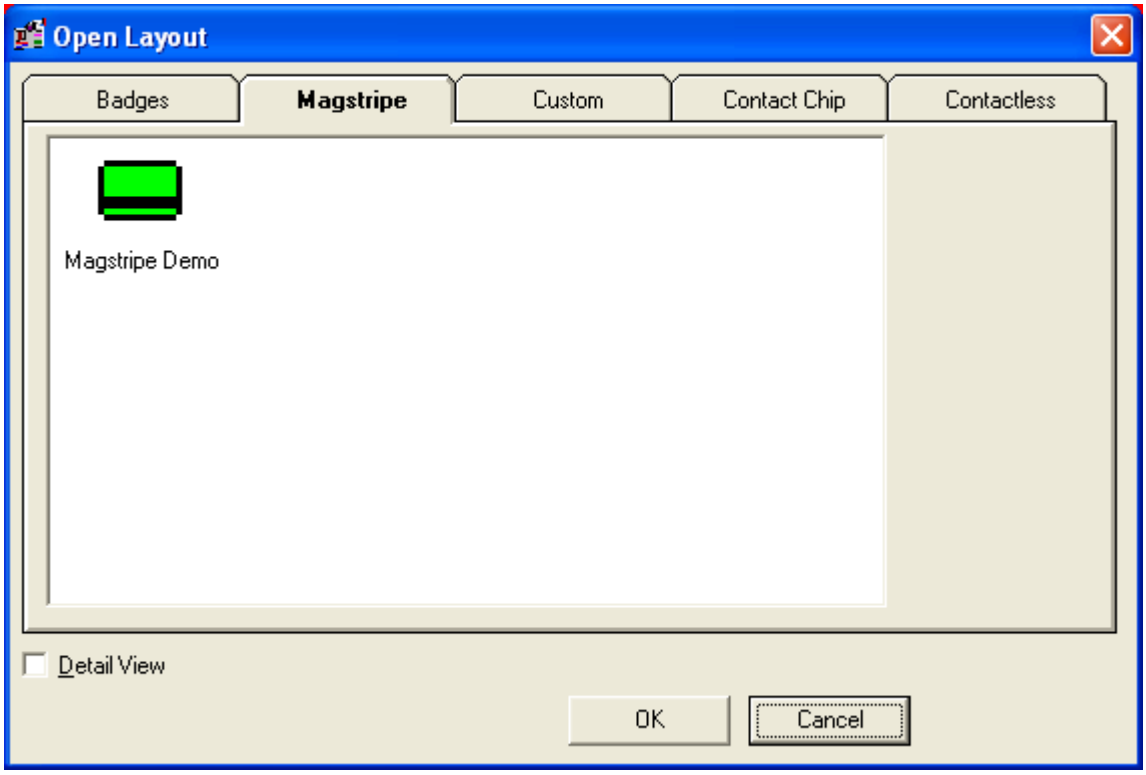
 **Track 3**

Click on this button to select track 3.

Open An Existing Magnetic Layout

Select **File Menu** and click **Open Layout** or use  from the toolbar.

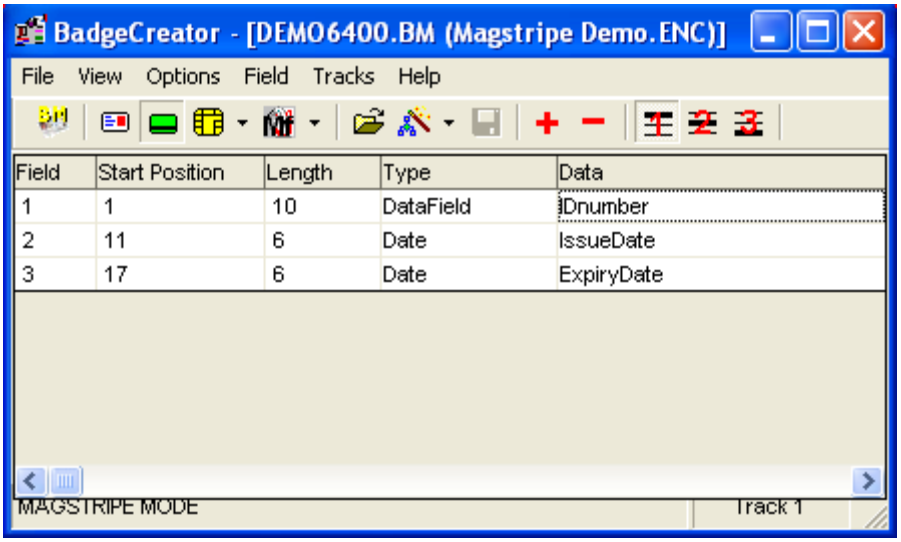
The following screen is presented. Configured Magnetic Layouts are listed here.



Open layout

Select **Magstripe Demo**.

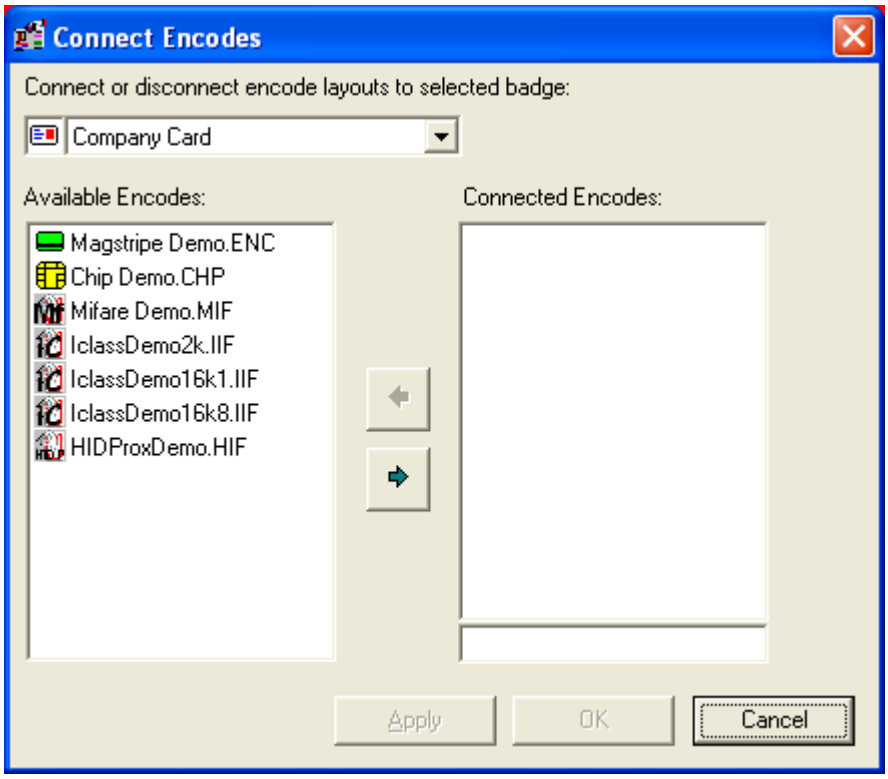
The Layout is presented in the Main Screen.



Magnetic Encoding Options Menu

Encode Settings...

Select **Options Menu** and click **Encode Settings**. The following dialog is presented.

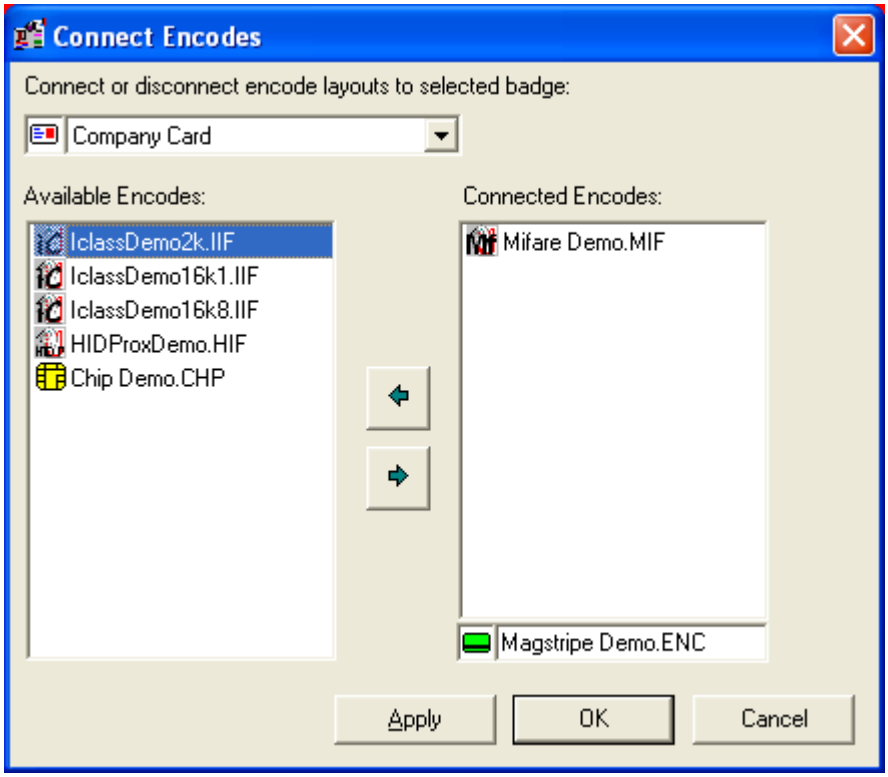


Connect encodes

In the Connect Encodes dialog link an encode layout to a badge layout. Check the right badge is selected. On the left-hand side of the window, the available configured encode layouts are displayed.

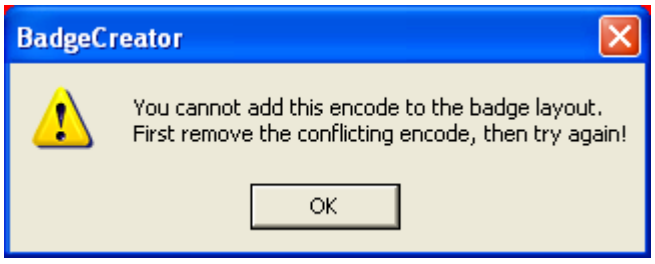
Select one and click the transfer right button.

Now the encode layout will be displayed on the right-hand side of the window.



Click **Apply** to save.

A combination of one chip encode layout and one magstripe layout is possible. Only one contact or contactless chip encode layout can be connected at a time. If you try to connect them both to a layout the following warning message is displayed.



To disconnect an encode layout, select the layout on the right side and click the transfer left button.

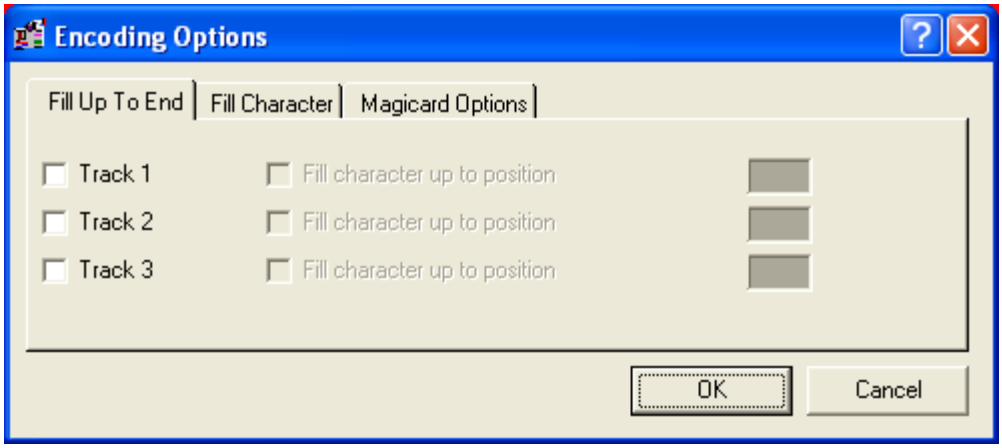
Click **OK** to close and save settings.

Encoding

Select **Options Menu** and then click **Encoding**, the following dialog is presented.

These options specify the **Fill Character**, **Fill Up To End** and **Magicard Track** options for magstripe tracks.

Fill Up To End



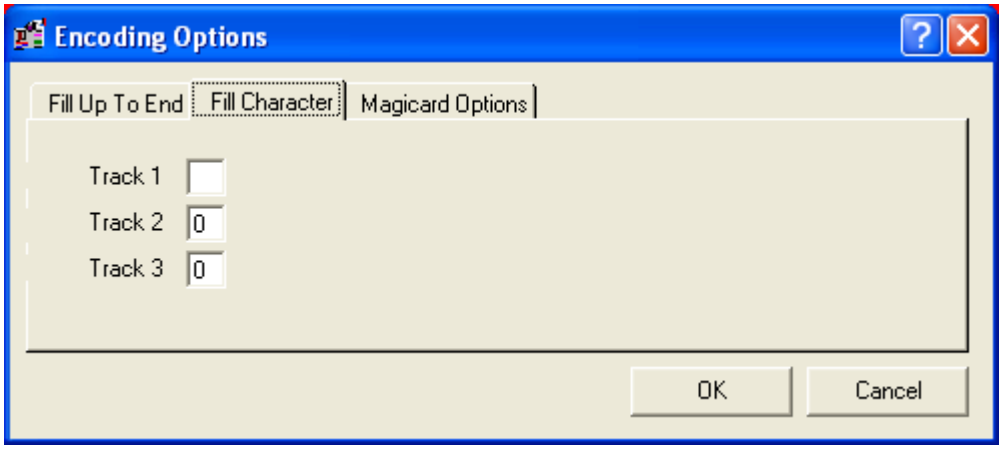
Fill up to end

Fill Character up to position: Define per track which fill character to use.

Use fill characters that are allowed according to the ISO 3554 standard.

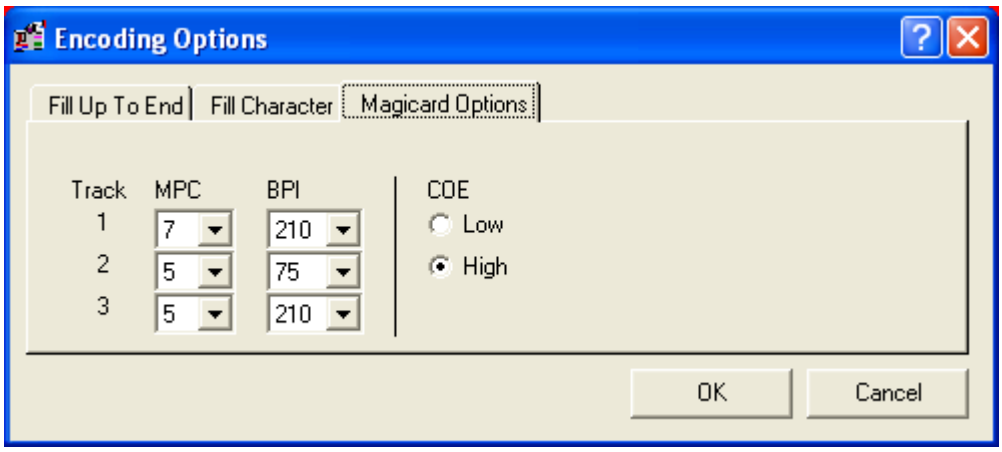
Track 1.2.3.: Specify a character which is used to fill **Track1**.This track is only filled when a Track is checked.

Fill Character



Fill Up To End: Select a Track to fill the rest of the track with the selected Fill Character.

Magicard Options



Magicard Options

MPC: Magnetic bits per inch. Magnetic bits per character (*set to 5 or 7*)
BPI: Bits per inch. Bits per Inch (*set to 75 or 210*)
COE: High or low coercitivity. High or low coercively magstripe (*select the magstripe to be used*)

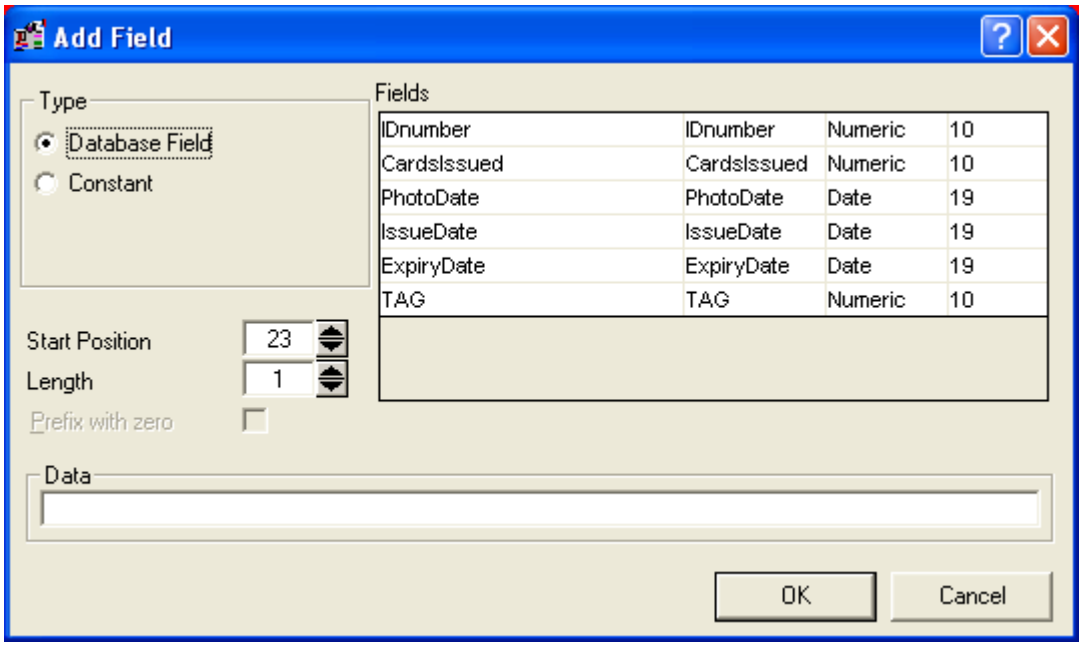
Click **OK** to save settings and **Cancel** to undo any changes made.

Field Menu

Add...

Select **Field Menu** and click **Add**. Use  from the Magnetic Encode Mode Toolbar.

The following dialog is presented to add a Field to the chip encode layout.



Add field

Select a field to add to your current project.

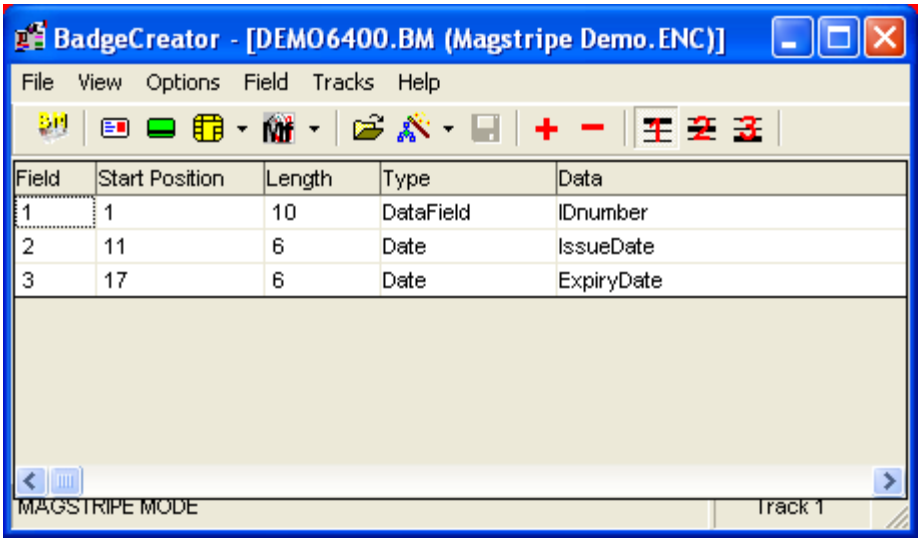
Type

Database Field: Information is extracted from fields specified by the operator and will be written onto the encode layout. (*Dynamic*)
Constant: Static text or number. (*Static*)

Start Position: Enter the Start Position of a field or text which has been selected to include in the encode layout.
Length: Specify the number of characters to be used.
Prefix with zero: Prefix data with 0's if data is smaller than the length specified.

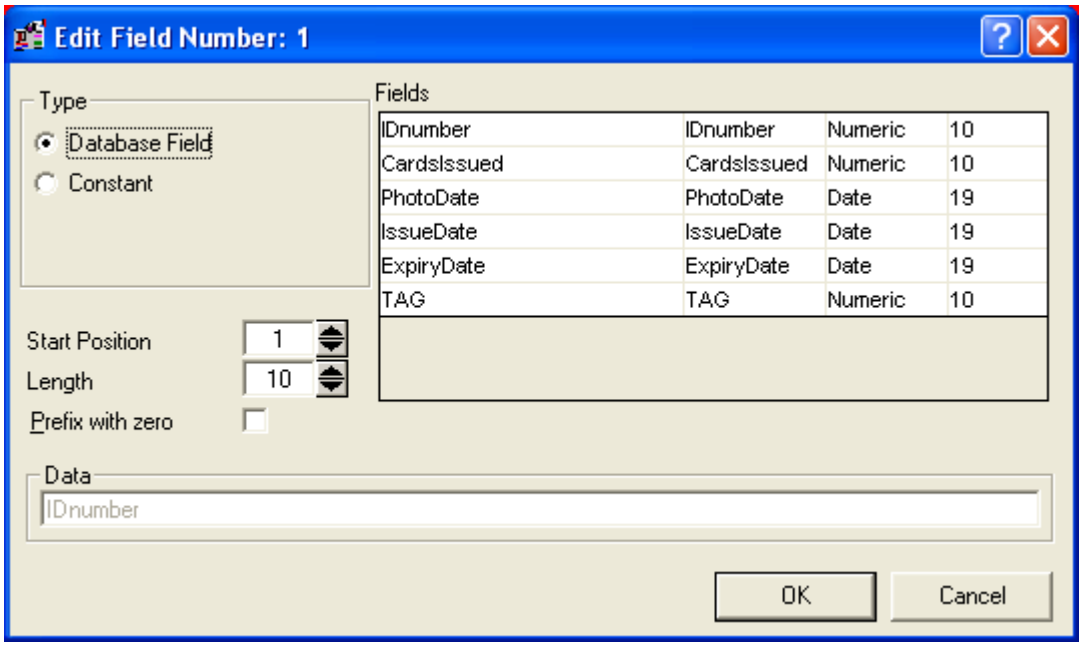
Data: Display's the selected field chosen to add.

Select **OK** and see the new field has been added to your magnetic encode layout.



Edit...

Select **Field Menu** and click **Edit**. The following dialog is presented to edit a Field in the magnetic encode layout.



Edit field

Edit settings configured for a specific field.

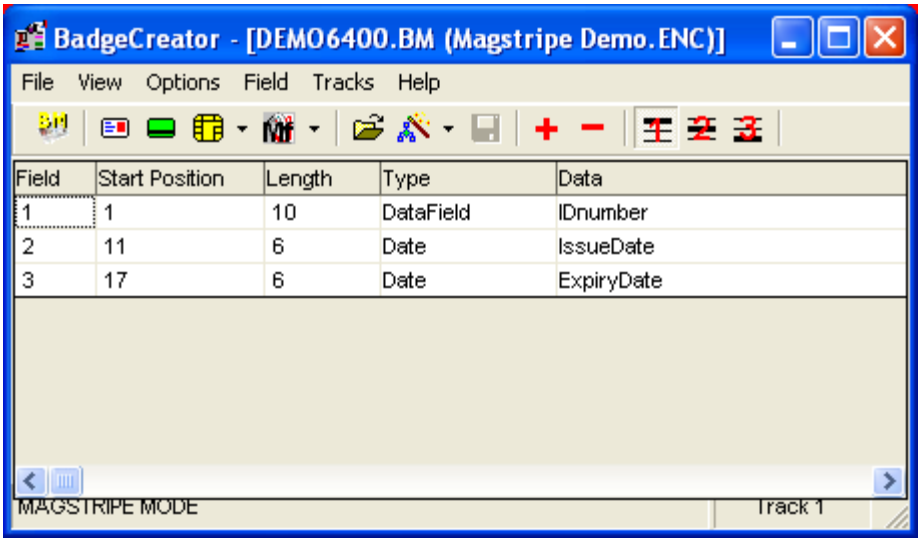
Type

Database Field: Information is extracted from fields specified by the operator and will be written onto the encode layout. (Dynamic)
Constant: Static text or number. (Static)

Start Position: Enter the Start Position of a field or text which has been selected to include in the encode layout.
Length: Specify the number of characters to be used.
Prefix with zero: Prefix data with 0's if data is smaller than the length specified.

Data: Display's the selected field chosen to add.

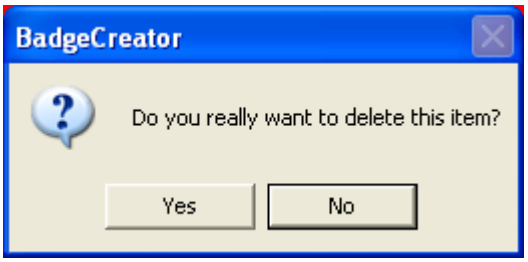
Select **OK** and see the new field has been edited in your magnetic encode layout.



Delete

First you must select a field and then select **Field Menu** and click **Delete**. Use  from the Magnetic Encode Mode Toolbar.

The following dialog is presented to delete a Field in the magnetic encode layout.



Select **Yes** to confirm deletion or **No** to cancel deletion.

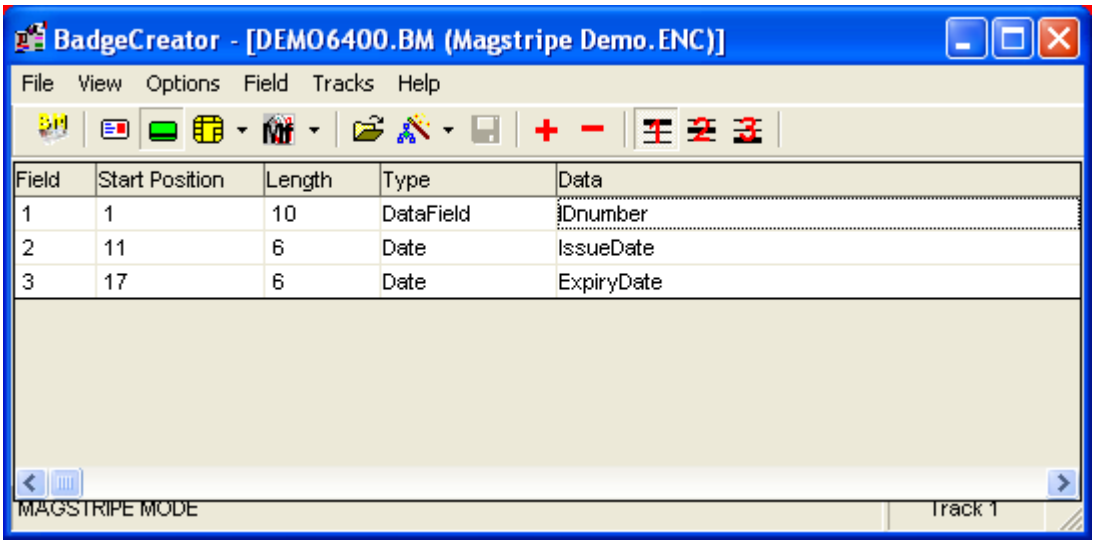
Tracks Menu

Track 1

Select the **Track Menu** and then select **Track 1**.

Select  from the Magnetic encode **toolbar** to edit and view fields configured on **Track 1**.

Data added to **Track 1** will show the following dialog screen.

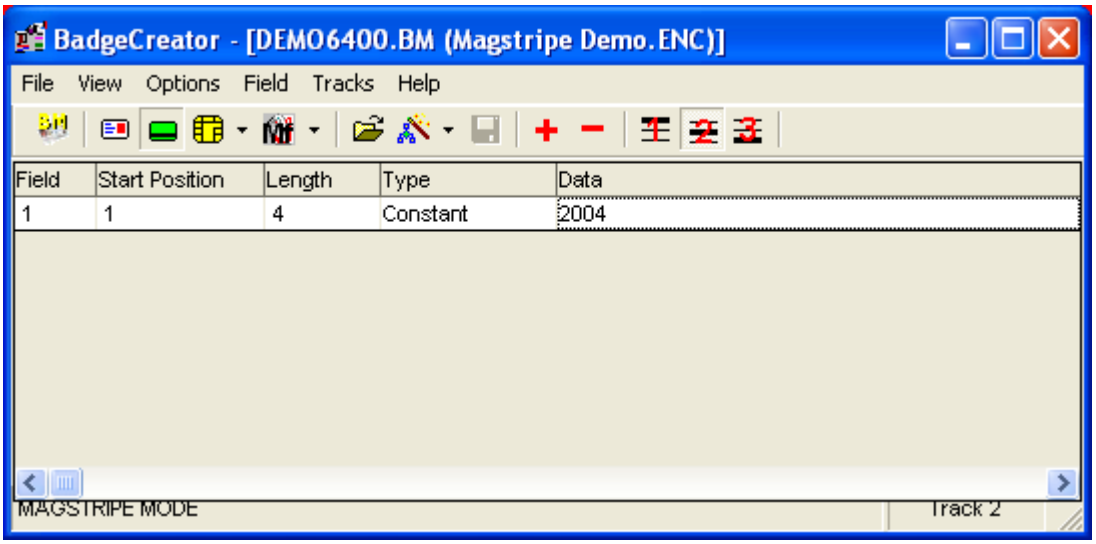


Track 2

Select the **Track Menu** and then select **Track 2**.

Select  from the Magnetic encode **toolbar** to edit and view fields configured on **Track 2**.

Data added to **Track 2** will show the following dialog screen.

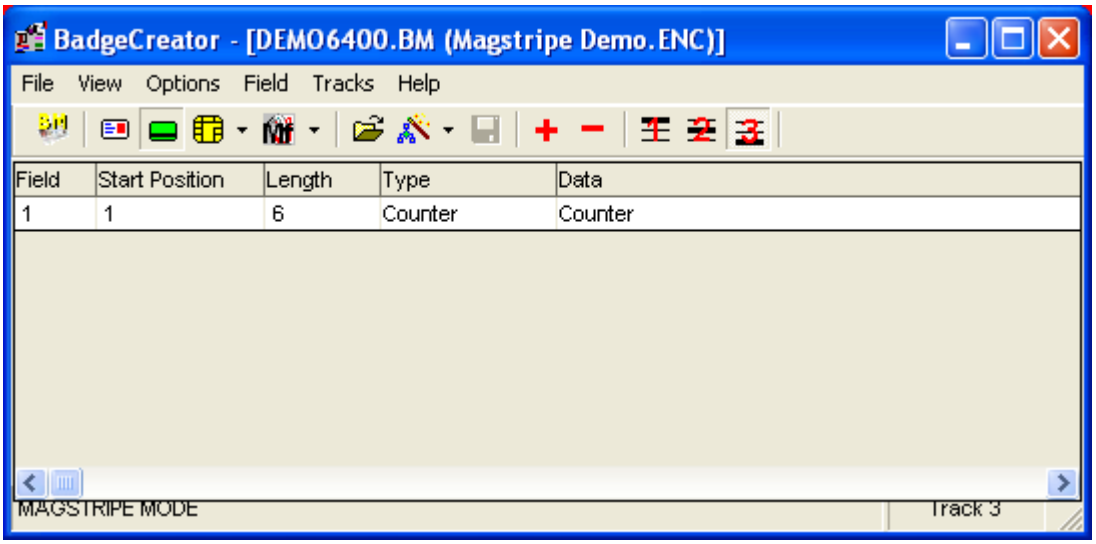


Track 3

Select the **Track Menu** and then select **Track 3**.

Select  from the Magnetic encode **toolbar** to edit and view fields configured on **Track 3**.

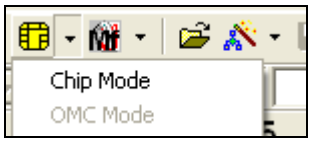
Data added to **Track 3** will show the following dialog screen.



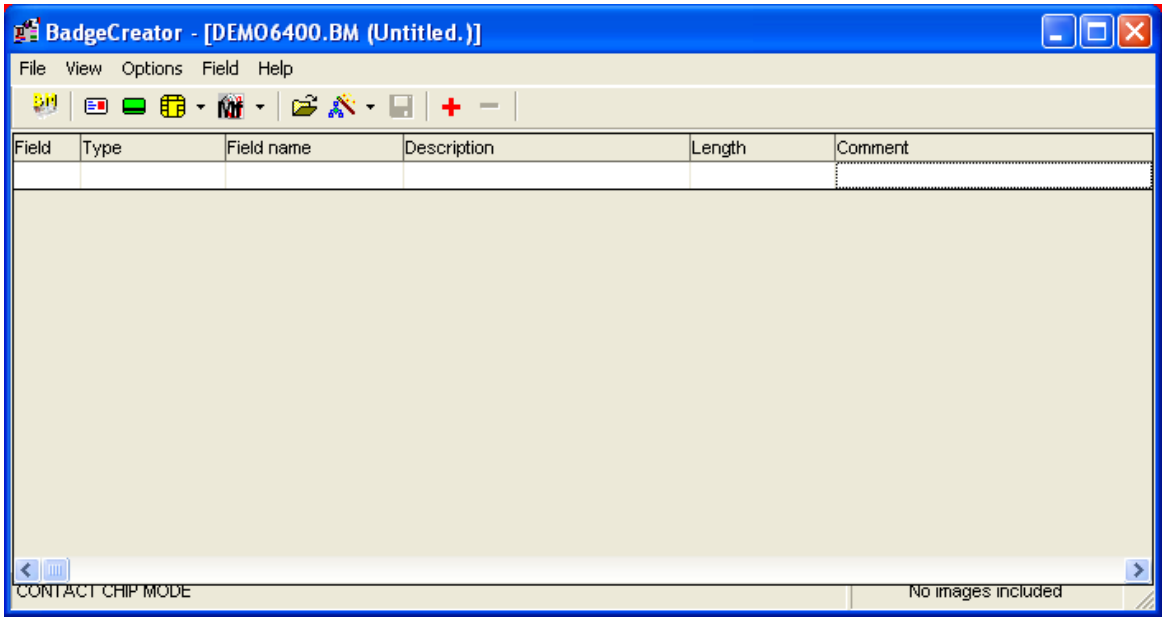
Chip Encoding

Select the **File Menu**, click **Mode**, and then click **Chip Encode Layout** to open Chip Encode Layout Mode.

Click  from the BadgeCreator **Toolbar** and select **Chip Mode** from the drop down menu.



[Main Screen]



Chip layout main screen

In Chip Encode Layout mode, chip layouts are created and edited.

Chip Encode Layout Toolbar

The Toolbar in Chip Layout Mode can be used to quickly start a function by clicking on the desired button.

 **Back to Main Screen**

Click on this button to return to the BadgeMaker main screen.

 **Badge Layout Mode**

Click on this button to enter the badge layout mode to configure/create badge layouts.

 **Magnetic Layout Mode**

Click on this button to enter the magnetic layout mode to configure/create magnetic encode layouts.

 **Chip Mode**

Click on this button to enter the chip layout mode to configure/create chip encode layouts.

 **Open Layout**

Click on this button to open an existing Chip Layout Mode linked to the current project (*.BM) file.

 **New Layout**

Click on this button to start the New layout Wizard.

 **Save Layout**

Click on this button to save the current layout.

 **Add Field**

Click on this button, to add a field to the current track.

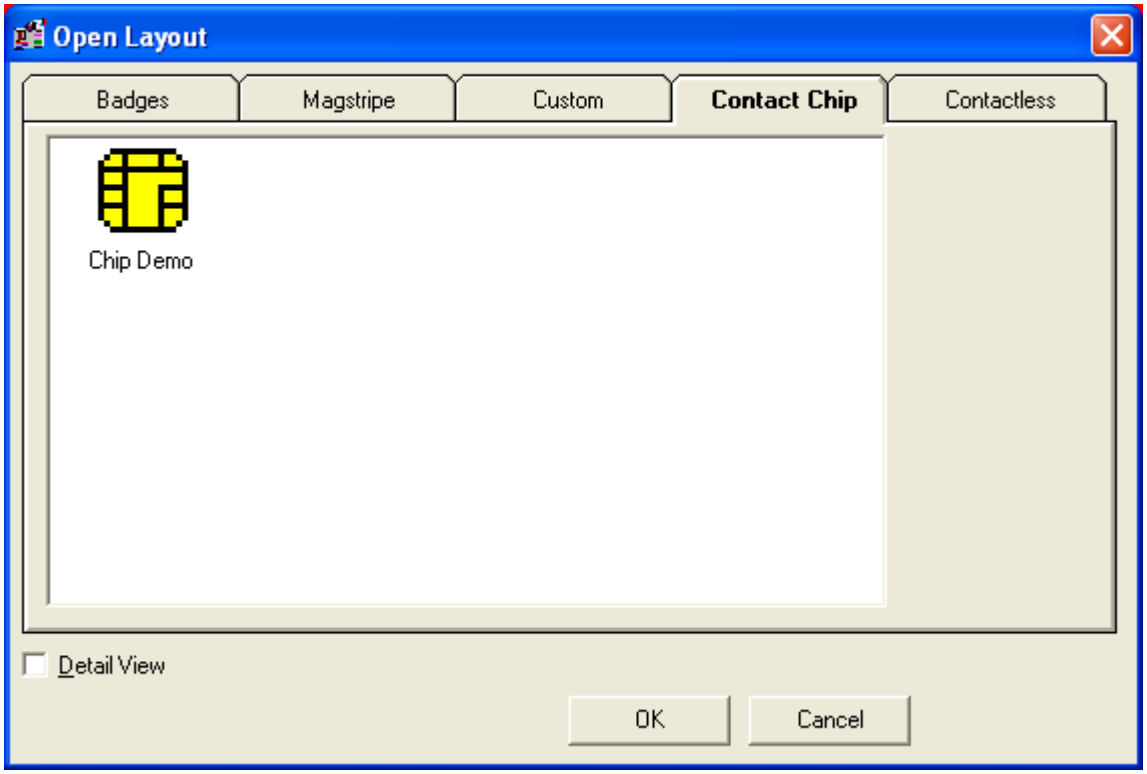
 **Delete Field**

Click on this button, to remove the selected field.

Open An Existing Chip Layout

Select **File Menu** and click **Open Layout**.

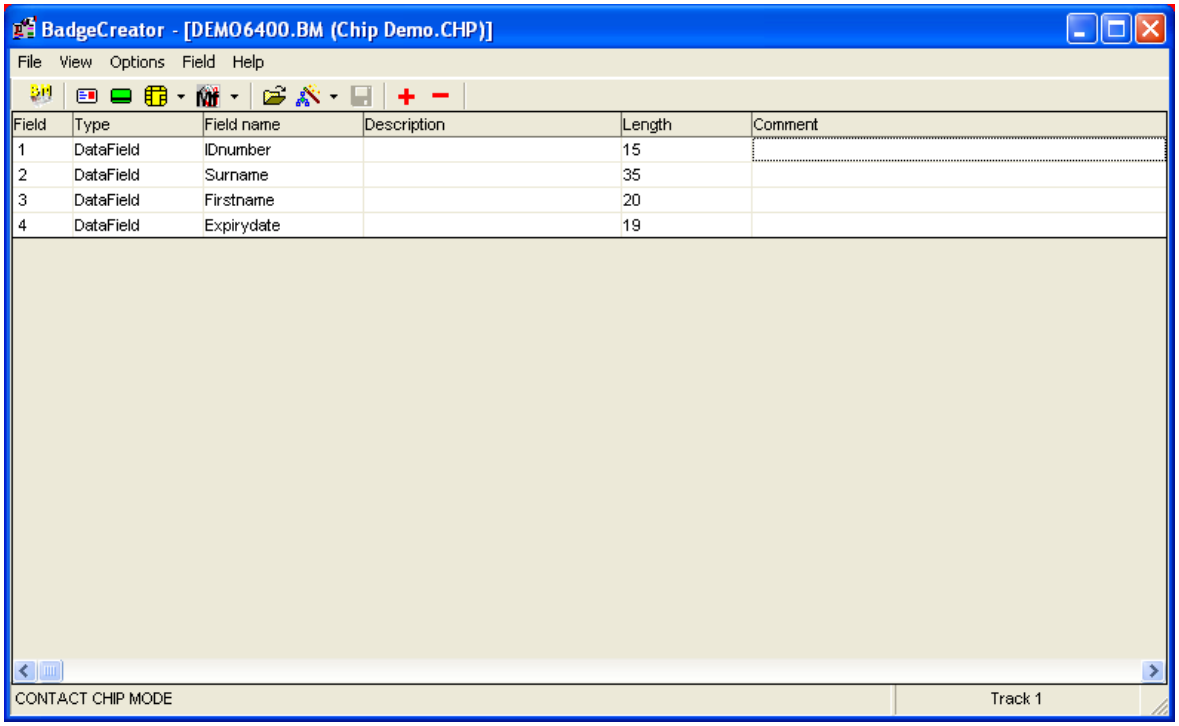
The following screen is presented. Configured Chip Layouts are listed here.



Select DEMO

Select **Chip Demo**.

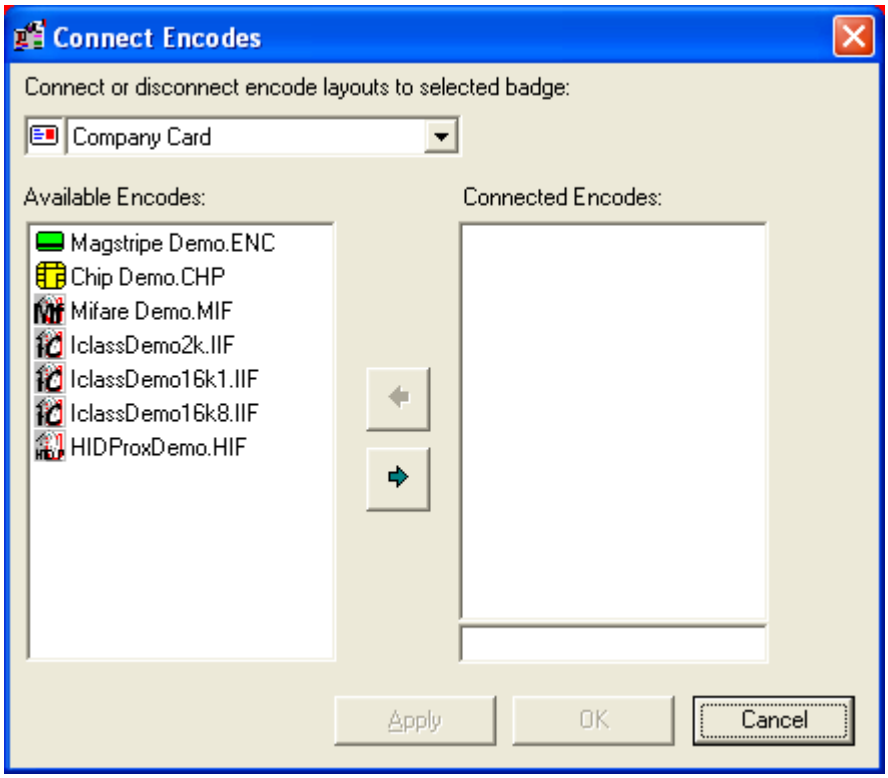
The Layout is presented in the Main Screen.



Options Menu

Encode Settings...

Select **Options Menu** and click **Encode Settings**. The following dialog is presented.

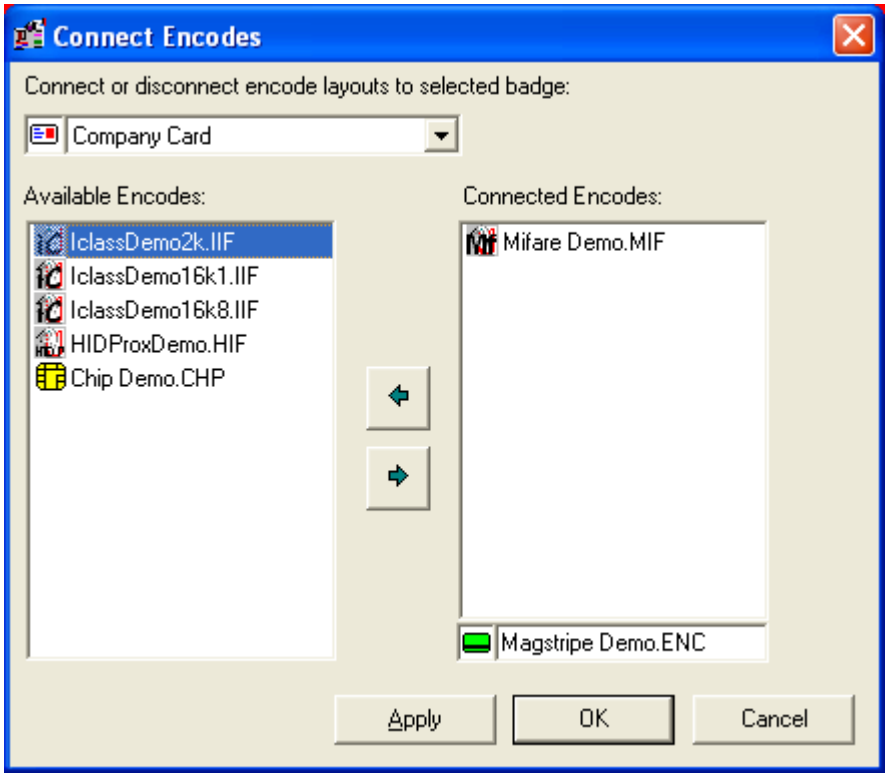


Connect encodes

In the Connect Encodes dialog link an encode layout to a badge layout. Check the right badge is selected. On the left-hand side of the window, the available configured encode layouts are displayed.

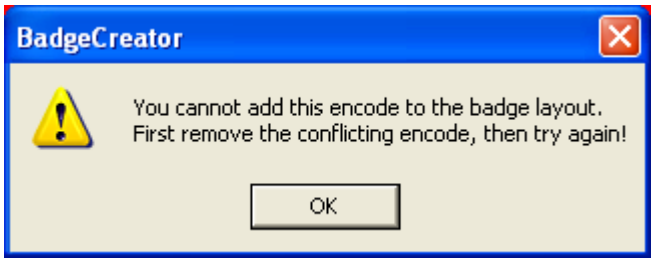
Select one and click the transfer right button.

Now the encode layout will be displayed on the right-hand side of the window.



Click **Apply** to save.

A combination of one chip encode layout and one magstripe layout is possible. Only one contact or contactless chip encode layout can be connected at a time. If you try to connect them both to a layout the following warning message is displayed.



To disconnect an encode layout, select the layout on the right side and click the transfer left button.

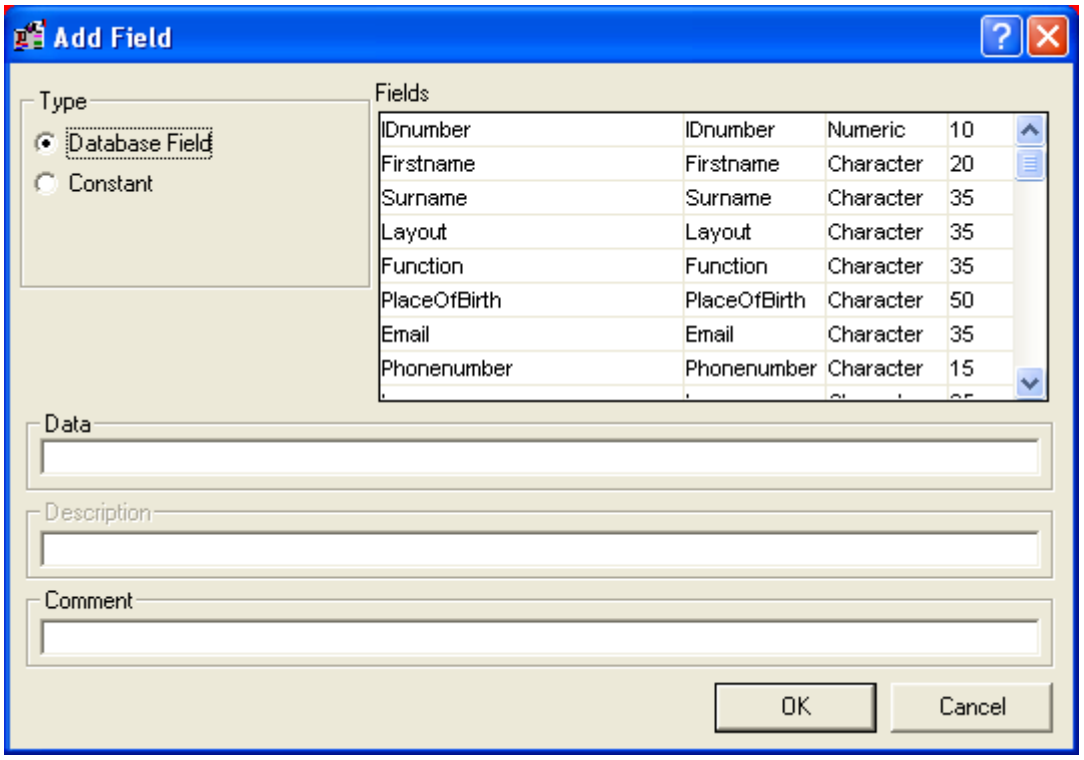
Click **OK** to close and save settings.

Field Menu

Add...

Select **Field Menu** and click **Add**. Use  from the Chip Encode Mode Toolbar.

The following dialog is presented to add a Field to the chip encode layout.



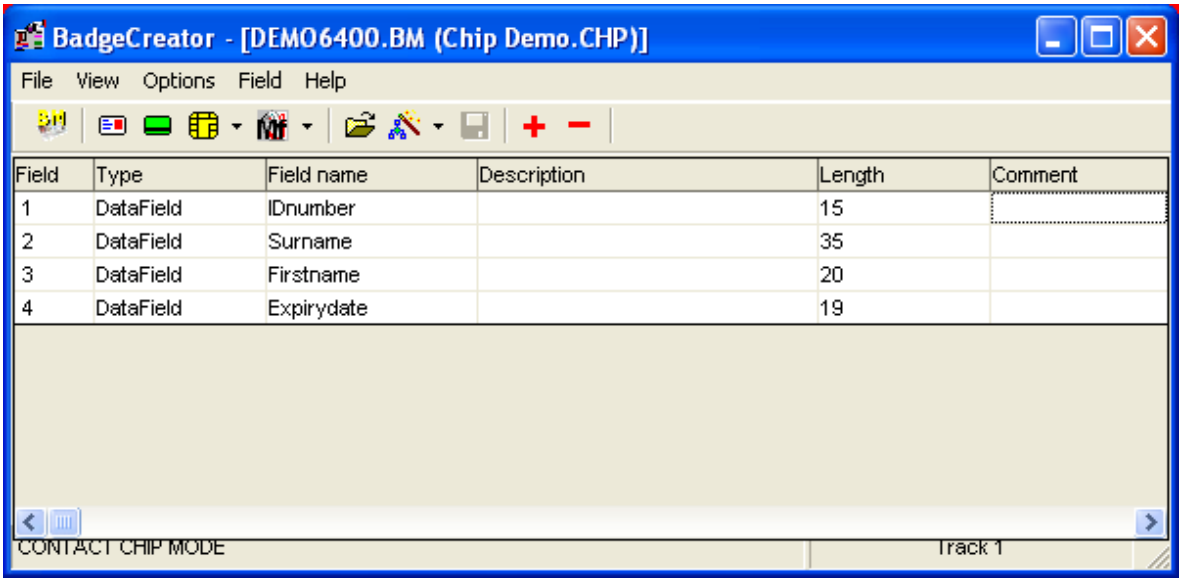
Add field

Select a field to add to your current chip layout.

Database Field: Information is extracted from fields specified by the operator and will be written onto the encode layout. (*Dynamic*)
Constant: Static text or number. (*Static*)

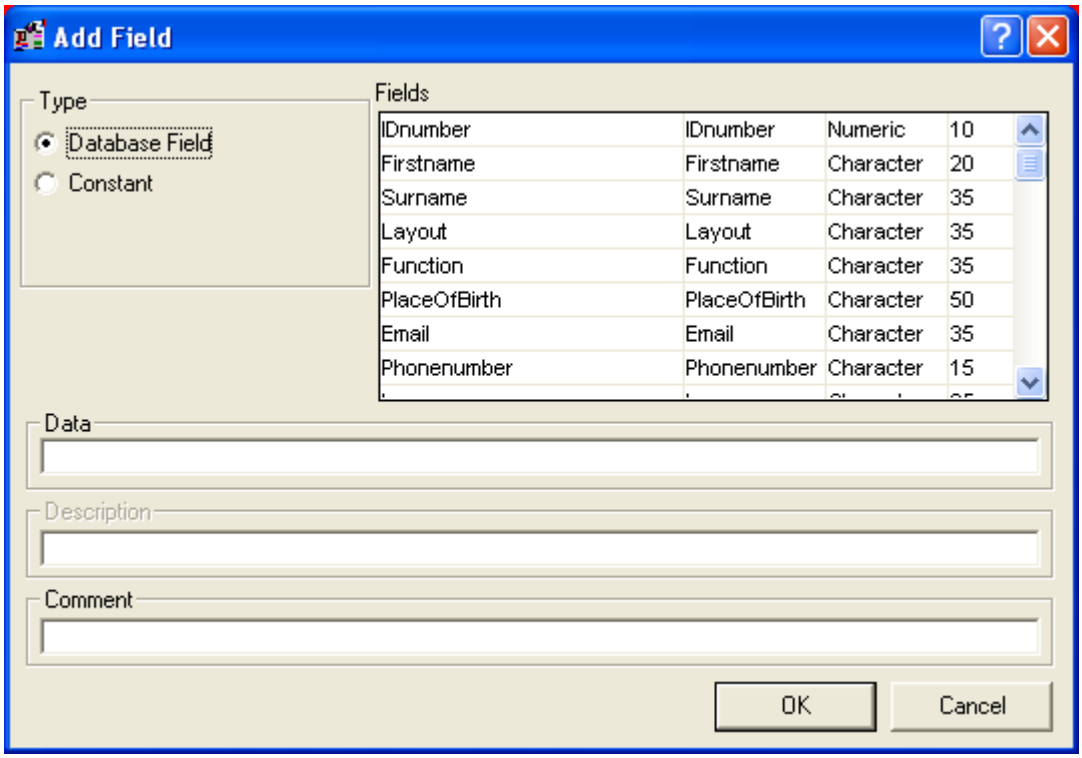
Data: Display's the selected field chosen to add.
Comment: Add a comment to you added field.

Select **OK** and see the new field has been added to your chip encode layout.



Edit

Select **Field Menu** and click **Edit**. The following dialog is presented to edit a Field in the chip encode layout.

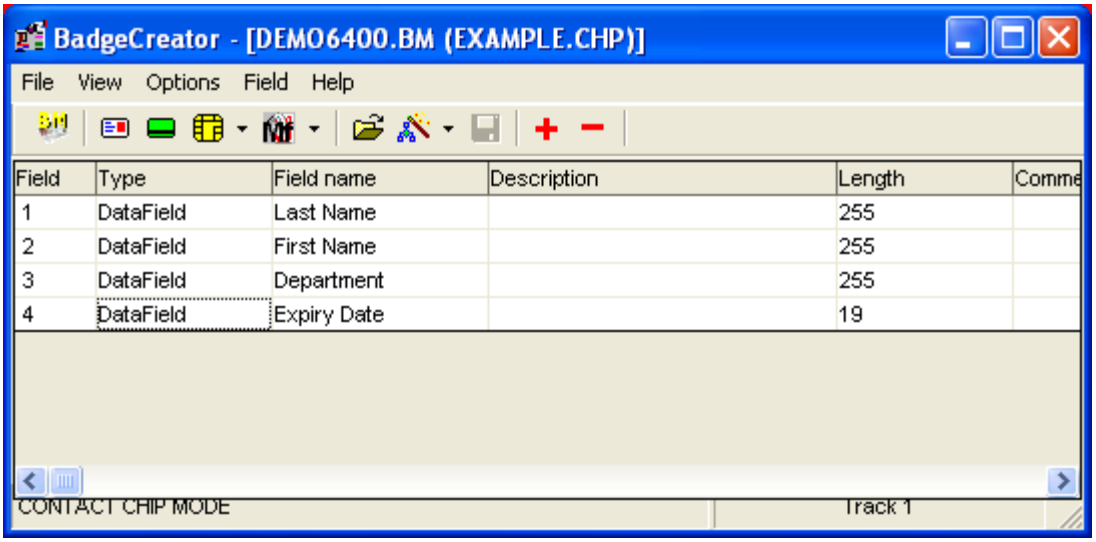


Edit settings configured for a specific field.

Type

Database Field: Information is extracted from fields specified by the operator and will be written onto the encode layout. (*Dynamic*)
Constant: Static text or number. (*Static*)
Data: Display's the selected field chosen to add.
Comment: Add a comment to you added field.

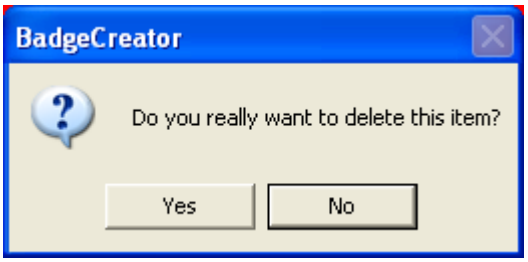
Select **OK** and see the new field has been edited in your chip encode layout.



Delete

First you must select a field and then select **Field Menu** and click **Delete**. Use  from the Chip Encode Mode Toolbar.

The following dialog is presented to delete a Field in the chip encode layout.

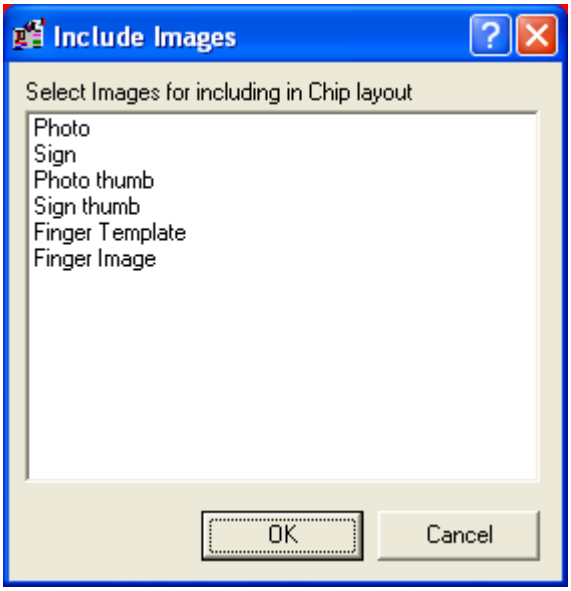


Select **Yes** to confirm deletion or **No** to cancel deletion.

Include Image

Select **Field Menu** and then click **Include Image**.

The following dialog is presented.



Include images

Select which Image to save onto the chip layout. Select from the following types.

- **Photo**
- **Sign**
- **Photo thumb**
- **Sign thumb**
- **Finger Template**
- **Finger Image**

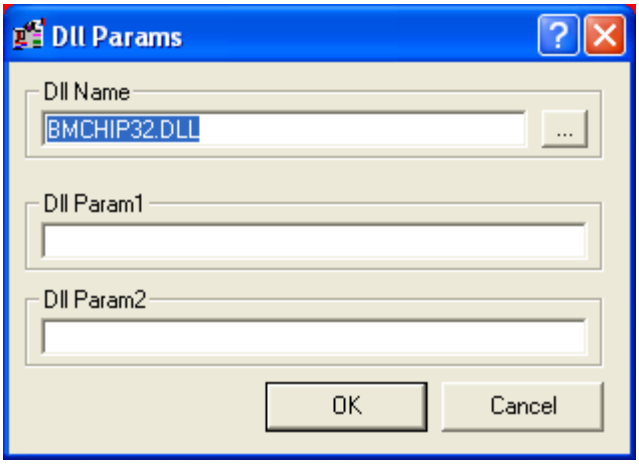
Images are larger in size and therefore can take up a lot of space. Images must be reduced in size to fit onto a chip.

Dll Params

Select **Field Menu** and then click **Dll Params**.

Type the name of your <chip.dll> to use for encoding information onto a chip. If for some reason additional information is required, this information can be supplied using these parameters.

The following screen is presented.



Enter .dll params

Dll Name: Enter the name of the <chip.dll>

Dll Param1: Enter a parameter.

Dll Param2: Enter a parameter.

Chip encode layouts cannot be saved when no chip.dll has been specified.

BMChip32.dll is installed with BadgeMaker to carry out encode simulation. Custom Dll's must be designed using Chip Skeleton in order to successfully encode a chip. Chip Skeleton gives you a framework to develop a chip *.dll.

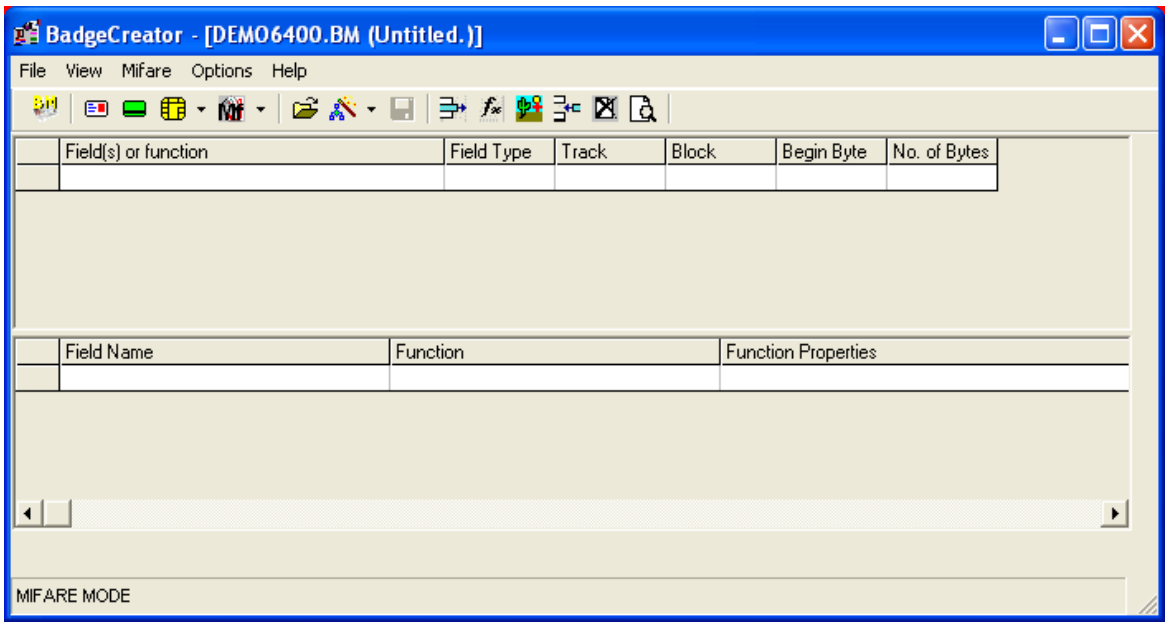
Dll's are stored in the following directory C:\SC\<BMversion>

Mifare Encoding

Select the **File Menu**, click **Mode**, and then click **Mifare Encode Layout** to open Mifare Encode Layout Mode.

Click  from the BadgeCreator **Toolbar** and select **Mifare Mode** from the drop down menu.

[Main Screen]



In Mifare Encode Layout mode, mifare layouts are created and edited.

Mifare Encode Layout Toolbar

The Toolbar in Mifare Layout Mode can be used to quickly start a function by clicking on the desired button.

Back to Main Screen
Click on this button to return to the BadgeMaker main screen.

Badge Layout Mode
Click on this button to enter the badge layout mode to configure/create badge layouts.

Magnetic Layout Mode
Click on this button to enter the magnetic layout mode to configure/create magnetic encode layouts.

Chip Mode
Click on this button to the chip layout mode to configure/create chip encode layouts.

Mifare Mode
Click on this button to enter the Mifare Layout Mode to configure/create Mifare Layouts.

Open Layout
Click on this button to open an existing Mifare layout linked to the current project (*.BM) file.

New Layout
Click on this button to start the New layout Wizard.

Save Layout
Click on this button to save the current layout.

Add Field
Click on this button, to add a field to the current track.

Add Function
Click on this button, to add a function to the current track.

Add Binary Item
Click on this button, to add a binary field to the Mifare Layout.

 **Add DB Field**

Click on this button, to store a constant, counted value or card serial in a database.

 **Remove Item**

Click on this button, to remove a field from the layout.

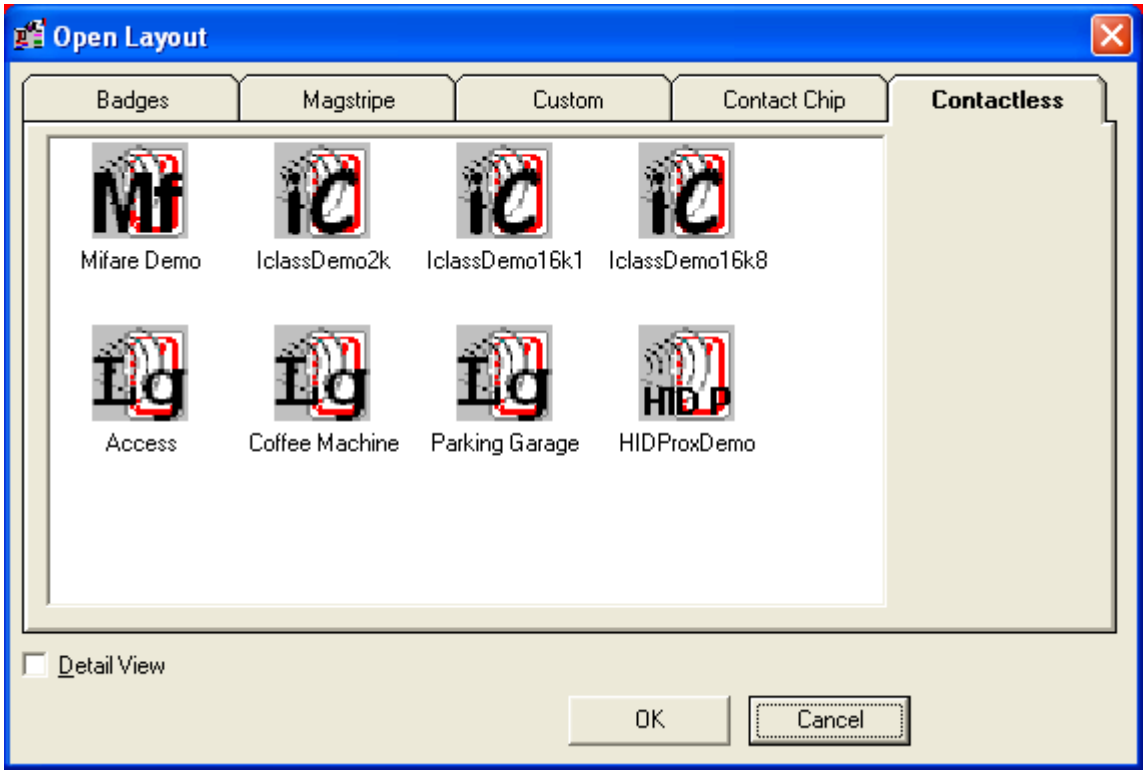
 **Preview**

Click on this button, to preview a layout.

Open An Existing Mifare Layout

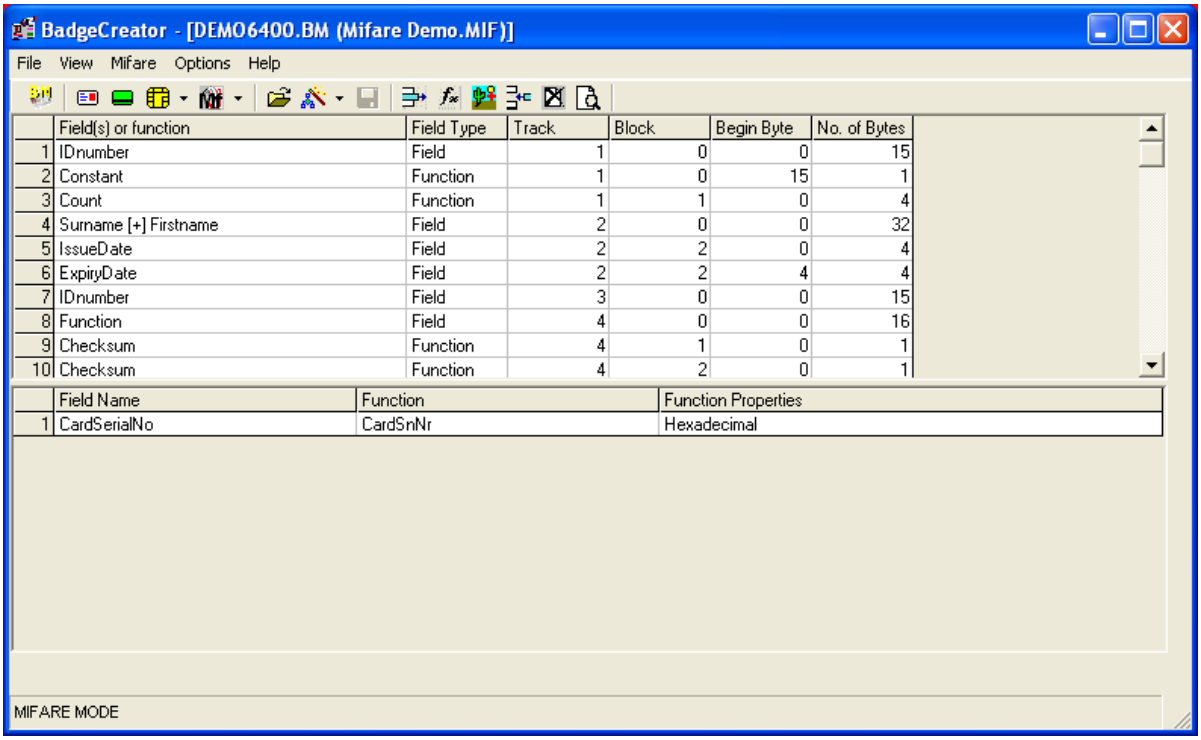
Select **File Menu** and click **Open Layout** or use  from the toolbar.

The following screen is presented. Configured Mifare Layouts are listed here.



Select **Mifare Demo**.

The Layout is presented in the Main Screen.



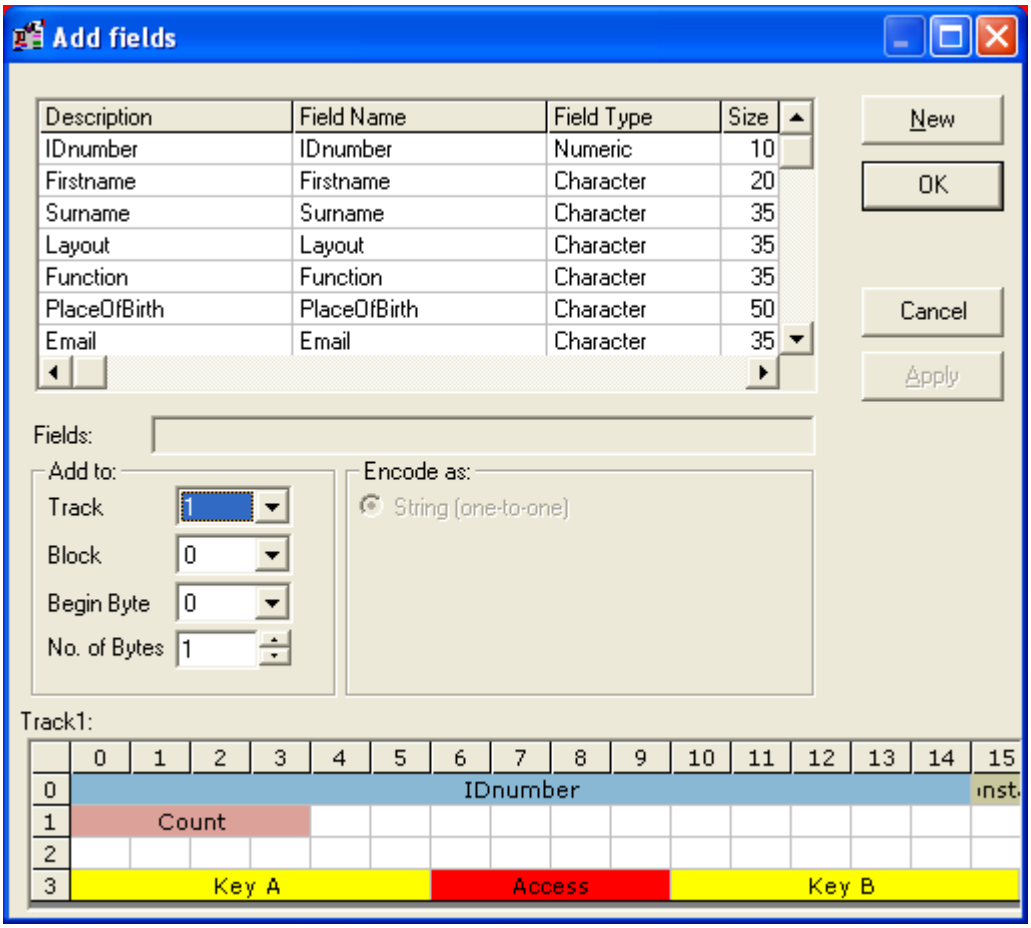
Mifare DEMO

Mifare Menu

Add Field

Select **Mifare Menu** and click **Add Field** or use  from the toolbar.

The following dialog is displayed.



Select a field to add to your current mifare layout.

Add to

Track: Select which track to write the field to.
Block: Select a block to write a field to.
Begin Byte: Select a Begin Byte to write the field to.
No. of bytes: Select the number of bytes needed for a field

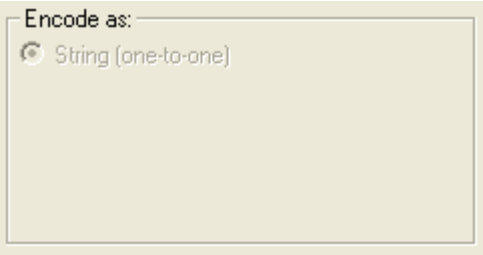
When creating a New Mifare Layout the operator will have the option to enable Allow multitrack database items (non-binary): Select this option to scan a field across multiple tracks (for larger segments of information).

Encode As

Encode As: Select the method to encode information onto the card. Select an option from the following.

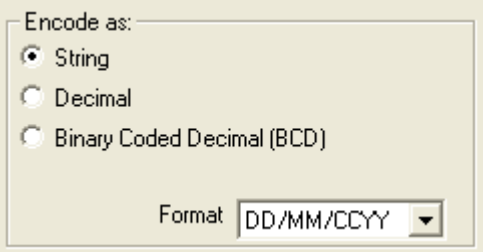
Options are dependent on field type.

Character



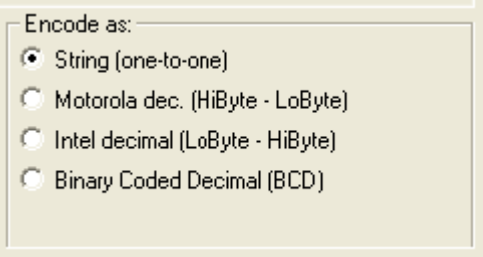
String: (*field type character, numeric and date*)

Date



String: (*field type character, numeric and date*)
Decimal: (*field type numeric*)
Binary coded decimal: (*field type numeric and date*)

Numeric



String: (*field type character, numeric and date*)
Motorola decimal: (*field type numeric*)
Intel decimal: (*field type numeric*)
Binary coded decimal: (*field type numeric and date*)

The contents of a date field can be encoded in different orders. Select a set from the drop down list.

In case you encode as a string every character is represented by its ASCII value (*every character is encoded into one byte*).

Motorola en Intel decimal encoding work with hexadecimal values. Special hexadecimal encoding is a mixture (*hexadecimal notation without decimal to hexadecimal conversion of the value*).

Example

Suppose the database has a numeric field with 4 positions named ID number. The value is 1500 *(=05DC hex*).

The following ways of encoding are possible.

Encode type	Byte 1	Byte 2	Byte 3	Byte 4
String	0x31	0x35	0x30	0x30
Motorola	0x05	0xDC		
Intel	0xDC	0x05		
Binary coded decimal	0x15	0x00		

In the case the largest value of the field ID number would be 9999999 (98967F hex), there would be 7 bytes needed to encode it as a string, 3 bytes to encode it as Motorola or Intel decimal and 4 bytes to encode it as special hex.

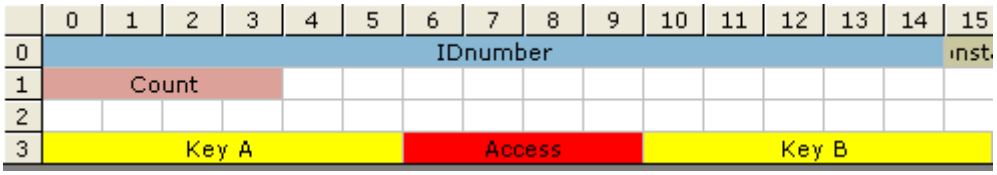
Encode type	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
String	0x39	0x39	0x39	0x39	0x39	0x39	0x39
Motorola	0x98	0x96	0x7F				
Intel	0x7F	0x96	0x98				
Binary coded decimal	0x09	0x99	0x99	0x99			

The following example shows how unused bytes are filled when the number of bytes assigned for the field is more than needed.

Number of bytes assigned is 6, the value is 1500.

Encode type	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6
String	0x31	0x35	0x30	0x30	0x00	0x00
Motorola	0x00	0x00	0x00	0x00	0x05	0xDC
Intel	0xDC	0x05	0x98	0x00	0x00	0x00
Binary coded decimal	0x00	0x00	0x00	0x00	0x15	0x00

At the bottom an overview summary is shown illustrating the fields positioned on the current layout. It is possible to scroll down and view the entire layout structure of the mifare encode layout.



Summary

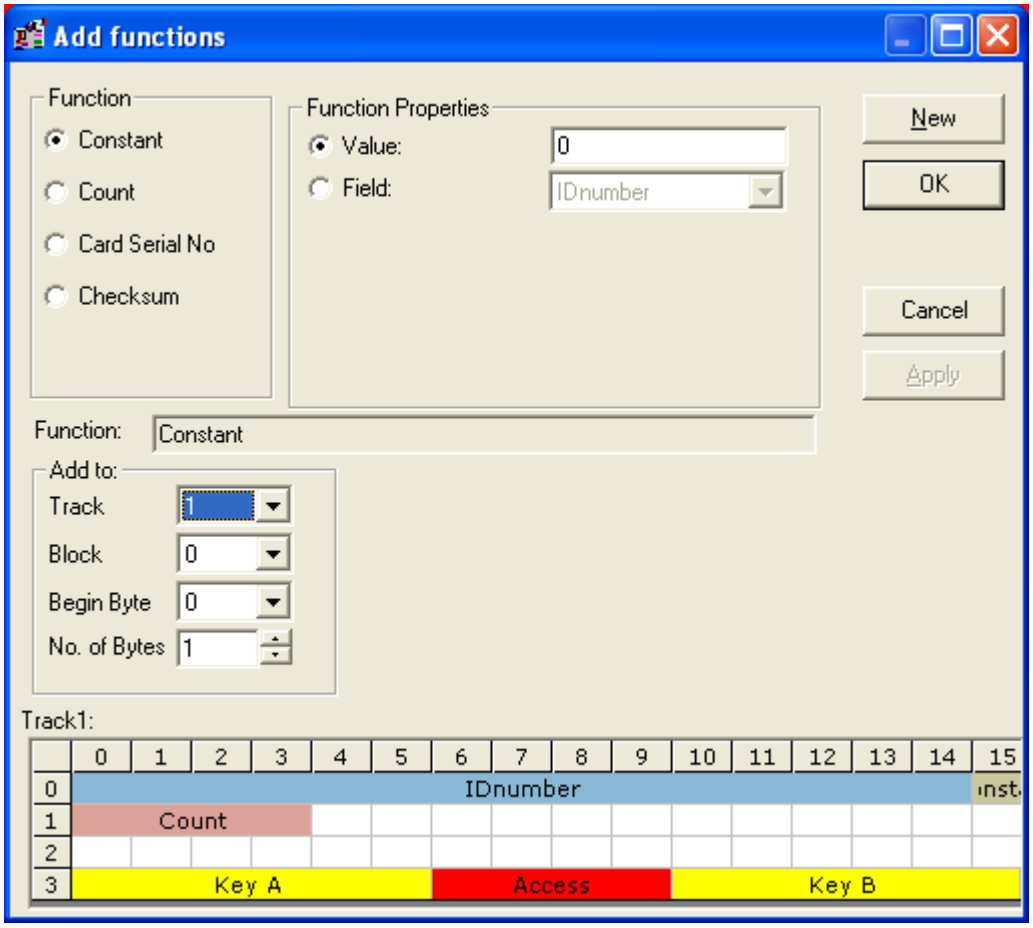
Numbers running across are the number of bytes in each Block. Number running down the left hand side are the number of Blocks to a Track.

Select **OK** to add the newly created field..

Add Function

Select **Mifare Menu** and click **Add Function** or use  from the toolbar.

The following dialog is displayed.



Add functions

Except for the card serial number, functions occupy one byte.

Function

Constant: Select a value between 0 and 255. This value will be encoded into the selected byte. If more than one byte is selected, same value will be encoded to every byte. The value can also be read from the database. Select **Field listed** in the **Function Properties**, the value from the field will be encoded onto the chip layout.

Count: The counter function can read a value from the database and increment it with a defined value (*e.g. the number of times a new card is issued for the same individual can be stored in the database*), or an array with incremental values can be encoded.

Function Properties

In Function Properties you can select if the value must be incremented after it is written to the card.

Value: Select a value between **0** and **255**.

Card Serial Number: The card serial number (*encoded by the manufacturer in track 0*) can be read from the card and encoded another time in one of the other tracks. It can be encoded as a decimal string (*10 bytes*) or hexadecimal string (*8 bytes*).

Checksum: A checksum can be calculated over a number of bytes. Select the way the checksum is calculated, select where the checksum should be stored and select the bytes where the checksum should be calculated over. The checksum is one byte, if more than one byte is selected for the checksum, the value of the checksum will be repeated in every byte.

Function Properties

In Function Properties you can select the way a checksum is calculated.

XOR

I 0 0 I I 0 0 I
0 I I 0 0 I I 0
0 0 I I 0 0 0 I
I I I 0 I I I 0
0 I I I I 0 I 0

Result: 0 I 0 I I 0 I 0

Selecting XOR will always result in a value that fits into one byte.

ADD

I 0 0 I I 0 0 I
0 I I 0 0 I I 0
0 0 I I 0 0 0 I
I I I 0 I I I 0
0 I I I I 0 I 0

Result: I 0 I 0 0 I I 0 0 0

When ADD is selected the low byte value will be written to the card.

Parity

A parity check can be selected, since encoding is done in minimal parts of one byte, it will occupy one byte only.

Polynomial CRC

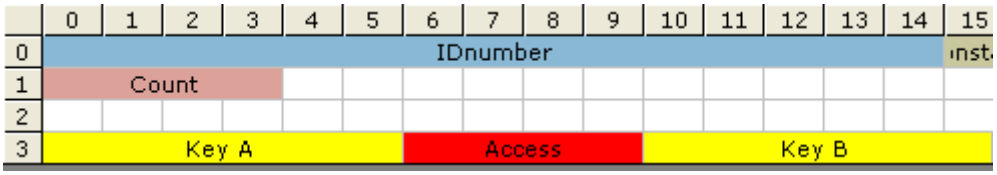
Use a **polynomial** to calculate the checksum. When you use a **polynomial** fill in the polynomial you would like to use.

Example: The polynomial to use is x8+x5+x4+x2+1. This is represented by the binary value 100110101 (309 in decimal). In the PolyOne text box a decimal value must be specified. This decimal value must be between 257 and 511 (between 100000001 and 111111111 binary).

Start Value: Select a value between **0** and **255** and fill it in, in the box .

Polynomial CRC is the most reliable way to calculate a checksum.

At the bottom an overview summary is shown illustrating the fields positioned on the current layout. It is possible to scroll down and view the entire layout structure of the mifare encode layout.



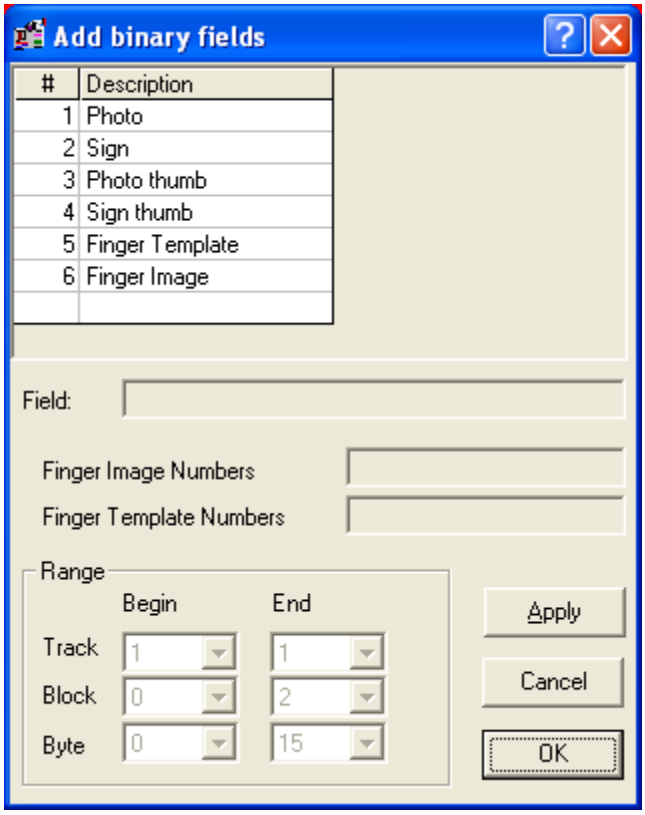
Summary

Numbers running across are the number of bytes in each Block. Number running down the left hand side are the number of Blocks to a Track.

Add Binary Item...

Select **Mifare Menu** and click **Add Binary** Item or use  from the **toolbar**.

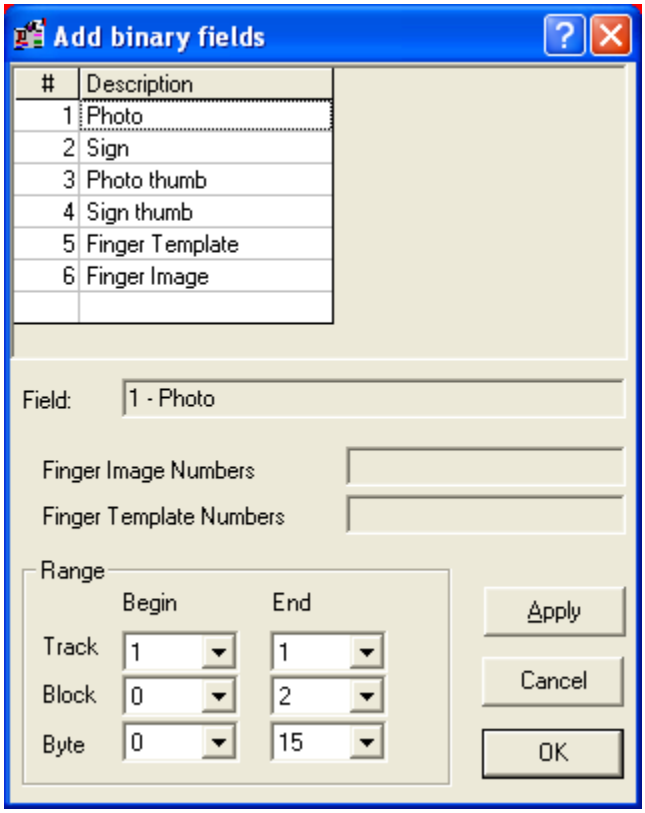
The following dialog is displayed.



Add binary fields

Add a binary field to the Mifare Layout.

Select an Image Type stored as a BLOB (*Binary Large Objects*). Below as an example **Photo** is chosen.



Select the range on the card where it should be encoded.

Most images (photos, signatures or fingerprint images) are too big to encode on a card. Biometric data such as fingerprint or hand palm characteristics are in general small enough to store on the card.

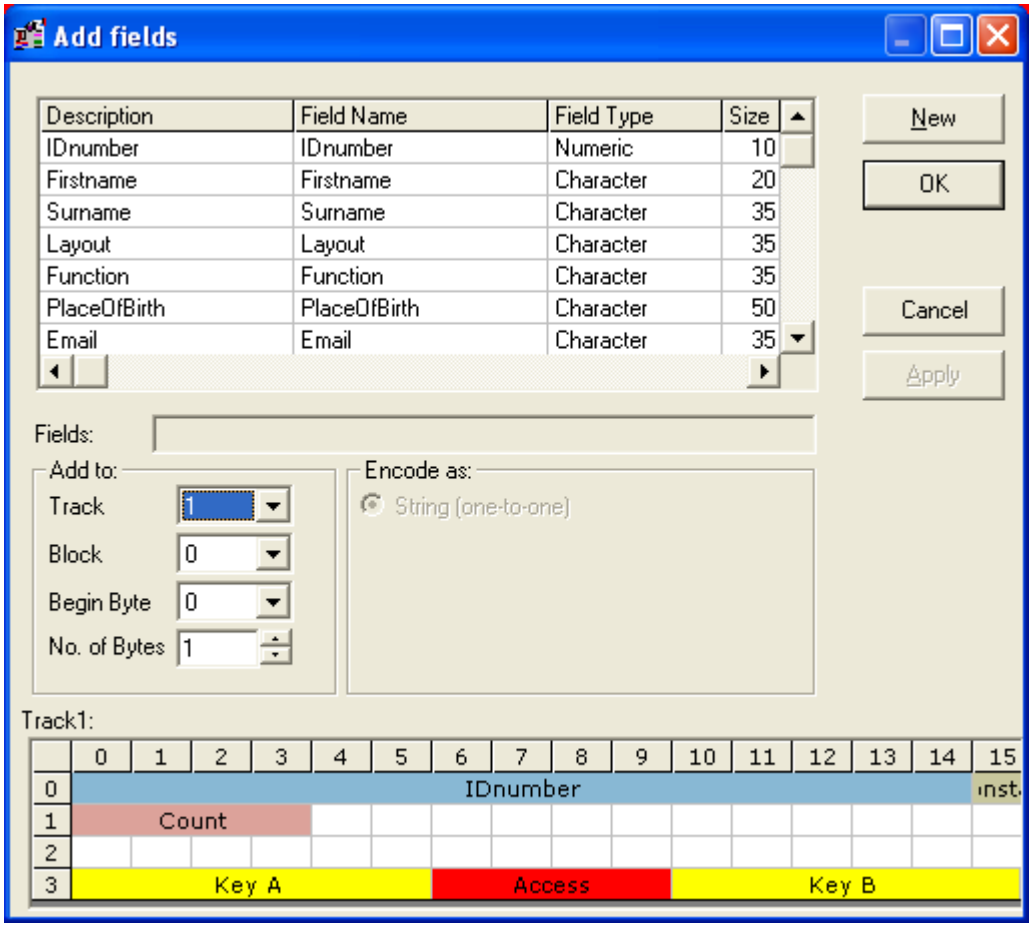
- **Track:** Select a Begin & End Track to write the field to.
- **Block:** Select a Begin & End Block to write a field to.
- **Byte:** Select a Begin & End Byte to write the field to.

Select **Apply** to insert the new binary field. Click **OK** to exit.

Edit Item

Select **Mifare Menu** and click **Edit Item**.

The following dialog is displayed.



Add field dialog

Select a field to edit in your current mifare layout.

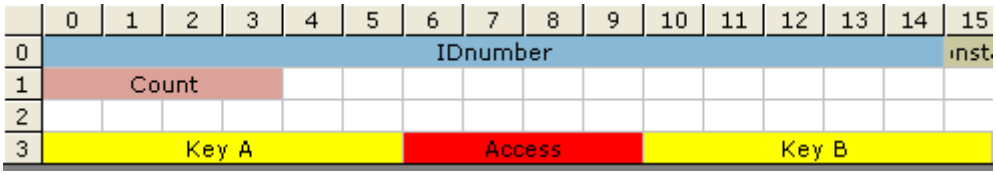
Fields

- **Track:** Select which track to write the field to.
- **Block:** Select a block to write a field to.
- **Begin Byte:** Select a Begin Byte to write the field to.
- **No. of bytes:** Select the number of bytes needed for a field

When creating a New Mifare Layout the operator will have the option to enable Allow multitrack database items (non-binary): Select this option to scan a field across multiple tracks (for larger segments of information).

At the bottom an overview summary is shown illustrating the field and where it is

positioned on the current layout. It is possible to scroll down and view the entire layout structure of the mifare encode layout.



Summary

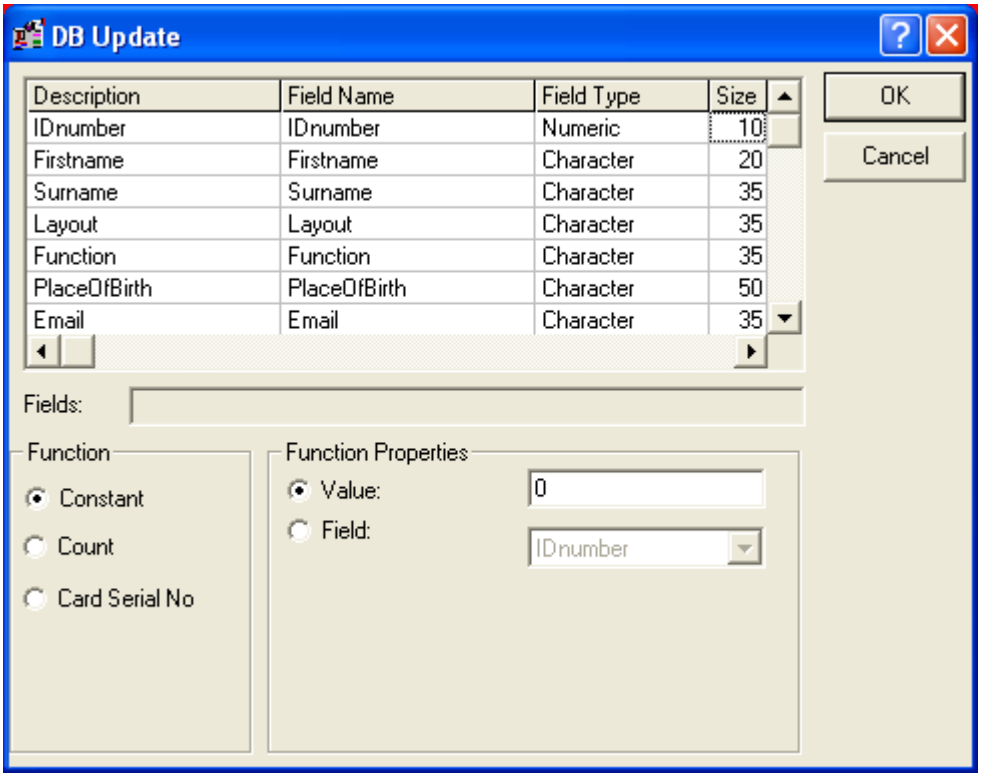
Numbers running across are the number of bytes in each Block. Number running down the left hand side are the number of Blocks to a Track.

Select **OK** to apply the change.

Add Database Update

Select **Mifare Menu** and click **Add Database Update** or use  from the **toolbar**.

The following dialog is displayed.



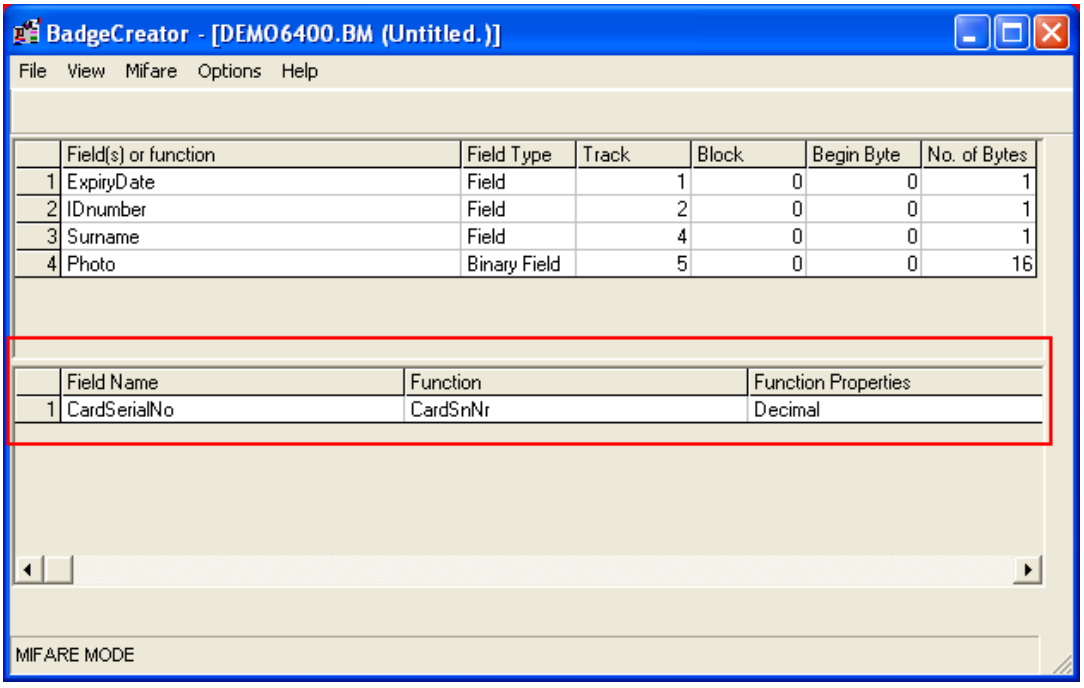
Select a field from the database which will be updated automatically from information and a card when the Mifare card is read.

Constant: A constant value can be stored in the selected field. When the card is encoded, the value will be written in the field. (*Fixed Text*)
Count: A counted value can be stored in the selected field. It will be incremented for every card encoded. The start value can be given in or can be read from another (*or the same*) field.
Card Serial No: The card serial number that was written in the card by the manufacturer can be stored in the database when the card is encoded.

Example

A card serial number that was written in the card by the manufacturer can be stored in the database when the card is encoded. That way it is possible to check the database which card number was assigned to a certain person. This number can be stored as a decimal or hexadecimal value.

The database update functions are displayed in the lower half of the main screen.



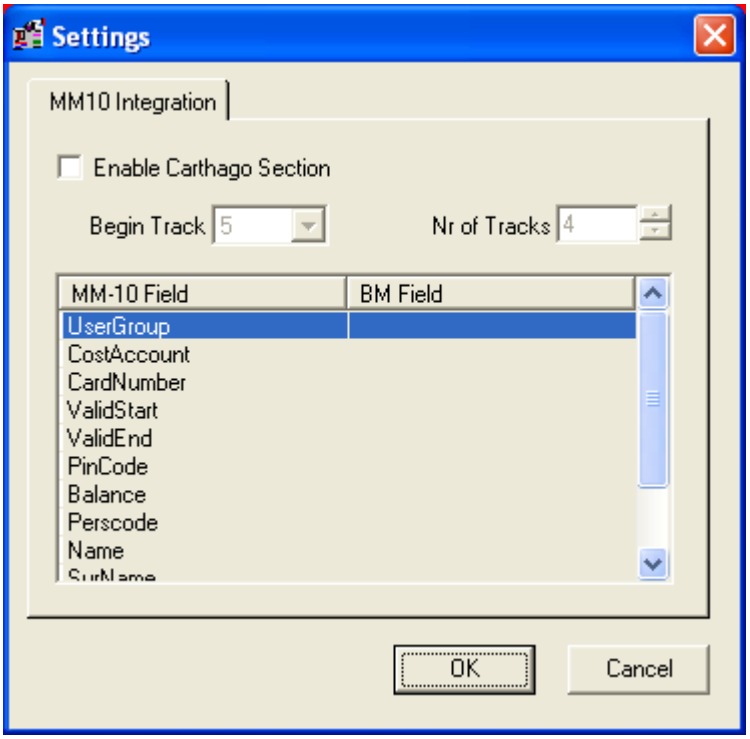
DB Update field

MM10 Integration

Select **Mifare Menu** and click **MM10 Integration**.

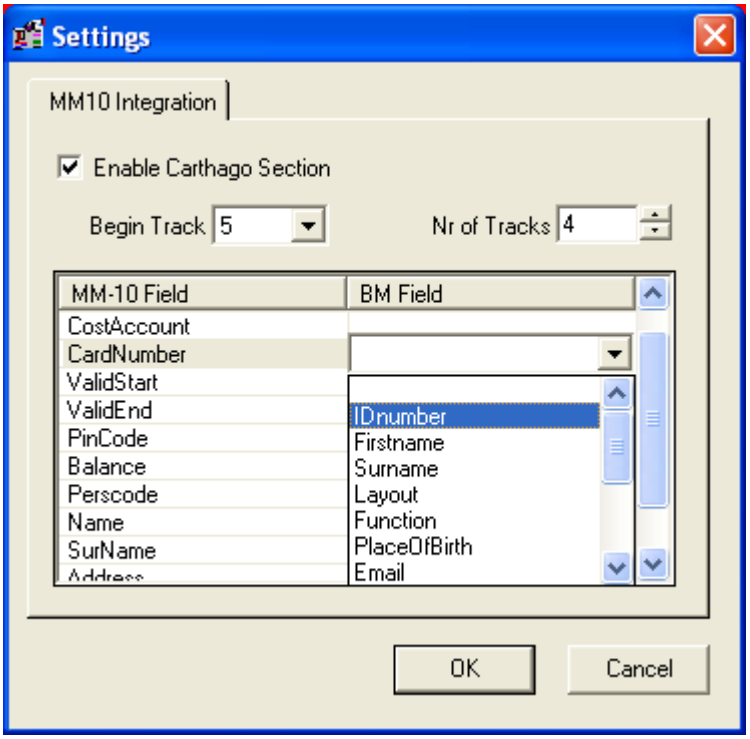
If you wish to make a link with **MM10 Integration** (*Mifare Technology*) you can link fields from BadgeMaker to fields in the **MM10 Integration**.

The following dialog is displayed.



Settings

Select **Enable Carthago Section** and set the **Begin Track** for MM10 on the Mifare chip and the **Nr of Tracks** used by MM10 Integration.



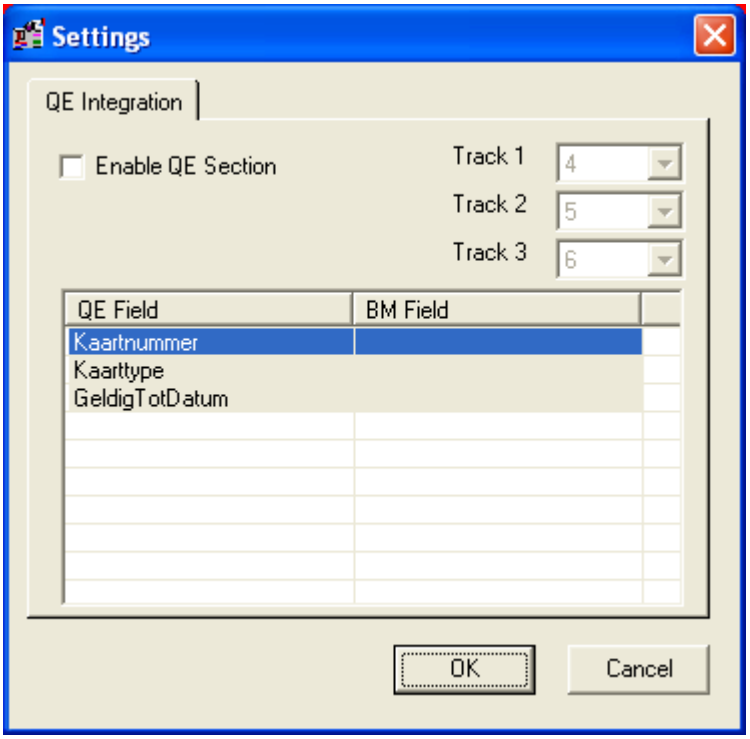
Select an **MM-10 Field** and map a **BM Field** to it.

Select **OK** to apply changes or **Cancel** to undo any changes made.

QE Integration

Select **Mifare Menu** and click **QE Integration**.

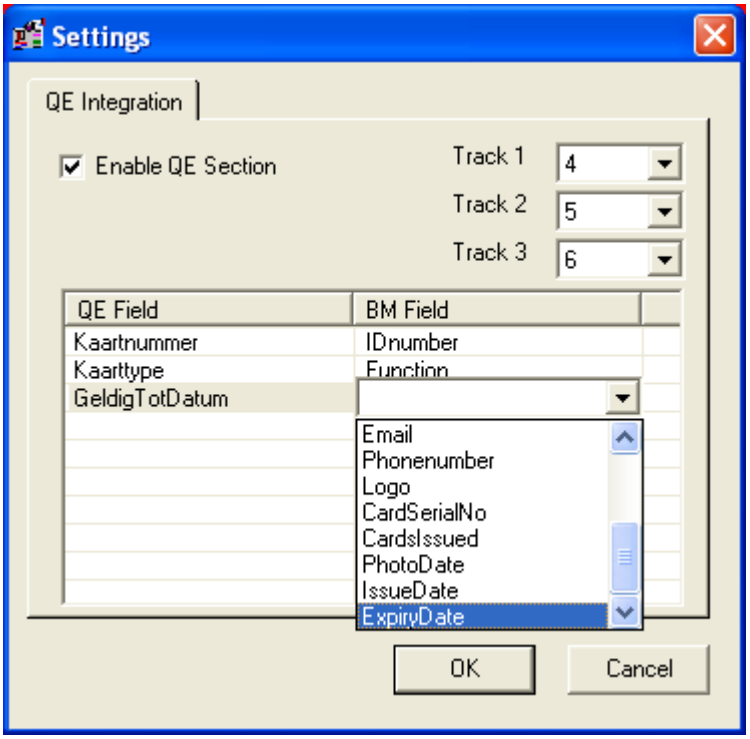
The following dialog is presented.



QE Settings

Select **Enable QE Section** to encode Mifare cards for use in **QA10/QV10 environments**.

Select which tracks will be used. QE Integration requires **3 tracks** to encode.



Map a **QE Field** to a **BM Field** from your database to set up.

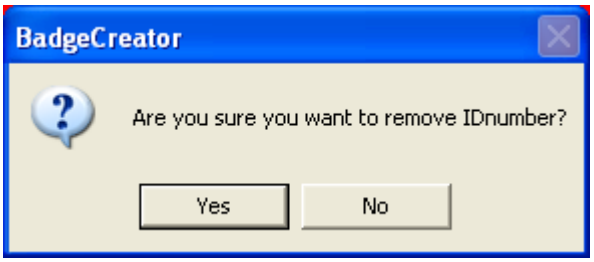
QE Field	BM Field
Kaartnummer	IDnumber
Kaarttype	ExpiryDate
GeldigTotDatum	ExpiryDate

Select **OK** to save the **QE configuration** or **Cancel** to undo any changes made.

Remove Item

First you must select a field and then select **Mifare Menu** and click **Remove Item** or use  from the **toolbar**.

The following dialog is displayed.

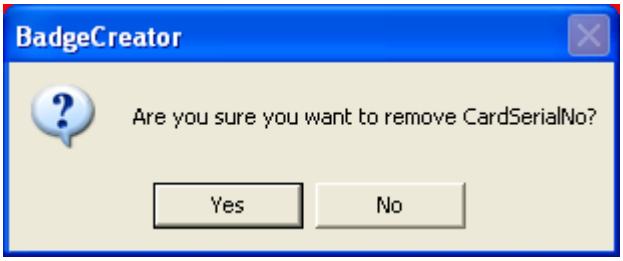


Select **Yes** to remove the selected field or **No** to cancel removal.

Remove DB Update Item

First you must select a field and then select **Mifare Menu** and click **Remove DB Update** Item or use from the toolbar.

The following dialog is displayed.

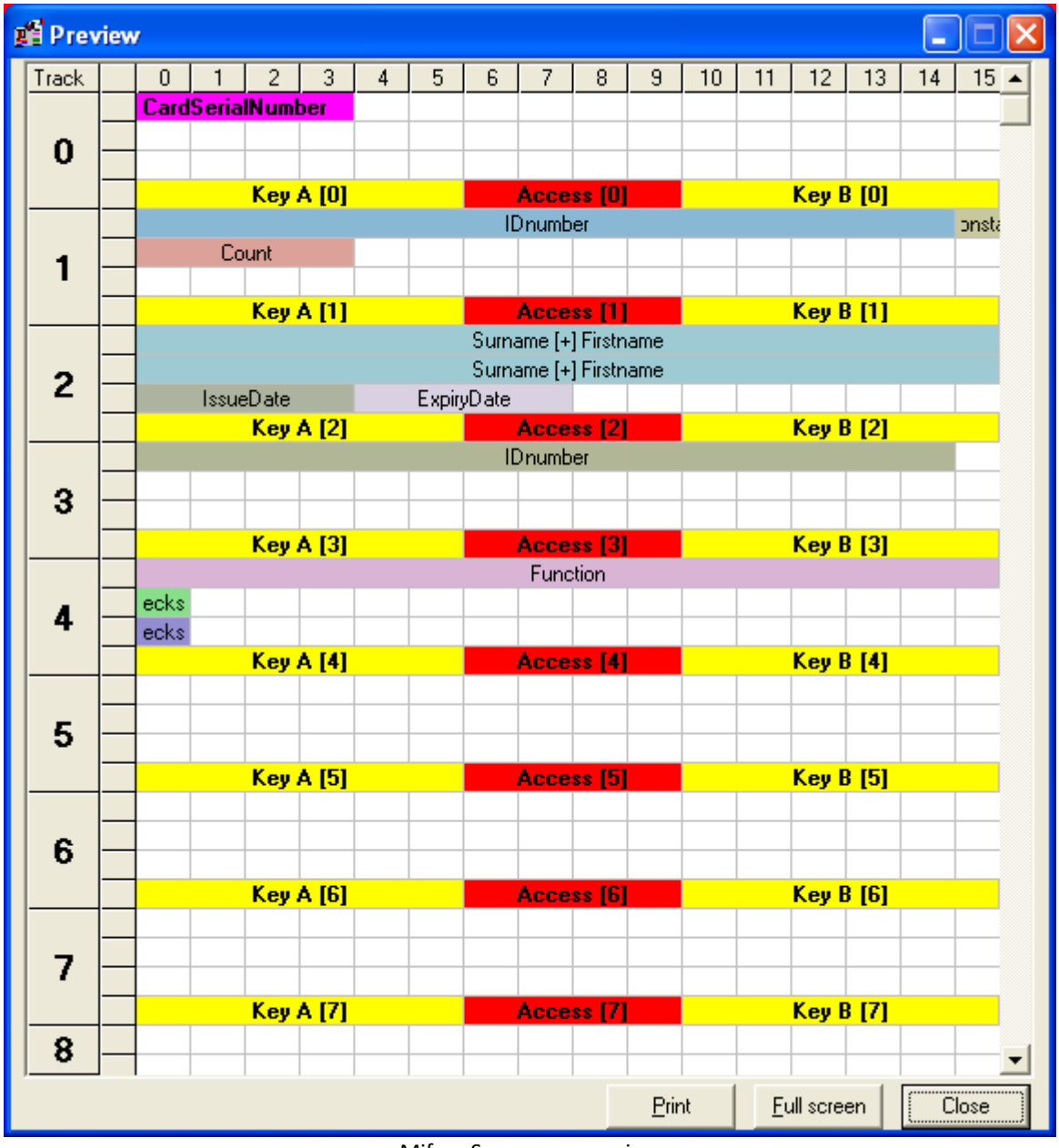


Select **Yes** to remove the selected DB Update field or **No** to cancel removal.

Overview

Select **Mifare Menu** and click **Overview**.

The following dialog is displayed.



Mifare Summary overview

The **overview** display's a preview of the data that will be encoded onto the current layout.

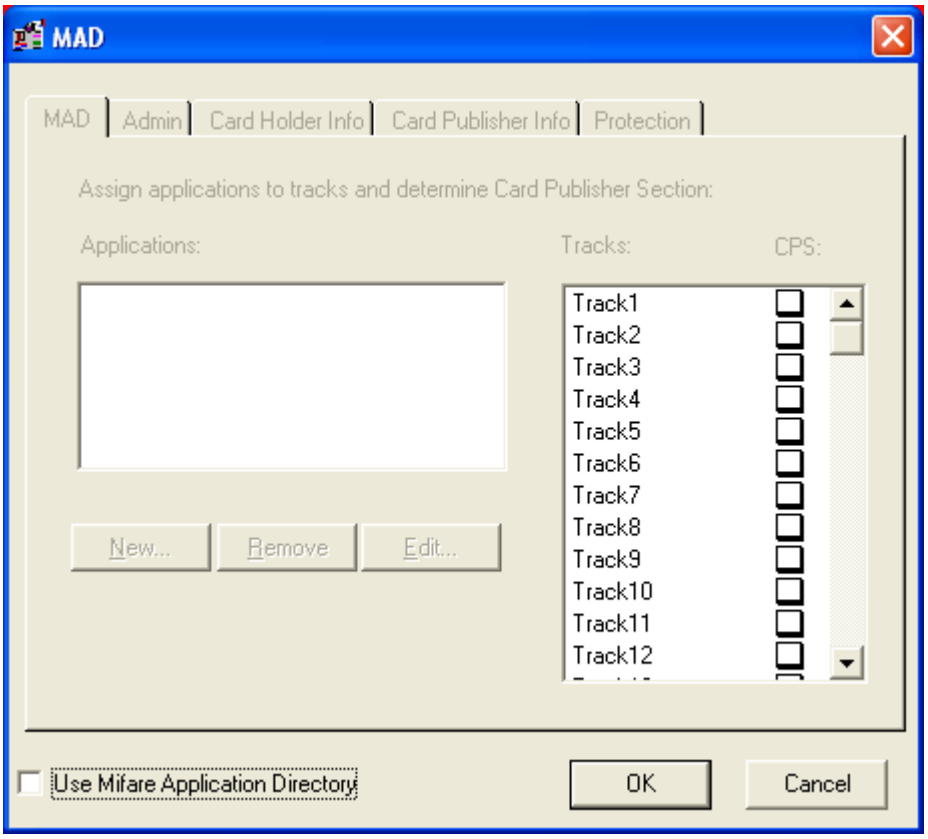
Full Screen: Display the Overview full screen (*enlarged*).
Print: To print the Overview select this option.

Edit MAD

Select **Mifare Menu** and click **Edit MAD**.

MIFARE Application Directory (MAD) defines common data structures for card application directory entries, allowing terminals to identify the right card (and the right memory sector within the card) without the need to perform a comprehensive search through all of the cards' memories until the appropriate application is found.

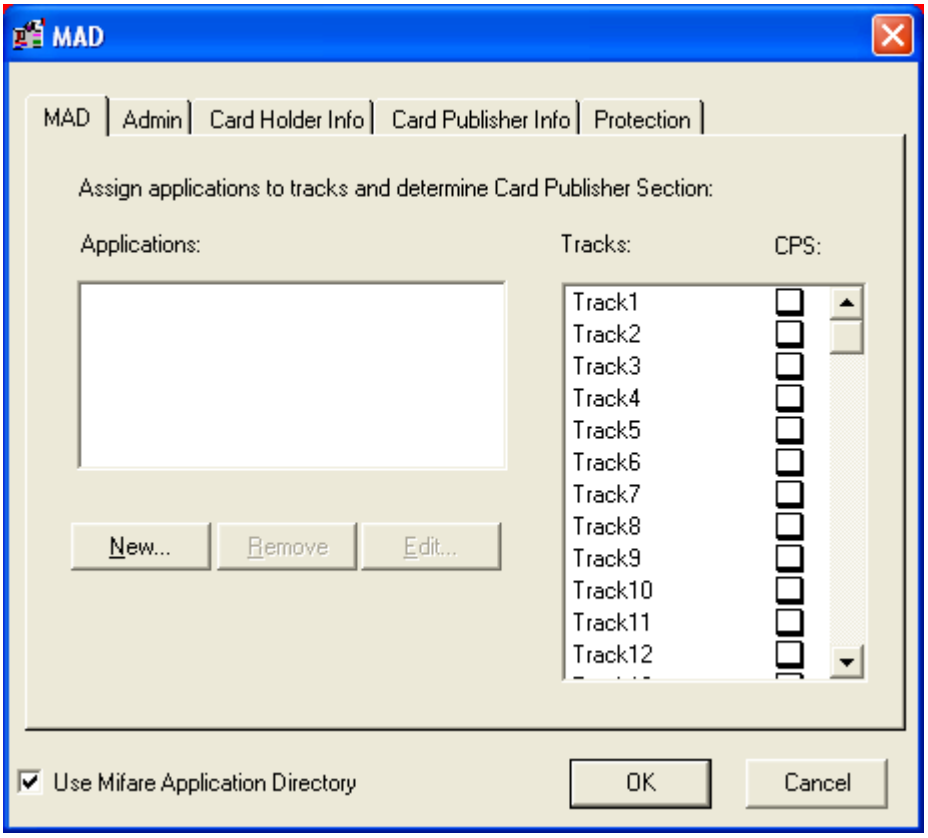
The following dialog is presented.



MAD (*Mifare Application Directory*) can be used to assign different applications to different tracks

- **To administrate free tracks**
- **To register card holder info**
- **To register card publisher info**
- **To protect tracks against writing new data**

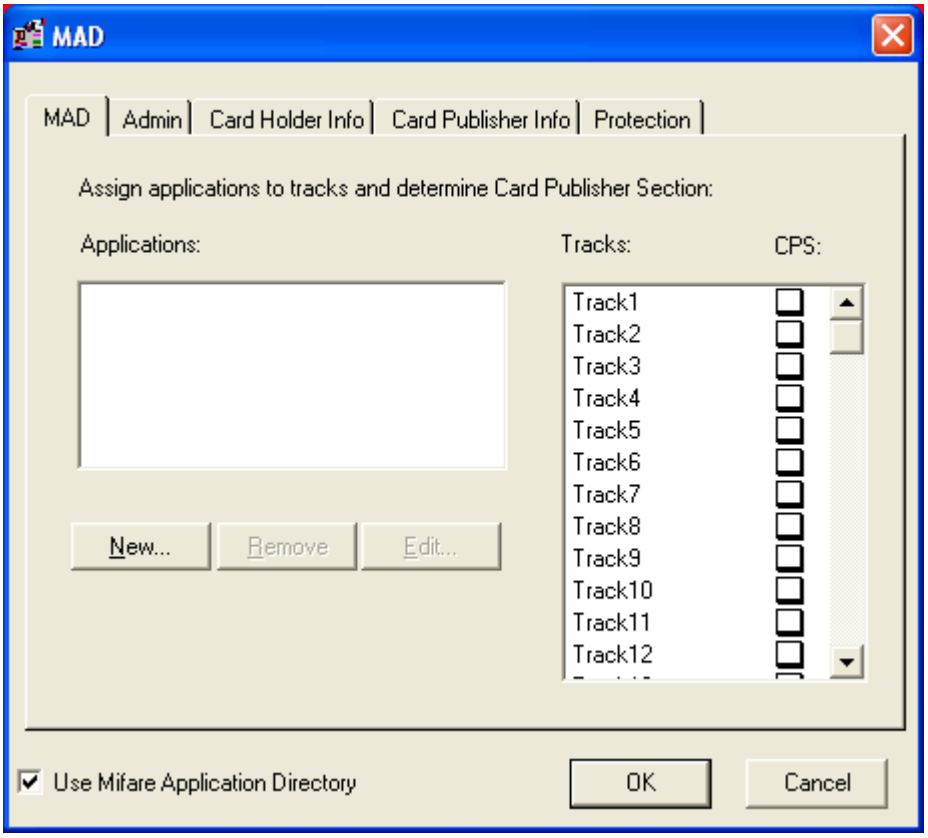
Select **Use Mifare Application Directory** to enable.



MAD

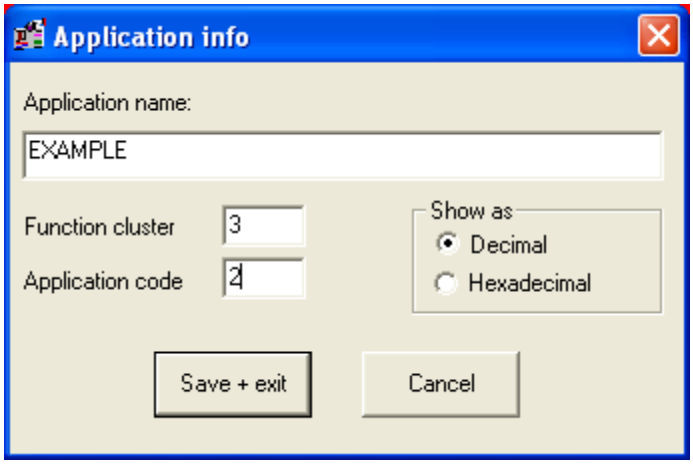
MAD

Select the MAD tab, the following dialog is presented.



MAD

Select **New** to assign an application to tracks

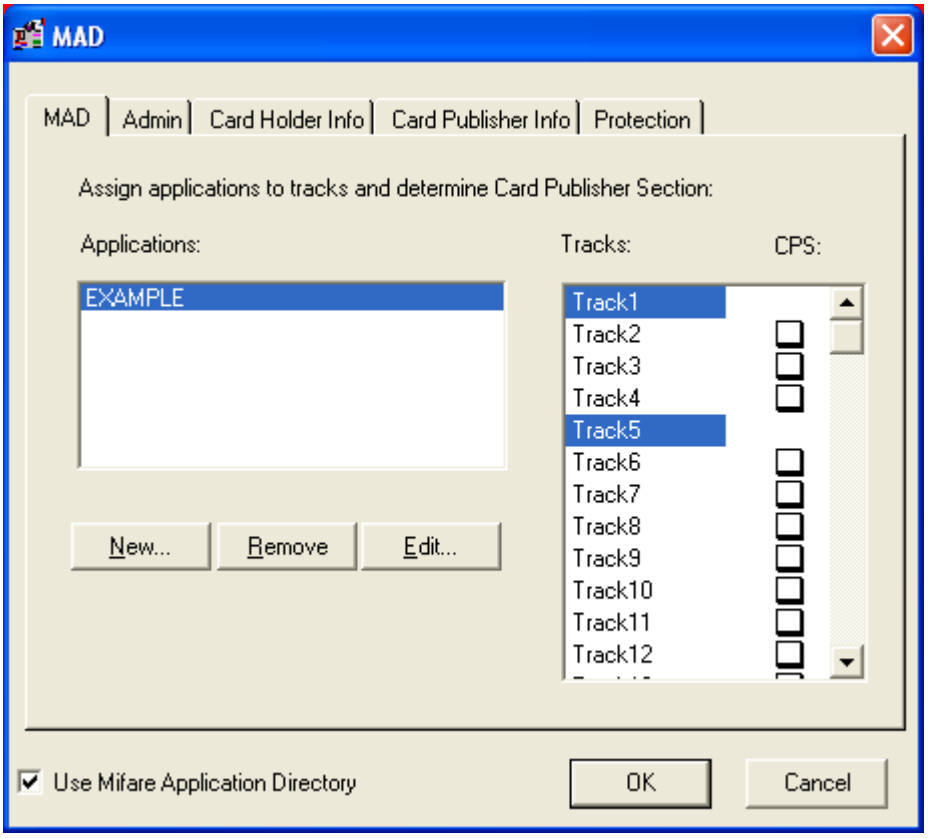


Application info

Specify a **Function cluster**. Specify an **Application code**.

Show as either **Decimal** or **Hexadecimal**.

Select **Save + exit** to return to the main MAD dialog box.

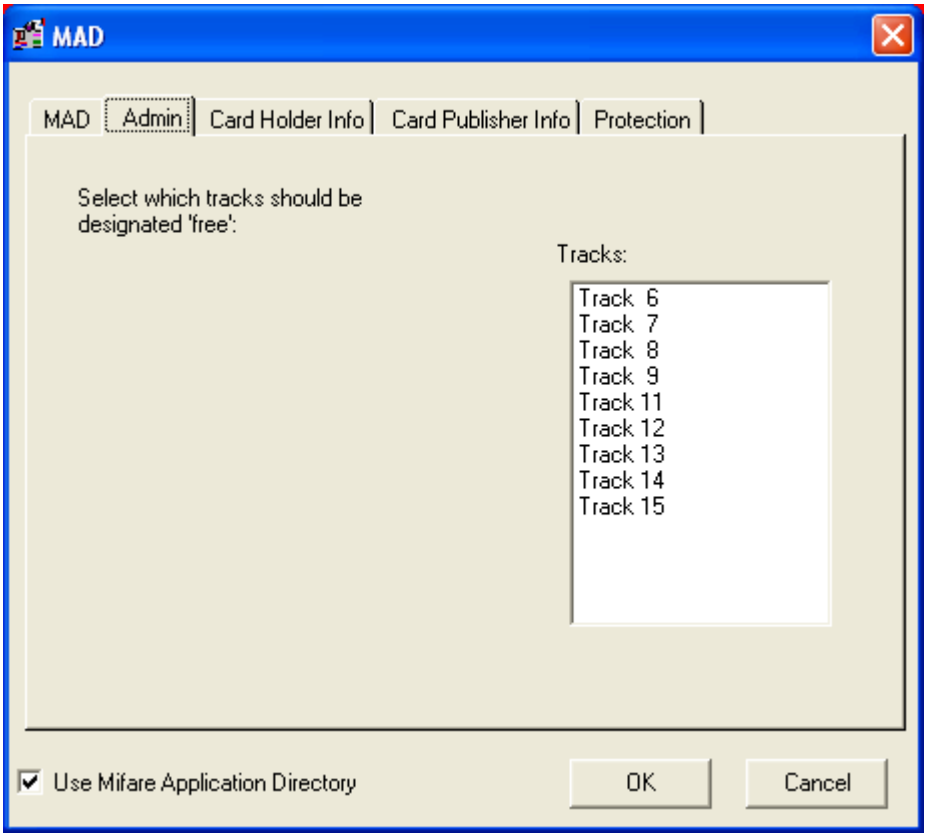


Select which tracks are to be assigned to the Mifare Application.

Select **OK** to close.

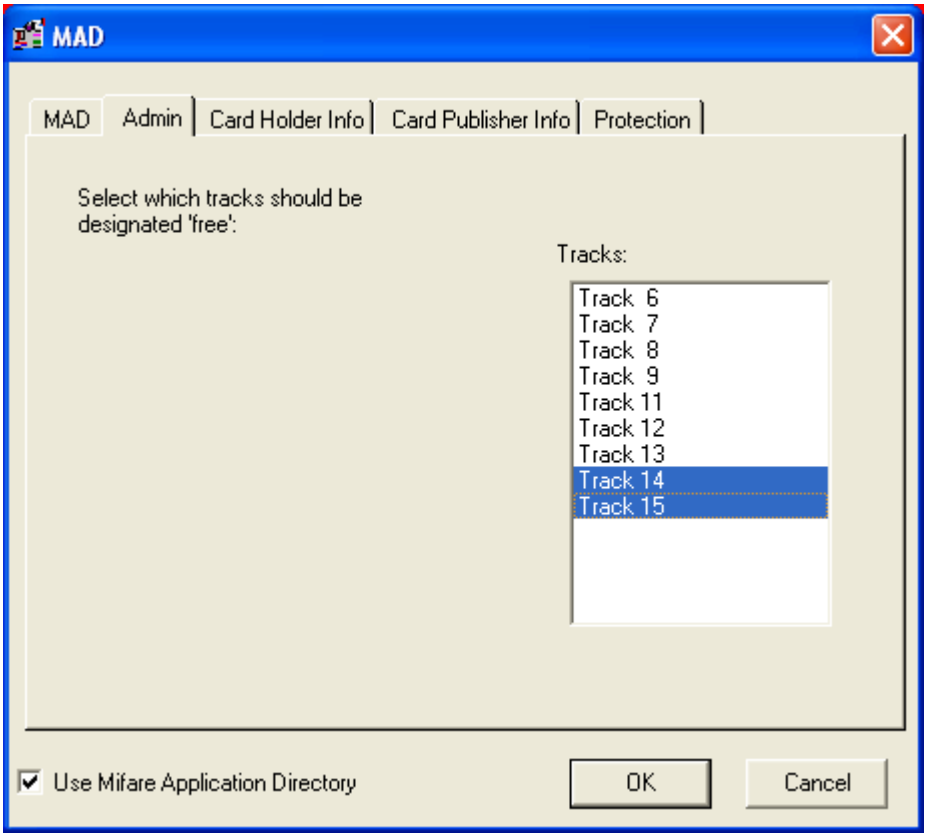
Admin

Select the **Admin tab**, the following dialog is presented.



Admin

Select which of the tracks not yet populated in the layout will remain free.

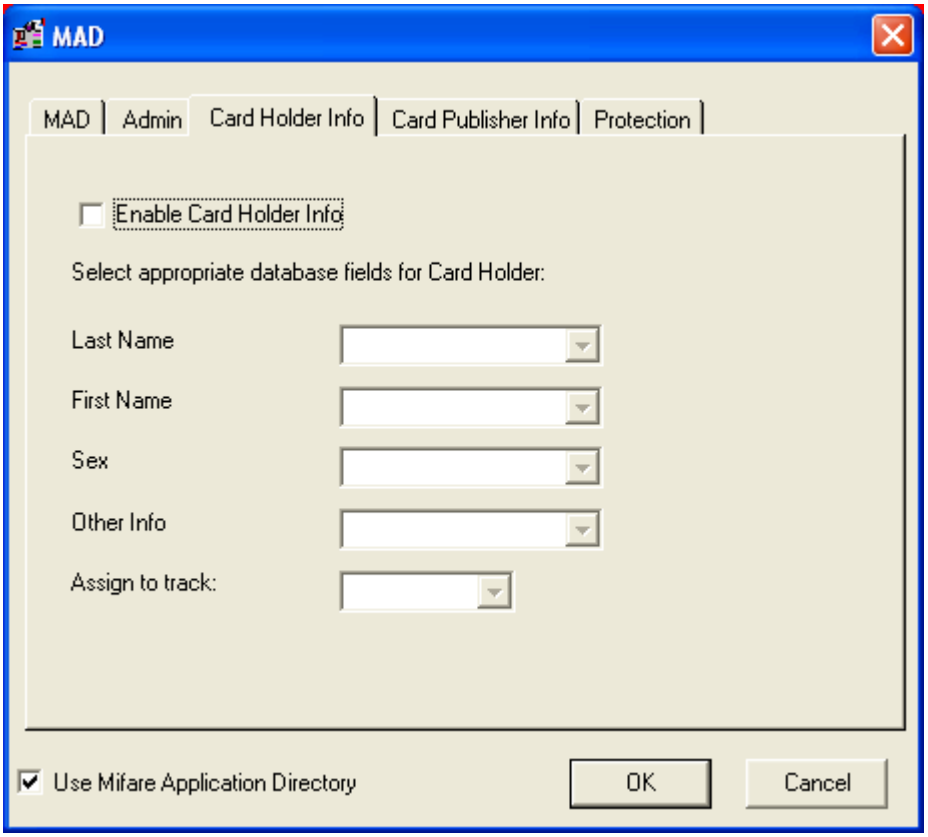


Selected tracks will be highlighted in blue.

Select **OK** to close.

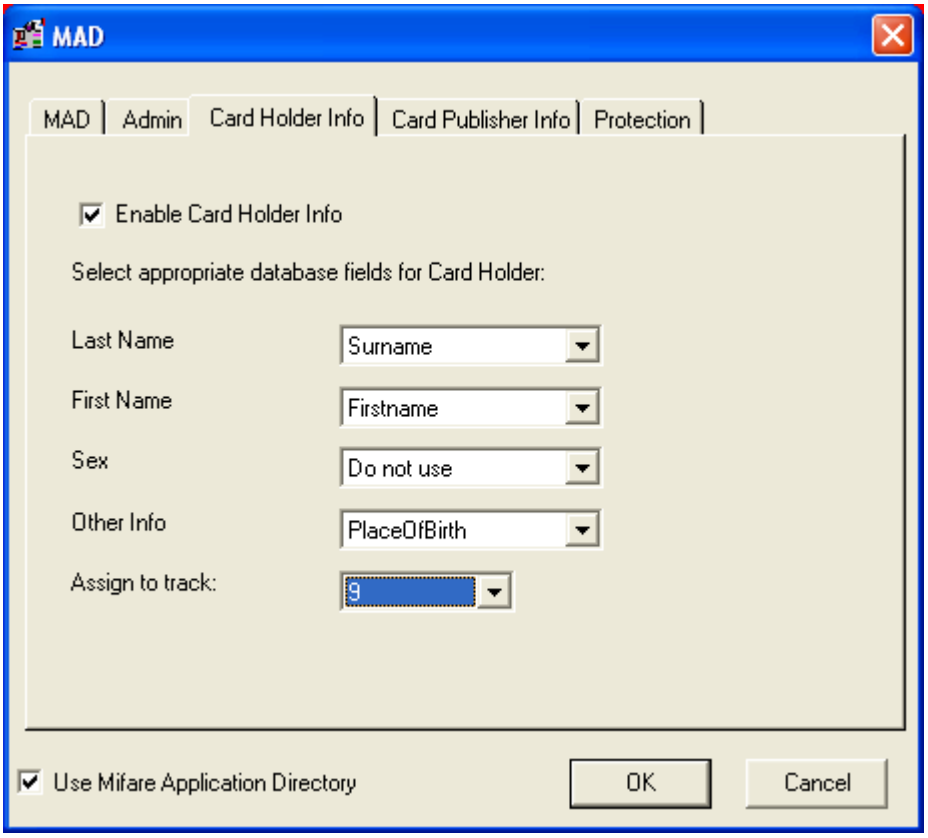
Card Holder Info

Select the **Card Holder Info tab**, the following dialog is presented.



Card holder info

Select **Enable Card Holder Info** to select the appropriate database fields for the individual.

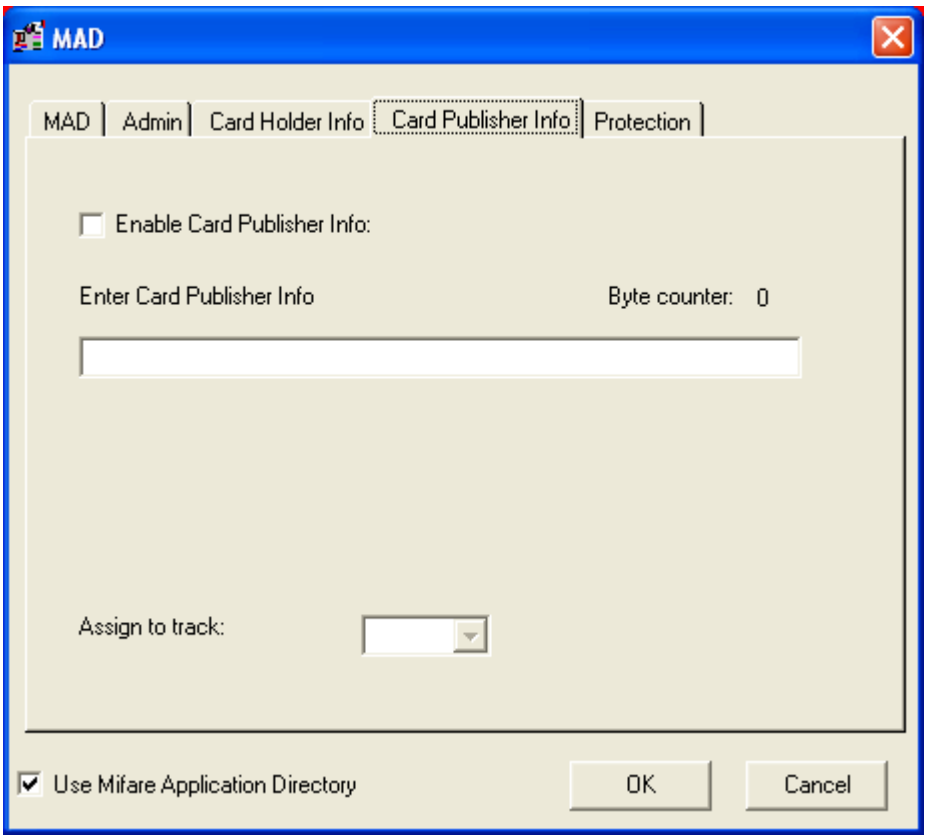


Use the drop down lists to select a field from your database.

Select **OK** to close.

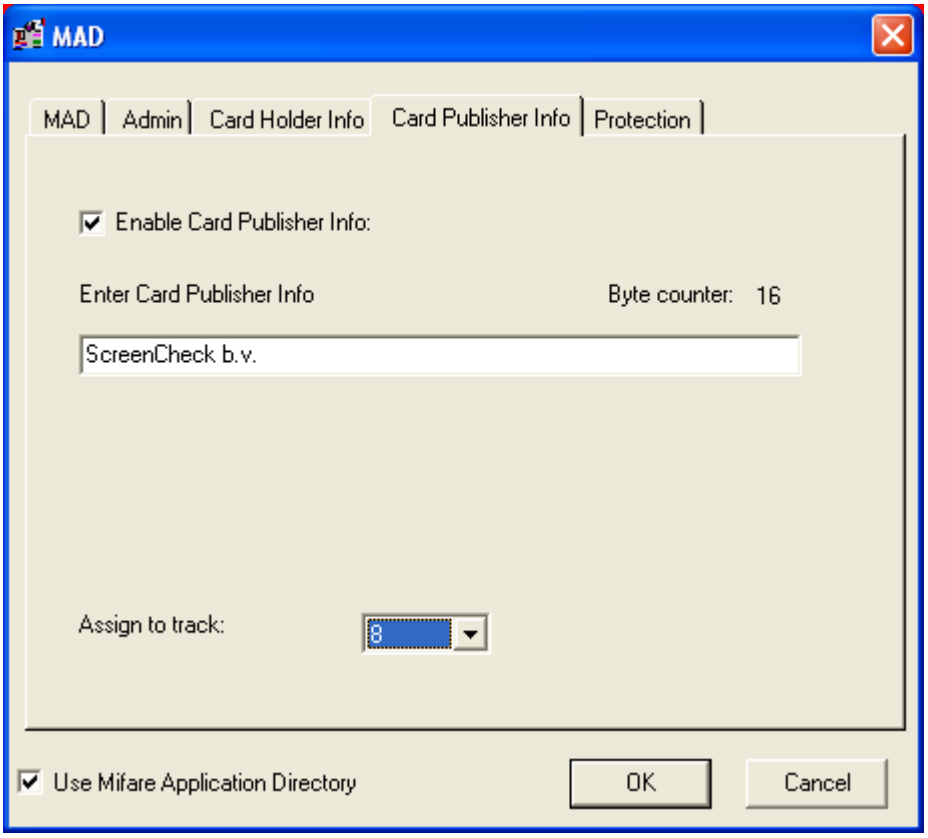
Card Publisher Info

Select the **Card Publisher Info tab**, the following dialog is presented.



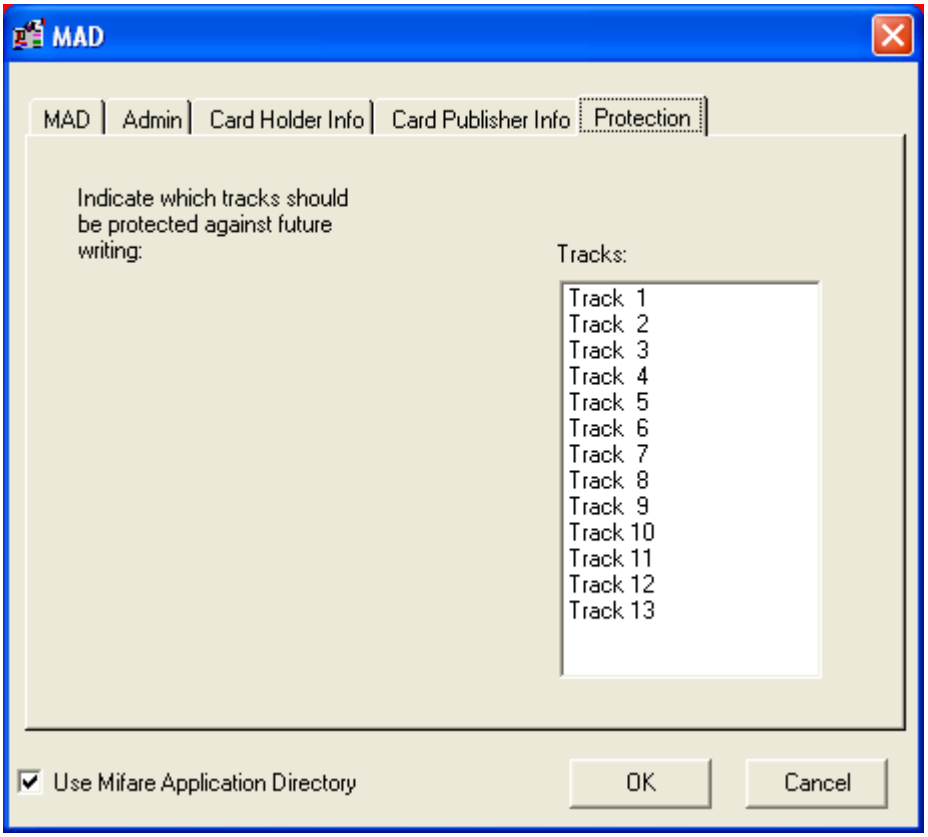
Card Publisher Info

Select **Enable Card Publisher** Info to enter Card Publisher Info and assign a track to write the information to.



Protection

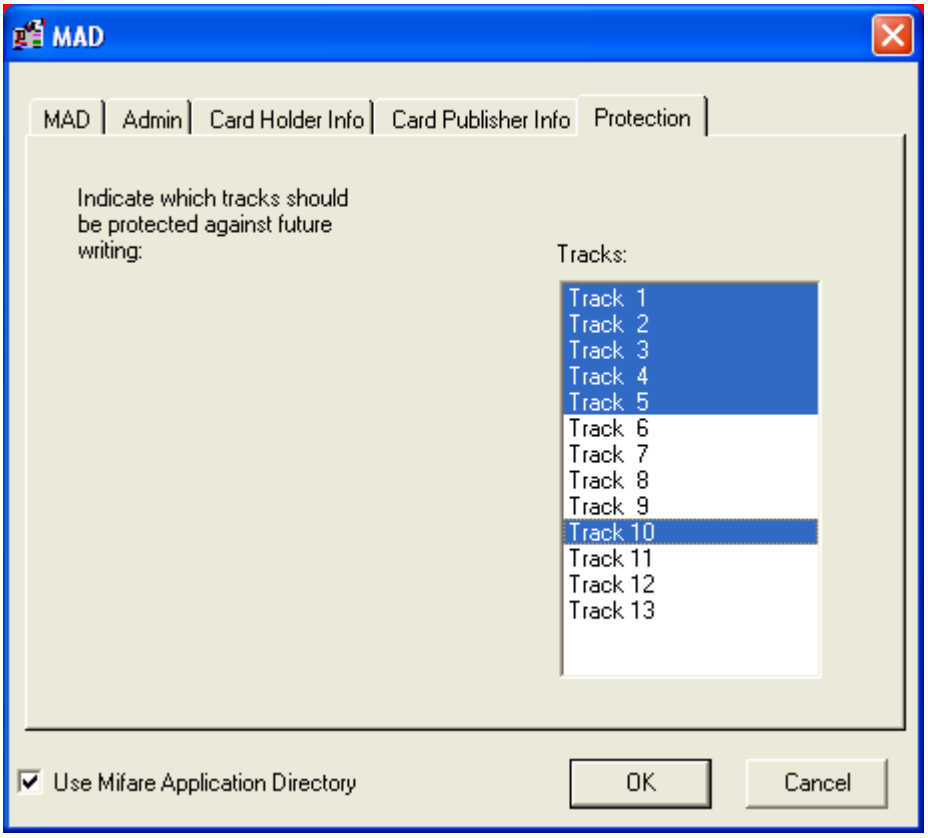
Select the **Protection tab**, the following dialog is presented.



Protection

Select the tracks to be protected against a failure occurring during the write process.

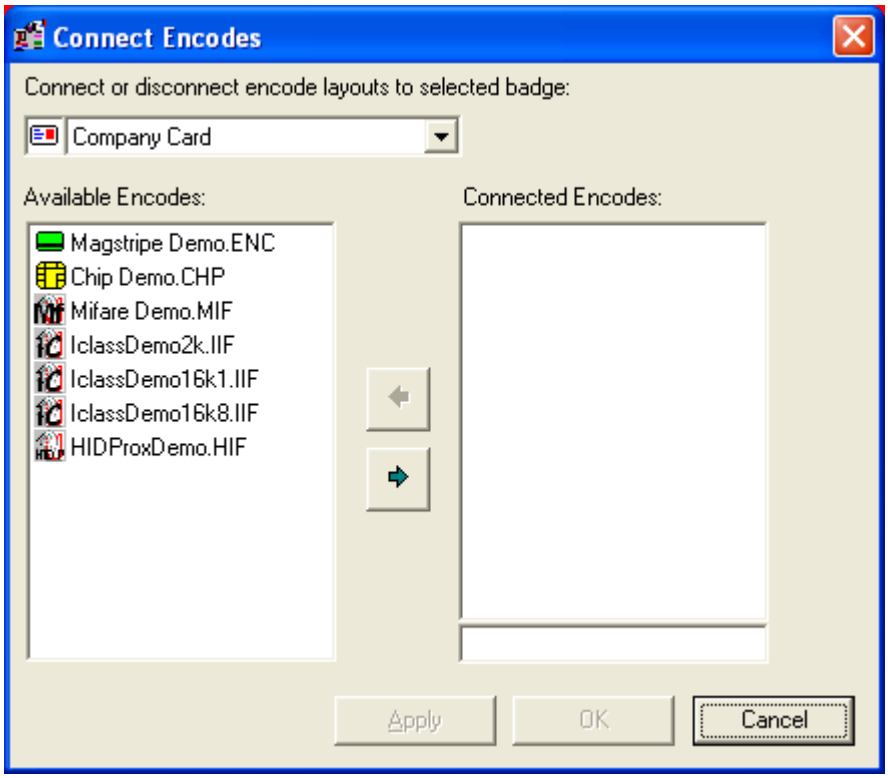
Selected tracks are shown highlighted.



Options Menu

Encode Settings...

Select **Options Menu** and click **Encode Settings**. The following dialog is presented.

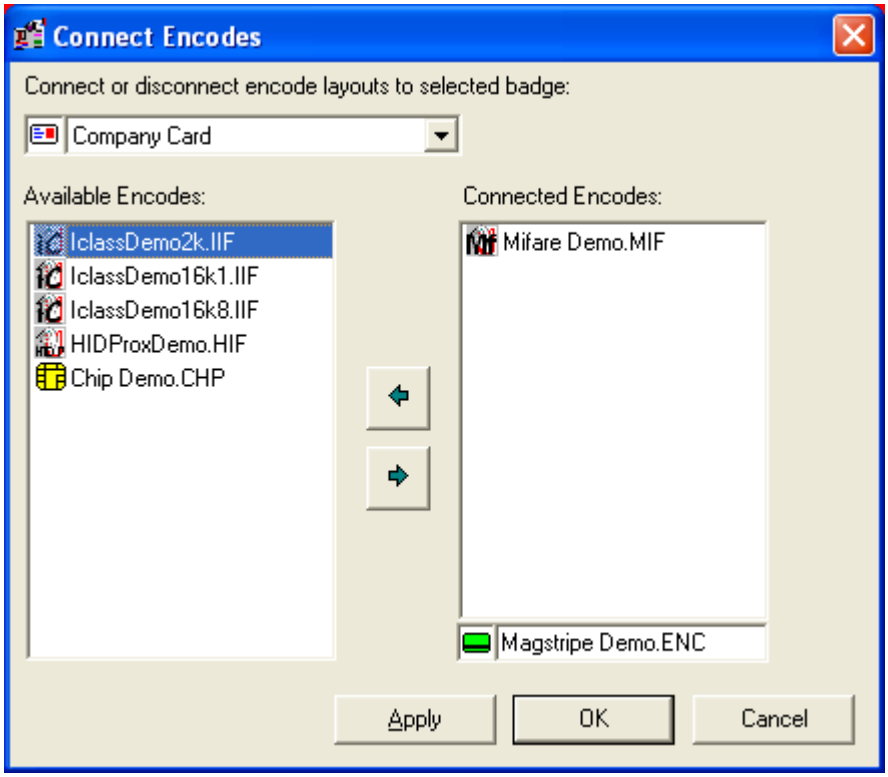


Connect encodes

In the Connect Encodes dialog link an encode layout to a badge layout. Check the right badge is selected. On the left-hand side of the window, the available configured encode layouts are displayed.

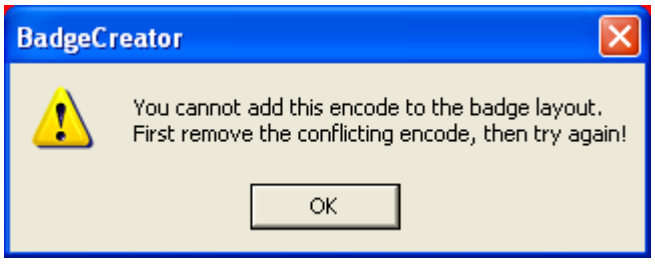
Select one and click the transfer right button.

Now the encode layout will be displayed on the right-hand side of the window.



Click **Apply** to save.

A combination of one chip encode layout and one magstripe layout is possible. Only one contact or contactless chip encode layout can be connected at a time. If you try to connect them both to a layout the following warning message is displayed.



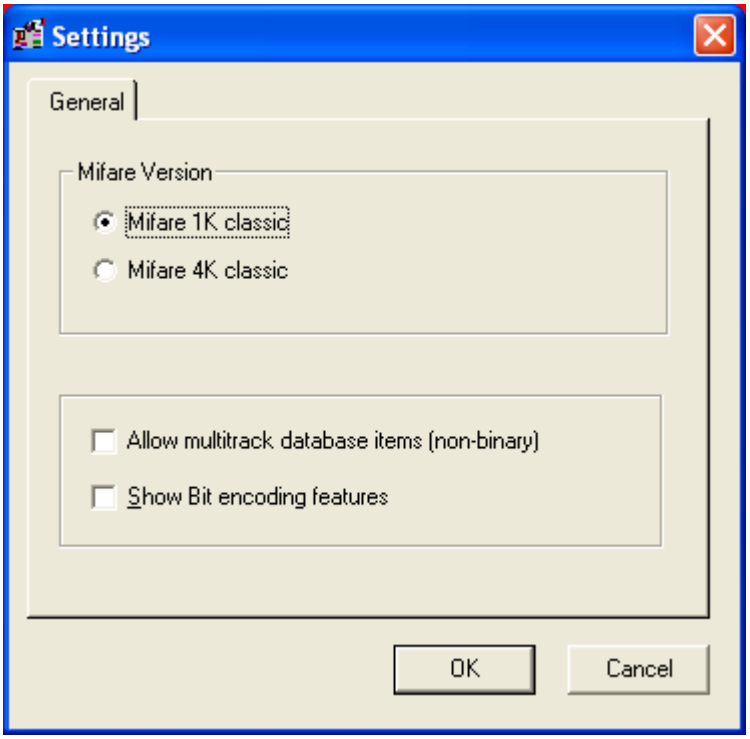
To disconnect an encode layout, select the layout on the right side and click the transfer left button.

Click **OK** to close and save settings.

Settings

Select **Options Menu** and click **Settings**.

The following dialog is displayed.



Settings

Mifare Version

Select the type of Mifare Chip being used.

- **Mifare 1K classic:** Select a Mifare 1K classic type.
- **Mifare 4K classic:** Select a Mifare 4K classic type.

Allow multitrack database items (*non-binary*): Select this option to scan a field across multiple tracks.

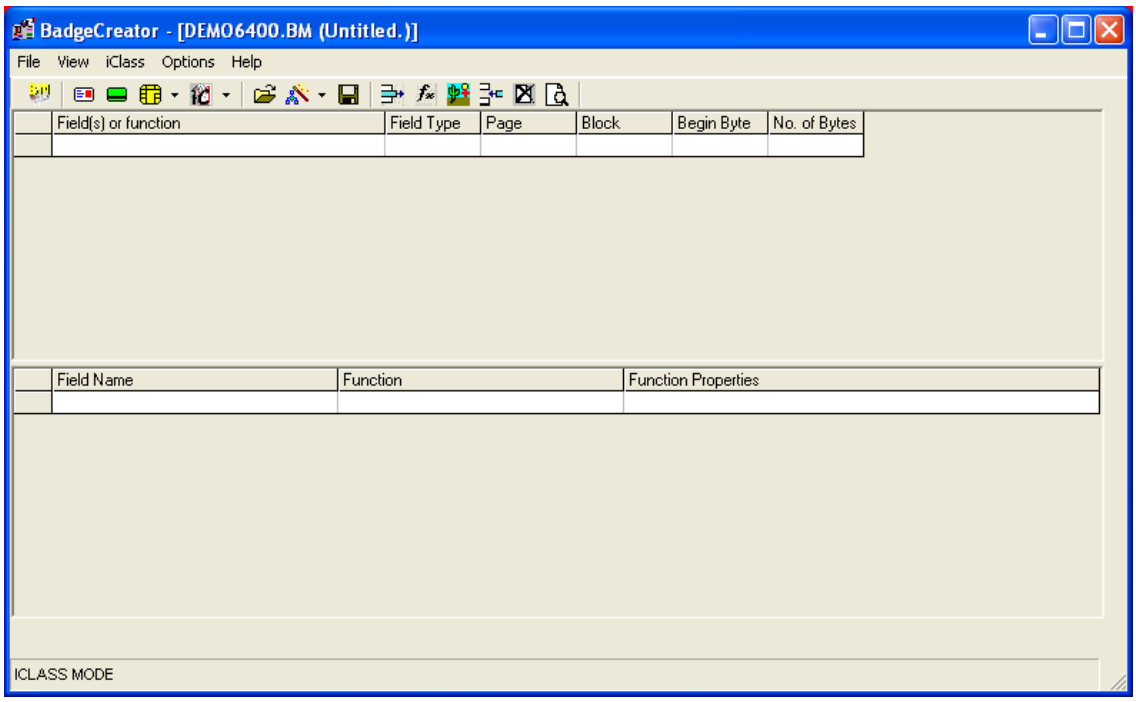
Binary items will not be affected by this setting.

iClass Encoding

Select the **File Menu**, click **Mode**, and then click **iClass Encode Layout** to open iClass Encode Layout Mode.

Click  from the BadgeCreator **Toolbar** and select **iClass Mode** from the drop down menu.

Main Screen



In **iClass Encode Layout** mode, iClass layouts are created and edited.

iClass Encode Layout Toolbar

The Toolbar in iClass Layout Mode can be used to quickly start a function by clicking on the desired button.

Back to Main Screen
Click on this button to return to the BadgeMaker main screen.

Badge Layout Mode
Click on this button to enter the badge layout mode to configure/create badge layouts.

Magnetic Layout Mode
Click on this button to enter the magnetic layout mode to configure/create magnetic encode layouts.

Chip Mode
Click on this button to the chip layout mode to configure/create chip encode layouts.

iClass Mode
Click on this button to enter the Mifare Layout Mode to configure/create iClass Layouts.

Open Layout
Click on this button to open an existing iClass layout linked to the current project (*.BM) file.

New Layout
Click on this button to start a New layout Wizard.

Save Layout
Click on this button to save the current layout.

Add Field
Click on this button, to add a field to the current track.

Add Function
Click on this button, to add a function to the current track.

Add Binary Item
Click on this button, to add a binary field to the iClass Layout.

Add DB Field
Click on this button, to store a constant, counted value or card serial in a database.

 **Remove Item**

Click on this button, to remove a field from the layout.

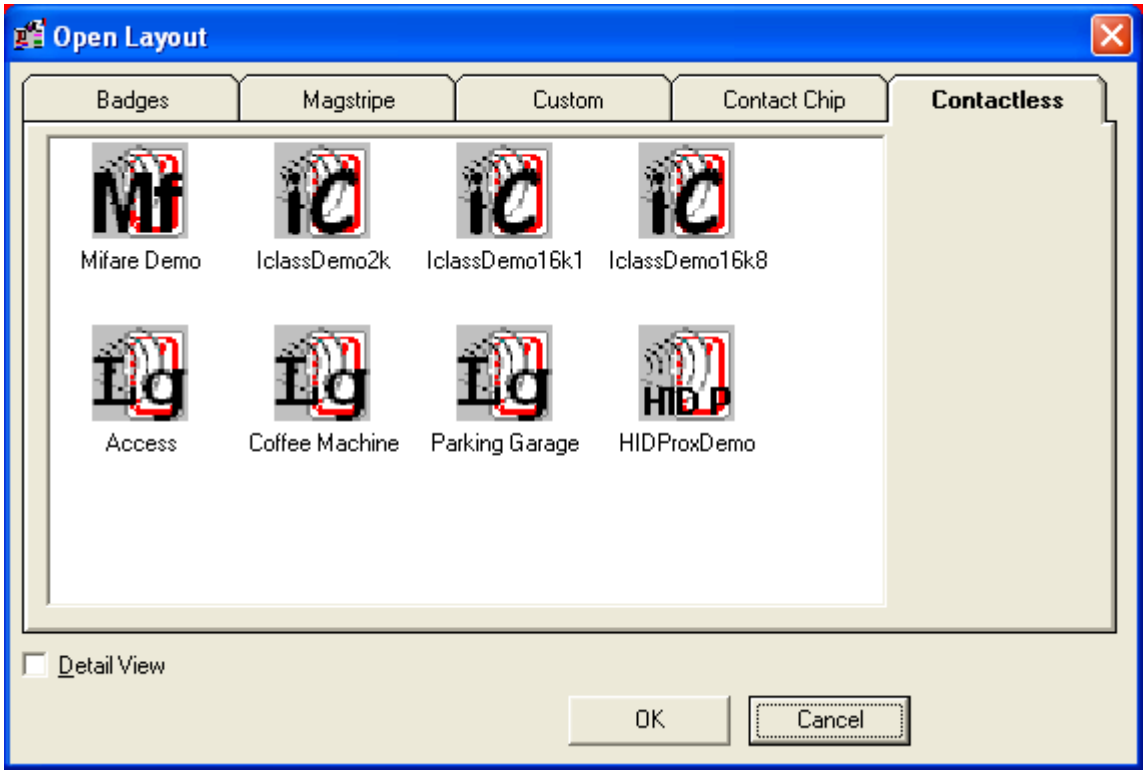
 **Preview**

Click on this button, to preview a layout.

Open An Existing iClass Layout

Select **File Menu** and click **Open Layout** or use  from the toolbar.

The following screen is presented. Configured iClass Layouts are listed here.

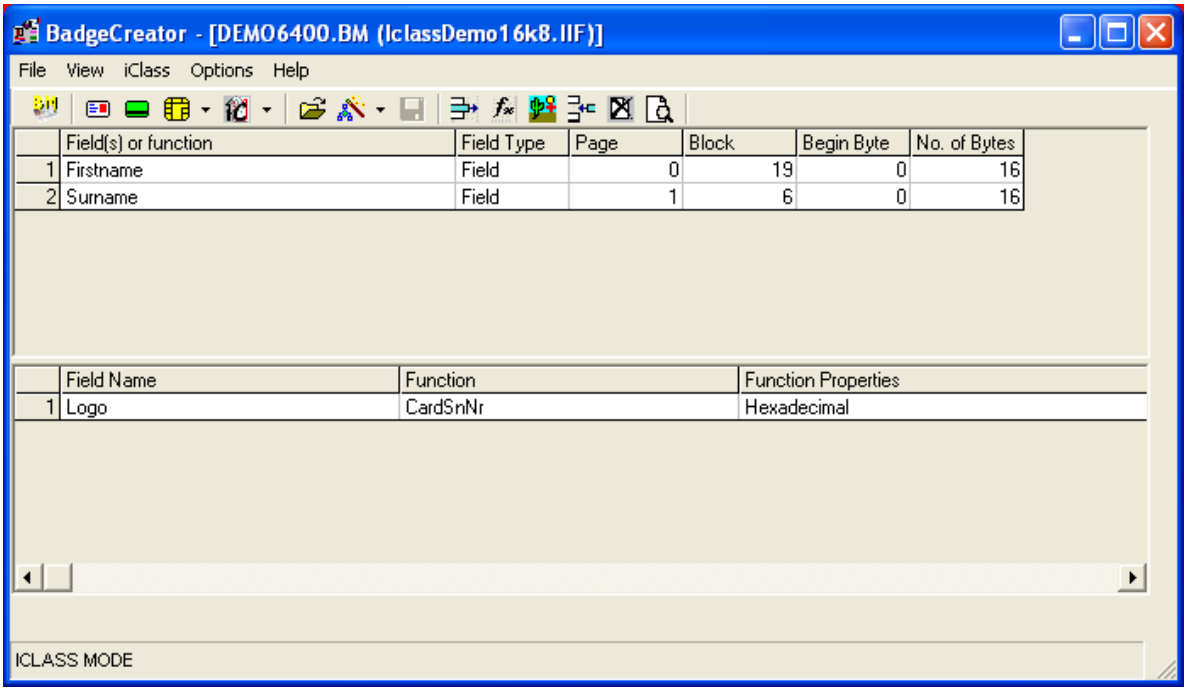


Open layout

Select an iClass Demo from the list.

For this example iClassDemo16k8 is chosen.

The Layout is presented in the Main Screen.

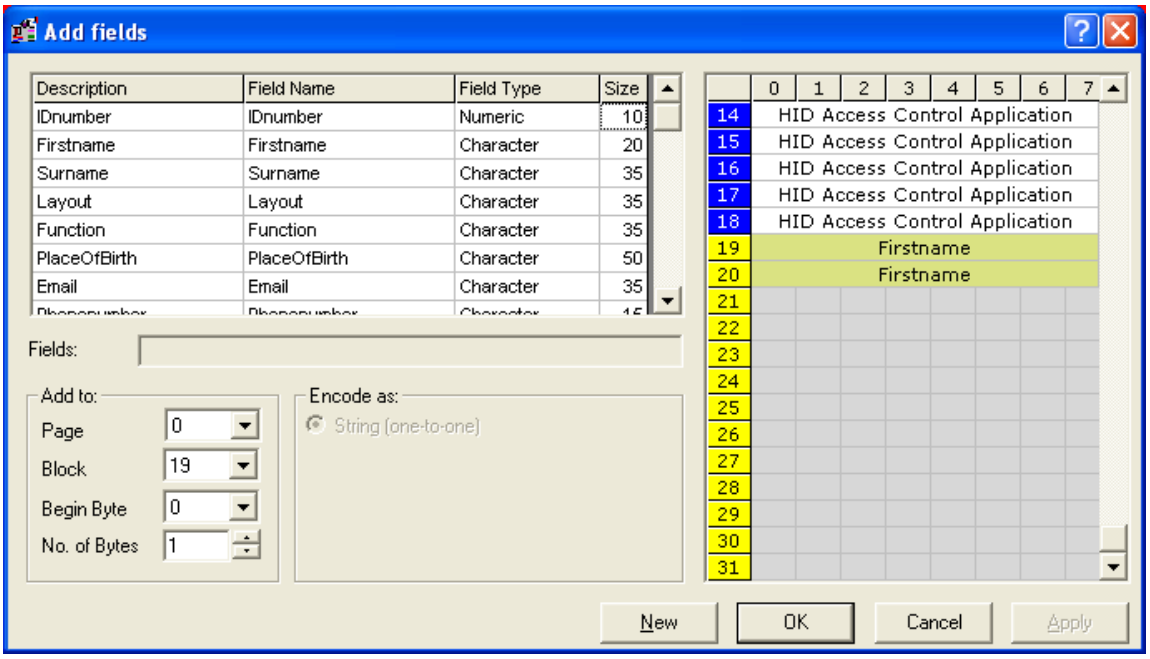


iClass Menu

Add Field

Select **iClass Menu** and click **Add Fields** or use  from the toolbar.

The following dialog is displayed.



Add fields

Select a field to add to your current mifare layout.

Fields: Specifies the selected filed currently being configured.

Add to

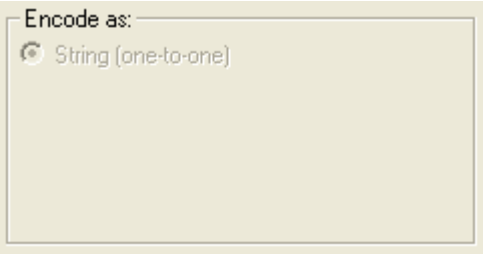
- **Page:** Select which Page to write the field to, (for 16K/16 chips only).
- **Block:** Select a block to write a field to, (6 –31 or 19-255).
- **Begin Byte:** Select a Begin Byte to write the field to, (0 - 7).
- **No. of bytes:** Select the number of bytes needed for a field .

Encode As

Encode As: Select the method to encode information onto the card. Select an option from the following.

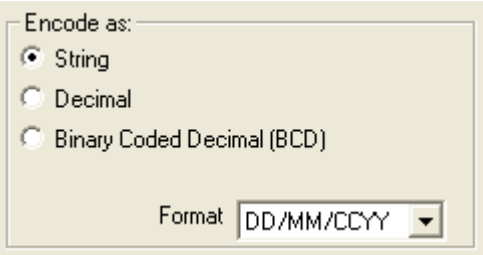
Options are dependent on field type.

Character



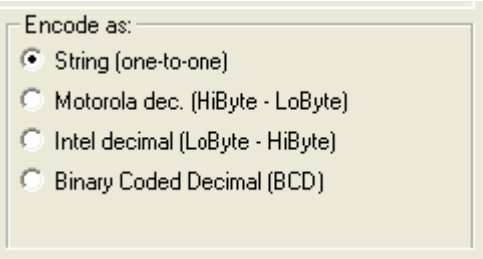
String: (*field type character, numeric and date*)

Date



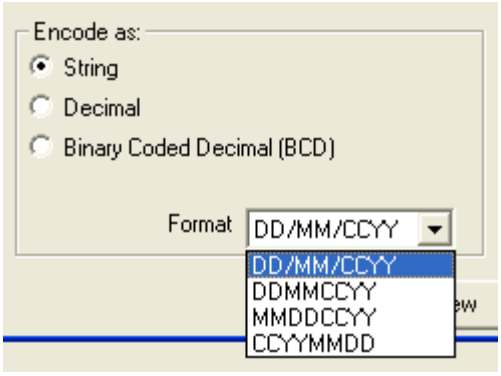
- **String:** (*field type character, numeric and date*)
- **Decimal:** (*field type numeric*)
- **Binary coded decimal:** (*field type numeric and date*)

Numeric



String: (*field type character, numeric and date*)
Motorola decimal: (*field type numeric*)
Intel decimal: (*field type numeric*)
Binary coded decimal: (*field type numeric and date*)
Decimal: (*field type date*), the decimal can be coded in various sequences.

The contents of a date field can be encoded in different orders. Select a set from the drop down list.



In case you encode as a string every character is represented by its ASCII value (*every character is encoded into one byte*).

Motorola and Intel decimal encoding work with hexadecimal values. Special hexadecimal encoding is a mixture (*hexadecimal notation without decimal to hexadecimal conversion of the value*).

Example

Suppose the database has a numeric field with 4 positions named ID number. The value is 1500 (=05DC hex).

The following ways of encoding are possible.

Encode type	Byte 1	Byte 2	Byte 3	Byte 4
String	0x31	0x35	0x30	0x30
Motorola	0x05	0xDC		
Intel	0xDC	0x05		
Binary coded decimal	0x15	0x00		

In the case the largest value of the field ID number would be 9999999 (98967F hex), there would be 7 bytes needed to encode it as a string, 3 bytes to encode it as Motorola or Intel decimal and 4 bytes to encode it as special hex.

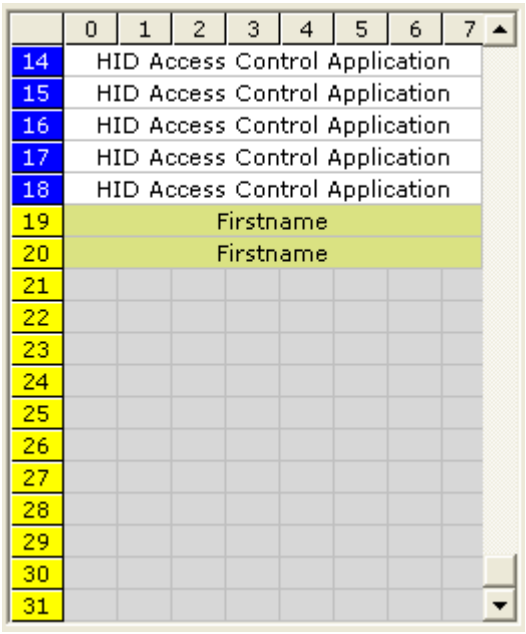
Encode type	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
String	0x39	0x39	0x39	0x39	0x39	0x39	0x39
Motorola	0x98	0x96	0x7F				
Intel	0x7F	0x96	0x98				
Binary coded decimal	0x09	0x99	0x99	0x99			

The following example shows how unused bytes are filled when the number of bytes assigned for the field is more than needed.

Number of bytes assigned is 6, the value is 1500.

Encode type	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6
String	0x31	0x35	0x30	0x30	0x00	0x00
Motorola	0x00	0x00	0x00	0x00	0x05	0xDC
Intel	0xDC	0x05	0x98	0x00	0x00	0x00
Binary coded decimal	0x00	0x00	0x00	0x00	0x15	0x00

On the right half of the dialog an overview summary is shown illustrating the fields positioned on the current layout.



iClass summary

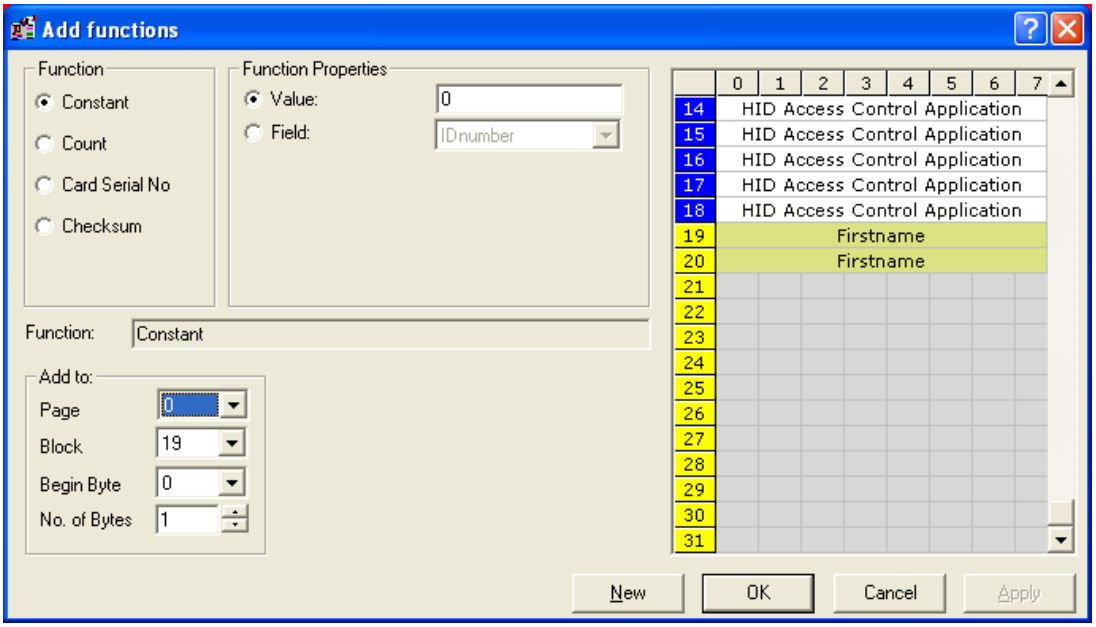
Numbers running across are the number of bytes in each Block. Number running down the left hand side are the number of Blocks to a Track.

Select **OK** to add the newly created field.

Add Function

Select **iClass Menu** and click **Add Function** or use  from the toolbar.

The following dialog is displayed.



Add function

Function

Constant: Select a value between **0** and **255**. This value will be encoded into the selected byte. If more than one byte is selected, same value will be encoded to every byte. The value can also be read from the database. Select **Field listed** in the **Function Properties**, the value from the field will be encoded onto the chip layout.

Count: The counter function can read a value from the database and increment it with a defined value (*e.g. the number of times a new card is issued for the same individual can be stored in the database*), or an array with incremental values can be encoded.

Function Properties

In Function Properties you can select if the value must be incremented after it is written to the card. Select if the value must be incremented after it is written to the card Write before increment or before it is written to the card Increment before write.

Start Value: Select a Start Value between **0** and **255**.
Card Serial Number: The card serial number (*encoded by the manufacturer in track 0*) can be read from the card and encoded another time in one of the other tracks. It can be encoded as a decimal string (*10 bytes*) or hexadecimal string (*8 bytes*).

Checksum: A checksum can be calculated over a number of bytes. Select the way the checksum is calculated, select where the checksum should be stored and select the bytes where the checksum should be calculated over. The checksum is one byte, if more than one byte is selected for the checksum, the value of the checksum will be repeated in every byte.

Function Properties

In **Function Properties** you can select the way a checksum is calculated.

XOR

I 0 0 I I 0 0 I
0 I I 0 0 I I 0
0 0 I I 0 0 0 I
I I I 0 I I I 0
0 I I I I 0 I 0

Result: 0 I 0 I I 0 I 0

Selecting XOR will always result in a value that fits into one byte.

ADD

I 0 0 I I 0 0 I
0 I I 0 0 I I 0
0 0 I I 0 0 0 I
I I I 0 I I I 0
0 I I I I 0 I 0

Result: I 0 I 0 0 I I 0 0 0

When ADD is selected the low byte value will be written to the card.

Parity

A parity check can be selected, since encoding is done in minimal parts of one byte, it will occupy one byte only.

Polynomial CRC

Use a polynomial to calculate the checksum. When you use a polynomial fill in the polynomial you would like to use.

Example: The polynomial to use is x8+x5+x4+x2+1. This is represented by the binary value 100110101 (309 in decimal). In the Polynom text box a decimal value must be specified. This decimal value must be between 257 and 511 (between 100000001 and 111111111 binary).

Start Value: Select a value between 0 and 255 and fill it in, in the box.

Polynomial CRC is the most reliable way to calculate a checksum.

Add To

- **Page:** Select which Page to write the field to, (*for 16K/16 chips only*).
- **Block:** Select a block to write a field to, (*6 –31 or 19-255*).
- **Begin Byte:** Select a Begin Byte to write the field to, (*0 - 7*).
- **No. of bytes:** Select the number of bytes needed for a field .

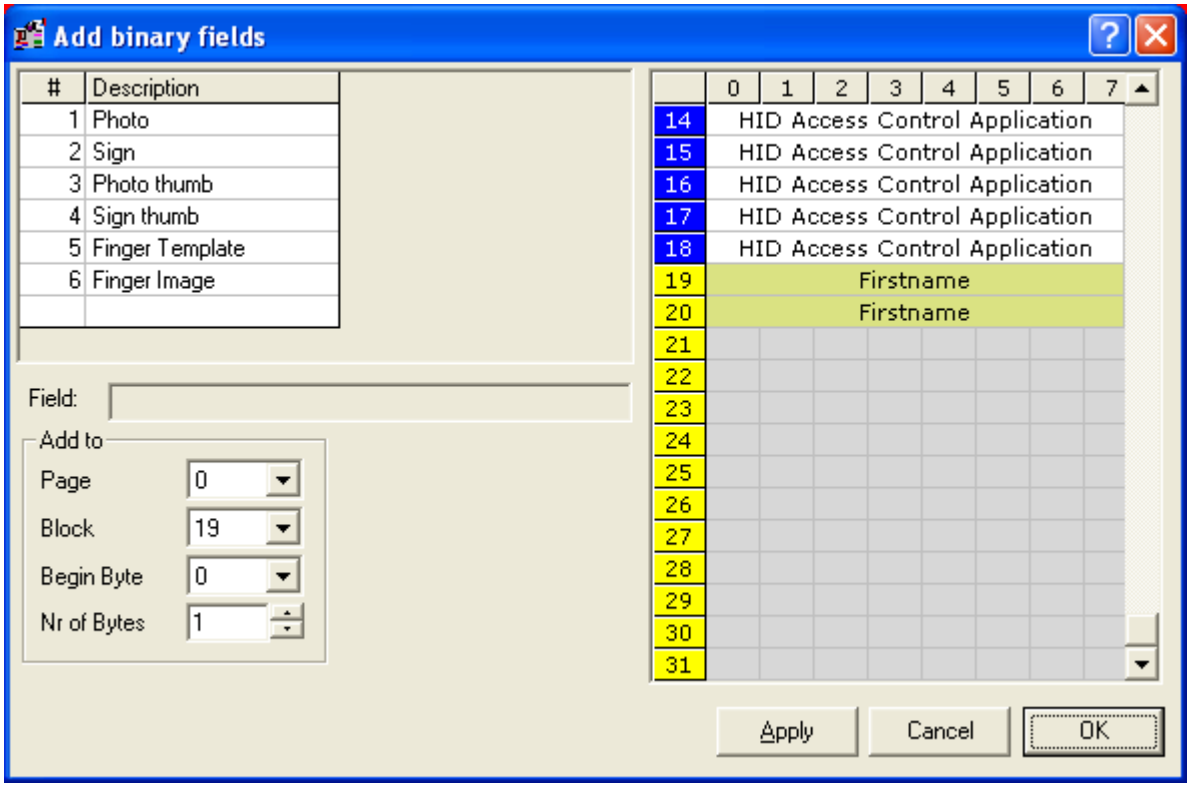
On the right half of the dialog an overview summary is shown illustrating the fields positioned on the current layout.

Click **OK** to exit.

Add Binary Item

Select **iClass Menu** and click **Add Binary Item** or use  from the toolbar.

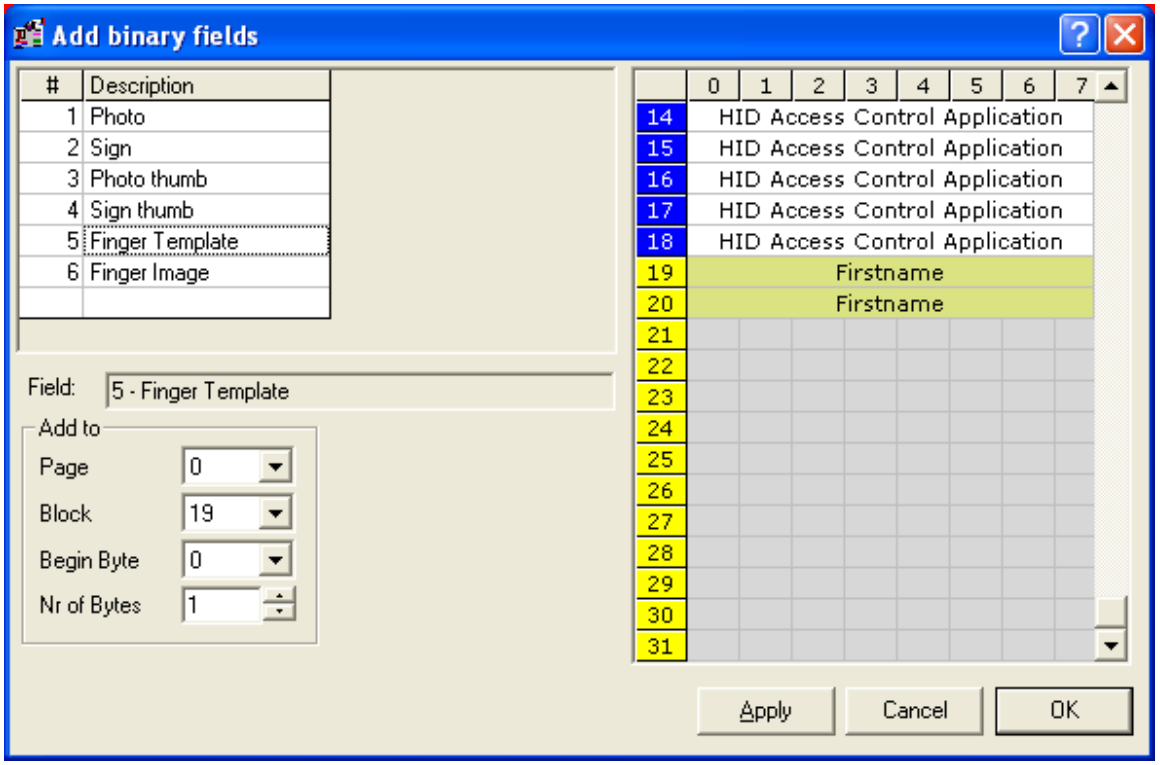
The following dialog is displayed.



Add binary fields

Add a **binary field** to a iClass Layout.

Select an Image Type stored as a BLOB (Binary Large Objects). Below as an example **Fingerprint** is chosen.

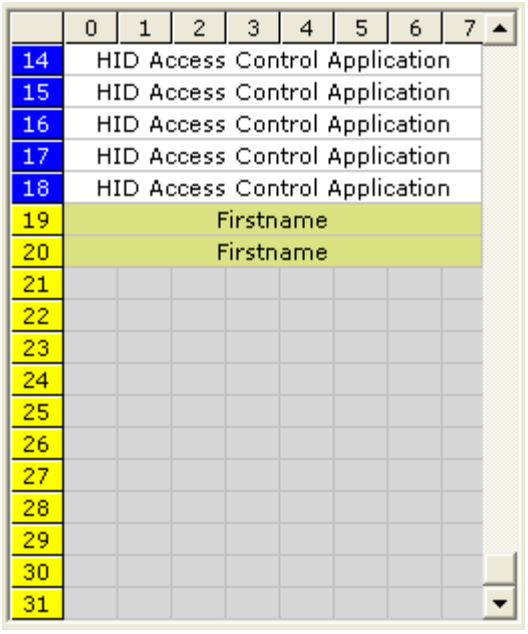


Most images (photos, signatures or fingerprint images) are too big to encode on a card. Biometric data such as fingerprint or hand palm characteristics are in general small enough to store on the card.

Add To

- **Page:** Select which Page to write the field to, (*for 16K/16 chips only*).
- **Block:** Select a block to write a field to, (*6 –31 or 19-255*).
- **Begin Byte:** Select a Begin Byte to write the field to, (*0 - 7*).
- **No. of bytes:** Select the number of bytes needed for a field .

On the right half of the dialog an overview summary is shown illustrating the fields positioned on the current layout.



	0	1	2	3	4	5	6	7
14	HID Access Control Application							
15	HID Access Control Application							
16	HID Access Control Application							
17	HID Access Control Application							
18	HID Access Control Application							
19	Firstname							
20	Firstname							
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								

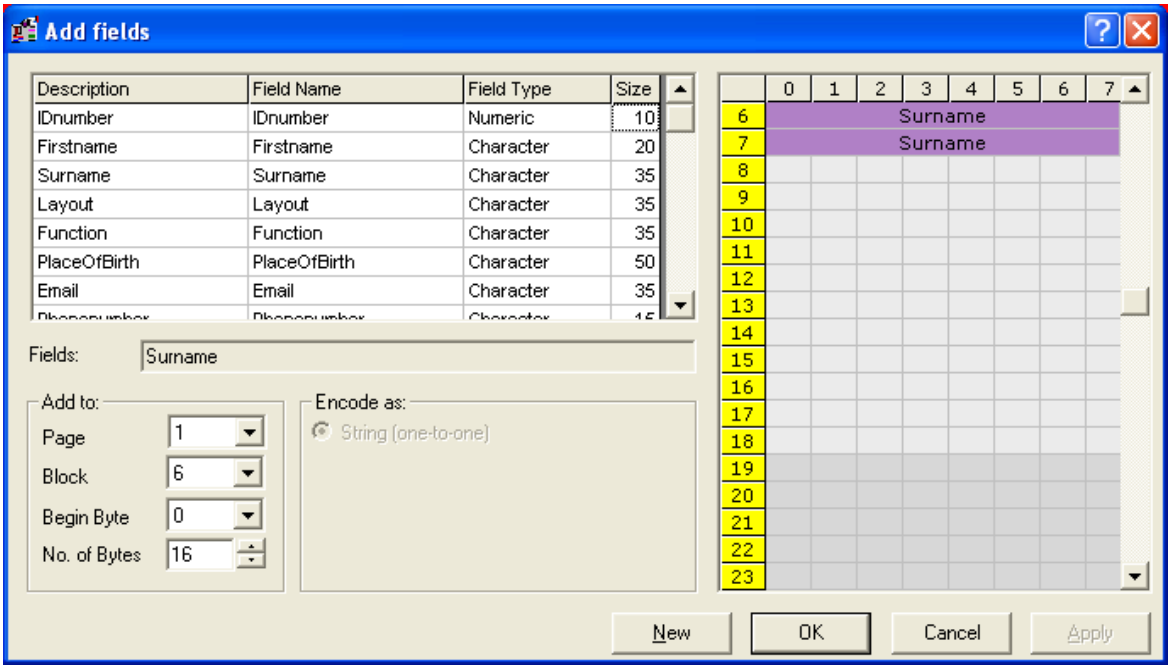
Summary

Select **Apply** to insert the new binary field. Click **OK** to exit.

Edit Item

Select **iClass Menu** and click **Edit Item**.

The following dialog is displayed.



Edit the currently selected field, assign the field data to another **Page**, **Block** or specify a **Begin Byte** and specify the **No. of Bytes**.

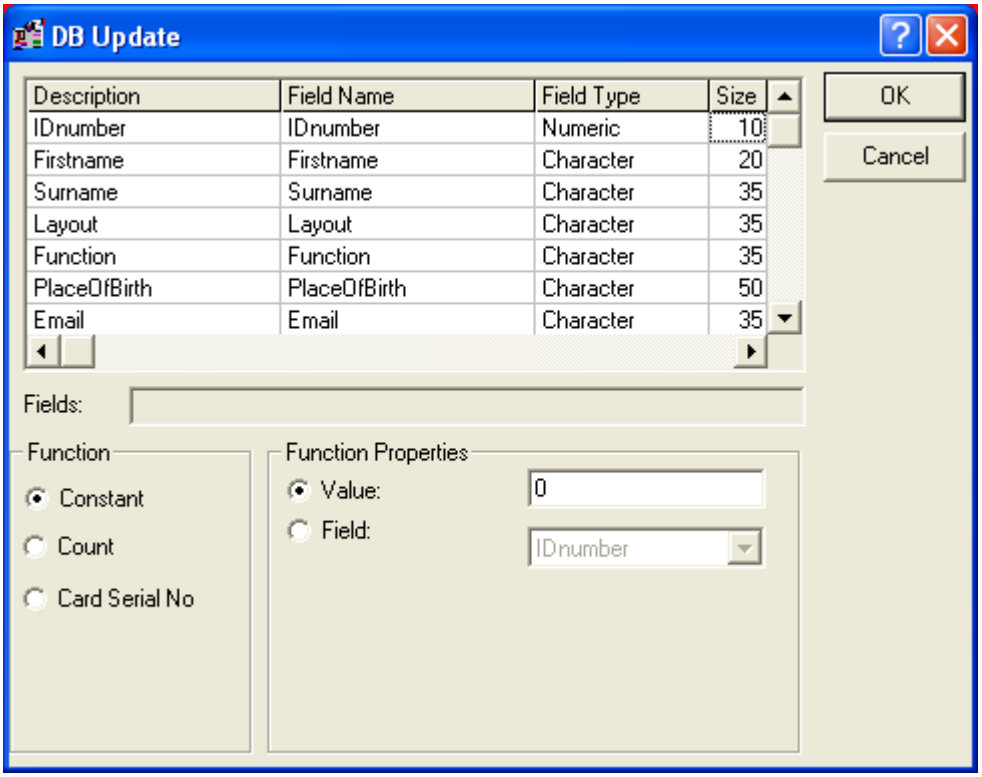
Add to

- **Page:** Select which Page to write the field to, (*for 16K/16 chips only*).
- **Block:** Select a block to write a field to, (*6 –31 or 19-255*).
- **Begin Byte:** Select a Begin Byte to write the field to, (*0 - 7*).
- **No. of bytes:** Select the number of bytes needed for a field .

Add Database Update

Select **iClass Menu** and click **Add Database Update** or use  from the toolbar.

The following dialog is displayed.



DB Update

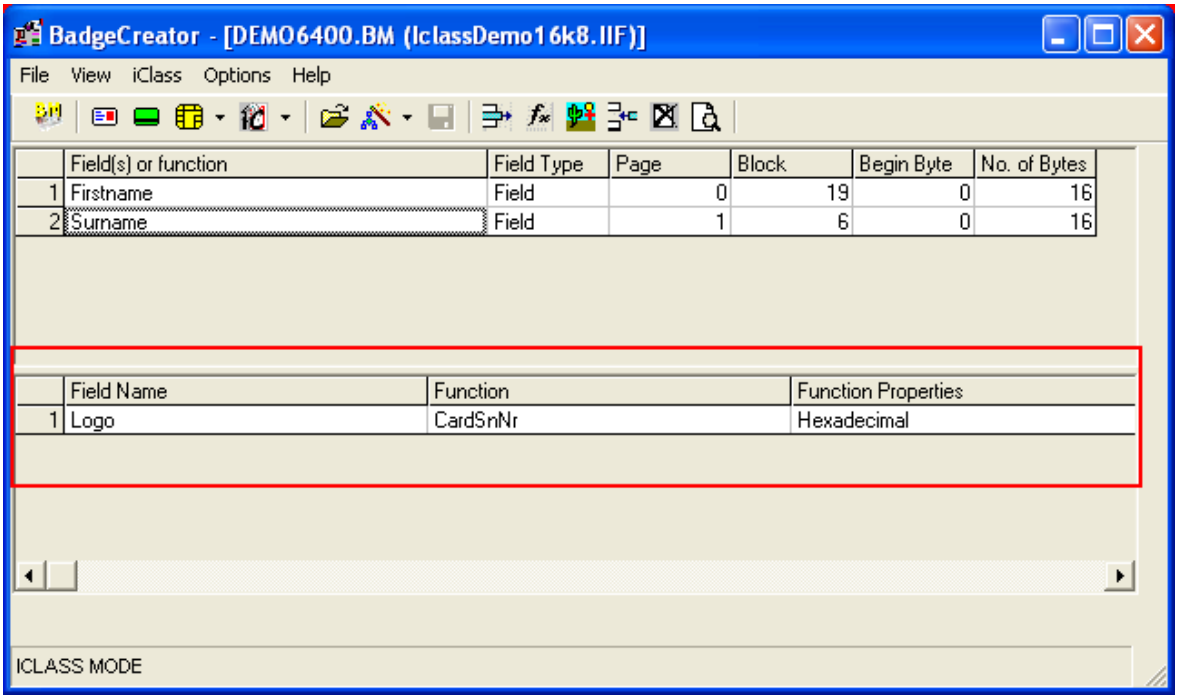
Select a field from the database which will be updated automatically from information on a card when the Mifare card is read.

Constant: A constant value can be stored in the selected field. When the card is encoded, the value will be written in the field. (*Fixed Text*)
Count: A counted value can be stored in the selected field. It will be incremented for every card encoded. The start value can be given in or can be read from another (*or the same*) field.
Card Serial No: The card serial number that was written in the card by the manufacturer can be stored in the database when the card is encoded.

Example

A card serial number that was written in the card by the manufacturer can be stored in the database when the card is encoded. That way it is possible to check the database which card number was assigned to a certain person. This number can be stored as a decimal or hexadecimal value.

The database update functions are displayed in the lower half of the main screen.

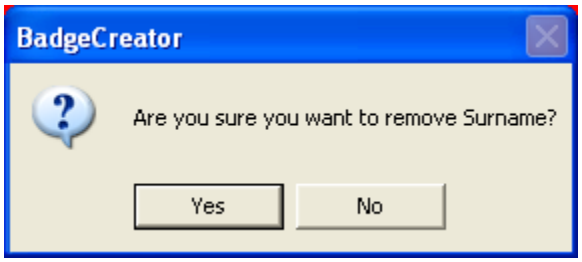


DB Update

Remove Item

First you must select a field and then select iClass Menu and click Remove Item or use  from the toolbar.

The following dialog is displayed.

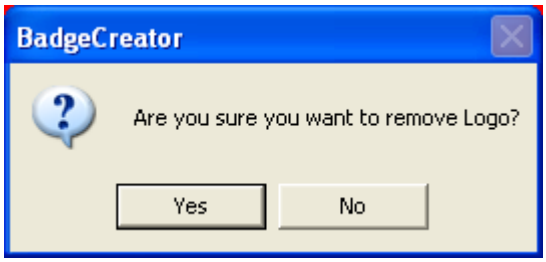


Select **Yes** to remove the selected field or **No** to cancel removal.

Remove DB Update Item

First you must select a field and then select **iClass Menu** and click **Remove DB Update Item** or use  from the toolbar.

The following dialog is displayed.

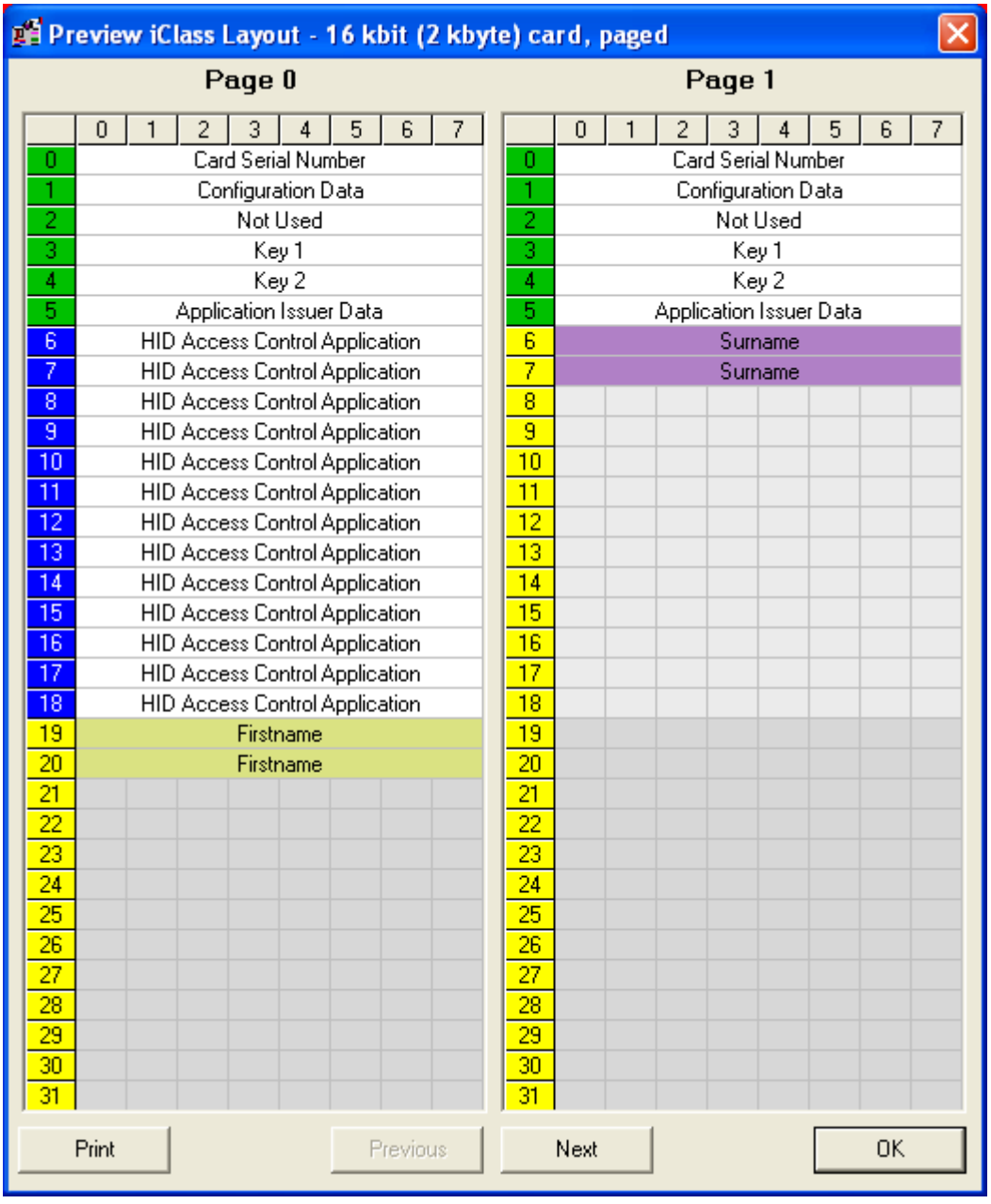


Select **Yes** to remove the selected DB Update field or **No** to cancel removal.

Overview

Select iClass Menu and click Overview or use  from the toolbar.

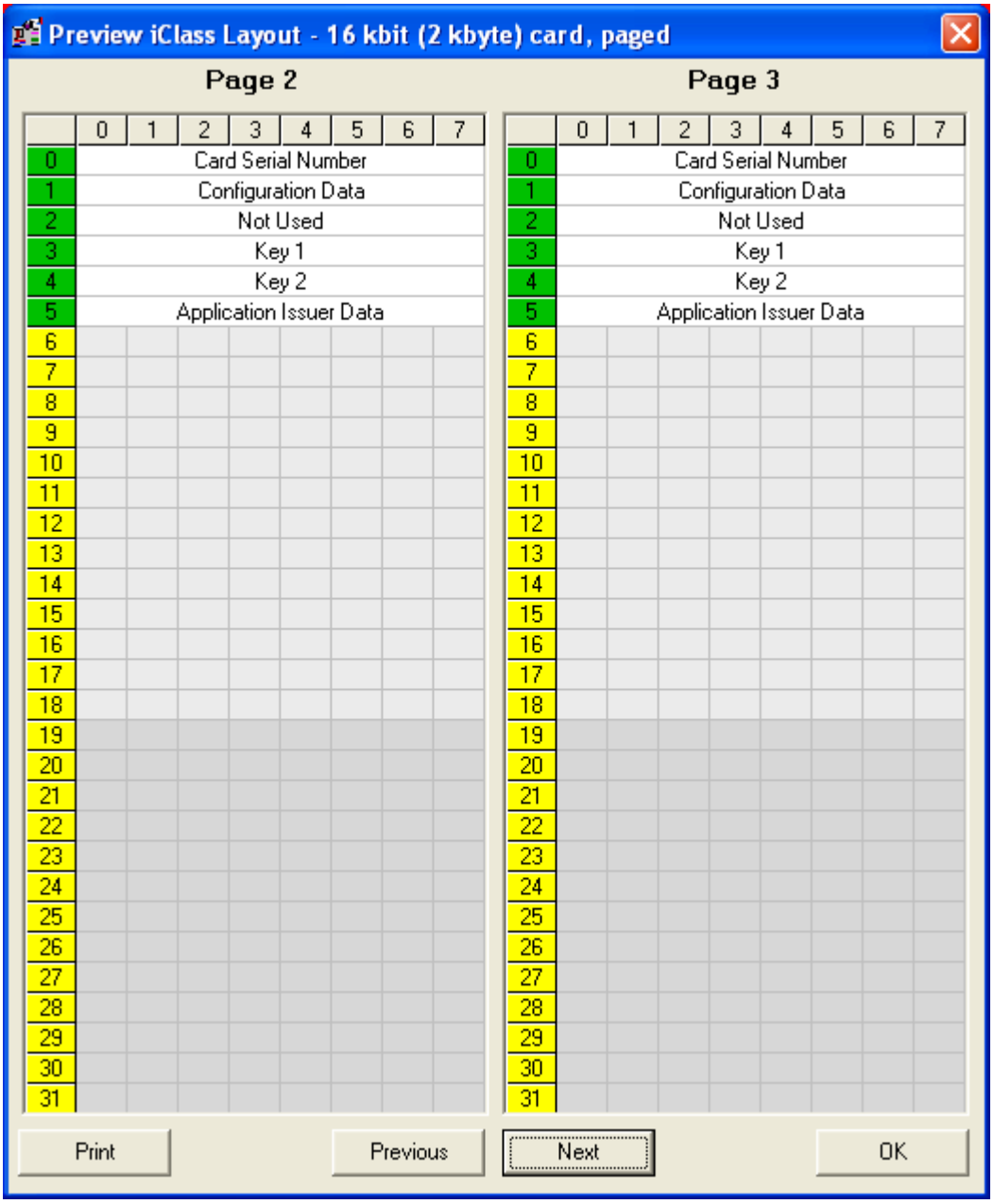
The following dialog is displayed.



Summary

The overview display's a preview of the data that will be encoded onto the current layout.

Click **Next** to view the next pages of your encode layout.



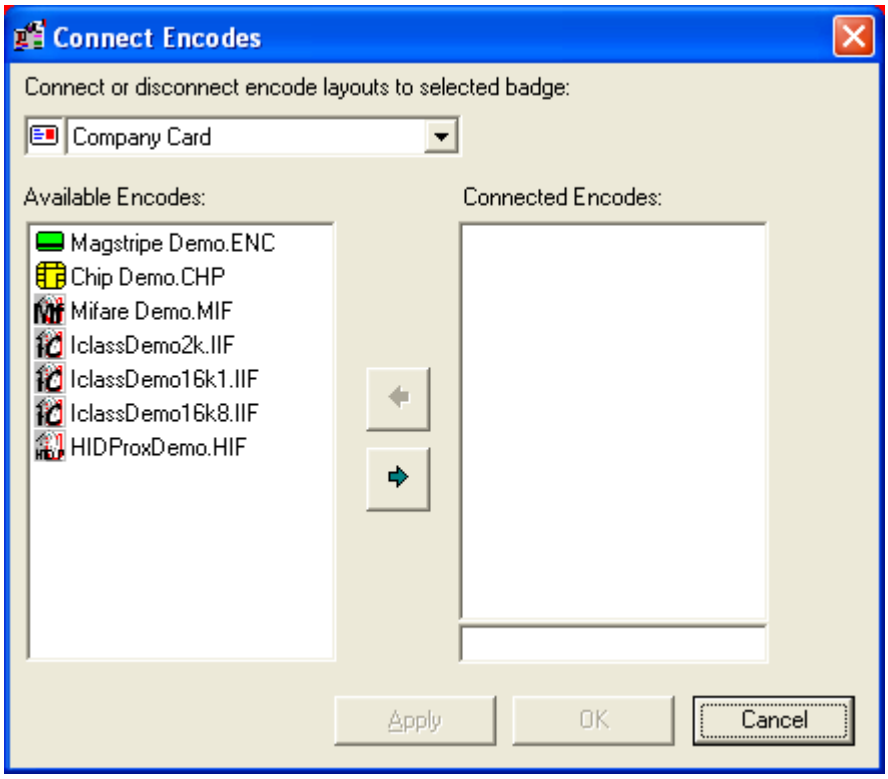
Print: To print the Overview select this option.

Select **OK** to close

Options

Encode Settings...

Select Options Menu and click Encode Settings. The following dialog is presented.

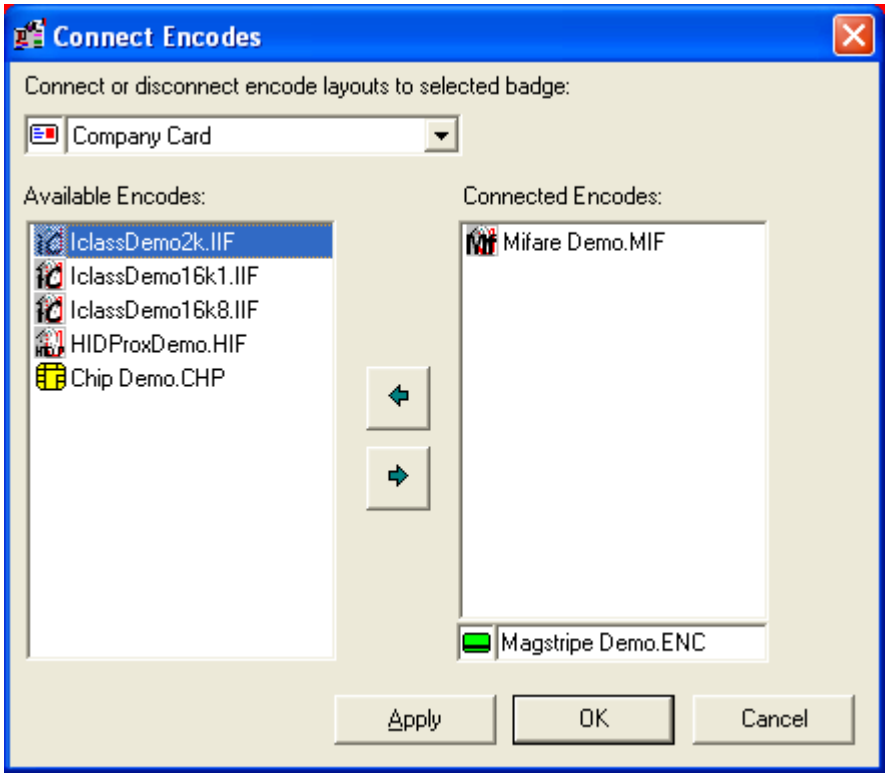


Connect encodes

In the **Connect Encodes** dialog link an encode layout to a badge layout. Check the right badge is selected. On the left-hand side of the window, the available configured encode layouts are displayed.

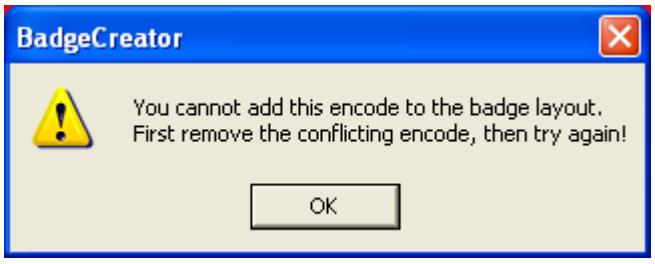
Select one and click the transfer right button.

Now the encode layout will be displayed on the right-hand side of the window.



Click **Apply** to save.

A combination of one chip encode layout and one magstripe layout is possible. Only one contact or contactless chip encode layout can be connected at a time. If you try to connect them both to a layout the following warning message is displayed.



To disconnect an encode layout, select the layout on the right side and click the transfer left button.

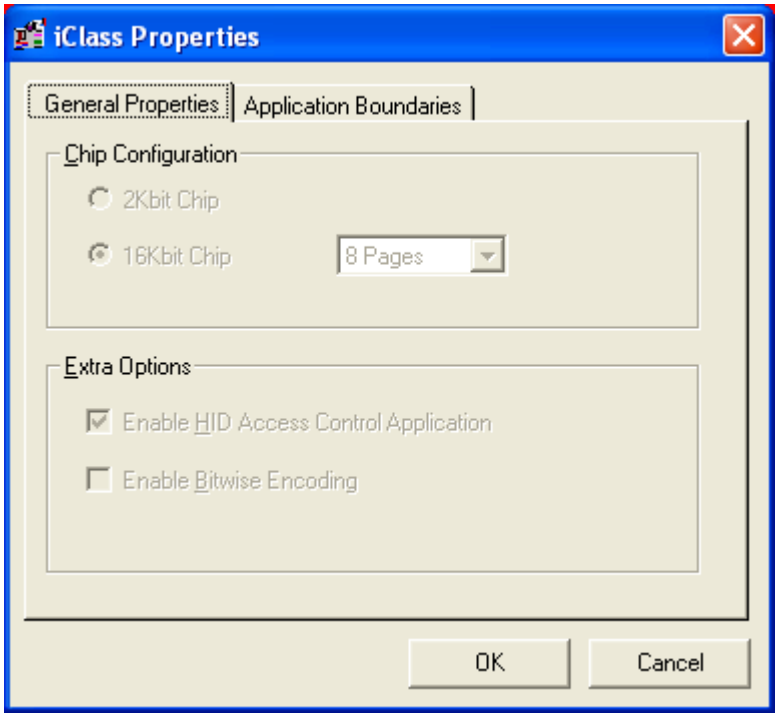
Click **OK** to close and save settings.

Settings

Select **Options** and then click **Settings**.

The following dialog is displayed.

General Properties



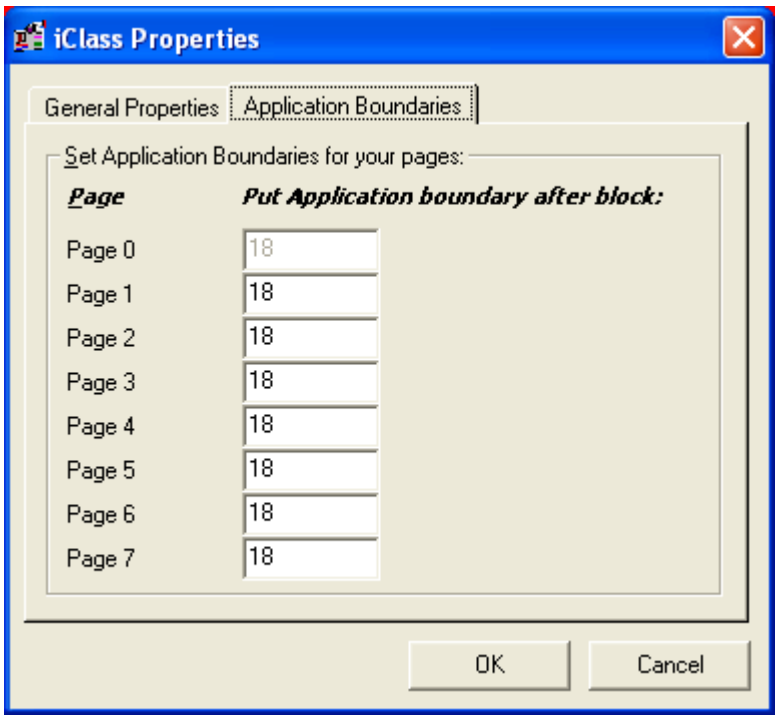
General Properties

Define Chip Configuration.

- **2Kbit Chip**
- **16Kbit Chip**

Click **OK** to close.

Application Boundaries



Set **Application Boundaries** for your pages.

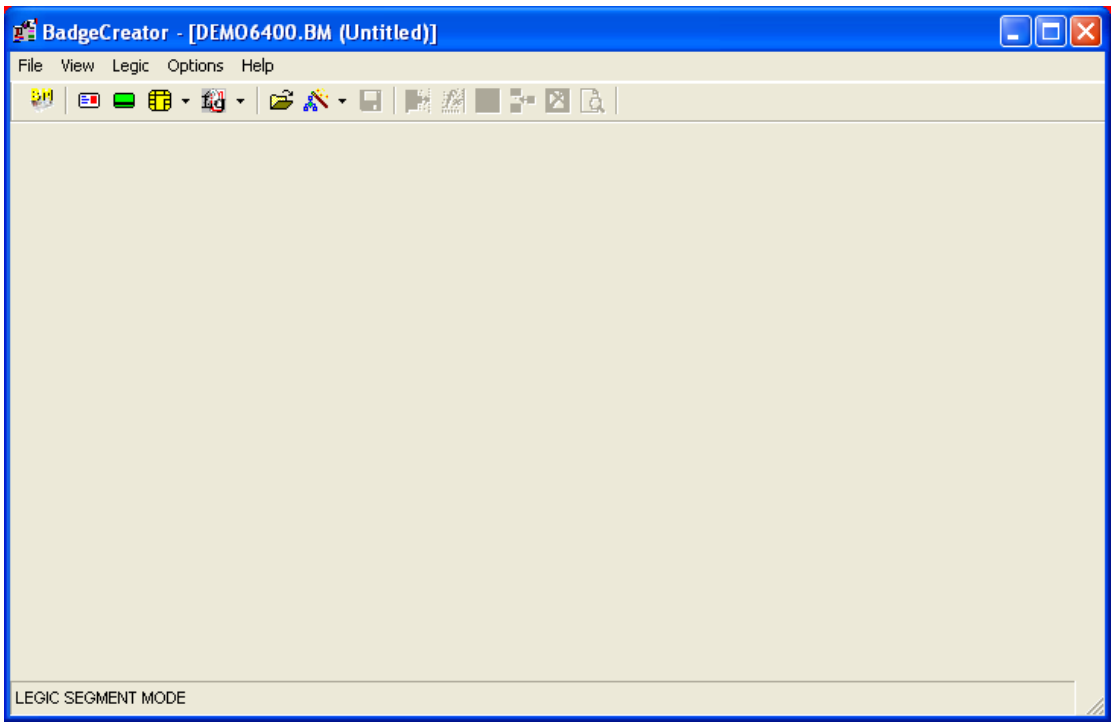
Click **OK** to close.

Legic Encoding

Select the **File Menu**, click **Mode**, and then click **Legic Encode Layout** to open Legic Encode Layout Mode.

Click  from the BadgeCreator **Toolbar** and select Legic Mode from the drop down menu.

Main Screen



In Legic Encode Layout mode Legic layouts are created and edited.

Legic Encode Layout Toolbar

The Toolbar in Legic Layout Mode can be used to quickly start a function by clicking on the desired button.

Back to Main Screen
Click on this button to return to the BadgeMaker main screen.

Badge Layout Mode
Click on this button to enter the badge layout mode to configure/create badge layouts.

Magnetic Layout Mode
Click on this button to enter the magnetic layout mode to configure/create magnetic encode layouts.

Chip Mode
Click on this button to enter the chip layout mode to configure/create chip encode layouts.

Legic Mode
Click on this button to enter the Legic layout Mode to configure/create Legic layouts.

Open Layout
Click on this button to open an existing Legic layout linked to the current project (*.BM) file.

New Layout
Click on this button to start the New layout Wizard.

Save Layout
Click on this button to save the current layout.

Add Field
Click on this button, to add a field to the current track.

Add Function
Click on this button, to add a function to the current track.

Add DB Field
Click on this button, to store a constant, counted value or card serial in a database.

Remove Item

Click on this button, to remove a field from the layout.

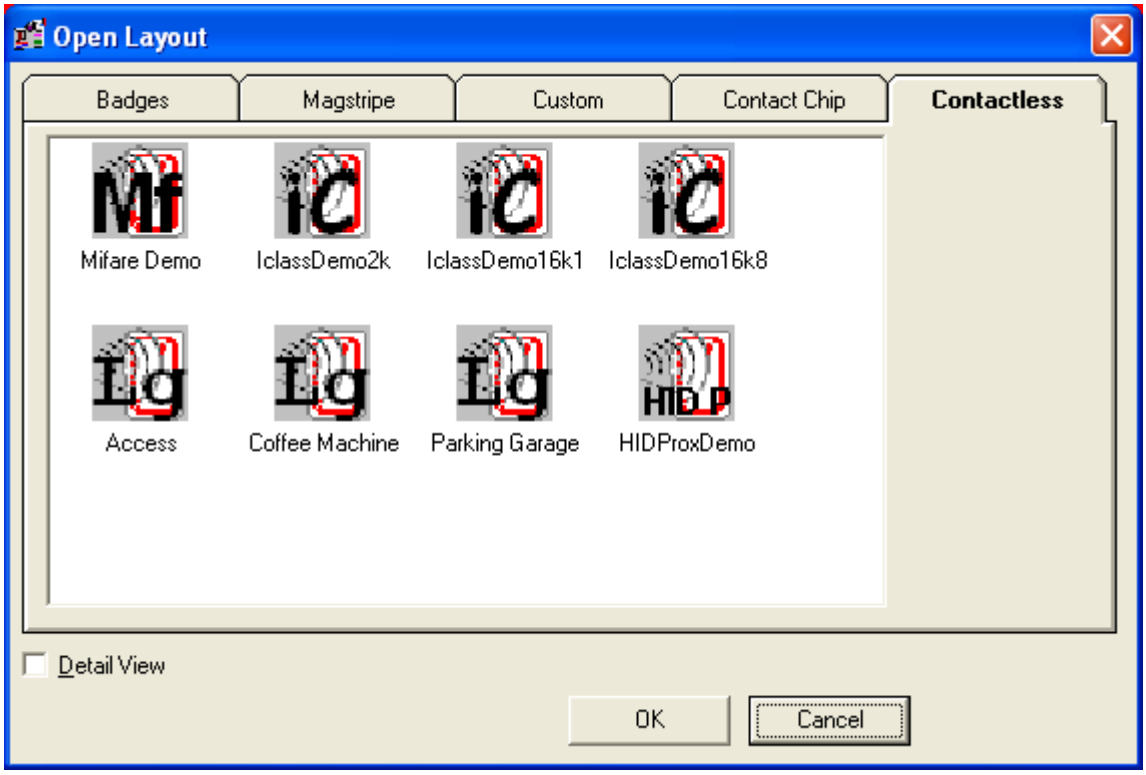
 **Preview**

Click on this button, to preview a layout.

Open An Existing Legic Layout

Select **File Menu** and click **Open Layout** or use  from the toolbar.

The following screen is presented. Configured Legic Layouts are listed here.

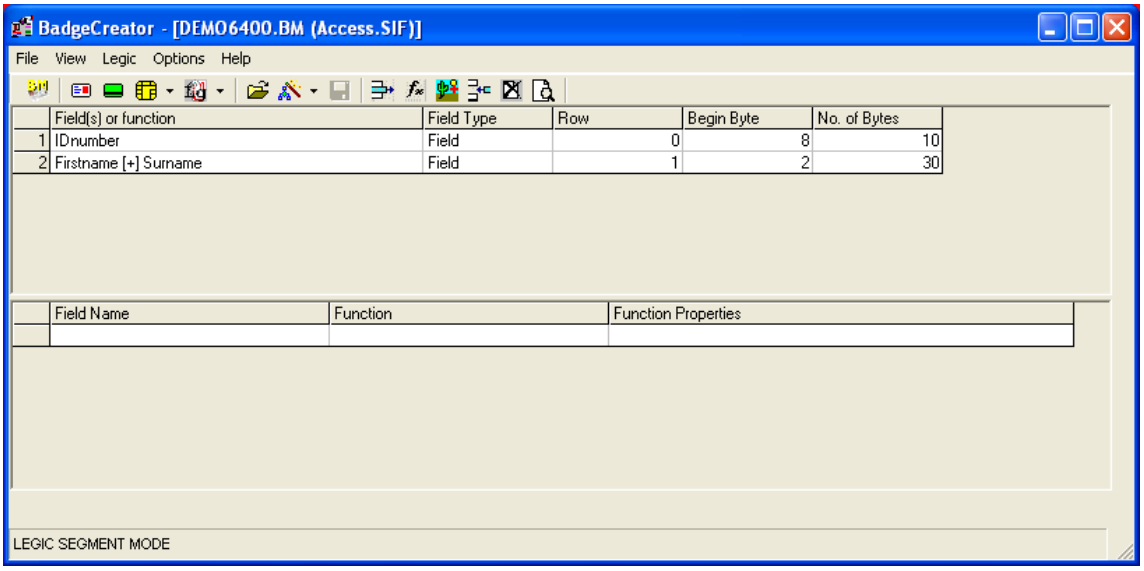


Open layout

Select a **Legic Demo** from the list (*Lg*).

For this example **Access** is chosen.

The Layout is presented in the Main Screen.

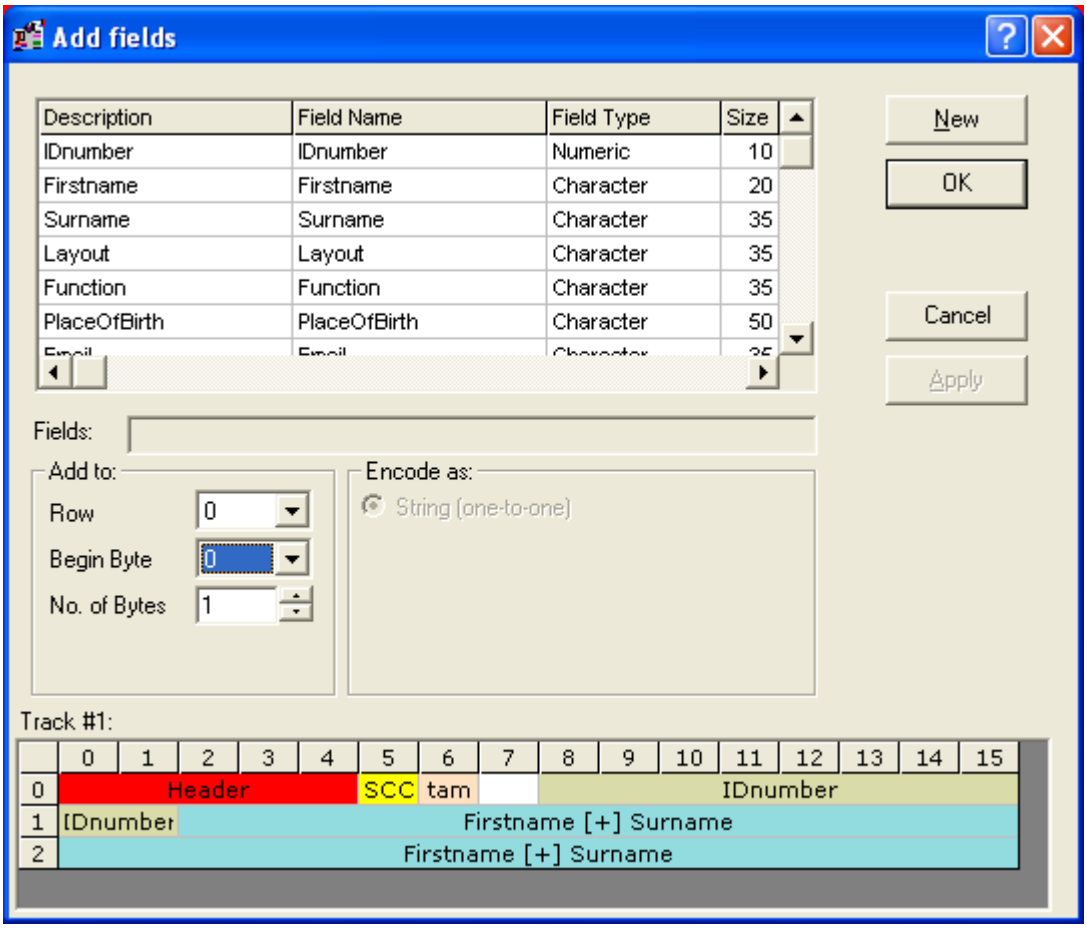


Legic Menu

Add Field

Select **Legic Menu** and click **Add Field** or use  from the **toolbar**.

The following dialog is displayed.



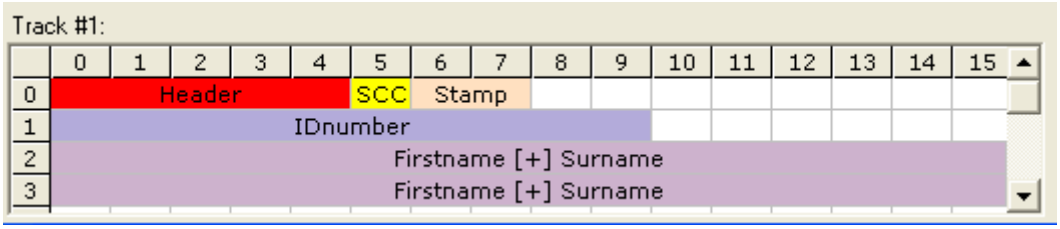
Add fields

Select a field to add to your current Legic layout.

Fields

- **Row:** Select which row to write the field to.
- **Begin Byte:** Select a Begin Byte to write the field to (*0 - 15*).
- **No. of bytes:** Select the number of bytes needed for a field

At the bottom an overview summary is shown illustrating the fields positioned on the current layout. It is possible to scroll down and view the entire layout structure of the mifare encode layout.



Summary

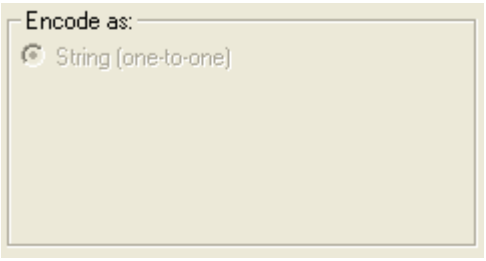
BadgeCreator divides a segment in rows of 16 bytes. The first row (row 0) is always partially occupied with a Header, SCC and Stamp.

Encode As

Encode As: Select the method to encode information onto the card. Select an option from the following.

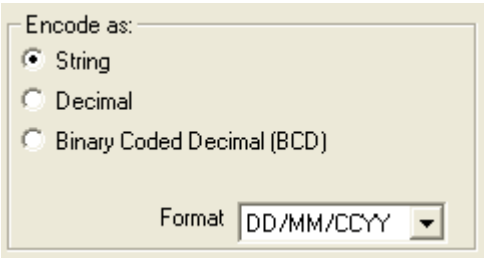
Options are dependent on field type.

Character



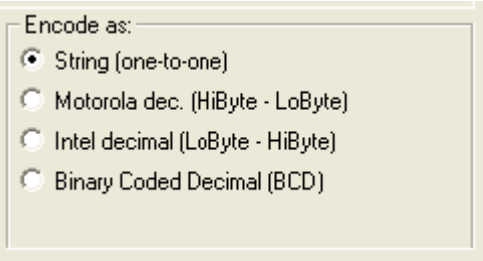
String: (*field type character, numeric and date*)

Date



- **String:** (field type character, numeric and date)
- **Decimal:** (field type numeric)
- **Binary coded decimal:** (field type numeric and date)

Numeric



String: (*field type character, numeric and date*)
Motorola decimal: (*field type numeric*)
Intel decimal: (*field type numeric*)
Binary coded decimal: (*field type numeric and date*)

The contents of a date field can be encoded in different orders. Select a set from the drop down list.

In case you encode as a string every character is represented by its ASCII value (every character is encoded into one byte).

Motorola en Intel decimal encoding work with hexadecimal values. Special hexadecimal encoding is a mixture (hexadecimal notation without decimal to hexadecimal conversion of the value).

Example

Suppose the database has a numeric field with 4 positions named ID number. The value is 1500 (=05DC hex).

The following ways of encoding are possible.

Encode type	Byte 1	Byte 2	Byte 3	Byte 4
String	0x31	0x35	0x30	0x30
Motorola	0x05	0xDC		
Intel	0xDC	0x05		
Binary coded decimal	0x15	0x00		

In the case the largest value of the field ID number would be 9999999 (98967F hex), there would be 7 bytes needed to encode it as a string, 3 bytes to encode it as Motorola or Intel decimal and 4 bytes to encode it as special hex.

Encode type	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
String	0x39	0x39	0x39	0x39	0x39	0x39	0x39
Motorola	0x98	0x96	0x7F				
Intel	0x7F	0x96	0x98				
Binary coded decimal	0x09	0x99	0x99	0x99			

The following example shows how unused bytes are filled when the number of bytes assigned for the field is more than needed.

Number of bytes assigned is 6, the value is 1500.

Encode type	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6
String	0x31	0x35	0x30	0x30	0x00	0x00
Motorola	0x00	0x00	0x00	0x00	0x05	0xDC
Intel	0xDC	0x05	0x98	0x00	0x00	0x00
Binary coded decimal	0x00	0x00	0x00	0x00	0x15	0x00

At the bottom an overview summary is shown illustrating the fields positioned on the current layout. It is possible to scroll down and view the entire layout structure of the mifare encode layout.

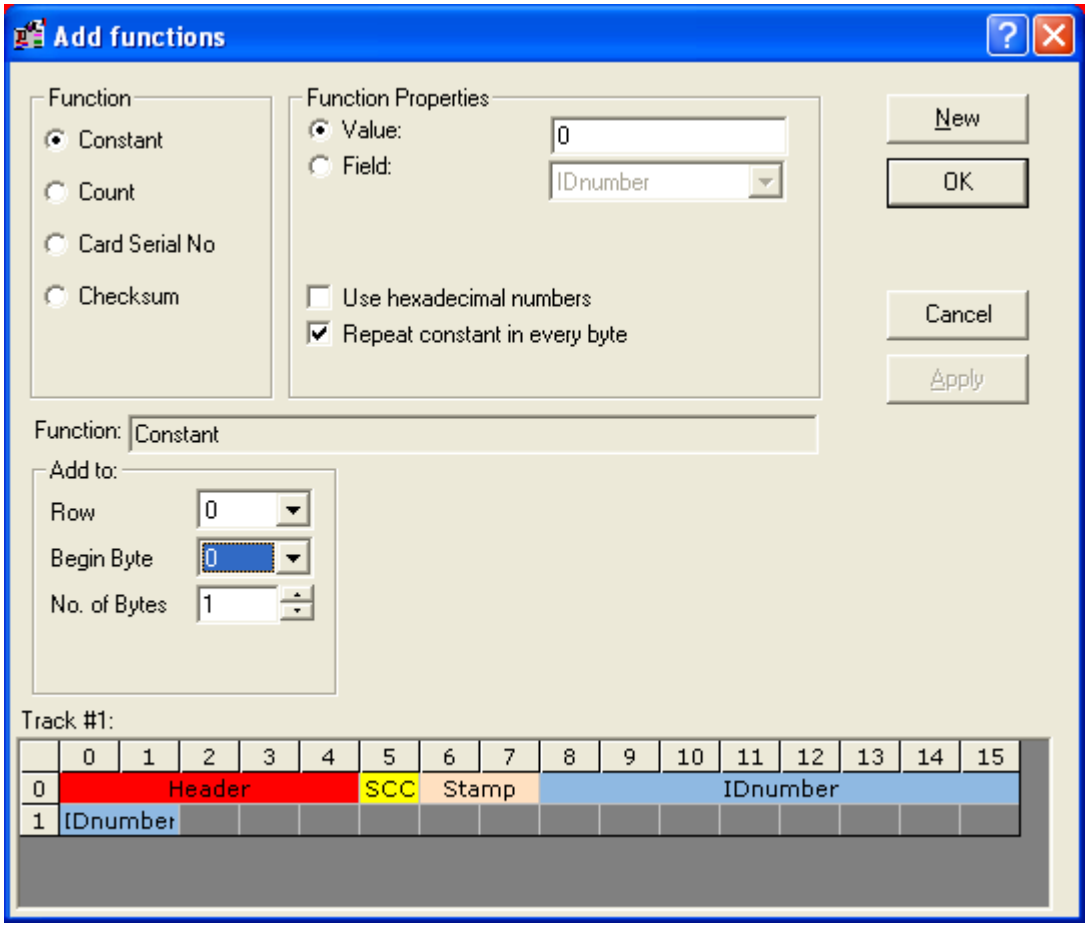
Numbers running across are the number of bytes in each Block. Number running down the left hand side are the number of Blocks to a Track.

Select **OK** to add the newly created field..

Add Function

Select **Mifare Menu** and click **Add Function** or use  from the **toolbar**.

The following dialog is displayed.



Add functions

Function

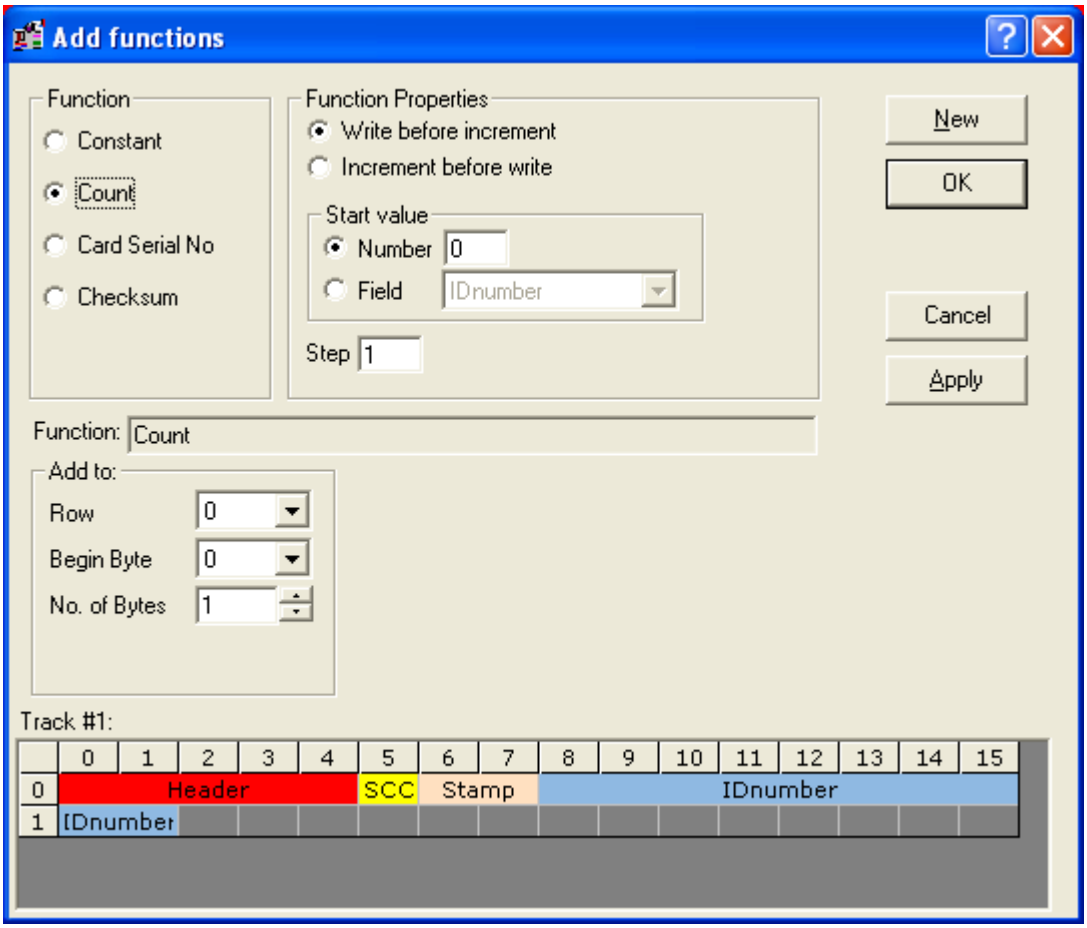
Constant: Select a value between 0 and 255. This value will be encoded into the selected byte. If more than one byte is selected, same value will be encoded to every byte. The value can also be read from the database. Select **Field listed** in the **Function Properties**, the value from the field will be encoded onto the chip layout. If the value in the database is larger than 1 byte the 'low byte value' will encoded in the selected byte(s).

Count: The counter function can read a value from the database and increment it with a defined value (*e.g. the number of times a new card is issued for the same individual can be stored in the database*), or an array with incremental values can be encoded.

Function Properties

In **Function Properties** you can select if the value must be incremented after it is written to the card.

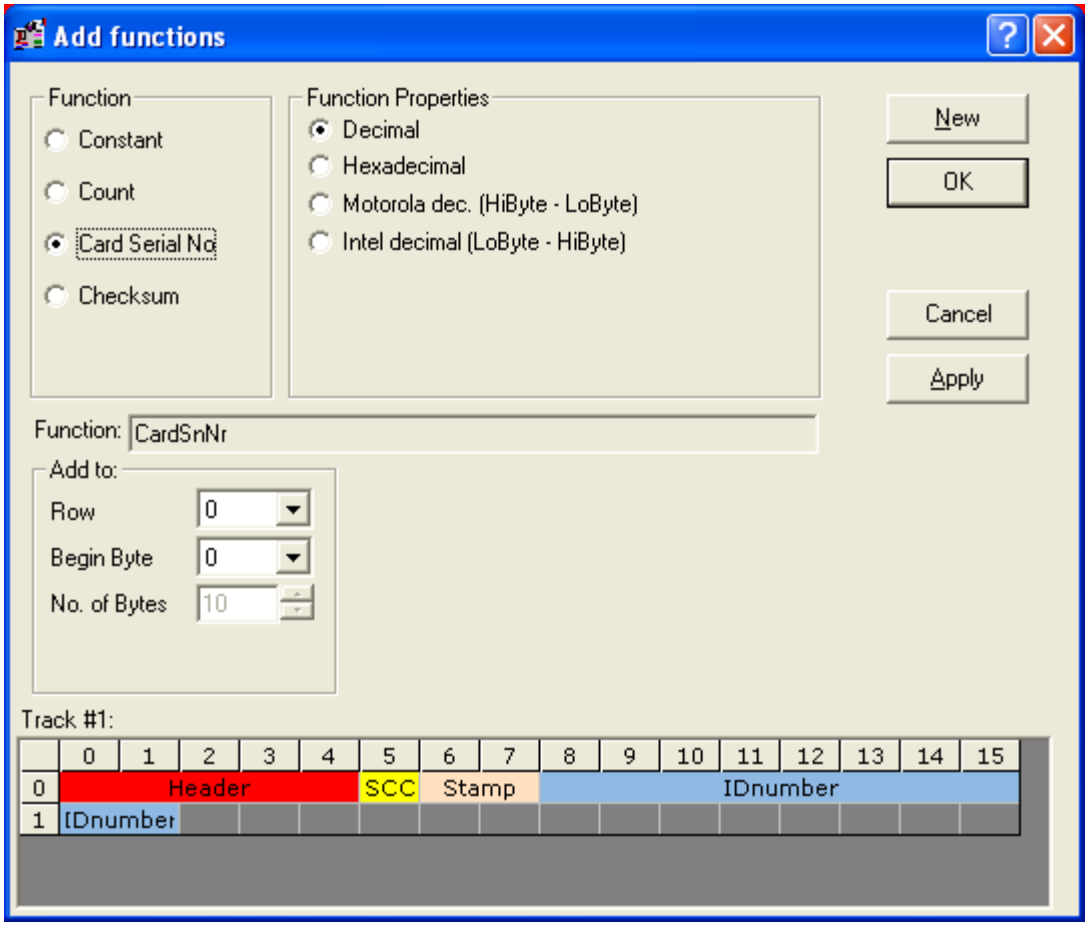
Select if the value must be incremented after it is written to the card Write before increment or before it is written to the card Increment before write.



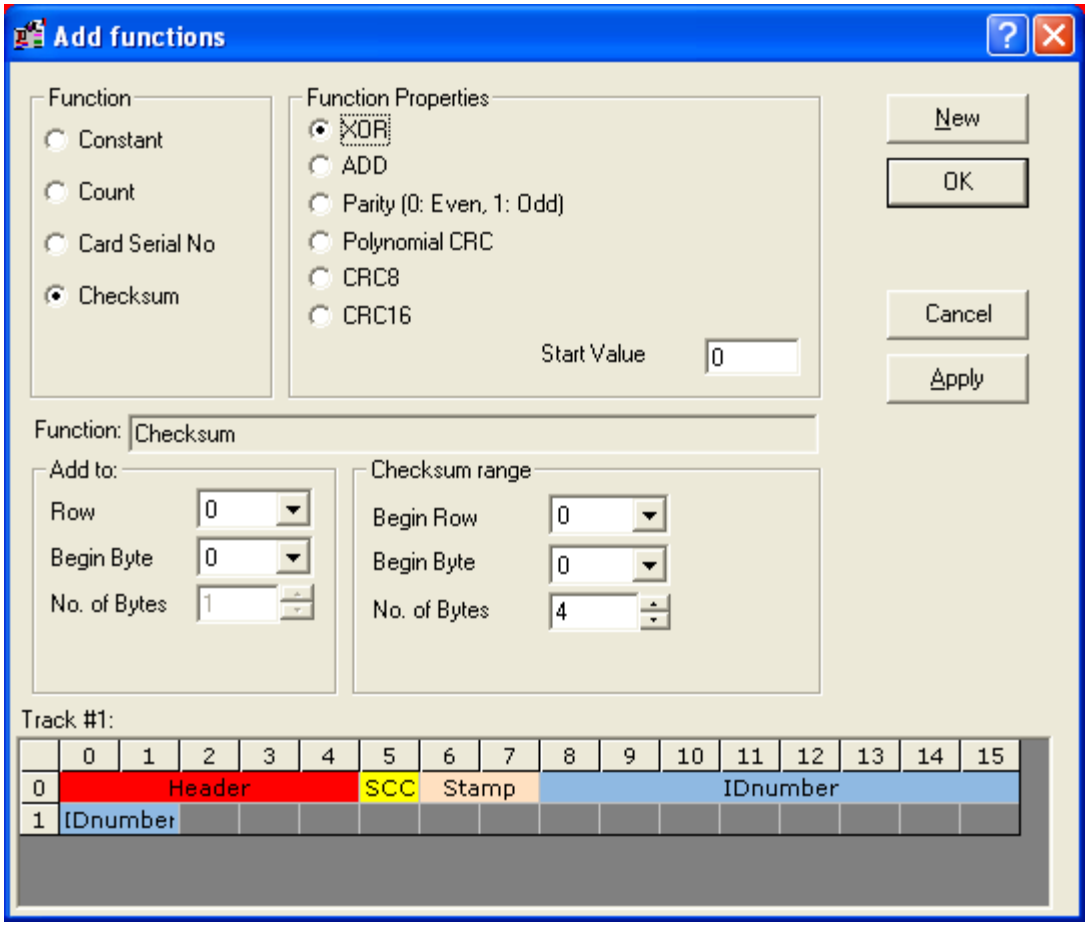
Start Value: Select a Start Value between 0 and 255.

At the bottom an overview summary is shown illustrating the fields positioned on the current layout. It is possible to scroll down and view the entire layout structure of the mifare encode layout.

Card Serial Number: The card serial number (*encoded by the manufacturer in track 0*) can be read from the card and encoded another time in one of the other tracks. It can be encoded as a decimal string (*10 bytes*) or hexadecimal string (*8 bytes*).



Checksum: A checksum can be calculated over a number of bytes. Select the way the checksum is calculated, select where the checksum should be stored and select the bytes where the checksum should be calculated over. The checksum is one byte, if more than one byte is selected for the checksum, the value of the checksum will be repeated in every byte.



Function Properties

In Function Properties you can select the way a checksum is calculated.

XOR

I 0 0 I I 0 0 I
0 I I 0 0 I I 0
0 0 I I 0 0 0 I
I I I 0 I I I 0
0 I I I I 0 I 0

Result: 0 I 0 I I 0 I 0

Selecting XOR will always result in a value that fits into one byte.

ADD

I 0 0 I I 0 0 I
0 I I 0 0 I I 0
0 0 I I 0 0 0 I
I I I 0 I I I 0
0 I I I I 0 I 0

Result: I 0 I 0 0 I I 0 0 0

When ADD is selected the low byte value will be written to the card.

Parity

A parity check can be selected, since encoding is done in minimal parts of one byte, it will occupy one byte only.

Polynomial CRC

Use a p**olynomial** to calculate the checksum. When you use a **polynomial** fill in the polynomial you would like to use.

Example: The polynomial to use is x8+x5+x4+x2+1. This is represented by the binary value 100110101 (309 in decimal). In the Polynom text box a decimal value must be specified. This decimal value must be between 257 and 511 (between 100000001 and 111111111 binary).

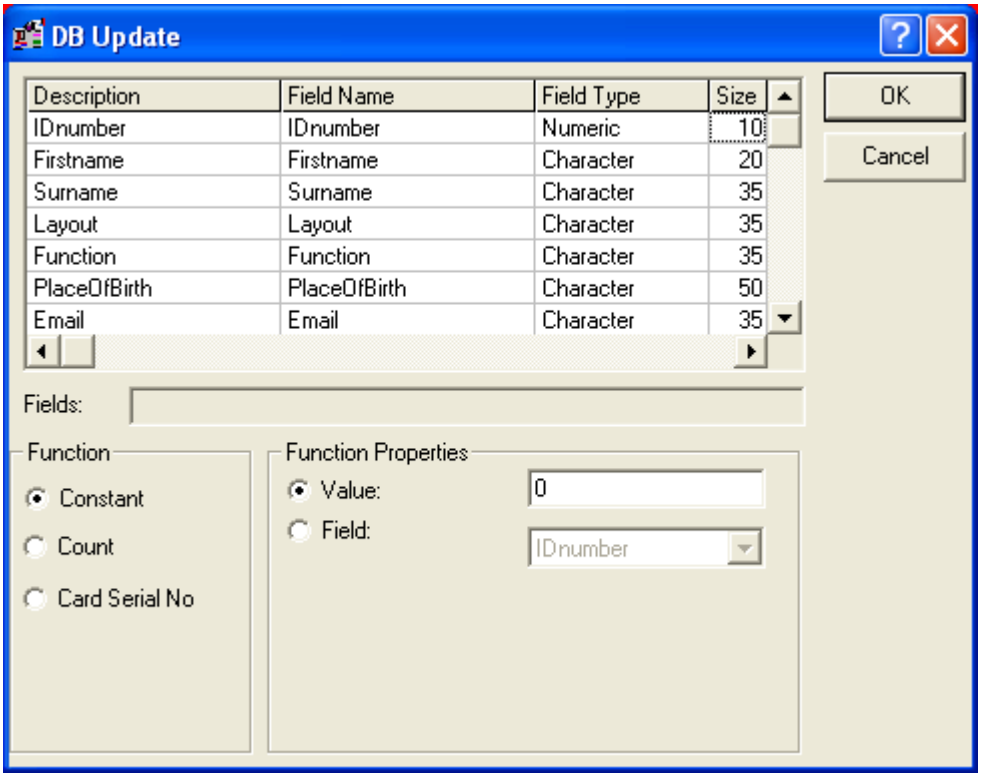
Start Value: Select a value between **0** and **255** and fill it in, in the box.

Polynomial CRC is the most reliable way to calculate a checksum.

Add Database Update

Select **Legic Menu** and click **Add Database Update** or use  from the **toolbar**.

The following dialog is displayed.



Select a field from the database which will be updated automatically from information on a card when the Mifare card is read.

Constant: A constant value can be stored in the selected field. When the card is encoded, the value will be written in the field. (Fixed Text)

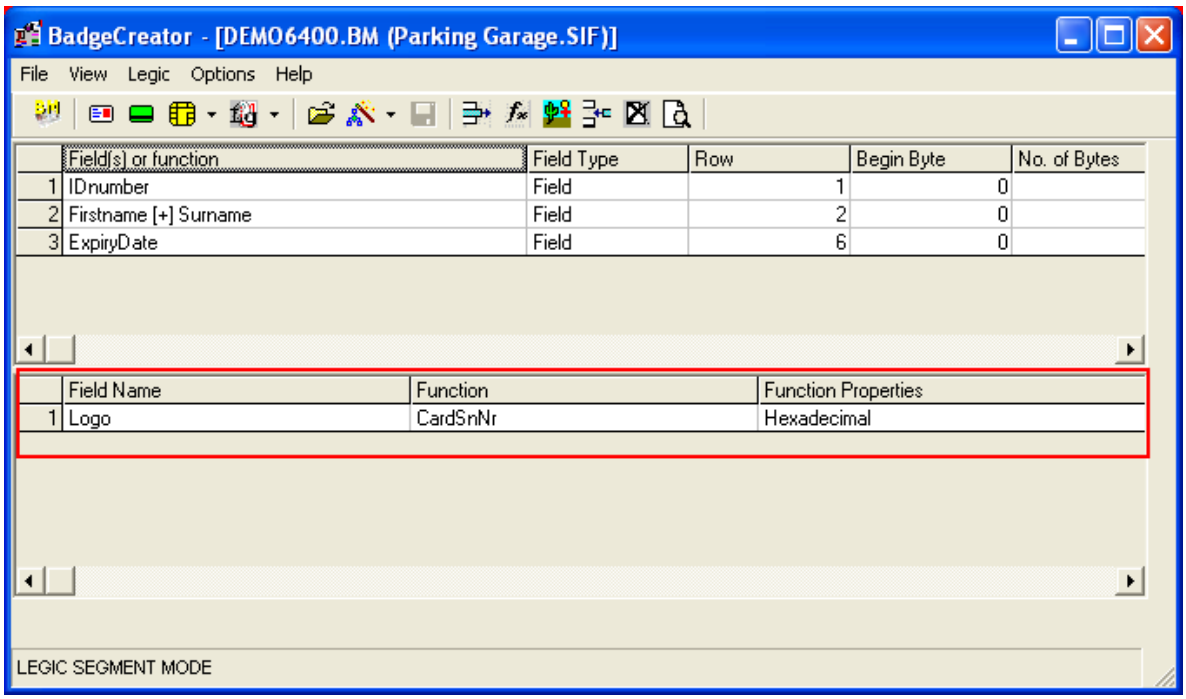
Count: A counted value can be stored in the selected field. It will be incremented for every card encoded. The start value can be given in or can be read from another (*or the same*) field.

Card Serial No: The card serial number that was written in the card by the manufacturer can be stored in the database when the card is encoded.

Example

A card serial number that was written in the card by the manufacturer can be stored in the database when the card is encoded. That way it is possible to check the database which card number was assigned to a certain person. This number can be stored as a decimal or hexadecimal value.

The database update functions are displayed in the lower half of the main screen.

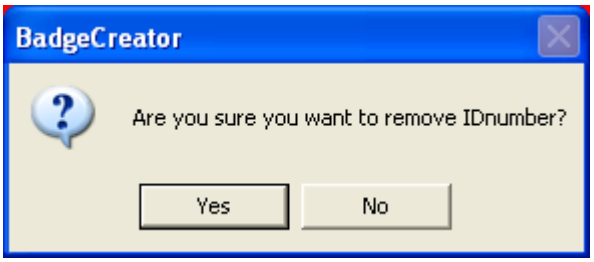


DB update field

Remove Item

First you must select a field and then select **Legic Menu** and click **Remove Item** or use  from the **toolbar**.

The following dialog is displayed.

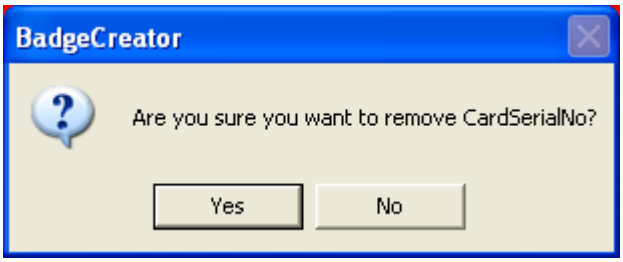


Select **Yes** to remove the selected field or **No** to cancel removal.

Remove DB Update Item

First you must select a field and then select **Legic Menu** and click **Remove DB Update Item** or use  from the **toolbar**.

The following dialog is displayed.

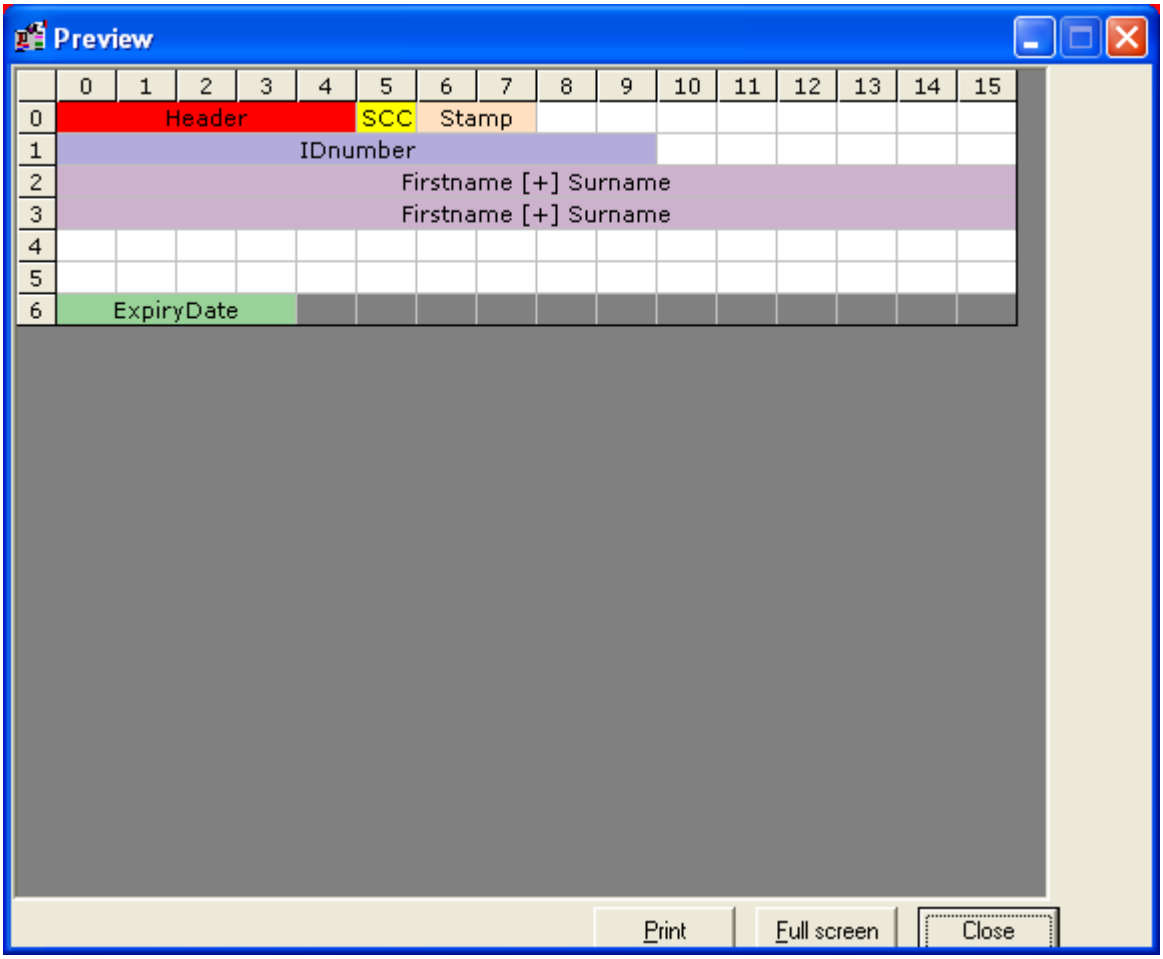


Select **Yes** to remove the selected DB Update field or **No** to cancel removal.

Overview

Select **Legic Menu** and click **Overview** or use  from the **toolbar**.

The following dialog is displayed.



Legic overview

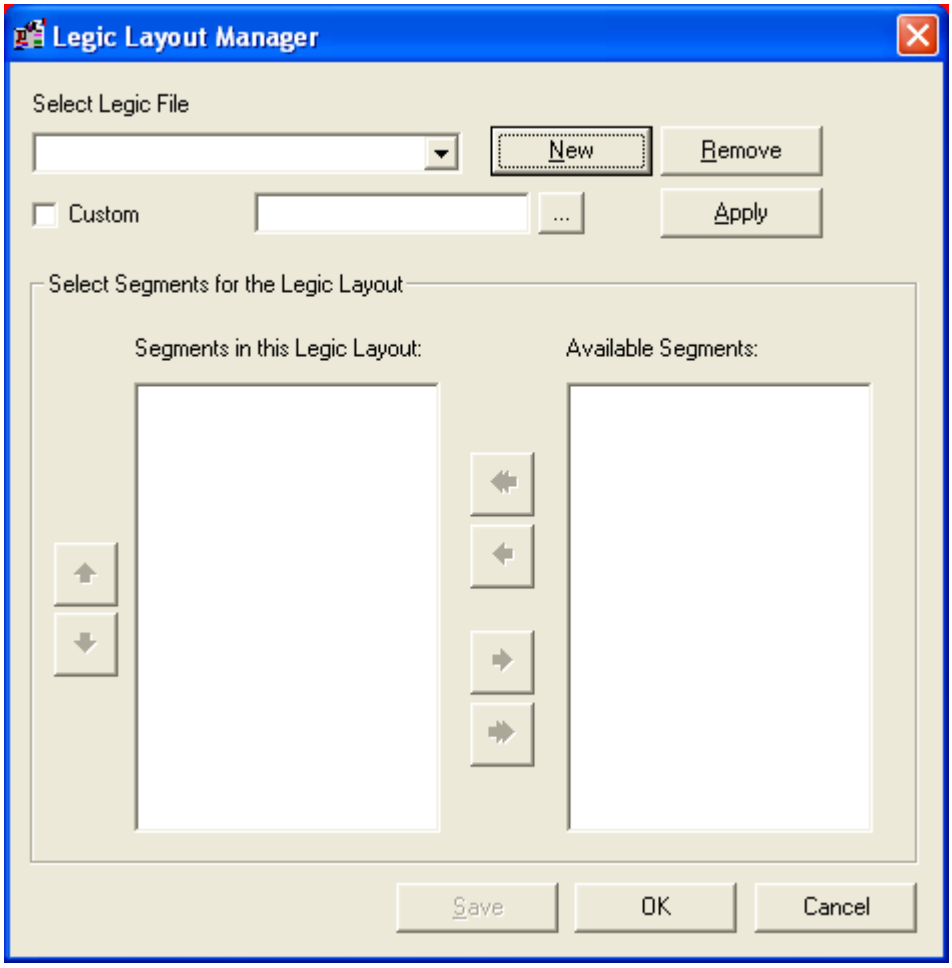
The overview display's a preview of the data that will be encoded onto the current layout.

- **Full Screen:** Display the Overview full screen (*enlarged*).
- **Print:** To print the Overview select this option.

Legic Layout Manager

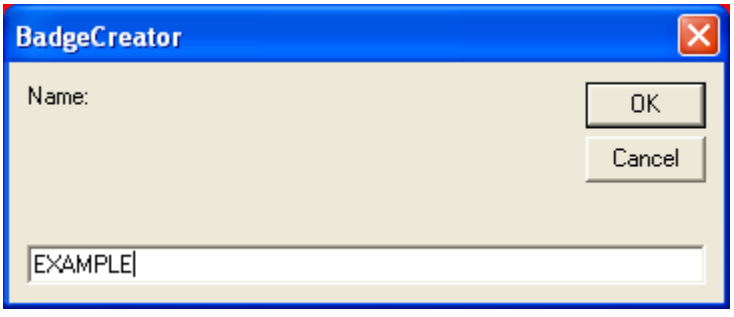
Select **Legic Menu** and click **Legic Layout Manager**.

The following dialog is presented.



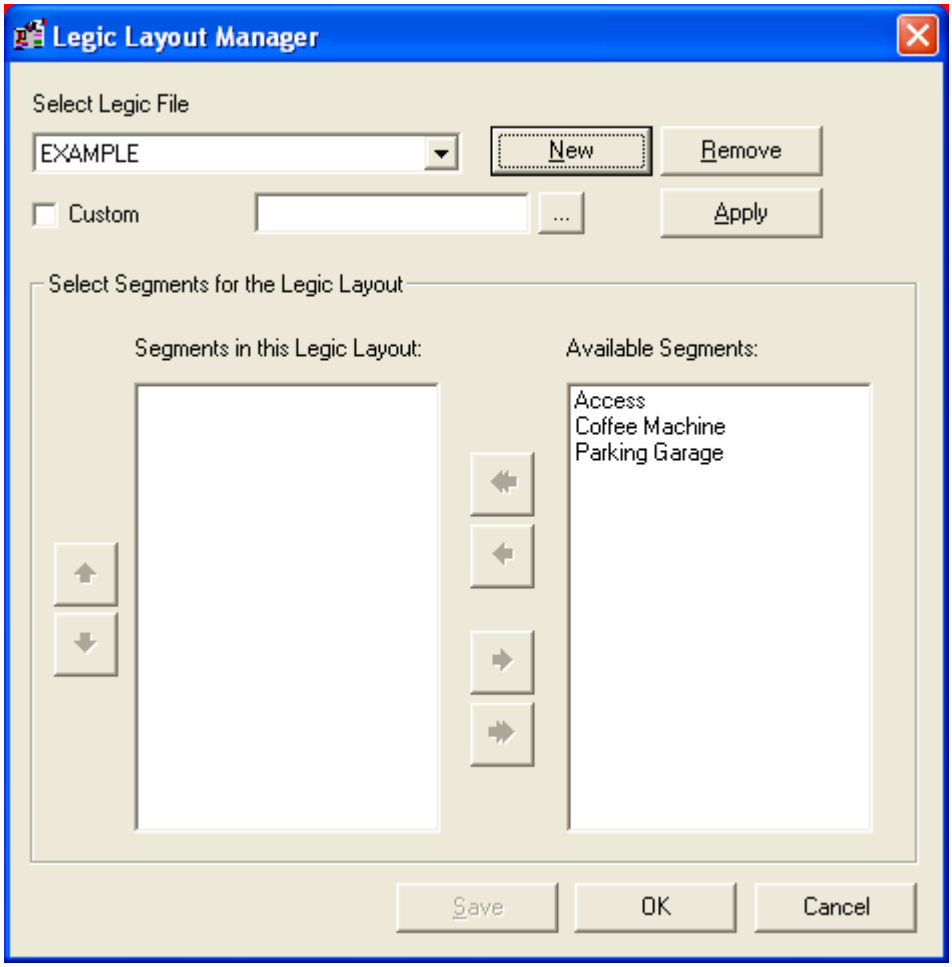
Legic layout manager

Select **New** to create a **New Legic File**.

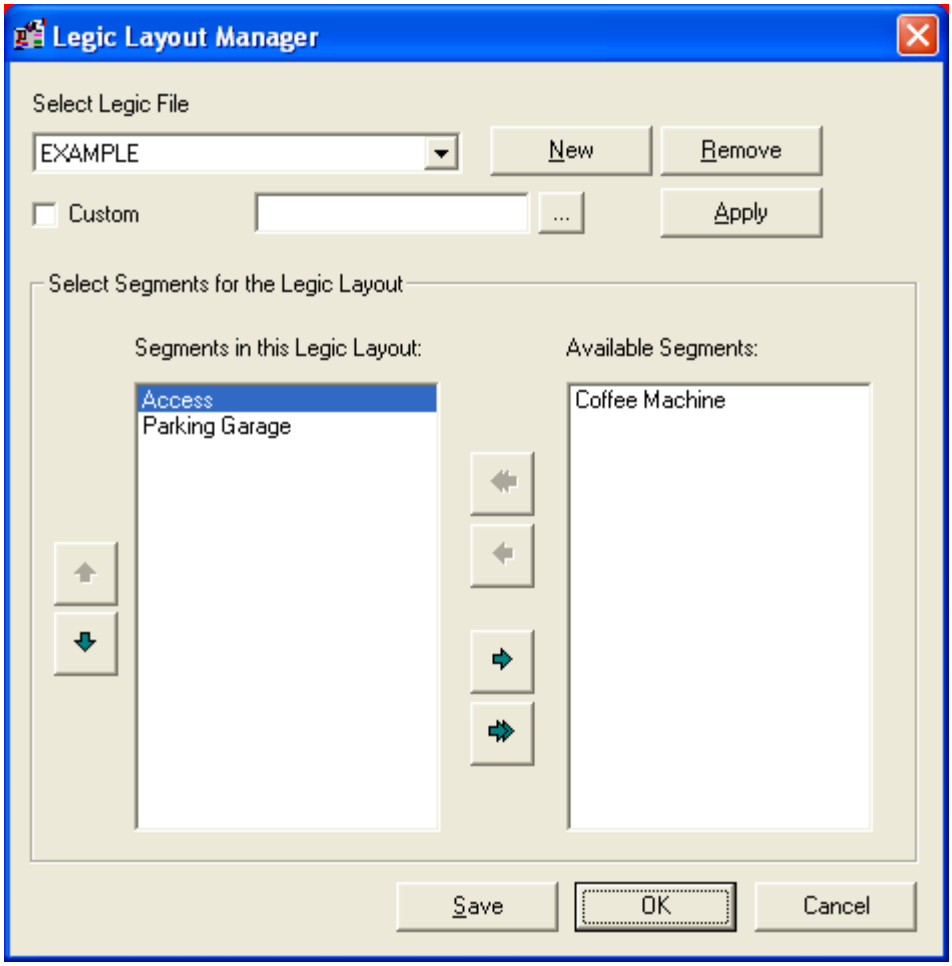


Type a name to give your Legic file.
Now you can begin to Add segments to a Legic layout.

Select Legic File: Select a Legic File from the dropdown list.



Available Segments: Select segments from the list on the right with available segment files.

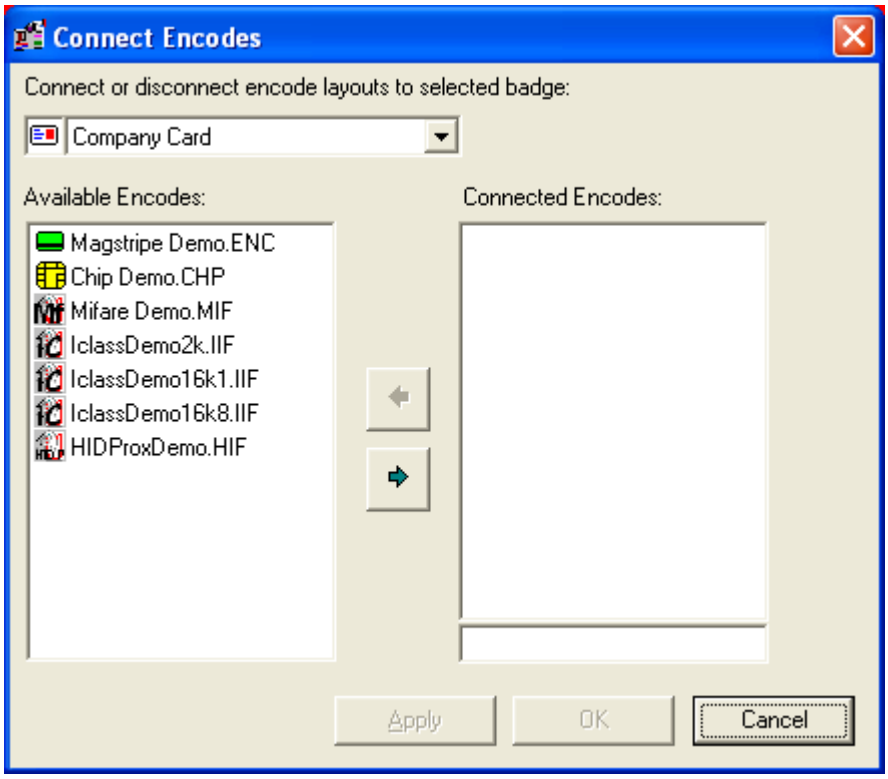


- Click  to add an available segment to a Legic layout.
- Click  to add all available segments to a Legic layout.
- Click  to remove a segment from a Legic layout.
- Click  to remove all segments from a Legic layout.

Options Menu

Encode Settings...

Select **Options Menu** and click **Encode Settings**. The following dialog is presented.

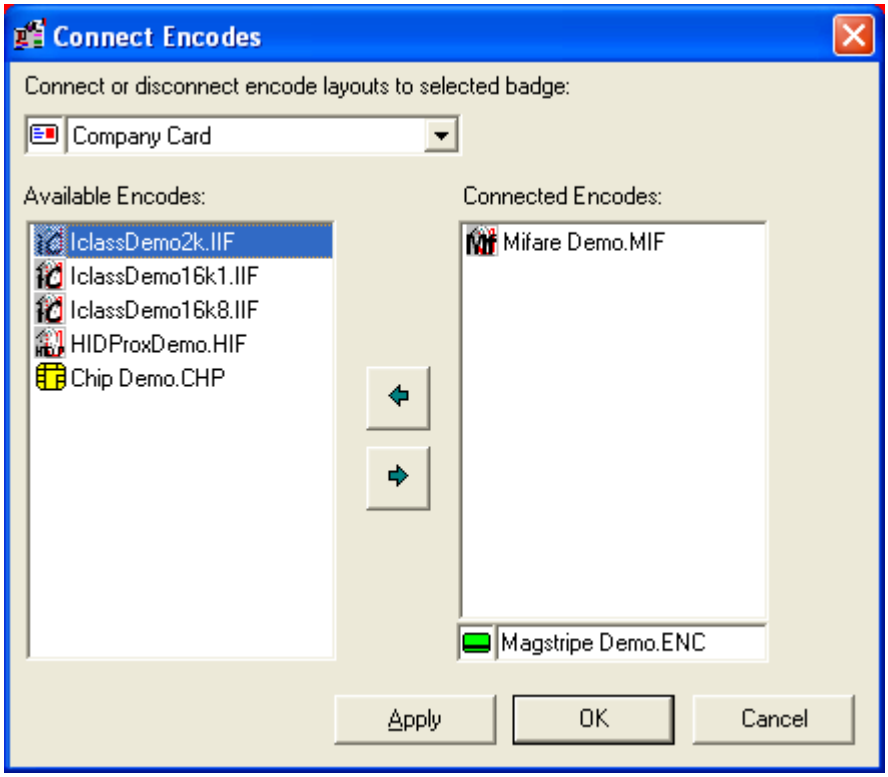


Encode settings

In the **Connect Encodes dialog** link an encode layout to a badge layout. Check the right badge is selected. On the left-hand side of the window, the available configured encode layouts are displayed.

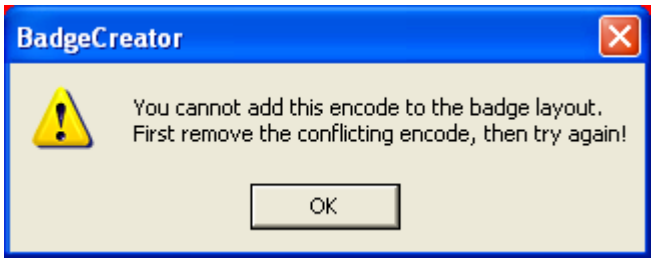
Select one and click the transfer right button.

Now the encode layout will be displayed on the right-hand side of the window.



Click **Apply** to save.

A combination of one chip encode layout and one magstripe layout is possible. Only one contact or contactless chip encode layout can be connected at a time. If you try to connect them both to a layout the following warning message is displayed.



To disconnect an encode layout, select the layout on the right side and click the transfer left button.

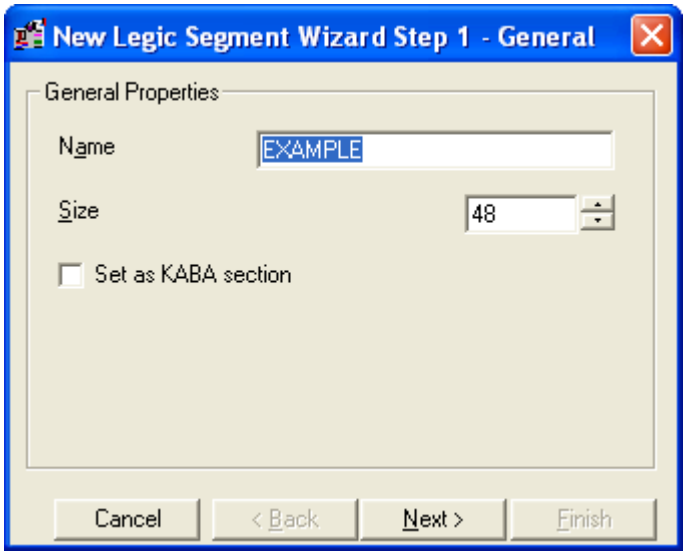
Click **OK** to close and save settings.

Settings

Select **Options** and click **Settings**.

The following dialog is displayed.

Step 1



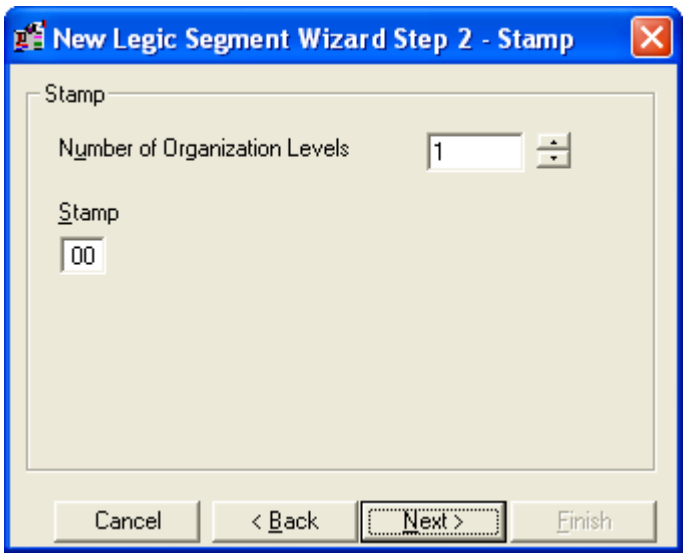
General properties

Type a Name for the Legic segment and define the Size. The size of a Legic segment is variable, but should not exceed the capacity of the medium.

Do not make a segment larger than needed.

Click **Next** to proceed.

Step 2



Stamp

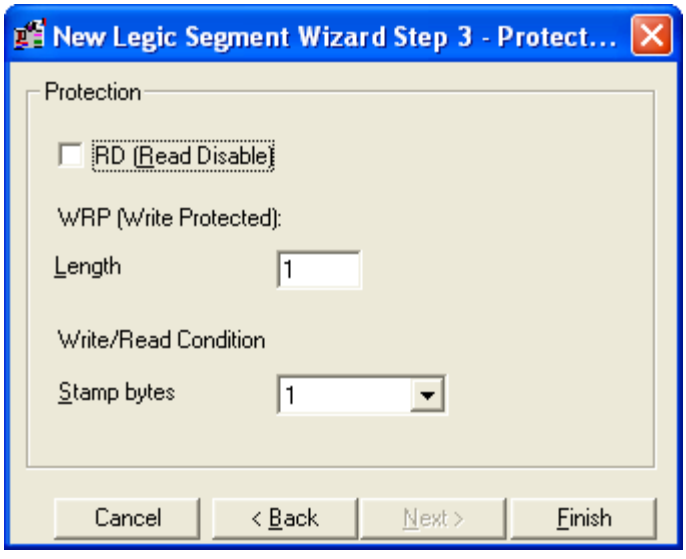
Define the Number of Organizational Levels.

If you select one level only, the Stamp is 1 Byte. For each additional level, the stamp will increase with one byte. A byte can have a value between 00 and FF.

You can define up to **12 Organizational Levels**.

Step 3

In the following dialog various levels of protection can be set to keep encoded information from easily being read.



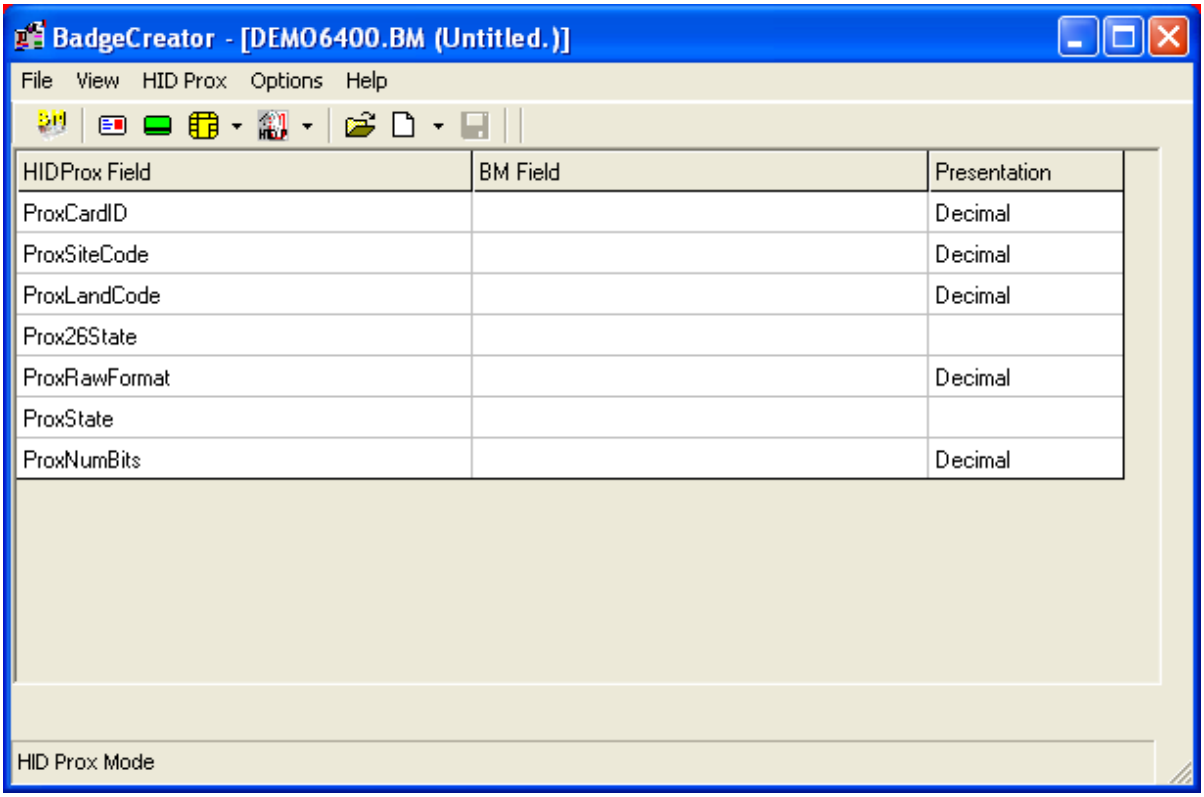
Protection

HID Prox Encoding

Select the **File Menu**, click **Mode**, and then click **Legic Encode Layout** to open Legic Encode Layout Mode.

Click  from the BadgeCreator Toolbar and select Legic Mode from the drop down menu.

Main Screen



In HID Prox Encode Layout mode, HID Prox layouts are created and edited.

HID Prox Encode Layout Toolbar

The Toolbar in HID Layout Mode can be used to quickly start a function by clicking on the desired button.

Back to Main Screen

Click on this button to return to the BadgeMaker main screen.

Badge Layout Mode

Click on this button to enter the badge layout mode to configure/create badge layouts.

Magnetic Layout Mode

Click on this button to enter the magnetic layout mode to configure/create magnetic encode layouts.

Chip Mode

Click on this button to enter the chip layout mode to configure/create chip encode layouts.

HID Prox Mode

Click on this button to enter the mifare layout mode to configure/create HID Prox Layouts.

Open Layout

Click on this button to open an existing HID Prox Layout linked to the current project (*.BM) file.

New Layout

Click on this button to start a New layout Wizard.

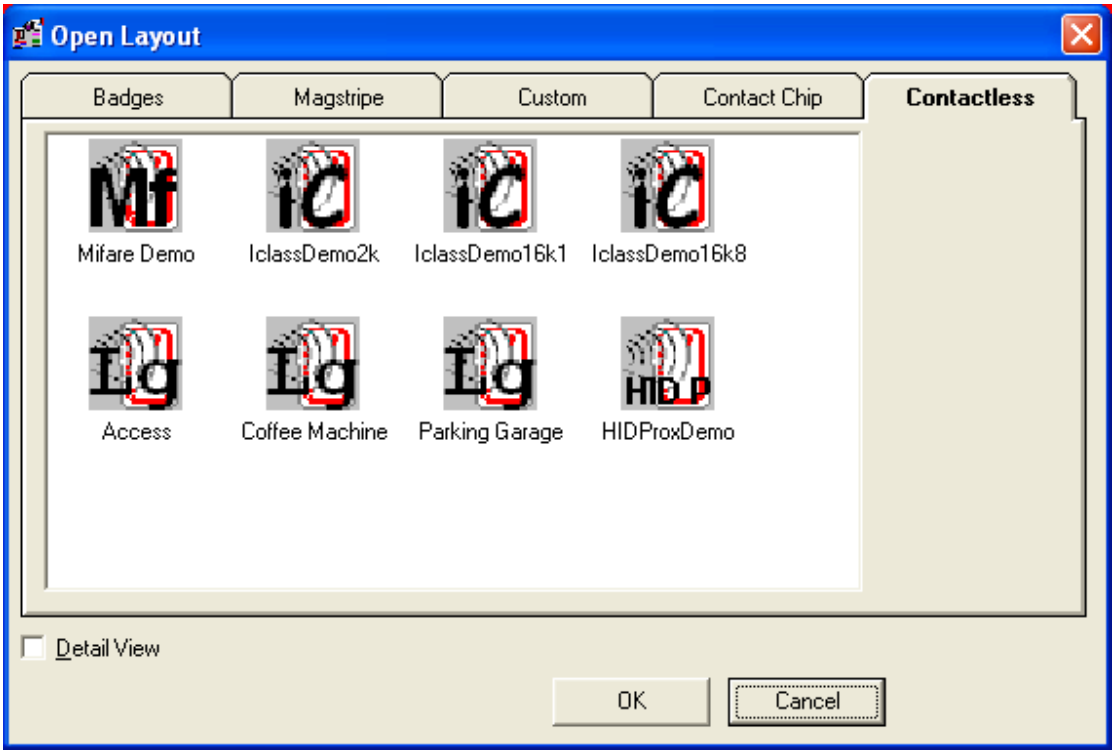
Save Layout

Click on this button to save the current layout.

Open An Existing HIP Prox Layout

Select **File Menu** and click **Open Layout** or use  from the **toolbar**.

The following screen is presented. Configured HID Prox Layouts are listed here.

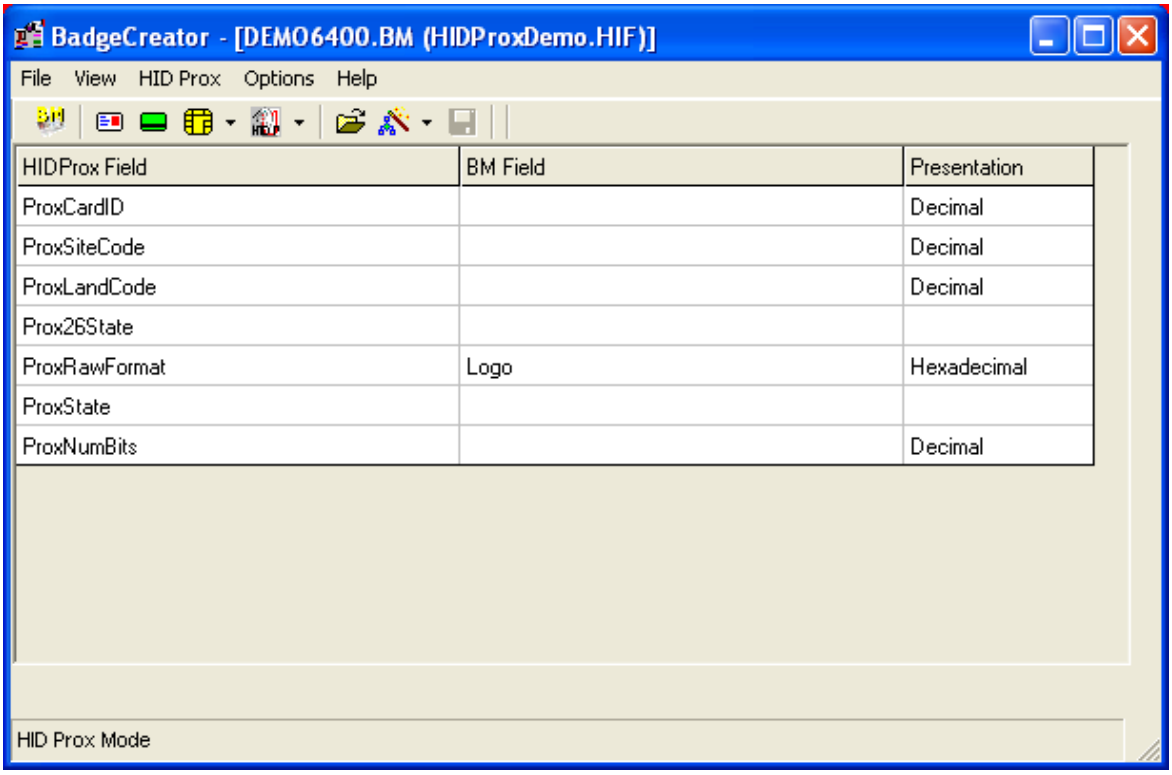


Open layout

Select a HID Prox Demo from the list (*HID P*).

For this example **HIDProxDemo** is chosen.

The Layout is presented in the Main Screen.

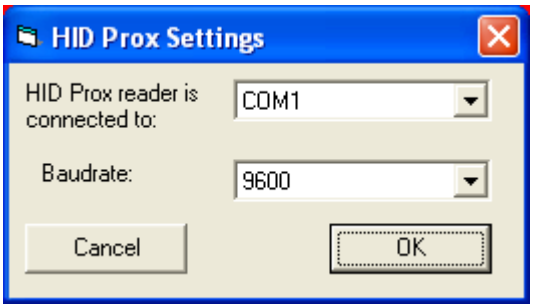


HID Prox layout

HID Prox Menu

Settings

Select **HID Prox Menu** and then click **Settings**. The following dialog is displayed.



HID Prox reader is connected to: Select which port the HID Prox reader is connect to on your computer.

- **COM1**
- **COM2**

Baud rate: Select a connection rate (*speed*).

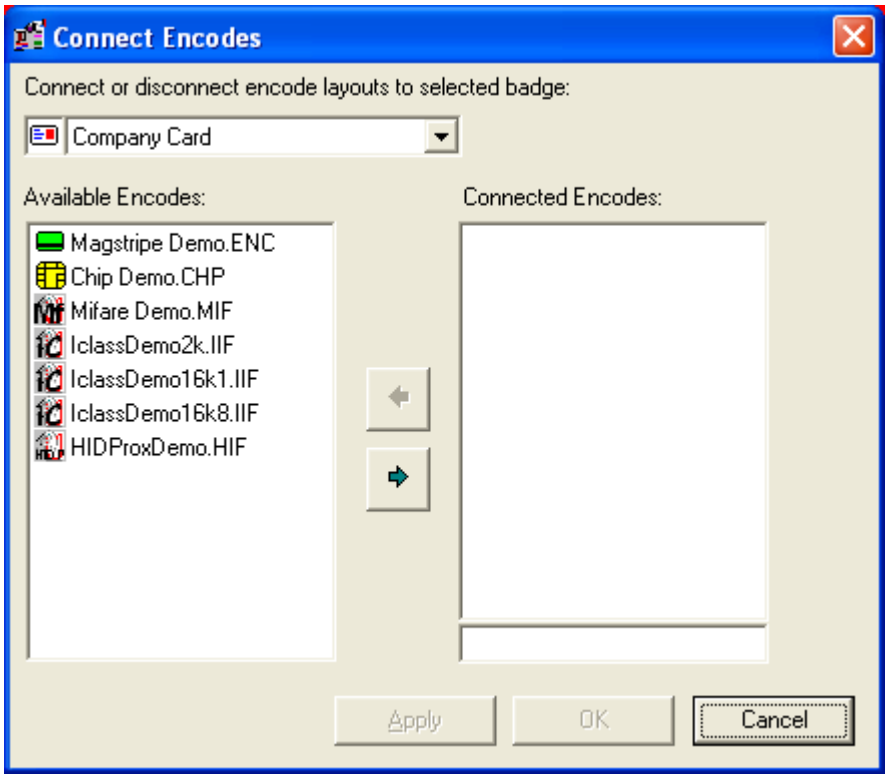
- **1200**
- **2400**
- **4800**
- **9600**
- **19200**
- **38400**

Select **OK** to save changes or **Cancel** to undo changes made.

Options Menu

Encode Settings...

Select **Options Menu** and click **Encode Settings**. The following dialog is presented.

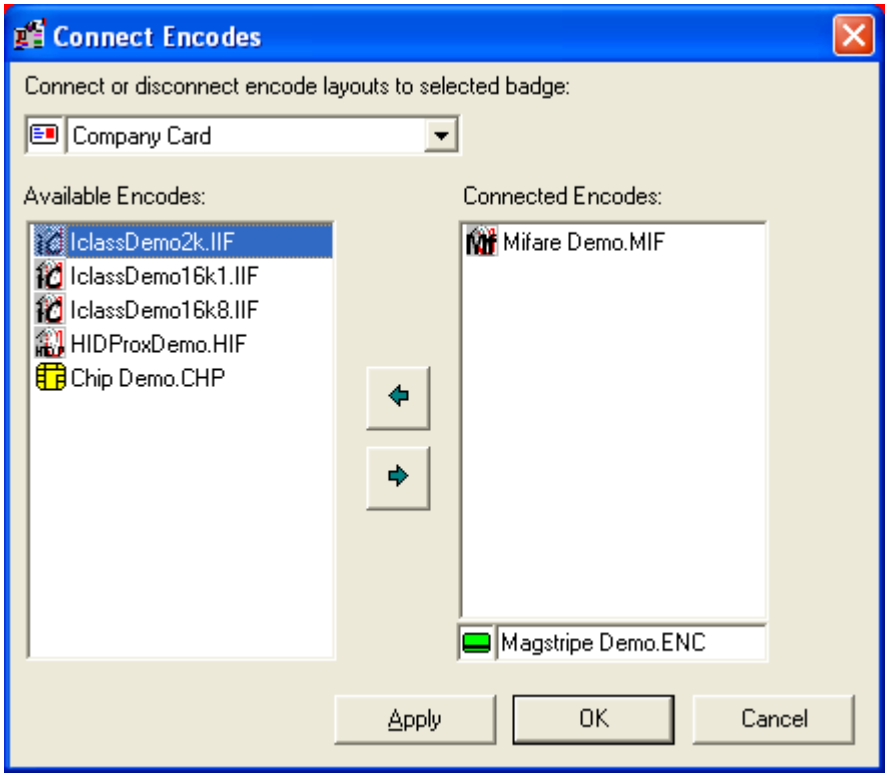


Connect encodes

In the **Connect Encodes dialog** link an encode layout to a badge layout. Check the right badge is selected. On the left-hand side of the window, the available configured encode layouts are displayed.

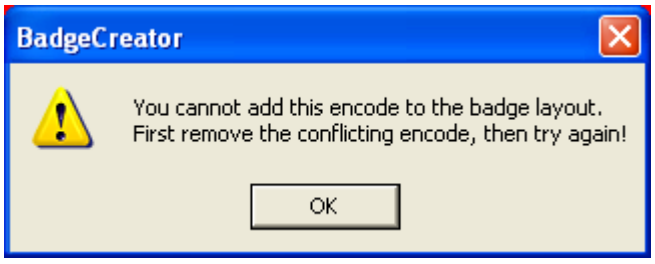
Select one and click the transfer right button.

Now the encode layout will be displayed on the right-hand side of the window.



Click **Apply** to save.

A combination of one chip encode layout and one magstripe layout is possible. Only one contact or contactless chip encode layout can be connected at a time. If you try to connect them both to a layout the following warning message is displayed.



To disconnect an encode layout, select the layout on the right side and click the transfer left button.

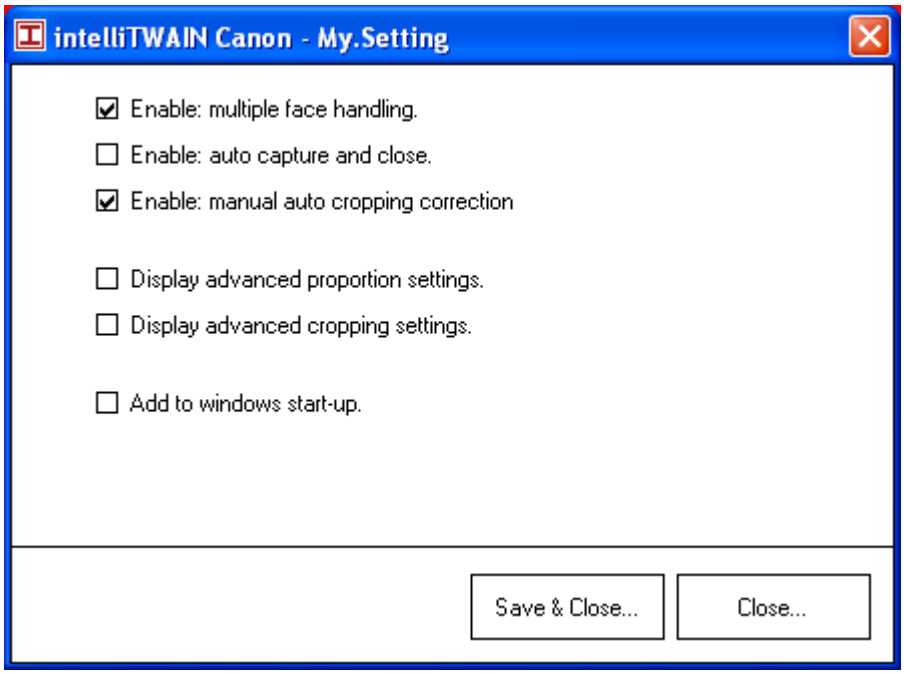
Click **OK** to close and save settings.

Intelli TWAIN

Since IntelliTWAIN is compliant with the TWAIN specifications version 1.9, it is possible to use the solution in all software packages capable of acquiring images from TWAIN sources. IntelliTWAIN has been successfully tested with BadgeMaker, BM Entry, CardCoach and CardsOnline. The images and procedures used in this example might not be exactly what you will encounter during the setup in your specific software solution but it will give you a good overall understanding of the functionality and features utilized by IntelliTWAIN in conjunction with the Canon camera.

Intelli TWAIN Canon - My Settings

To configure device settings open Intelli TWAIN Canon – My Settings via the following path:
Start Menu>All Programs>intelliTwain Canon> Intelli TWAIN canon – My Settings



TWAIN Settings

Enable the following options of your choice.

Enable: multiple face handling.
The IntelliTWAIN face detection is capable of detecting and measuring multiple faces into one image. Within the photo-ID requirements it is obvious that multiple faces cannot be handled simultaneously. Intelli TWAIN will capture both subjects and crop each subject, allowing the operator to choose which cropped image to acquire. In the event that multiple faces are in one image, a selection will need to be made.

Enable: auto capture and close.

The feature enables the one click process. Select **Acquire** and Intelli TWAIN is initialized, the software will capture the image, crop the image and save it to BadgeMaker in a single click process.

Enable: manual auto cropping correction
The Image is captured and automatically cropped for your convenience, switch this feature off to enable full control when cropping an image.

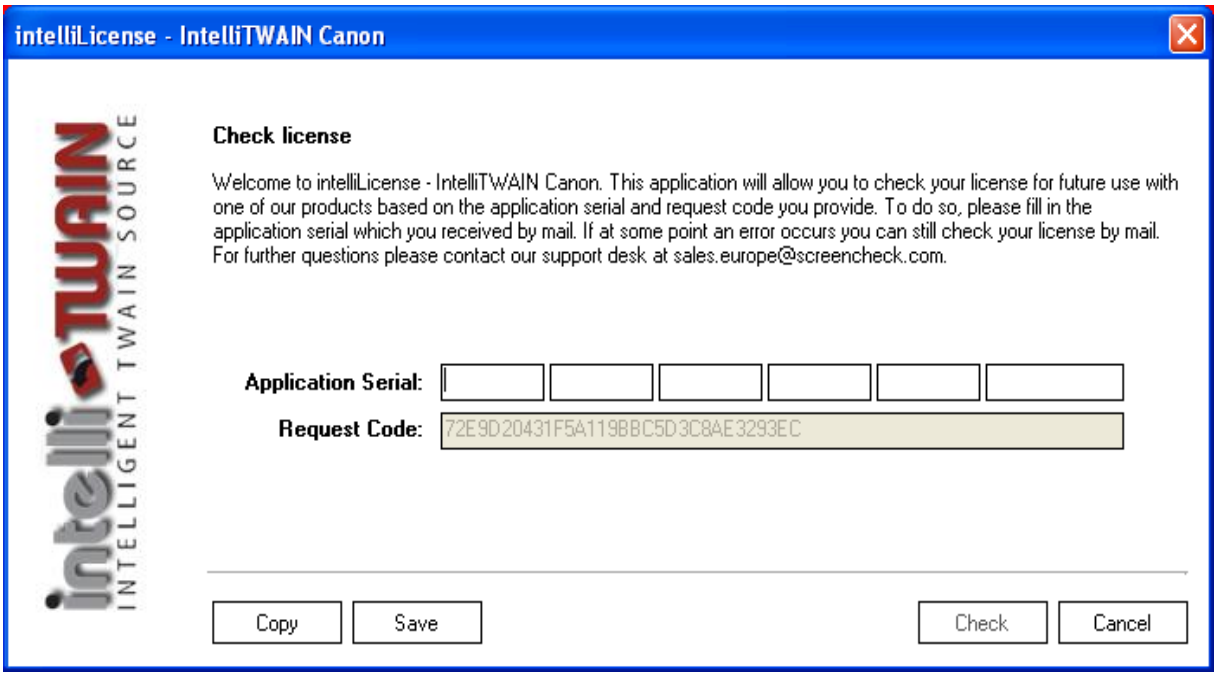
Display advanced proportion settings.
Displays more configuration settings to define the proportion of an image.

Display advanced cropping settings.
Displays more configuration settings to define the composition of an image.

Add to windows start-up
This feature enables Intelli TWAIN to start up when your Windows Operating System starts up**.**

IntelliLicense – IntelliTWAIN Canon

To enable full use of the Intelli TWAIN software you must register your version to obtain an **Application Serial**. For further assistance contact sales.europe@screencheck.com**.**

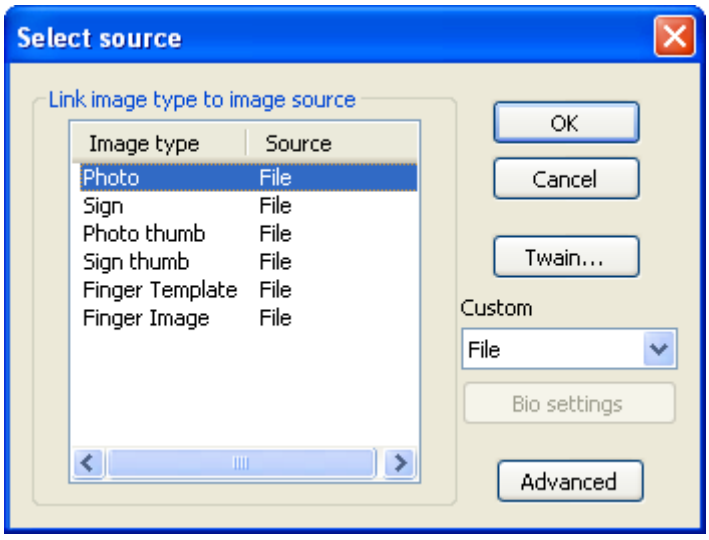


Intelli license dialog

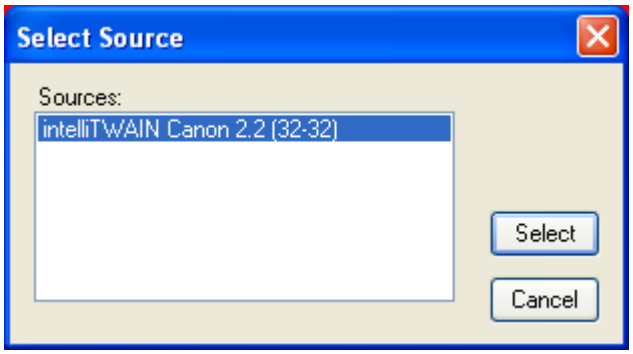
Select Source for **Intelli TWAIN**

To acquire a photo using the Intelli Twain camera choose **Select Source** from the **BadgeMaker Image Menu**.

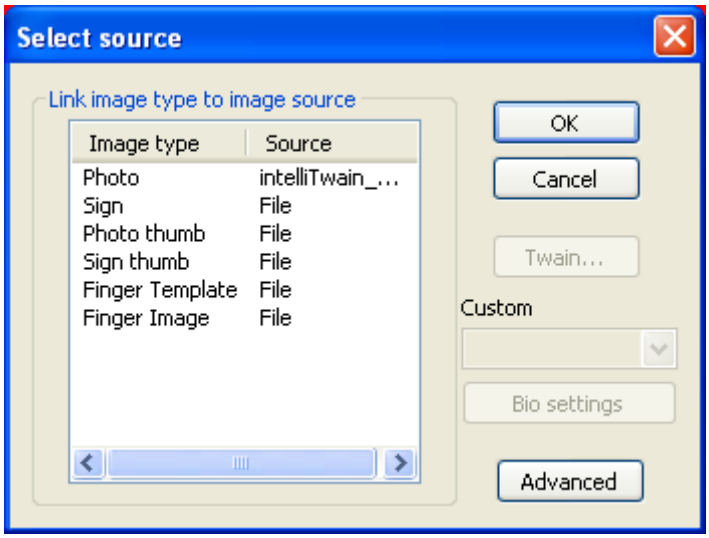
Select **Photo** as an Image Type and click **TWAIN...**



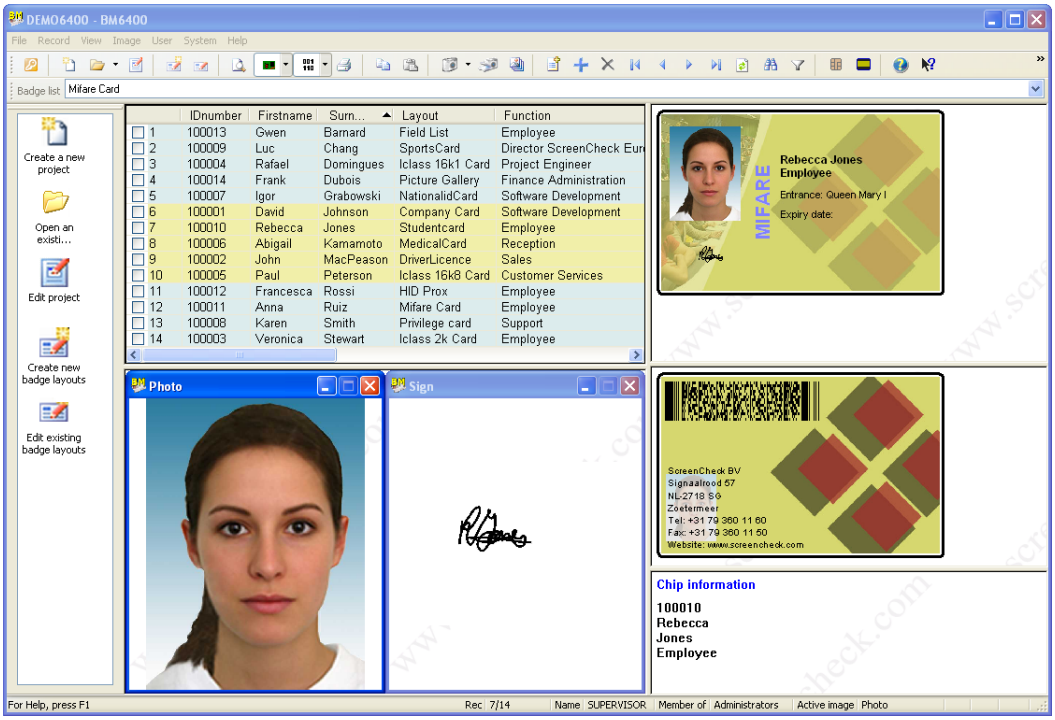
Under Sources find and select **intelliTWAIN Canon 2.2 (32-32)** driver.



Click **Select** to link the source to an image type.



Select **OK** to return to the main screen and begin capturing photos.



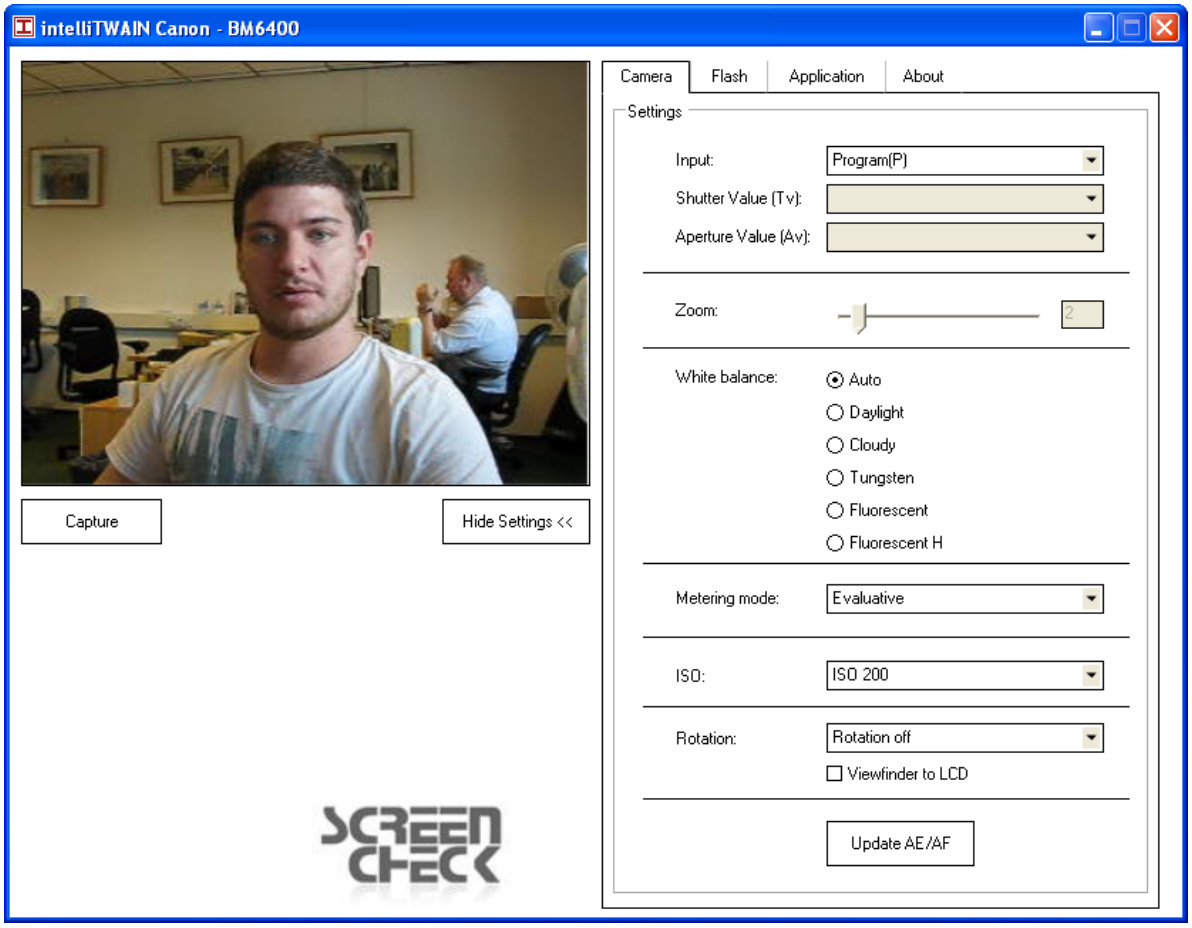
Intelli TWAIN will initialize automatically after selecting **Acquire**.

Acquire Intelli TWAIN

To acquire a photo from the Intelli TWAIN Canon camera select the correct Image Source window (*Photo*), then *right-click* inside the image window and select **Acquire**. Or select from the **Image Menu** and click **Acquire**.

By selecting **Acquire Image** a command is sent to the IntelliTWAIN source (*Camera*).

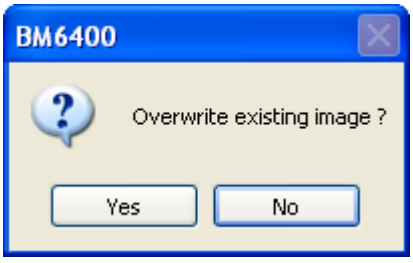
The IntelliTWAIN window is presented to capture images. Place the subject in the frame until you are happy with the position.



Camera settings

Click the **Capture** button, IntelliTWAIN returns a nicely cropped and enhanced image.

By default, the height / width ratio is 3/4 and the nose will be centered on the diagonals of the rectangle.



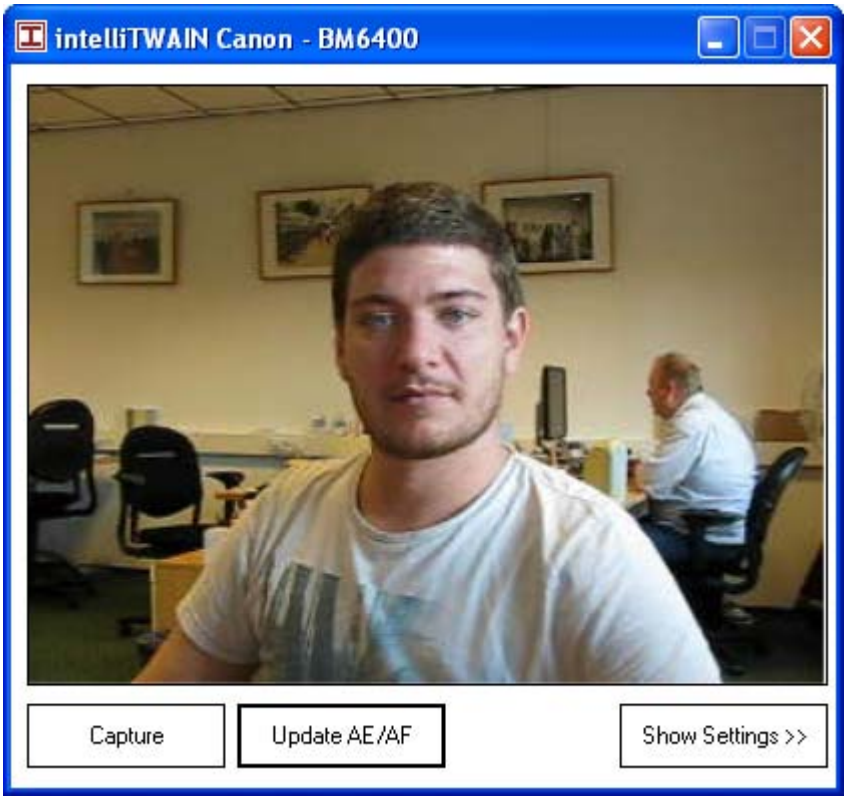
Select **Yes** to accept the captured image or **No** to cancel transferring the image and capture a new image.

Select **Yes**, the photo is now added to your database and bound to a record.

Select a different record and repeat the same process to acquire another photo.

Intelli TWAIN Basics

The default user interface of the IntelliTWAIN camera solution will look like this.

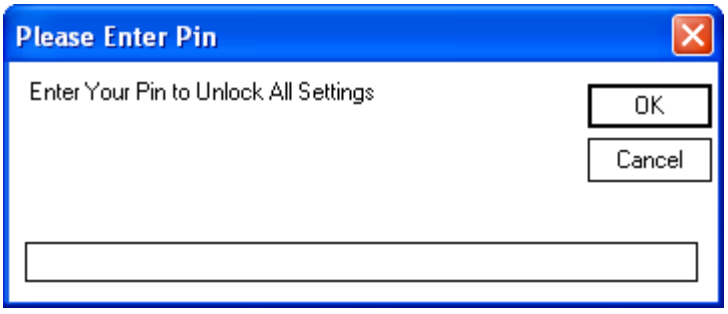


Capture button
Left-click is manual cropping, and right-click is automatic cropping.

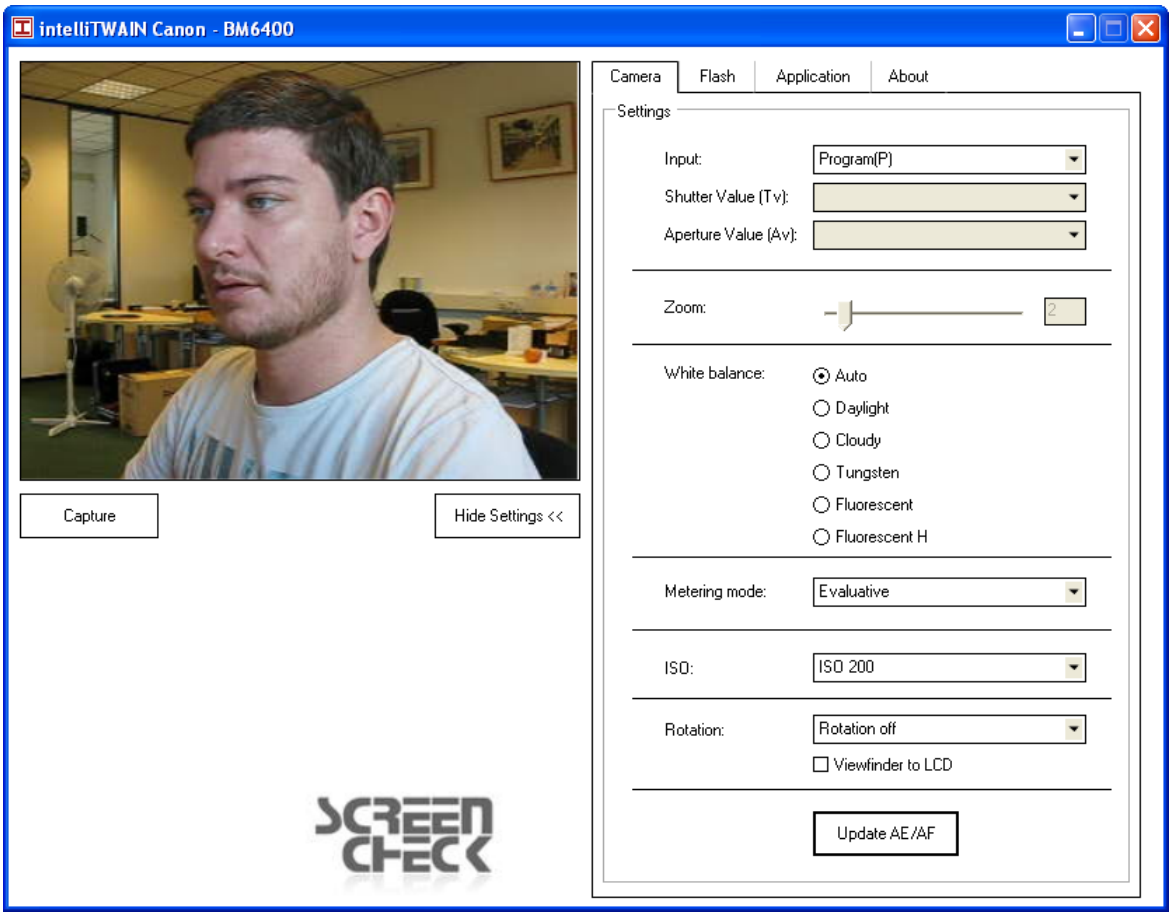
Update AE/AF
The camera detects faces in a scene and then automatically focuses (AF) and optimizes exposure (AE) and, if needed, flash output. Click once to run.

Settings
Opens the configuration panel (*Camera Settings*).

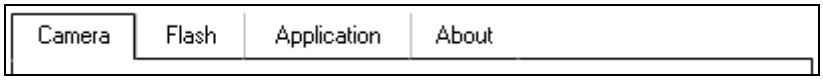
To open the configuration tab, you must enter a PIN-code.



The factory default PIN-code is **1234.** The configuration tabs are now accessible.



When the configuration tabs are accessible, four tabs are available to the user.



Camera tab: Gives access to the camera device settings.

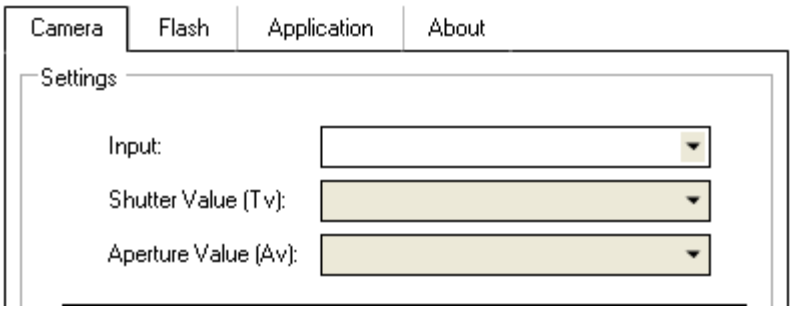
Flash tab: Contains flash settings and exposure settings.

Application tab: Contains the configuration software parameters.

About tab: Shows specific details about the software version and system configuration.

Camera Tab

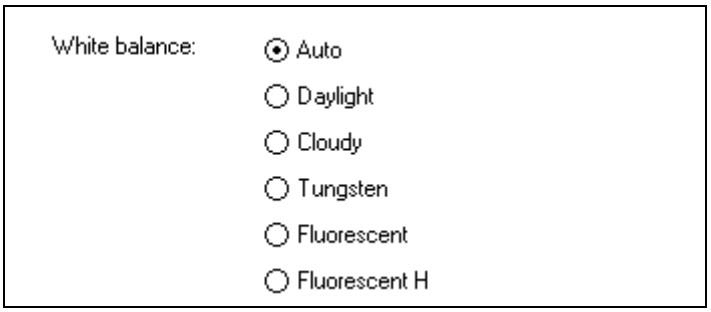
Input: By selecting a different value in the Zoom dropdown box, the operator can use the in-camera digital zoom function.



Settings

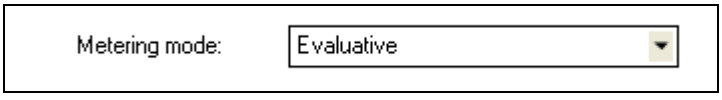
Zoom: When you adjust the Zoom the lens changes focal length and magnification.

White Balance: In most situations the default **Auto** option will result in a good white balance and exposure setting. If necessary the operator can select one of the presets which can be set and saved according to the specific situation.



Metering Mode

Metering Mode refers to the way in which the Canon Camera Canon supports 3 types of Mode.



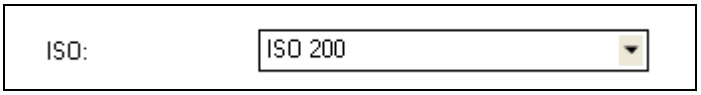
Evaluative: Here the camera measures the light intensity in several points in the scene, and then combines the results to find the settings for the best exposure.

Center weighted: In this system, the meter concentrates between **60** to **80** percent of the sensitivity towards the central part of the viewfinder

Spot: The camera will only measure a very small area of the scene (*between 1-5% of the viewfinder area*). It's very accurate and is not influenced by other areas in the frame.

ISO

ISO measures the sensitivity of your image sensor is to the amount of light present. The higher the ISO the more sensitive the image sensor is and therefore you more possibility to capture photos in low-light areas.



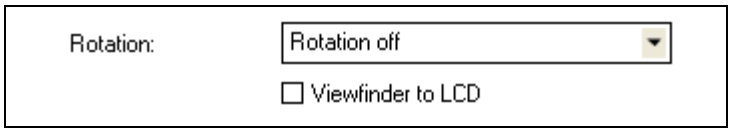
By default ISO is set to 200.

The following ISO's can be chosen

- **ISO 80**
- **ISO 100**
- **ISO 200**
- **ISO 400**
- **ISO 800**
- **ISO 1600**

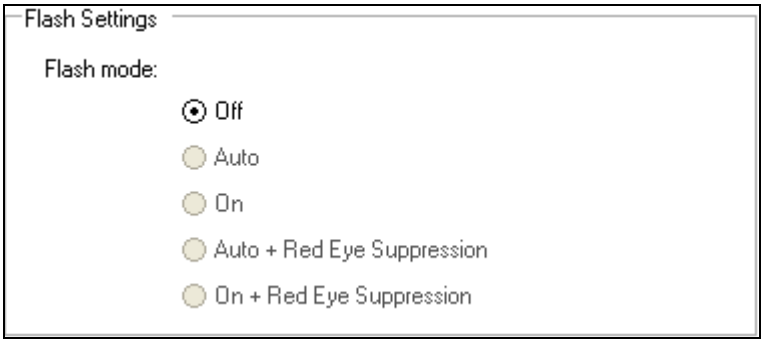
Rotation

Rotate your captured image 90 degrees or 180 degrees.



Flash tab

Configure flash settings for your camera inside the Flash Screen.



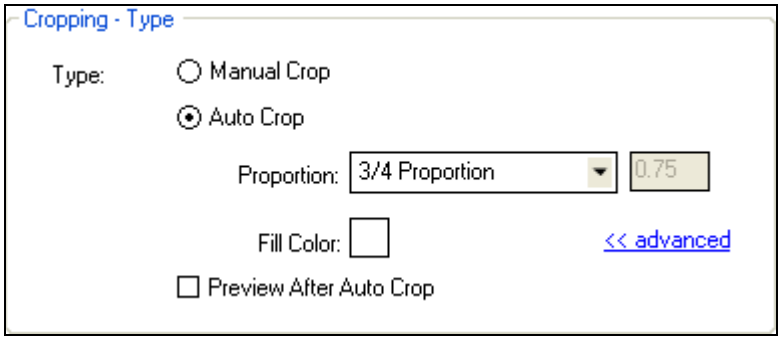
To enable flash settings the operator must lift up the flash physically on the camera in order to set software flash settings.

Under certain conditions, a flash photograph taken with a camera may result in red eye occurring. This is caused by a reflection within the eyes of the subject within the capturing frame. Intelli TWAIN has a red-eye filter which analyzes the stored image and modifies the stored image to eliminate any red-eye phenomenon by changing the red area to black.

Application Tab

Cropping – Type

In the **Application tab**, relevant software settings can be adjusted. The default setting is to crop automatically using a face detection algorithm, but it is possible to override this mechanism**.**

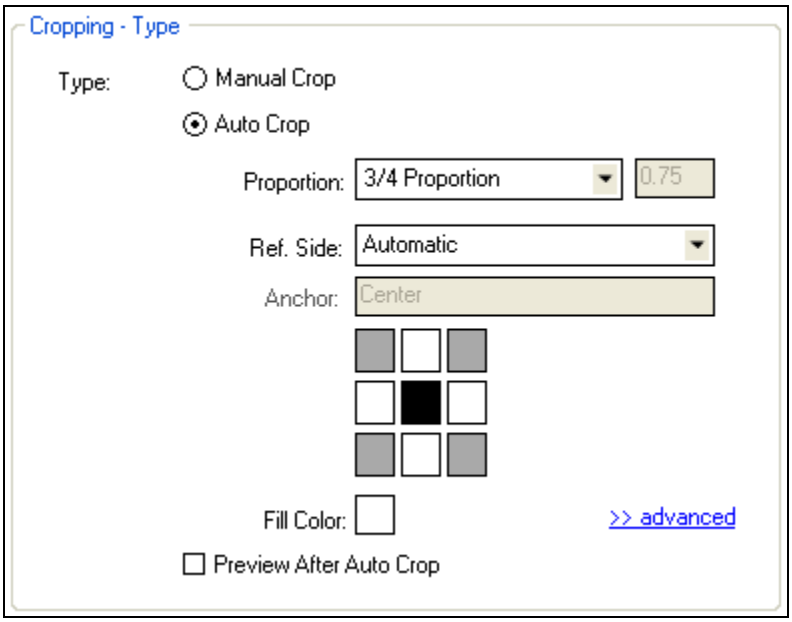


The **Proportion** drop down list lets the operator choose out of one of the predefined height/width ratios, or define a custom ratio.

Since the face detection algorithm will always try to center the nose on the diagonals, it could happen that the total image from the camera is not wide enough, or in other words, the detected face is too close to the border of the image to crop without hitting the boundaries.

To overcome these obstacles, some complex mechanisms are designed into the software to automatically shift the face to the required position and add pixels to the image in the areas where space must to be created.

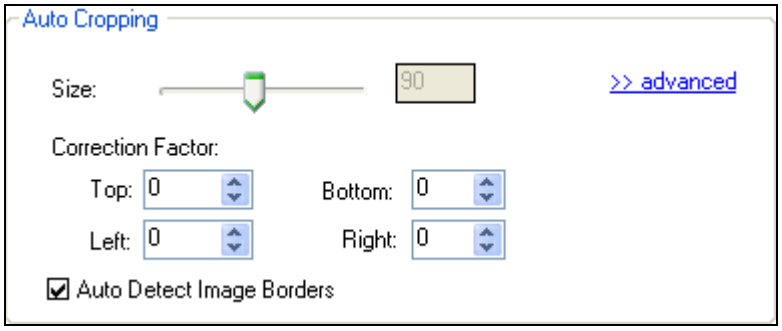
Click the **Advanced tab**, extra settings will appear, the operator can choose an Anchor Point and a Fill Color.



Select the **Preview After Auto Crop** option, the software shows the result to the operator before passing it to the photo-ID software.

Auto Cropping

The **Auto Cropping tab** lets the operator configure the photo composition.

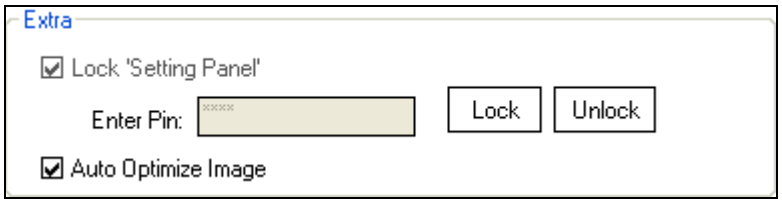


By changing the **Size setting**, the size of the image in relation to the face can be determined.

SIZE SET 80

Changing only this setting will still keep the nose on the diagonals.

Changing the **Correction Factor** we can change the position of the nose in the image composition. In the **Extra region**, the PIN code for locking and unlocking the Settings Panel are entered. If left Unlocked the user can freely change the IntelliTWAIN settings.



The **Auto Optimize Image** activates or deactivates the proprietary enhancement algorithm. Based on mathematical analysis, the enhancement feature decides if the image is too light or too dark and adjusts the result accordingly.

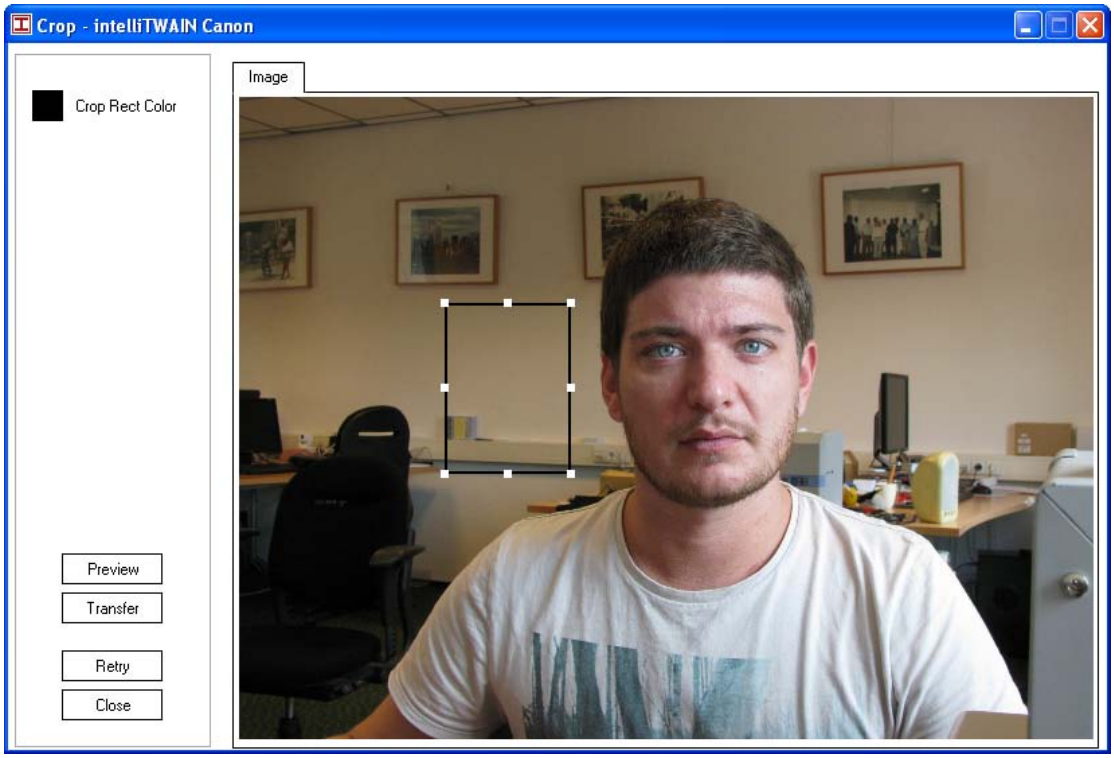
AUTO OPTIMIZE ENABLED

AUTO OPTIMIZE DISABLED

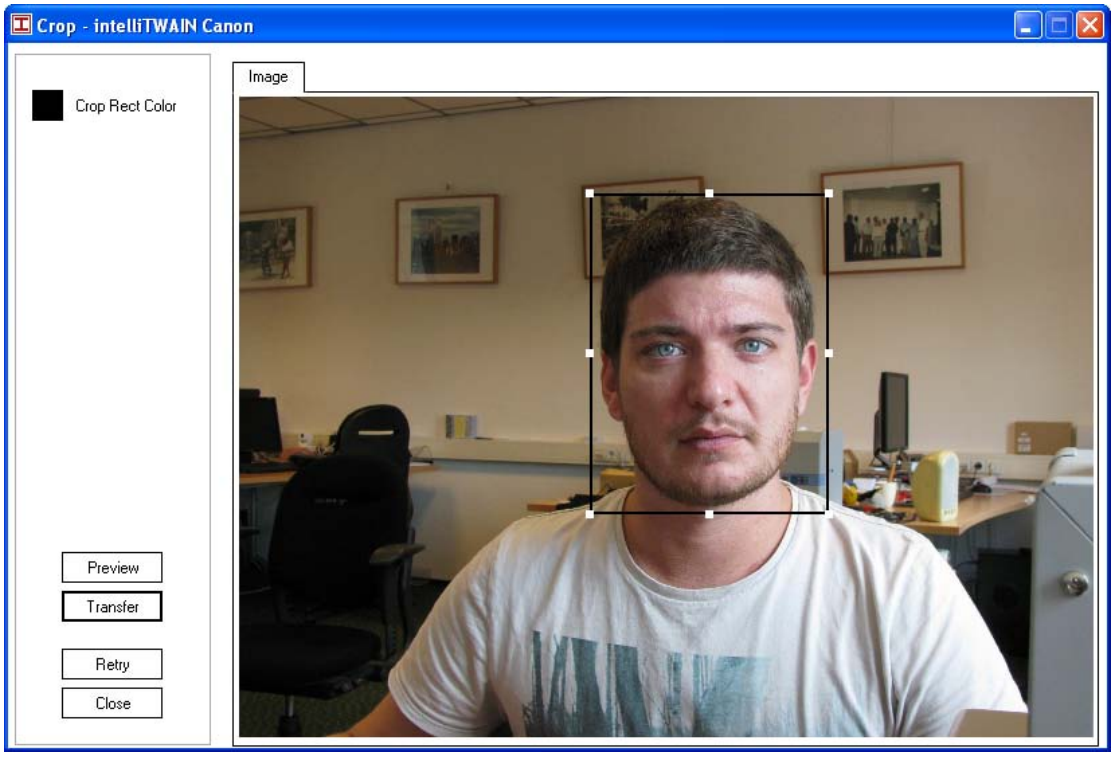
The face detection algorithm developed for use in the IntelliTWAIN solution is very robust and fast. The actual face detection and measurement is done in only a few milliseconds. After batch testing more than 50.000 real life images in a service bureau environment we can say that the fine-tuned algorithm has a success rate of 94%. It is important to realize that IntelliTWAIN is a clever way to let the computer guess which combination of pixels could be a face. Therefore IntelliTWAIN contains some features to overcome this from happening.

Cropping

In case no face was detected in the image, a manual cropping window is opened. This offers the user the possibility to select and crop in the same way as he would do with other, less sophisticated, camera systems.

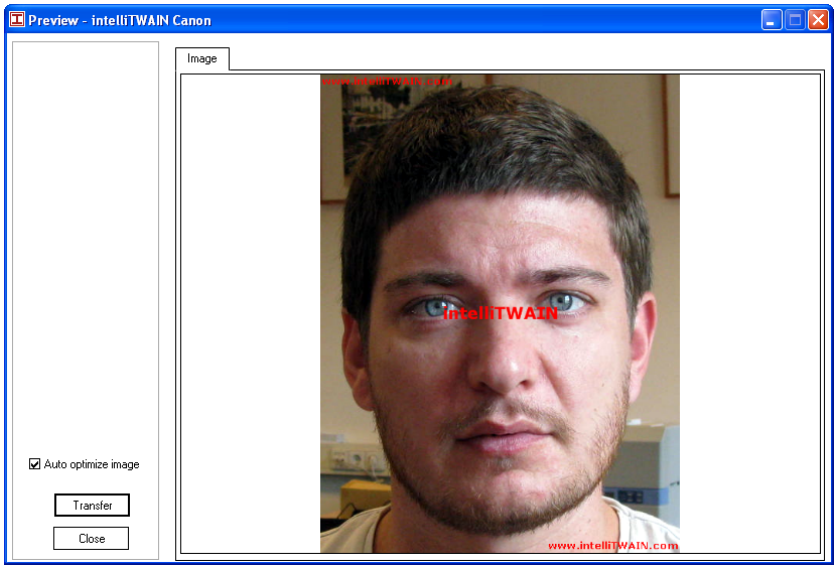


Click and drag the box over the image until you are happy with the layout, click **Transfer** to finalize the image. You can re-size the crop box as you wish by selecting the end points of the crop box.



In case IntelliTWAIN wrongfully detects a face in an area where no face is present, the user could become trapped in a situation where he needs to switch the auto crop feature off before grabbing an image. To avoid this, a manual crop can be forced by left clicking on the capture button.

Select **Preview** to view your captured image before writing the image to a record.

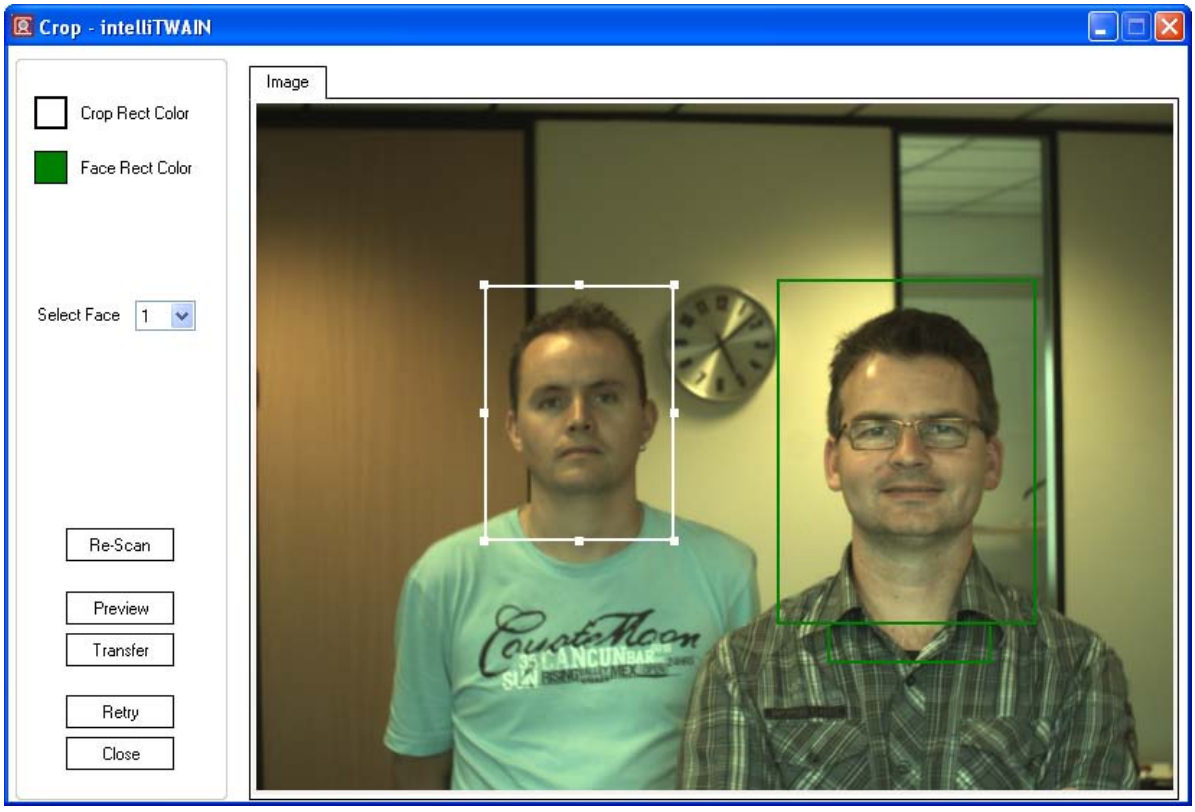


Click **Transfer** to finalize.

Multiple Face Handling

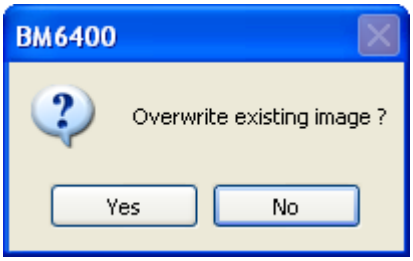
The IntelliTWAIN face detection is capable of detecting and measuring multiple faces into one image.

Within the photo-ID requirements it is obvious that multiple faces cannot be handled simultaneously. In the event that multiple faces are in one image, a selection will need to be made.

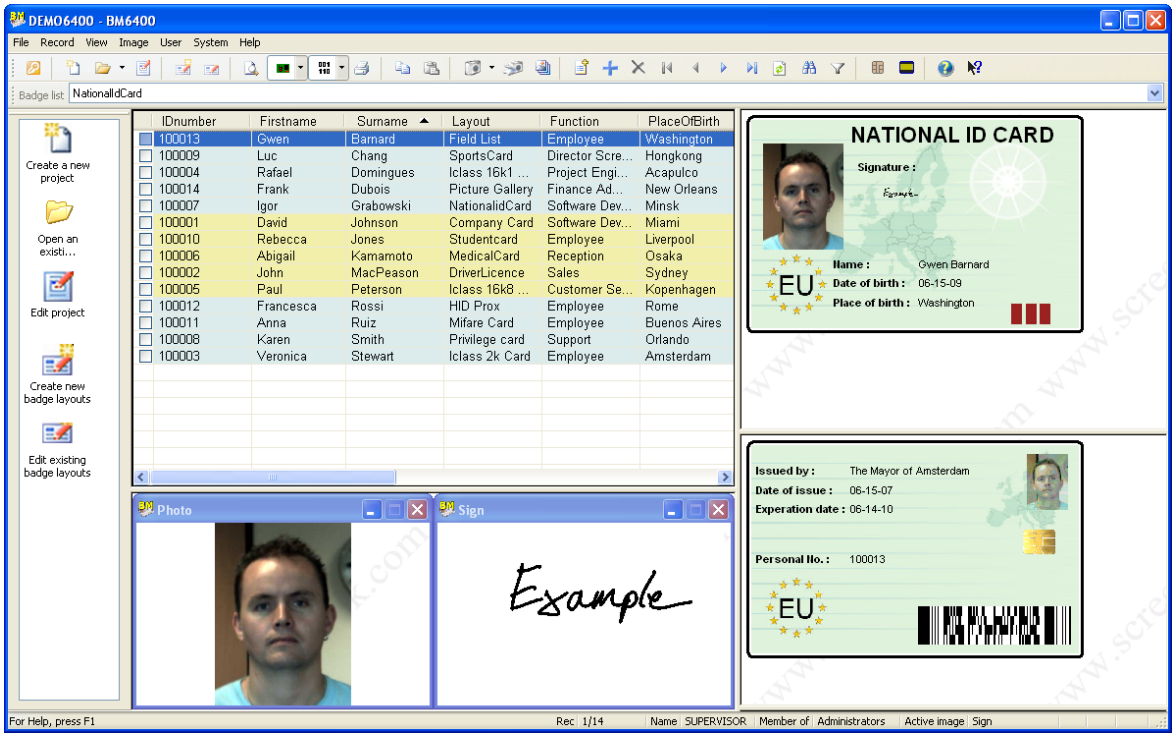


By either using the **Select Face** dropdown box, or simply by double-clicking the selected face, the operator can select, crop and enhance the face as needed.

Once selected click on **Transfer** to upload your image.



Click **Yes** to transfer the image. The image is now added to the selected record.



BM Main Screen