

MEDIASOFT
T E C H N O L O G I E S

eMedia-Cards CS Quick Start Guide

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The eMedia-Cards CS computer program has been designed to run on any IBM PC or compatible micro-computer running the Microsoft Windows, versions Vista and Windows seven 32/64 bit, operating systems.

This software is a COM/DCOM Server component, strictly developed according to the COM/DCOM specifications defined by Microsoft Corporation.

Please refer to the User License and the Limited Warranty for any questions regarding the usage of the license granted to you by Mediasoft Technologies.

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This Quick Start Guide is provided to you for free by Mediasoft Technologies in order to help you in your first steps using the eMedia-Cards CS software. This guide, as the computer program, may be freely downloaded from our internet web site.

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1. INTRODUCTION

Any documentation always begins with a little introduction text, in which we'll talk about some basic principles of the software: available editions, activation and some notices about the way to read this guide.

Please take a moment to read this introduction. You'll understand the role and the way the software runs so you'll be able to use it as efficiently as possible.

What is eMedia-Cards CS?

The software is an integrated application that allows you to design and print plastic cards on any card printer.

Of course, you may use any existing and installed program on your computer to do, but eMedia-Cards CS also allows you to:

- Encode the magnetic strips, the Smart Card and the Contactless Smart Card,
- Help people with low skill level in computing to print out cards in just a few seconds,
- To print out data contained in your own databases,
- To print out calculated data,
- To store information that relates to the cards printouts and the program usage in a database or in a log file,
- To print in a single pass on cards: texts, images, barcodes, the holder's picture acquired from any Twain / WIA camera or webcam.

For these purposes, eMedia-Cards CS was developed to be used in three distinct modes:



The **design mode** allows the creation of the template of the card. This template contains all the information that relates to the contents of the card and the way to use it to print the plastic cards out.

This mode is used by the card creator, the application developer or the solution integrator, from the elements defined by the graphic team and from the available data.



The **operating mode** allows the user to enter the data that must be printed on the card or entered in the database linked to the card, and/or to be encoded. The information, defined in the card template, will be entered from a specific input window dedicated to this usage.

This mode will be used by the people in charge of printing the plastic cards out, from the templates defined by the designer. The utilization of this mode doesn't require any computer skill. The person in charge of entering the data has only to enter the information and to print the card out.



The **COM Server mode** (Component Object Model) allows you to add to a third-party program the ability to print and encode plastic cards, using eMedia-Cards CS as an expansion module.

This mode will be used by the application developer or the solutions integrator. It allows the printout and the encoding of plastic cards from a template defined in design mode and from code in his/her own program.

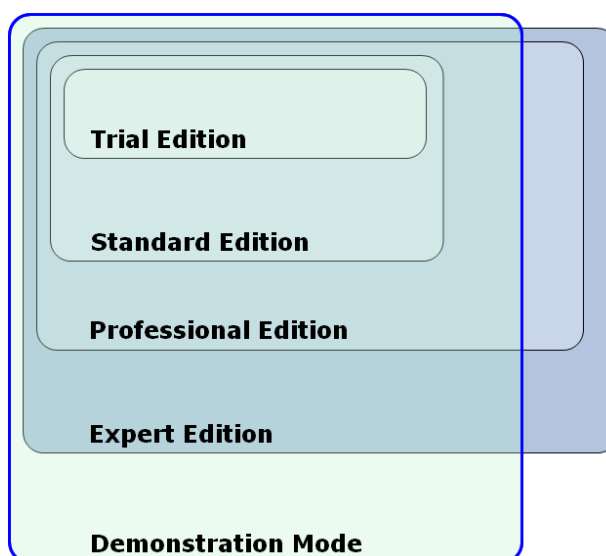
Editions of eMedia-Cards CS

eMedia-Cards CS exists in four editions for different kinds of utilization and features needed. Three of these four editions require the user license to be activated, and this aspect of the software will be described below.

While installing the software on your computer, this one contains all the features of the Expert edition, but only the Trial edition features are enabled.

You may activate an edition at any time, just by entering in the software a string of characters, also called an Activation Key. This key must only be entered once; its purpose is to unlock the corresponding features.

In addition to these four editions, eMedia-Cards CS also contains a specific functionality, called "demonstration mode", in which all the software features can be checked out. You may then define by yourself the edition that best fits your needs and decide to buy the corresponding license: Professional or Expert.



The "Trial" edition works like a "Standard" edition for 30 days after the program installation. After this initial period, this edition is not able to print out production cards anymore, but only demonstration cards.

In demonstration mode, the software cannot also print any production card, and only prints out demonstration cards. These ones look like the production cards, but they contain the label "DEMONSTRATION" on them so they can't be used for a normal usage. These demonstration cards are intended to show the correct printing of the documents while their utilization isn't possible. In this mode, the encodings are not also performed (magnetic strips, smart card and contactless smart card).

The differences between the four editions of eMedia-Cards CS are displayed in this table.

A column, reserved to the demonstration mode, displays the features this mode allows.

	Trial	Standard	Professional	Expert	Demonstration
Design and printouts of plastic cards	✓	✓	✓	✓	✓
Printouts of demonstration cards (<i>see below</i>)	✓				✓
Magnetic strip encoding	✓	✓	✓	✓	
Smart card encoding (external program)			✓	✓	
Contactless smart card encoding (external program)			✓	✓	
Contactless smart card encoding (internal process)				✓	
Database utilization (MS-Excel worksheets)		✓	✓	✓	✓
Database utilization (all standard database types)			✓	✓	✓
Using formulas in text and barcode objects			✓	✓	✓
Using plug-ins			✓	✓	✓
Using COM Server features			✓	✓	✓

1

Registration/Activation of your eMedia-Cards CS license

When you install eMedia Card CS on a work station, all of the features of the program are installed, but some are inactive. In order to be activated, these features require a license. A license is in the form of a key.

The installation can be carried out from a CD-ROM or downloaded from our website.

When the program is started up for the first time, you are invited to register your license and/or activate it, if you have a license key.

You can start the activation process only if you possess a key.

If you do not have a license key, your copy of the software is limited to 30 days. This "Trial" version will function during 30 days like a "STANDARD" edition.

Please check out your anti-spam software to avoid to quarantine or reject any message that could have been sent by our License Server, otherwise you will not receive your Activation Key. To do so, add a rule in your anti-spam software to consider as regular any message sent by the SMTP server "suptel.net", sent by a user belonging to the "emedia-cs.com" domain.

How to register your software copy?

AUTOMATIC REGISTRATION

The PC on which you want to have eMedia-Cards CS activated is connected to the Internet and the connection is active. By clicking on "Next", you authorize eMedia-Cards CS to connect itself to the registration server. A confirmation message will appear.



"Thank you for registering your software copy. The information you sent to us will give you a personalized access to the technical support and will help us to provide a better support"

MANUAL REGISTRATION

The PC on which eMedia-Cards CS is installed does not have Internet access. You must save the registration link on your hard disk or any other medium (USB key, for example). An Internet shortcut is created by default Register eMedia-Cards CS. A confirmation message will appear.



The registration file has been saved.

You can copy it on another computer, then double-click on the file to perform the registration. You'll then receive by e-mail some information about the way to use the software.

According to our privacy statement, your personal information will be kept securely and will not be provided to anybody.

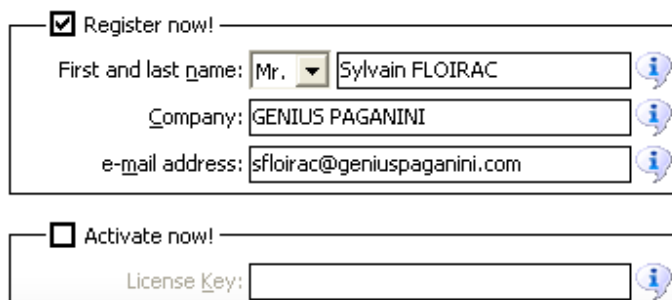
Thank you for registering.

How to obtain a license?

Your local reseller can send directly to you an license.

How to activate my own copy of the software?

If you obtained a License Key, start the software, open the "Help" menu (F1 keyboard) and select the "Register your license..." command. Click on the "Registration and Activation" button and follow the steps in the next pages displayed on screen.



The dialog box contains two sections. The first section, titled "Register now!" with a checked checkbox, includes three input fields: "First and last name:" with a dropdown menu set to "Mr." and a text box containing "Sylvain FLOIRAC"; "Company:" with a text box containing "GENIUS PAGANINI"; and "e-mail address:" with a text box containing "sfloirac@geniuspaganini.com". The second section, titled "Activate now!" with an unchecked checkbox, includes a "License Key:" label and an empty text box. Information icons are present next to each input field.

AUTOMATIC ACTIVATION

The PC on which you want to have eMedia-Cards CS activated is connected to the Internet and the connection is active. By clicking on "Next", you authorize eMedia-Cards CS to connect itself to the activation server. If your License key is valid, your copy of the software will be activated. A confirmation message will appear.



"Thank you. Your software copy is now activated, and you have access to the features of the XXX Edition of the software"

MANUAL ACTIVATION

You do not have Internet access from the PC on which eMedia-Cards CS is installed. You must save the registration and activation link on your hard disk or any other medium (USB key, for example) in an Internet shortcut called by default Activate eMedia-Cards CS.url. A confirmation message will appear.



"The activation file has been saved. You can copy it on another computer, then double-click on the file to perform the activation."

You will receive an e-mail from the activation server at the e-mail address that you indicated. It will invite you to select and copy three lines of information displayed between dotted lines.

```
-----
=ViEo+mwCwQusw2SBf0Jb1tYQt3XRE3b3EbrtxgdPdpb+Y1qYPGCQEfds0xDRYuI
CahEsWDefTyVnmtTf4GjEKrraqp003UkLGKj2DynAb29DEaTGCYc0ATx1lntyfVD
Q/WgPCLVfkz8PsokbRyB6pRSPsJMD9czdHh+0VwVptOYVBqp+gBmffKQsG3gI+A=
-----
```

1. Select only the three lines between the dotted lines,
2. Copy these three lines into a text editor (Notebook, for example) and save this file on a USB key.
3. Insert the USB key into the PC containing the eMedia-Cards CS installation to activate and open the file using Notepad; then copy the three lines of text.
4. In eMedia-Cards CS, open the "Help" menu and select "Activate your license" Paste the three lines of text and press "OK".
5. Finished, your software copy is now activated and the corresponding features are immediately available.

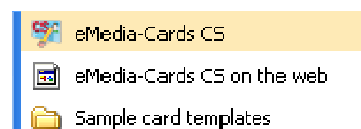
2. DESIGNING A CARD TEMPLATE

Let's start the software and review the first basic knowledge. In this chapter, we'll introduce the design mode and the operating mode, and will print out our first cards.

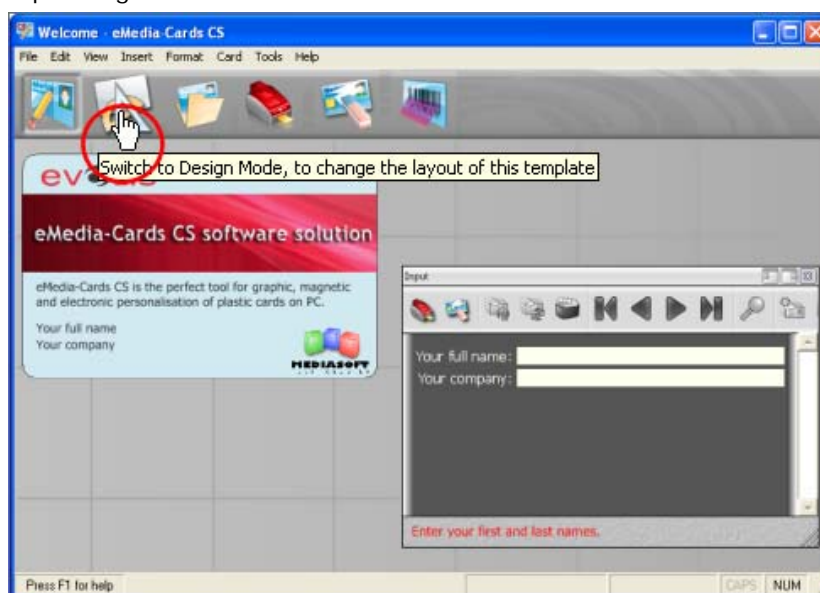
Launching eMedia Card Designer

To start the application, we may either use the icon created on the desktop by the installation program, or use in the "Start" menu, "All programs", the "eMedia-Cards CS" program group, where three icons were created:

- **eMedia-Cards CS** to launch the program in operating mode for printing cards out.
- **eMedia-Cards CS on the web** Opens the web page of eMedia-CS.com
- **Sample card templates** Opens the Windows explorer (C:\Users\Public\Documents\eMedia-Cards CS\Sample Cards) to allow you to automatically open a sample card template in eMedia-Cards CS.



We will now begin a new card template. A splash screen appears, immediately followed by the main Operating window mode.



First launch of eMedia-Cards CS in operating mode

The "Operating" mode is the user mode in which the badges are printed. In operating mode, the card file is displayed with all the objects created in Design mode. Switch in "Design" mode by clicking icon

The elements provided to the user in design mode

The main window of the application contains common elements we can find in any Windows application: a menu bar and a toolbar at the top of the window. A status bar at the bottom of the window gives useful information concerning the localization and the keyboard state. The window also contains four specific elements: the current card template, the toolbox, the layers layout window and the properties pane.

The current card template

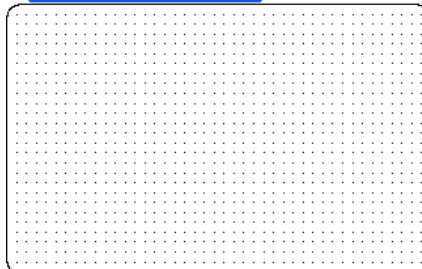
The template is located in the central part of the window, and should be empty at this time. We'll add to this template a background picture and the objects to print out. The bar at the top of the template shows the card side and the current zoom level.

When a double-sided card is to be designed, two elements like this one are displayed: one for the front side, one for the back side.

We may change the zoom level for the active side, from the "View" menu or by pressing the F8 key on the keyboard.

A grid helps us to adjust the position of the objects. The magnetic comportment of the mouse may be defined from the card properties and from "View" menu.

Card - Front - 100%



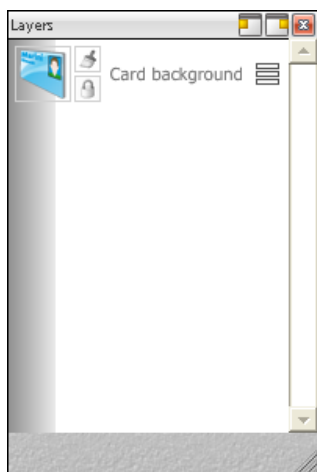
The toolbox

On the left of the window, a vertical panel contains all the objects we may add to the card layout during the design of the card template: text objects, images, photos, barcodes, lines, rectangles, ovals, magnetic strip programming, smart card programming, contactless smart card programming and ClipArt object.

When we move the mouse over one of these object, a tooltip appears, showing us the kind of the corresponding object.



The layers panel



In eMedia-Cards CS the layers are like sheets of stacked acetate on which each object rests. You can see through transparent areas of a layer the layers below. You can move a layer, above or below, like sliding a sheet of acetate in a stack. You can equally modify the opacity level of a layer to make its contents progressively more transparent.

The Layers panel lists all the layers on the card. You can display, mask or move the layers vertically. You can access other commands and options via the properties of each object.

You can move up or down each layer on the card

The properties panel

On the right of the window, the properties pane shows all the properties (i.e. characteristics) of the currently selected object, and, if none is selected, the properties of the current card side.

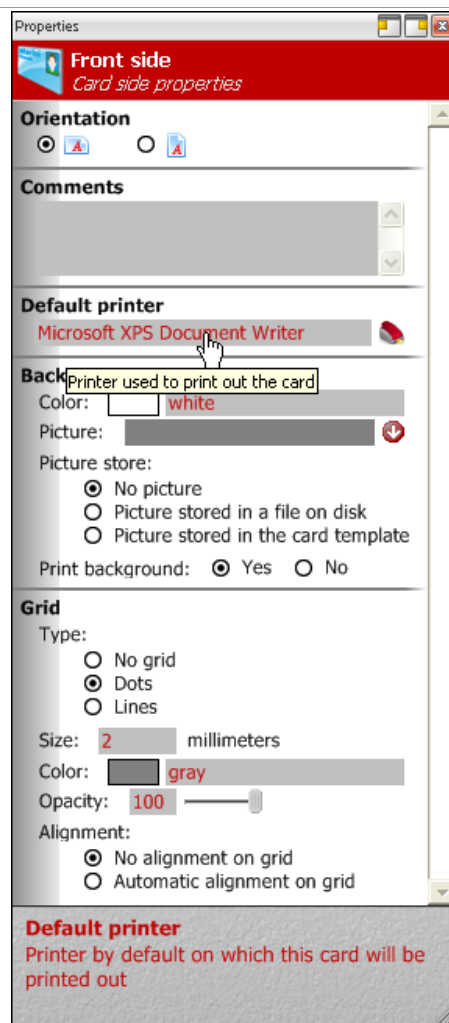
These properties are specific to each kind of object, so the contents of this pane changes each time we click on an object. To select an object, we just have to click on it. To deselect any object, we just have to click on the window background, in a place where there is no object.

The properties pane looks like this one and contains:

- At the top, the object name selected and displayed here ("Card side properties"),
- The list of the properties with their respective values,
- A succinct help for the selected property in the down of pane.

To modify the value of a property, we just have to click on the button on the right of the property to select in a combo-box the needed value or to make a dialog box to appear. We may also use the keyboard to enter the new value, whenever it's possible to.

This guide is not intended to explain all the properties of all the object kinds, so we'll only explain some of the most used properties.



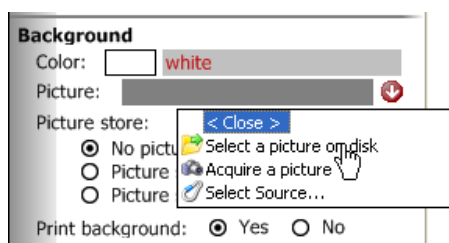
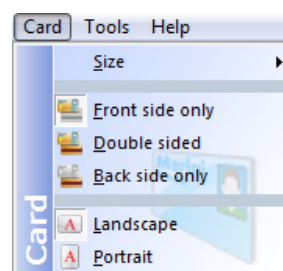
The background of our card

If we want to design a double sided card, or a non-standard sized card, or a portrait card instead of a landscape card, let's open the "Card" menu.

In this menu, we'll be able to select the size, the number of sides and the orientation of our template.

Notice that this choice will not be definitive, we'll be able to change it at any time.

Now, insert the background picture: click on the card (where there's no object): the properties pane now shows the characteristics of the card.



Click on the combo-box button for the "Picture" property. Select "Select a picture on disk". Browse your local or remote hard disks with the common "Open" dialog box and click on the "Open" button once the image found. The filename of the picture then appears in the property, and the card background now contains the picture.



The background of the card template is now defined

Please notice that eMedia-Cards CS considers that the background picture is an image that must cover all the card background. To obtain the best possible printing quality, the printer manufacturers recommend a size multiple of 1016 pixels wide per 648 pixels height.

2

The identity picture of the card holder

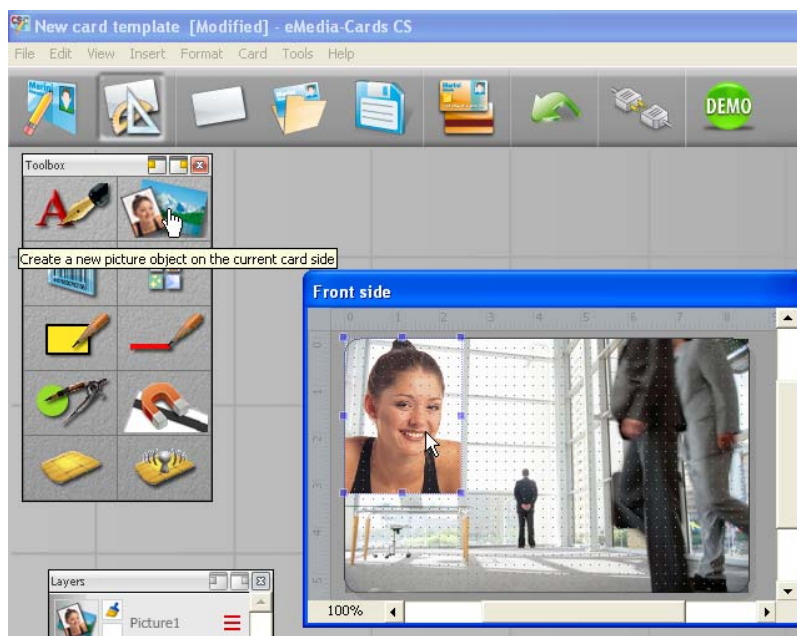
Now, let's add the identity picture of the card holder. We may use one objects from the toolbox for this purpose:



A picture can be a fixed object, such as a logo or an illustration, used as background for the design of the card, or an picture considered as a variable (identify photo, for example). In which case, in operating mode, the user will be able to change it by selecting a picture file on disk or by acquiring the photo from a digital camera or a webcam.

By default, in design mode, the program displays a photo as default.

As the user in operating mode will have to change the picture, click on the "Picture" object in the toolbox on the left. The corresponding object is then created in the card layout, and is also selected: height handles around it help us to move and resize the object in any direction.



2



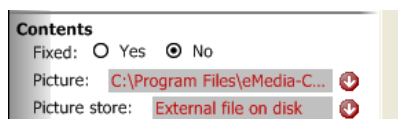
Now, move the picture to the location you want it to be: place the mouse pointer over the picture, click and drag the object to the correct place.

Do the same to resize the object: Click and drag any of the handles around the object. Drag the handle to the new location, and drop the handle to review the result.

The properties pane currently displays only the picture properties selected. We'll notice the following in the properties list:



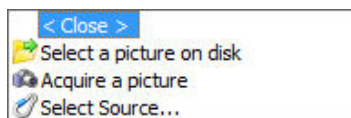
The "Name" property permits to give a name to the object. This will be useful later to retrieve a particular object on the card,



A "**Fixed Picture**" is a set object created in the creation mode, without a value having to be entered in operating mode. A "still image" displayed on the card will be same for each of the individuals. This object often forms the background design of the card. (logos - illustrations)

A "**Picture not fixed**" is a variable picture that requires a value to be entered in operating mode by the user or via a connection to a database.

Picture: Displays the name and disk path of the current picture and allows another source of the object to be selected.

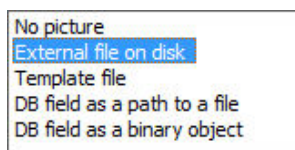


"**Select a picture on disk**" by default, opens the window of the eMedia Card CS program "Picture" folder, which displays the files in the form of icons or the names of the files on which all you have to do is double-click to display the selected picture

in the active card. You can have a folder where pictures are stored automatically open by indicating its disk path in the general options of the program. (See: Tools menu/Options/Object...)

"**Acquire a picture**" by launching the Acquire command, you activate the connection to the selected device's driver. The acquisition process, once started, allows the picture to be transferred to the picture object on the card. The picture acquisition requires connection to a device such as digital camera, scanner, webcam to standard Twain or WIA (Windows Image Acquisition) for Windows, or by the "Folder SUPERVISION ". (See: Tools menu/Options/Acquisition...)

"**Select a Source...**" Every acquisition peripheral of pictures contains a different driver. When you use an acquisition peripheral that use a normalised driver, Twain or WIA (Windows Image Acquisition), select the source suited before clicking Acquire.

Picture store:

"External file on disk": The disk path (URL. Uniform Resource Locator) of this file will be copied into the card model. That implies that it cannot be moved for otherwise it will no longer be displayed on the card.

"Template file" eMedia CS will store the picture in binary in the model file (eccs)

"DB field as a path to a file" Before establishing the connection, verify that a specific field for recording photos exists (text type field) in the database. This field will be necessary in order to add the photo file access path each time you register an individual.

"DB field as a binary object" eMedia CS can store the photos as binary data (BLOB: Binary Large Object) in a field in a database such as Microsoft SQL Server or Oracle.

Some database types can store pictures or binary objects. Other just can't. So, to be coherent, the software only stores in the database the file name and path of the picture stored on disk.

2

Position: You can equally manually control the size and position of the object on the card in its properties window.

Position	
Left:	2,37
Top:	18,99
Width:	24,7
Height:	32,9

- Distance of **left** position from left border,
- Upper position from the **top**,
- **Width** extended to the right,
- **Height** of the object.

Aspect	
Zoom:	<input type="radio"/> Auto <input checked="" type="radio"/> Manual
Zoom level:	118,11
Cropping:	
Left:	0
Top:	0
Rotation:	0
Opacity:	100

We may change the zoom level, and the automatic zoom feature (on by default) that adapts the zoom level to try to display and print the most part of the picture.

Let's change the AutoZoom property to false, and then change the Zoom property from 31% to 40% so we obtain a closer look to the picture.

Beware on the fact that if you change the AutoZoom and Zoom properties, all the holders' pictures will have to be similar in dimension and layout to guarantee a perfect result.

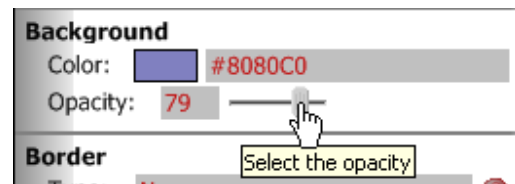
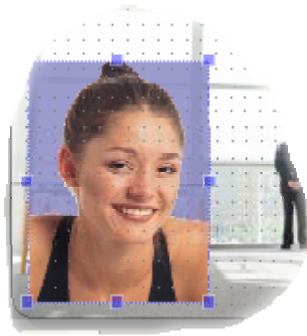
Cropping: The crop properties that will allow to extract from the whole picture only the interesting part,

Rotation: By inputting an angle, you can rotate a text or a picture by an angle of 0 to 360 degrees. The object is not affected by the rotation, only the data that it contains is.

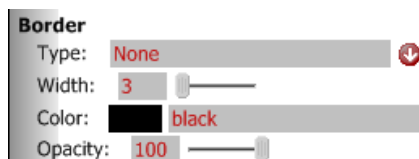
Opacity: You can vary the opacity of a layer between the default value 100 % (total opacity) and 0 % (transparency). When a layer is partially transparent, you can see the layers below.

Background	
Color:	white
Opacity:	0

Transparent areas in pictures can be colored



- You can select color in color box
- You can also adjust the color intensity (Opacity)



You can put a border around of picture

- Type: Selection of a border style,
- Width: Thickness of the frame border.
- Color: Access the Windows color palette,
- Opacity: Level of opacity of the color.

Giving some help to the user

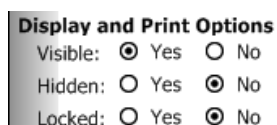
When this card template will be finished, maybe the person in charge of printing out the cards will not have the skills you'll have after reading this guide. So, we must give him information so he'll be able to enter the data correctly. For this purpose, two properties have been included in the properties pane:



Text is a short text, just a label, which will be displayed in operating mode in front of the text-box the user will have to fill in, so the user will be able to understand what he's expected to enter there.

Order: This command affects the vertical positioning of the input window fields in the operating mode.

ToolTip is a help text which will be displayed below the text-box and in the status bar when the user will give focus to the text-box. He'll have some information about the data to be entered there.



Visible:

This parameter, which applies to any object, allows you to manage how it is displayed in Operating mode.

- True it will be displayed in Operating mode.
- False it will be invisible in Operating mode.

Hidden:

This parameter is primarily meant for writing, in design mode, repeated formulas or expressions that enable you to ultimately display a final value. In which case, it can be useful to mask them and only display the result.

(Warning) You must equally add the parameter **"Not Visible"**, if you do not want them to be displayed in operating mode.

Locked:

If it is locked, the object can no longer be accidentally moved or resized. The parameters of the properties window remain active.

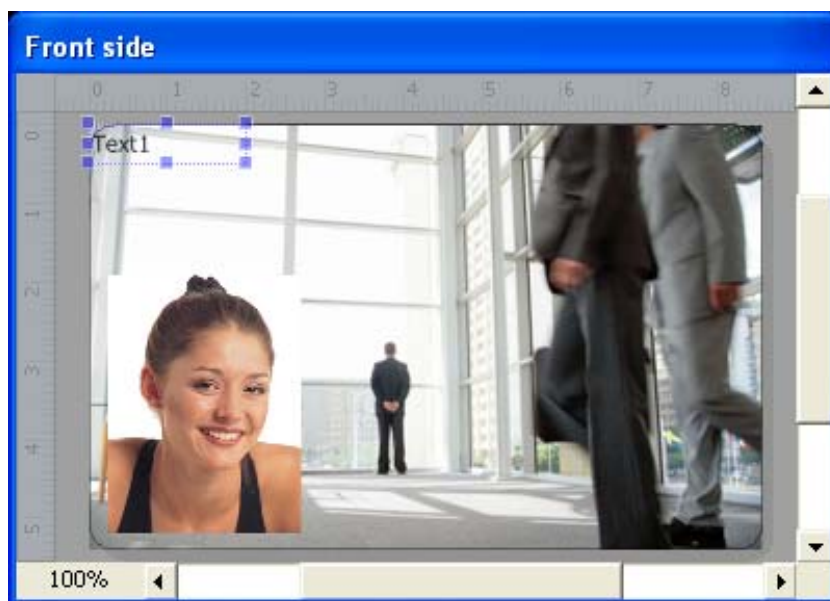
The holder's name and other text objects

Let's add some new information on our card template: the holder's name. For this purpose, we'll add a text object then define its properties so he'll be able to contain the information.



In the toolbox on the left, click on the text object. This one appears on the top left of the current template. Notice that for two-sided cards, the object appears on the current selected side. To ensure that the creation is made on the correct side, you have to click on the target side before clicking on the icon in the toolbox.

The display now looks like:



Once our text object has been created

The "Properties panel" dialog box helps us to specify, at the creation time, the three main properties of a text object:

Object name: Internal name of the object followed by its order number. This information is needed in advanced versions of the software and to automate certain functions, such as the magnetic encoding or the writing to smart cards. In order to properly identify the objects that you lay out on the card, it is preferable to rename them according to the data that they must contain (Example: Last name - First name - Address - Reference number - etc.)

Object Name	
Text1	
Contents	
Source:	Fixed data
Data in this object:	Text1

The object name must be an identifier

1. It must start with a letter
2. The name can only contain letters, digits and the underscore character.(_). All others thing are unacceptable

Source defines the kind of information that this object will contain,

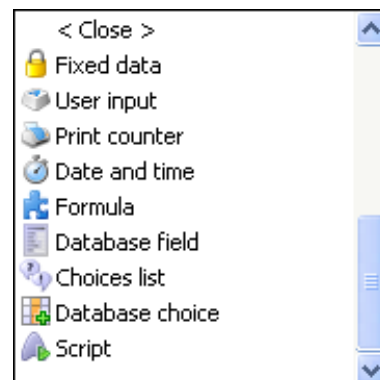
Data defines the information itself.

The dialog box appears each time an object is created and also when double-clicking on the object.

The sources of the data

Let's open the "Source of the data" combo-box and see what's in there:

- **Fixed** tells the software that the text in the object will not change in operating mode. The user will not be able to modify it. The "Data" property contains the information to display.
- **User input** tells the software that the text will be entered by the user in operating mode, from a text-box in an input window. The "Data" property contains the default value to be used if the user doesn't define the contents of the object before printing out.
- **Print counter** tells the software that the object will contain a numeric value. This value will be changed automatically each time the card is printed out. This will allow, for instance, a numeration of the cards. You may define the first value and the added value for each printout in the dialog box displayed from the "Print counter" command of the "Tools" menu. The "Data" property is unused.
- **Date and time** tells the software that the object will automatically contain the current time and/or the current date of the printout. The "Data" property is unused.
- **Formula** tells the software that the object contains a formula. This formula is calculated each time a data is entered by the user in operating mode, or when the printout occurs. The result of the calculation is then shown in the object. The "Data" property must contain the formula.
- **Database field** tells the software that the object will contain the value of a field of the current record of the database linked to the card template. The "Data" property must contain the name of the database field.
- **Choice list** tells the software that the object contains a list of possible values. In operating mode, the user will select in a combo-box one of these choices. You will enter the different possible choices from the "Data" property.
- **Database choice** is a little bit more complex, as it is the combination of the "Database field" and "Choice list" sources. This kind of source tells the software that the user in operating mode will be able to select a value from possible choices. These choices will be extracted from a second table of the database. Once a value is chosen, this value, or a foreign key, will be stored automatically in a field of the main table.
- **Script** is a set of instructions.



Please notice that it's not possible to use all the possible sources with a Standard Edition of the software. Some sources only work with a Professional or Expert Edition of eMedia Card Designer.

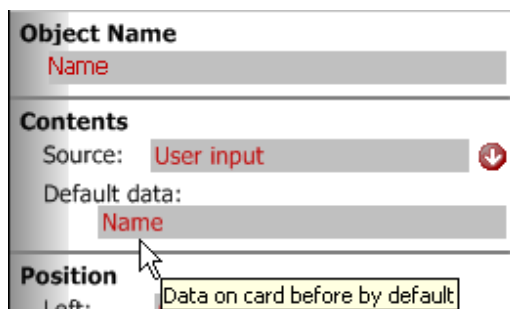
We may also check out these sources, expression, database field and database choice by enabling the demonstration mode from the "Help" menu. We also know that enabling this mode prevent the user from printing out usable cards.

In this guide, we'll only talk about simple features, as our purpose is to learn how to use the software, and not to become a software developer. If more information is needed, we may press the F1 key at any time while using eMedia Card Designer.

We'll be pleased to have the name of the card holder in this text object. As this information will be specific to each printed card, we can't use a fixed source, and must use a variable one. So, choose the "User input" source, so the user in operating mode will enter the holder's name before printing out.

Professional or Expert Editions Demonstration mode		
Trial & Standard Editions		
Fixed	✓	✓
User input	✓	✓
Print Counter	✓	✓
Date and time	✓	✓
Expression		✓
Database field		✓
Choice list	✓	✓
Database choice		✓
Script		✓

Insert in the "Object name" dialog box the value Name
 Insert in the "Data" property a default value. The dialog box will then look like:

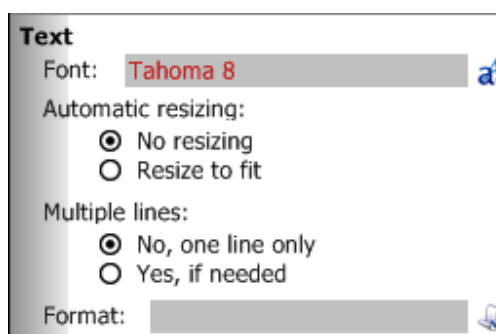


Entering the properties of our text object

Now, click on the "OK" button, then move the text object on the card so it reaches its printing position. Give it a width and a height compatible with the expected contents and the background illustration.

Now, let's review the available properties:

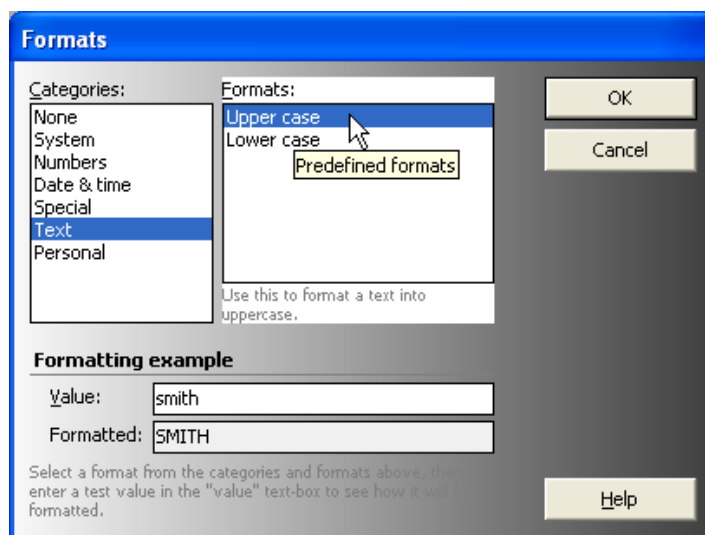
- The "Font" property will help us to change the style and the size of the font.
- **No resizing:** You must manually resize the text area, using the handles, in order to be able to fit the entire chain of characters in object.
- **Resize to fit:** eMedia Card automatically adapts the size of the font in relation to the length of the text contained in the object. Adjust the height of the object, if you want the text to be able to automatically adjust and the object to display the contents of the data, or disable this function to block this feature
- The "MultiLine" property allows us to write the text on more than one line.



Presenting the information

The "Format" property may be used to define an automatic layout mask for our text. It's very useful for numeric values or dates. The user in operating mode will then be able to enter the information as he wants and eMedia will, by itself, change the presentation of the data to fit your own specifications.

To specify a format, click on the button on the right of the "Format" property, and click on the "Choose format" choice. In the dialog box that appears then, select the data category, then the needed format. In the example on the right, as we want to force the upper case, we selected the "Upper case" format.



If you use the Microsoft Office™ Suite, you'll find all these formats very familiar... The format strings in eMedia-Cards CS are the same than those in Microsoft Excel™.

The example text-boxes at the bottom of the dialog box help you to review how the data will be presented using this format: enter a value in the "Value" text box, and see the result in the "Formatted" text-box.

Aspect

Color: black

Opacity:

Horizontal alignment:

Vertical alignment:

Rotation:

By default, a text is black. To have colored text, you must to choose a color and an opacity level.

Horizontal alignment

- Left... Aligns the text to the left in the delimited area
- Center... Centre the text in the delimited area
- Right... Aligns the text to the right in the delimited area

Vertical alignment

- Top... Aligns the text at top of delimited area
- Middle... Aligns the text in the middle of delimited area
- Bottom... Aligns the text at the bottom of delimited area

Rotation

By inputting a value, you can rotate the text by an angle of 0 to 360 degrees. The object is not affected by the rotation; only the oval is rotated inside the object.

As with the "Multi-line" function, do not forget to ensure that the object's dimensions are adequate for all the data that it contains, or will contain, to be displayed.

For text objects, you can equally opt for the automatic resizing

Background

Color: white

Opacity:

By default, a text object is transparent. To have a colored text, you must to choose a color and an opacity level.

Border

Type:

Width:

Color: black

Opacity:

- Type: Selection of a border style,
- Width: Thickness of the frame border,
- Color: Access the Windows color palette,
- Opacity: Level of opacity of the color.

Giving some help to the user

When this card template will be finished, maybe the person in charge of printing out the cards will not have the skills you'll have after reading this guide. So, we must give him information so he'll be able to enter the data correctly. For this purpose, two properties have been included in the properties pane:

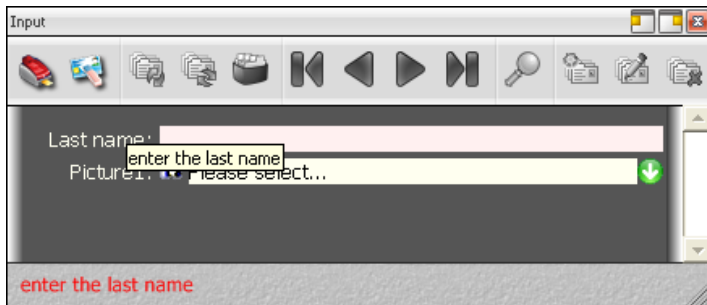
- **Text:** is a short text, just a label, which will be displayed in operating mode in front of the text-box the user will have to fill in, so the user will be able to understand what he's expected to enter there.
- **ToolTip:** is a help text which will be displayed below the text-box and in the status bar when the user will give focus to the text-box. He'll have some information about the data to be entered there.

- **Order:** This command affects the vertical positioning of the input window fields in the operating mode.

We'll define these properties as shown on the right, so the resulting input box for the user in operating mode will look like the one displayed below:

Caption

Text: Last name:
Order: 1
Tooltip: enter the last name

**Exercise**

Try now to add to your card a text, rotated 90°, containing the print date. The screen shot below shows the expected result. And, if you think you're not able to do this, read the following...



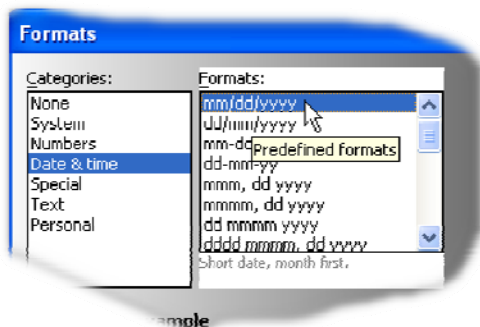
There are many ways to perform this job. We'll not describe the easiest one, but we'll show you the most powerful solution.

The first thing to do is to create a text object

As we want to display the print date, we'll define the source property to "Date and time".



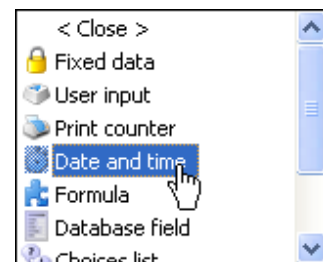
To print out the date as needed, we'll apply a format containing the correct date format: "mm/dd/yyyy"

**Object Name**

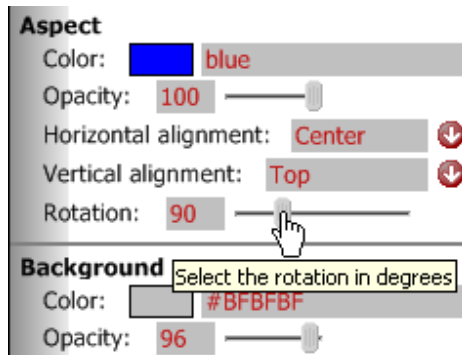
Text1

Contents

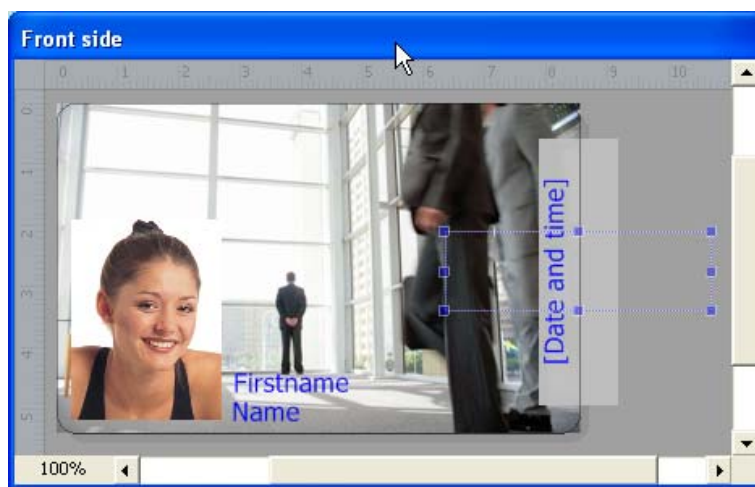
Source: Date and time



The text must be blue and, to be well visible, a background soft opacity grey.



The text must be printed vertically, so we change the "Rotation" property and set it to 90.



Now, we move the object near the right border of the card, using the all available width, so that the grey of background covers the entire area and we set the "Alignment" property to "Center" so the text will be vertically centered.

The text and ToolTip properties have no interest. This is due to the fact that the source of this text object is "Date and time". As the contents of the object will be defined automatically by the computer, and will not be entered by the user in operating mode, there's no need to specify any help text.

Also, to guarantee a correct position of the object on the card, we may enter by ourselves, manually from the keyboard, the four coordinates of the object, using the "Top", "Left", "Width" and "Height" properties. The values of these properties are always in millimeters.

Position	
Left:	62,42
Top:	13,1
Width:	43,55
Height:	13,03

Let's go a little more further

With a Professional Edition or an Expert Edition of eMedia-Cards CS (or by enabling the demonstration mode), we may use more powerful features: formulas and database field contents.

As the database connection and utilization is described later in this guide, let's review now the text objects containing formulas.

You may tell eMedia-Cards CS that a calculation is to be performed. You'll enter in your card design the formula to be computed and eMedia will calculate the result.

Suppose, for instance, that your card must contain its own expiration date. This one will be calculated from the start date (entered by the user in operating mode). The card will expire 90 days after this start date.

The screen shot on the right shows the properties of the text object which will contain the start date.

Set the properties as:

- **Name** is set to "tStart" as we'll need to use this name in our formula.
- **Source** is "User input" as the operator will have to enter the start date,
- **Default data** contains "01/01/2000" as a default value,
- **Text** and **ToolTip** are set to useful help texts,



Properties

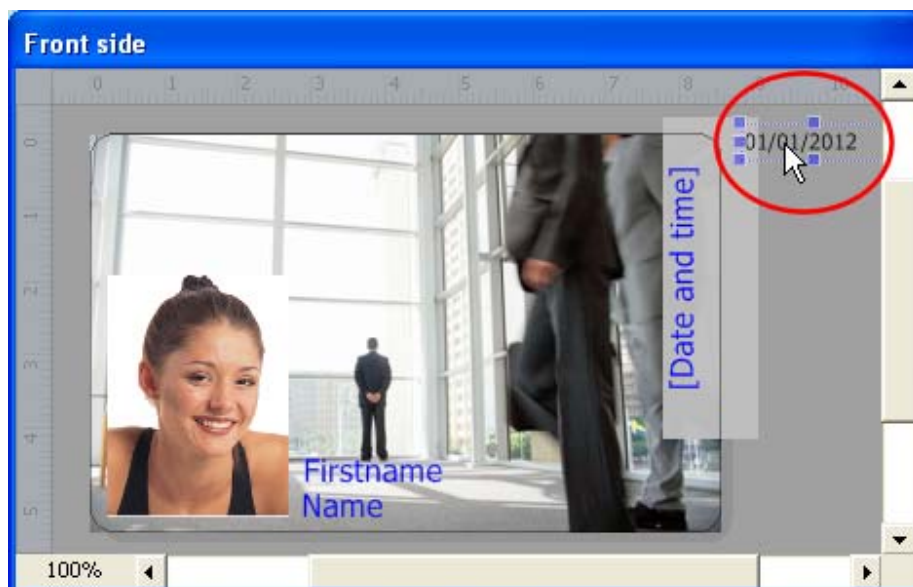
TStart
Text object properties

Object Name
TStart

Contents
Source: User input
Default data: 01/01/2012

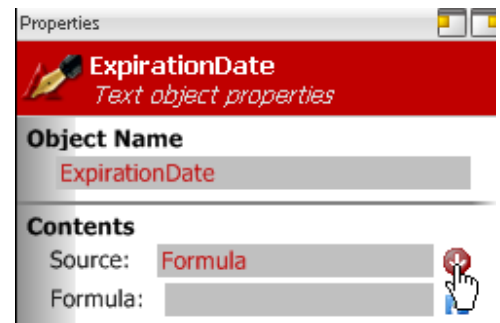
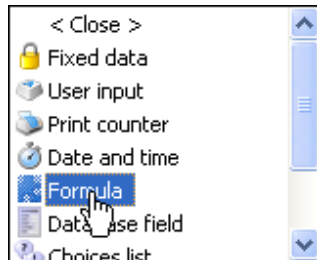
Caption
Text: Start date:
Order: 3
Tooltip: Enter the start date

Display and Print Options
Visible: ☐ Yes ☒ No
Hidden: ☐ Yes ☒ No
Locked: ☐ Yes ☒ No

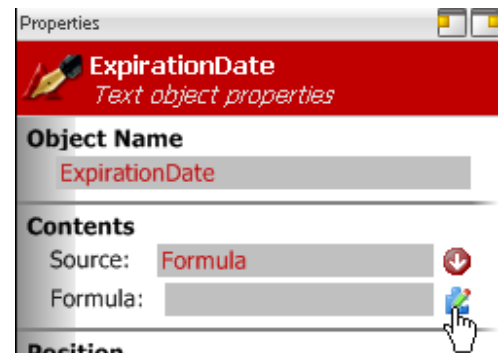


You may also create two text objects, with a fixed source, containing respectively "Valid from" and "to".

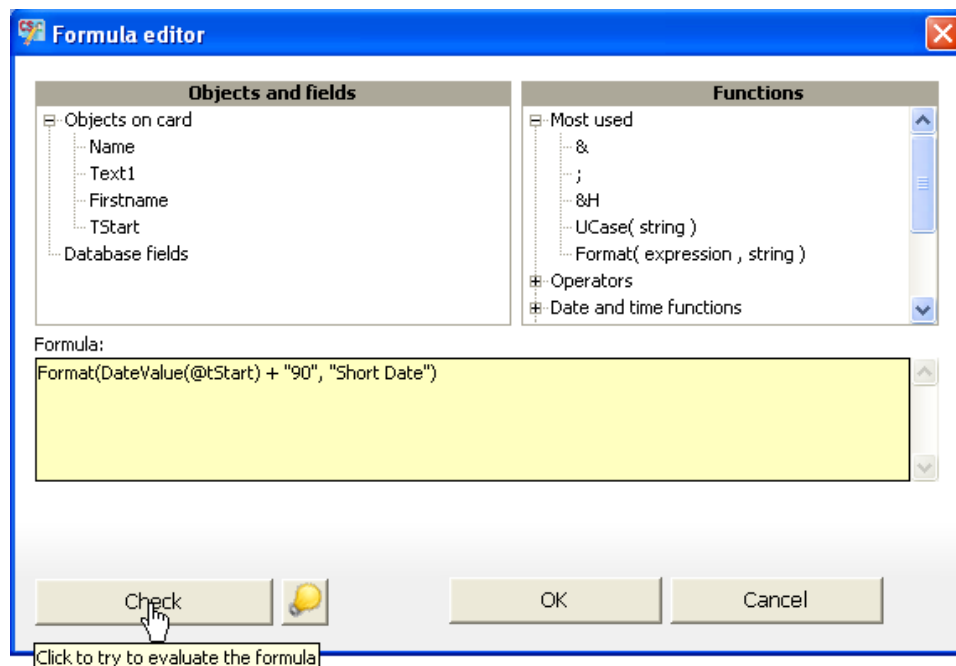
Now, create a new text object for the expiration date. Set the "Source" property to "Formula": in operating mode, the user will not have to care about the expiration date; this one will be calculated automatically by eMedia-Cards CS from the start date entered.



Click on the "..." button on the right of the "Data" property of this new text object to display the formula wizard:



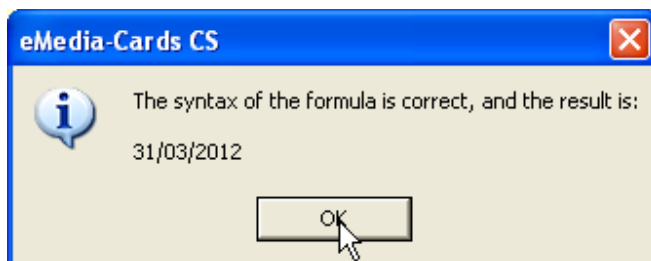
As the original date is entered by the user in operating mode and stored in the "tStart" object of the card, select "In the value of a card object" and click on "OK". The wizard displays the list of the objects. Select "tStart" and click "Ok".



The wizard asks us for the number of days. As defined above, select "I'll enter the information now", click "OK" and then enter the value: 90 and click "OK".

The complete formula is now displayed as:

`Format(DateValue(@tStart) + "90", "Short Date")` If this formula is correct, just click "OK".



Evaluation of the formula

The user interface is the following:

Our formula is displayed in the bottom area and we may modify it to add an object of the card or a function of the software by double-clicking in the two hierarchical lists above.

As the formula corresponds to our specifications, we may click on the "Check" button at the top. A message tells us that the formula is correct and will return the value.

For more information about the formulas, click on the "?" button



A specific help will appear, containing all the needed information to build powerful formulas and the full reference about the built-in functions.

A barcode with the membership number

We may create and manage the barcode objects exactly as we did with the Text objects. In this paragraph, we'll create such an object, which will contain the member number to our tennis club.

Click on the barcode icon in the toolbox on the left (see the icon here):



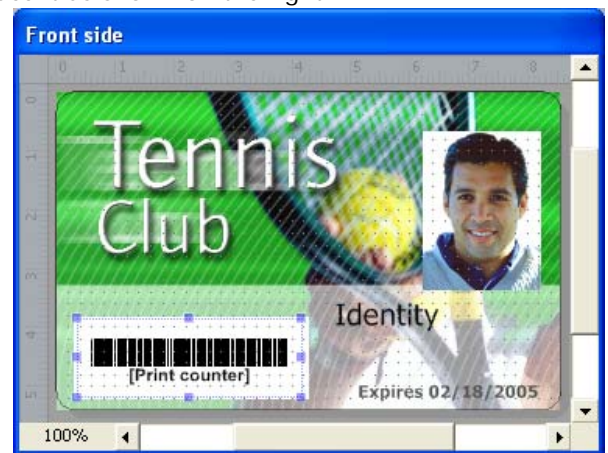
The "Properties definition" dialog box appears, so we'll be able to select the source of the data and the contents of our barcode. It's the same dialog box than the one seen before.

If our barcode must contain the member number, this number must change for each new printout automatically. So we'll use a print counter. Select "Print counter" in the "Source" combo-box.

Click on the "OK" button.

Move the barcode object over the card to place it as shown on the right.

There is a blank background behind the barcode. Notice that this background will not disappear in operating mode (as for Text objects), as the barcode must be on a clean background to allow LED barcode readers to read it. These readers are only able to read barcodes in true black (K ribbon) over a background that has a constant luminosity level. We may choose any other color than the white for the background, but transparency is not allowed. We may also choose a "Masked" background. In this case, the background will be printed in composite black. A copier will not be able to make a difference between the composite black and the barcode true black, but the reader will be able to. It's a way to enhance the card security.



Let's review now the main properties of the barcode object we created. We'll not describe again the properties seen for the text objects, but only the new ones and those which don't have the same purpose:

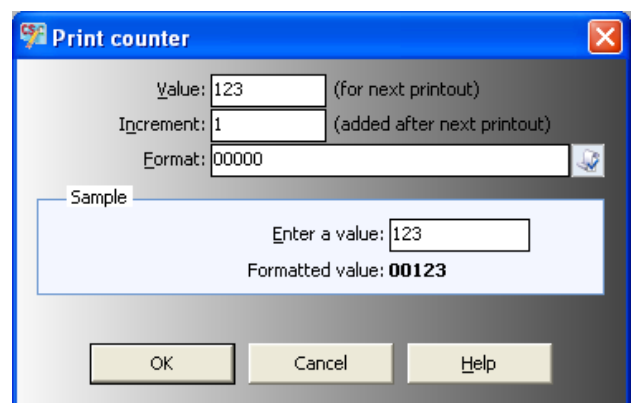
- The "Font" property is to be used to select the barcode type to use.
- The "ValueVisible" property defines that the value of the barcode must be written below the bars. If this property is set to "True", then the "ValueFont" property defines the characteristics of the font used to write this value.

Characteristics of the print counter

When a print counter is defined in a card template, its default value is set to one, and 1 is added to this value each time a printout is performed. To change the default value and/or the value added at each printout, we may configure the counter, from the "Print counter" command of the "Tools" menu.

The following dialog box appears:

The "Initial value" text-box contains the value to be printed on the first card. Here, we consider that the first member will have the value 123.



The "Increment" text-box contains the value that will be added to the counter once the printout performed.

The "Digits" text-box defines that the counter must contain x digits. The counter value will be truncated if needed.

The "Keep zeros" check box defines, if checked, that the counter must always have the number of digits entered in the "Digits" text-box, and to eventually add zeroes on the left of the value.

There's a preview at the bottom of the dialog box to review how the counter will look like on the first printed card.

The magnetic strip

If we need to encode information on the magnetic strip, a wizard has been designed to help us creating the corresponding formula, as the magnetic strip is considered by eMedia-Cards CS as an object, having its "Source" property set to "Formula". So, we have to enter in it a formula.

To specify the contents of the magnetic strip, just click on the "Encoding" tab in the toolbar.

Once the tab opened, click on the "Magnetic strip" icon (see the corresponding icon on the right).







The magnetic strip encoding dialog box appears:



Type of magnetic strip encoding:

☒ ISO magnetic strip
☐ Non ISO
☐ JIS Type II

ISO Contents

Track 1:  
Up to 79 alphanumeric characters

Track 2:  
Up to 40 numeric characters

Track 3:  
Up to 107 numeric characters

"Magnetic strip encoding" dialog box

The radio buttons at the top allow us to select the type of encoding to perform:

- **ISO:** the encoding will be compliant to the ISO standards. eMedia-Cards CS will check out the data to encode.
- **Non ISO:** the encoding will not be compliant to the ISO standards, eMedia-Cards CS will not check out the data to encode.
- **JIS Type II:** the encoding will be compliant with the Japanese standard.

The three text-boxes allow us to enter the three formulas (one for each track) or the only formula for the single track on the front side of the card if "JIS Type II" was selected.

Each text-box must contain a formula, and this formula must return a string, having the max length specified under the text-box. The return value must also contain either only digits (numeric only tracks) or digits, characters and some symbols (alphanumeric tracks).

During the encoding phase, any data that will not correspond to the ISO standards (for ISO encoding), will be replaced by eMedia-Cards CS by space characters, or will be removed on numeric tracks.

Two buttons on the right of each text-box, display dialog boxes helping us to define the contents of the track:



This button opens the "Formula wizard" dialog box seen previously. This dialog box will help us to create and test the formula.



This button opens a wizard that will allow us to build the contents of the track on a step-by-step basis. At each step, we'll be asked if we want to add or concatenate objects of the card, fields of the database, fixed data, etc.

Let's use this button now to call the magnetic strip wizard. We'll define in it, one at a time, the elements that will be concatenated on the track. We'll be able to review the formula later, using the Expression wizard (first button on the right of the track contents) for instance to enhance it with new calculations.

Click on the button on which is drawn a magic hat and follows step by step the configuration of the track.

Click on "Next" and begin the configuration of the track. We'll suppose, for this demonstration, that our track will have to contain the holder's name, the start and end dates of membership, all these data separated with the normalized separator character for ISO track 1: "^".

What kind of data do you want to add to the track:

- ☐ A space character
- ☐ The track separator
- ☒ The contents of an object of the card
- ☐ The contents of a field of the database
- ☐ A fixed data that will not change
- ☐ The response to a question asked at print time
- ☐ The results of the evaluation of a formula

The dialog box displays the first step, in which we must choose where, is located the data used for encoding: in an object of the card, in the database (if a database is linked to the template), to be asked to the user, or a fixed data.

Select the object on the card that contains the data to encode:

tName
tExpires
tCardNo
TStart

Select "A data that is on the card" and click "Next". As the holder's name will be located in the text object named "tName", select this object and click "Next".

At the first step, the dialog box asks us if we want to concatenate or to add:

What kind of data do you want to add to the track:

- ☐ A space character
- ☒ The track separator
- ☐ The contents of an object of the card
- ☐ The contents of a field of the database
- ☐ A fixed data that will not change
- ☐ The response to a question asked at print time
- ☐ The results of the evaluation of a formula

Step 3: concatenate or add?

Concatenate means: "add a data without separation". Add means: "add another data but as it must be done on a magnetic strip, e.g. with the ISO separator character between them".

So, click on "Add another text or value" and click "Next", to continue at the first step: what kind of information, then the information itself, etc.

If we forget what are the data already inserted, a text-box appear then at the bottom, showing the formula we are building and a preview of its contents:

Track preview: **IDENTITY^10/20/2011 17:41^10/19/2012**

Encoding preview

Once all the data inserted, select "Terminate" at the third step, instead of "Concatenate" or "Add" and click the "Next" button. Now, click "OK", and your encoding is ready.

Please notice that if you're using a two-sided template, the magnetic strip is now visible on the back side to avoid the designer to create objects at this place.

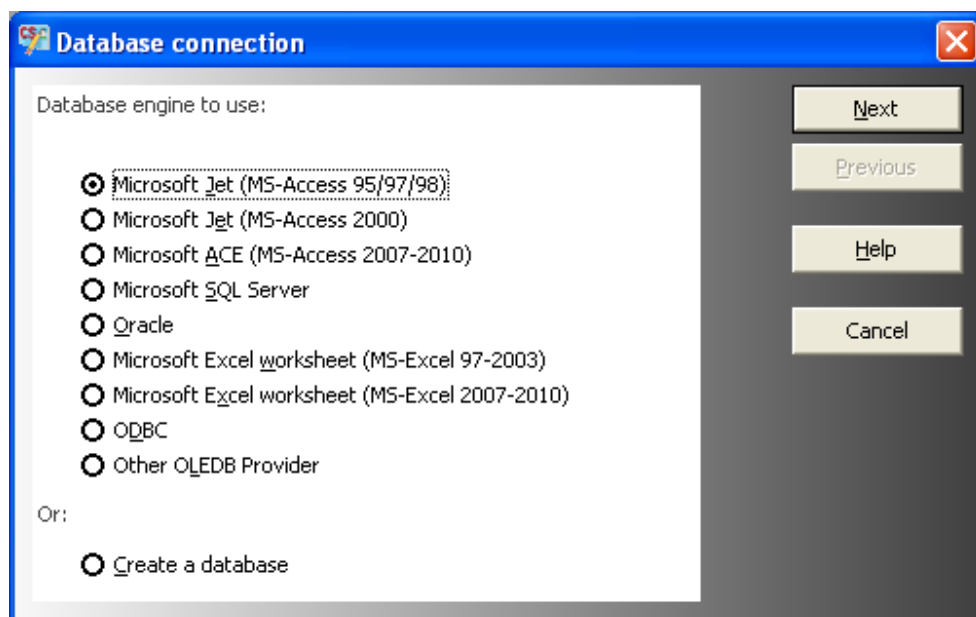
Connection to a database

With the Professional and Expert editions of the software (and with the demonstration mode), your card template can be linked to any database using either an OLEDB or an ODBC driver. This gives access to the whole possibilities of storing and managing large amount of data.

The Standard edition of eMedia-Cards CS only allows you to connect to a Microsoft Excel™ datasheet. This solution is limited as these datasheets don't offer all the features of a database, but this allows you to manage a simple set of data.

Defining the database connection

In the "Tools" menu, select the "Connect to database" command:



Database connection – driver selection

With the Professional and Expert editions and with the demonstration mode enabled, all the choices are enabled. With the Standard edition of the software, only the "Microsoft Excel worksheet" choice is enabled.

Now, either you already have a database and want to connect to it, either you don't have any database and want to create one.

2

- If you already have a database, click on the radio button that correspond to the database type and click "Next". The following pages will help you to select your database and to configure the way to connect to it.
- If you don't have any database, or if you want to create one, click on the "Create database" button. The wizard will help you to define the fields: names, types and lengths. The created database will be saved using the Microsoft Access™ format and the current card template will be automatically connected to this database.

To add, modify or delete fields, just click on them in the grid with the right mouse button and select the corresponding command in the popup menu.

Once the structure of the database defined, according to your needs, the wizard will ask you for a filename in which the database will be created.

The online help can be accessed from each drop-down menu, topic or "object properties" dialog box by pressing the F1 keyboard key. In "Table of contents" page click on "Database connection/Create database"

Create you own database structure.

Database fields:

Name	Type	Size
TITLE	Text	20
FIRST_NAME	Text	50
LAST_NAME	Text	50
CARD_NUMBER	Integer	4
PHOTO	Text	255

Right click on a grid cell to add, edit or delete a field.

We'll now connect to the sample database provided with eMedia Card Designer. In the dialog box in which the type of the database is requested, click on "Microsoft Jet engine (MS-Access 2000)" and click on "Next".

The wizard asks for the name of the database file. Click on the "..." button and select the "Company.mdb" database located in the samples folder, in: Sample Cards\Enhanced cards\Corporate\Files\Corporate.mdb. Click on "Open" to select this database, then on "Next":

Database connection – user ID and password

Additional information regarding the handling of the connection.

Authentication

User name: Password:

Timeouts

Connection timeout (in seconds): Command timeout (in seconds):

Other information

Additional information for the ADO connection string:

☐ Don't count records (speeds up slow connections)

In this step, we'll enter (if needed) the user ID and the password to provide to the DBMS if the connection needs an authentication. It's not the case for our example.

Click on "Next" to display the next step. The list of table or views appears. Select yours. Or, a text-box waits for your SQL statement, enter yours:

Select the records set you want to use.

Tables

Views

SQL

CarPark_Labels
Department_Labels
Employees
Title_Labels

Recordset type:

☒ Keyset

☐ Dynamic

Cursor type:

☒ Client

☐ Server

Database connection – Table or view selection

- **Table:** one of the tables of the database, and all the records stored in it.
- **View:** a set of records from one or many tables. It's called a "Request" in Microsoft Access™ or a "Stored procedure" in Microsoft SQL Server™ or Oracle™.
- **SQL Statement:** You'll be able to enter a SQL SELECT command in a text-box. For more information, please refer to the online help or your SQL documentation.

With the "Cursor type" combo-box, you'll be able to choose between a **Keyset** cursor and a **Dynamic** cursor.

The next step allows us to define if the user in operating mode will have the possibility to modify records, add new ones or delete existing records.

Authorizations granted to the user who will print the cards out.

☒ Modify records

☒ Add records

☒ Delete records

Select the fields that will be displayed to the operator and those he will be able to edit.

Sort	Field	Display	Edit
	ID	✓	✓
	Last name	✓	✓
	First name	✓	✓
	Job title	✓	✓
	Department	✓	✓
	Phone	✓	✓
	Fax	✓	✓
	e-mail	✓	✓
	Creation date	✓	✓
	Identity ID	✓	✓
	Identity Picture	✓	✓

The next steps are very similar: a list of fields is shown, and each can be selected or not:

Database connection – Fields selection

- **Display** - In the first list, you select the fields which will be displayed to the user in operating mode (so you are able to hide certain fields).
- **Edit** - In the second list, you select the fields that the user will be able to modify, if the authorizations were set in the previous step (so you are able to lock certain fields).

Warning

An "index" field (**in this case ID Field**) contains a number, automatically, defined by the database management system each time a record is created. Each record of the database will have its own number, which can be used as a unique identifier. An indexed field must not be able to be modified by the user, since it has been automatically defined; its parameters will therefore be set as not "to be edited" at the stage when the fields that can be displayed to the user are selected and not those he will be able to modify.

Reminder that at any time you can access the help online by the F1 touch of keyboard

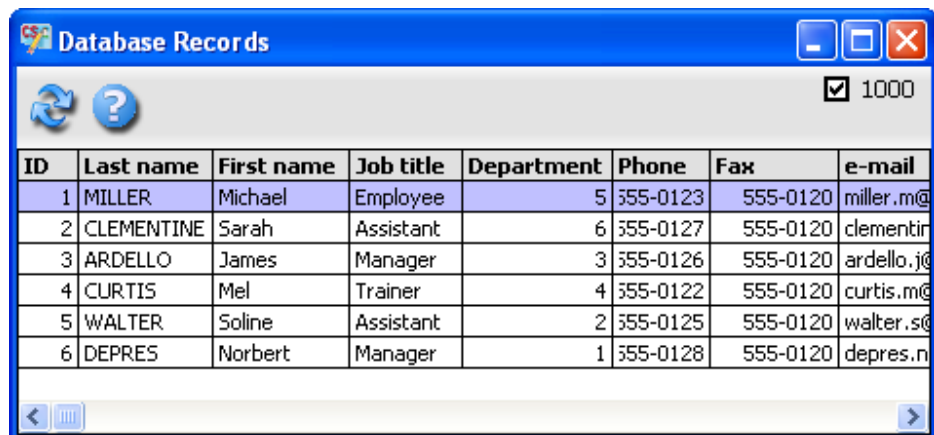
Thank you.

All the informations needed for database connection are now set.
You can press the "Finish" button to save all these.

If you want to have a preview of the records you selected, you can
press the "Preview records" button below.

Preview records

Click on "Next" to gain access to the last step, in which we may review the selected records.



ID	Last name	First name	Job title	Department	Phone	Fax	e-mail
1	MILLER	Michael	Employee	5	355-0123	555-0120	miller.m@
2	CLEMENTINE	Sarah	Assistant	6	355-0127	555-0120	clementin
3	ARDELLO	James	Manager	3	355-0126	555-0120	ardello.j@
4	CURTIS	Mel	Trainer	4	355-0122	555-0120	curtis.m@
5	WALTER	Soline	Assistant	2	355-0125	555-0120	walter.s@
6	DEPRES	Norbert	Manager	1	355-0128	555-0120	depres.n

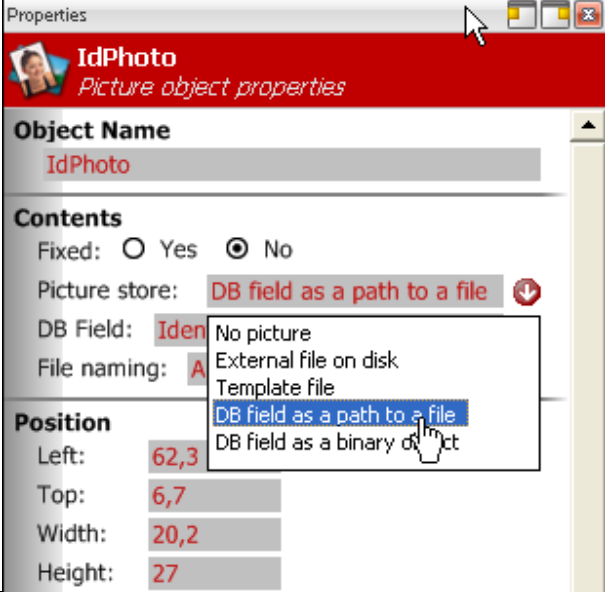
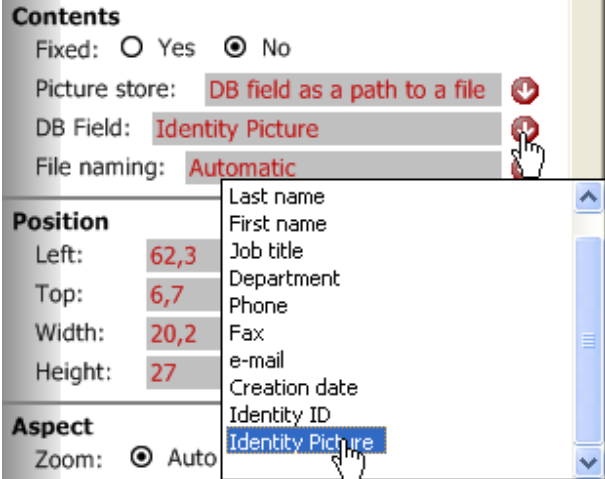
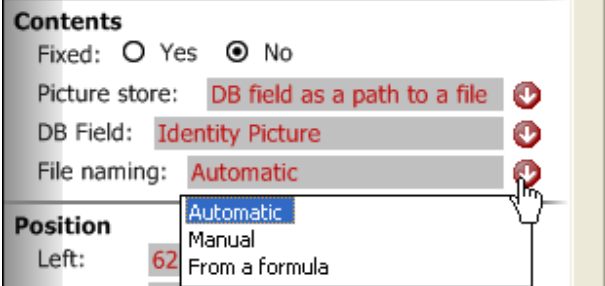
This window will be displayable at any time by pressing the **F3** function key. If the "1000" box at the bottom is checked, only the first 1000 records are shown (this is useful for remote DBMS to avoid latency).

Defining the link between the objects and the fields

When we defined the connection to the database, we have only selected the database fields so that they are available as a source of object

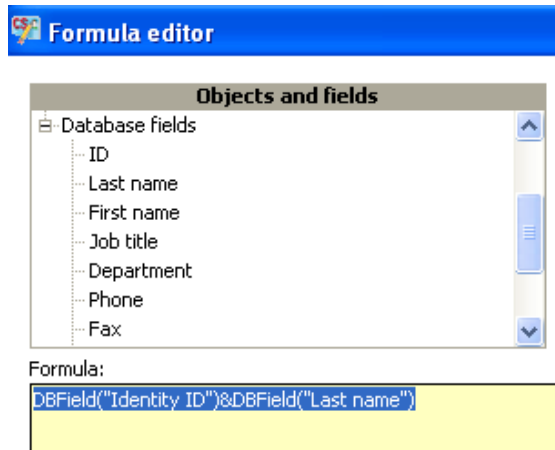
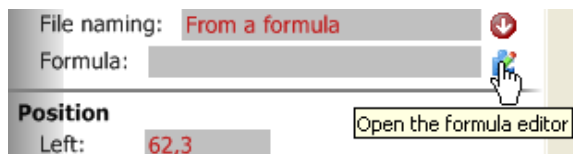
We'll now do the same with the Image, Text and Barcode objects.

With the Image object:

	<p>DB field as a path to a file</p> <p>Before establishing the connection, verify that a specific field for recording photos exists (text type field) in the database. This field will be necessary in order to add the photo file access path each time you register an individual.</p>
	<p>DB Field: The Image object will connect to corresponding field in the table of the database.</p>
	<p>In automatic mode: the files are named using a prefix and an index in the eMedia Card Designer folder (default is C:\Documents and Settings\All Users\My documents\My Picture\eMedia-Cards CS\).</p>

In manual mode: the "File save" common dialog box will be displayed, allowing the user to give a name to the picture

From a Formula: the file will be saved in a file whose name is built from the results of a calculation.



Select this choice to display the "Formula dialog box", then set it with the needed formula, or select "Open the formula editor..." to display the Formula wizard.

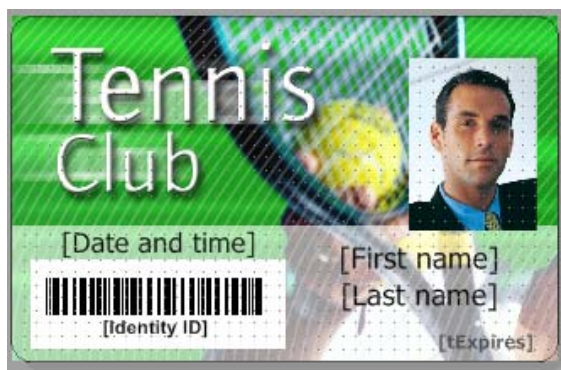
Example: the picture name will result, of creation of a picture file named with the two informations from the database, and an extension that depends on the type of the file. If you set the "formula" as DBField("Identity ID")&DBField("Last name") your file will be saved as: 250050MILLER.jpg

The "Formula editor" assistant helps in the programming of advanced formulas, enabling a large number of operations to automatically take place on all the objects that make up the card. These functions are only programmable and active in the Professional and Expert eMedia-Card CS editions or in DEMONSTRATION mode.

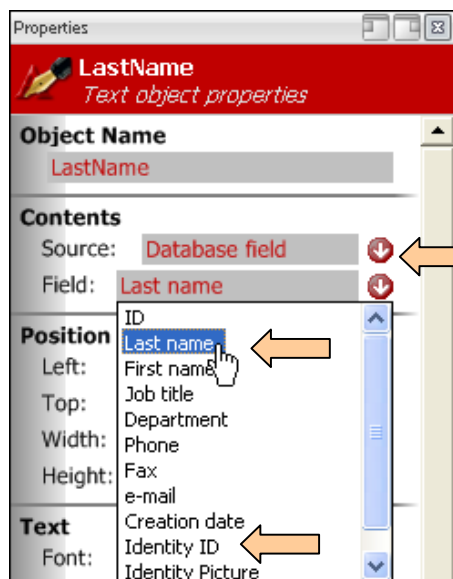
With the text and barcode object:

To do so, we just have to change the value of the "Source" property, by setting it to one of these three possible values:

- **Database field:** the text or barcode object will contain the value of one of the fields of the database for the current record. The name of the corresponding field will be set in the "Data" property.
- **Database choice:** the text or barcode object will contain the value of one of the fields of the database for the current record, and this value will be one of those defined in a second table. We'll see how to configure this later in this chapter.
- **Formula:** A Formula or Expression in a programming language is a combination of values, of variables, of operators and of functions which, interpreted (assessed), calculated, produce (in return) another value.



Database field:



Select now the *LastName* object on our card template, which will contain the last name of the holder. Modify the "Source" property and set it to "Database field". The "Data" property is now a combo-box. Open it and select the "Last Name" database field:

Do the same for the barcode (object *bMemberNumber*), and set it to the "Identity ID" database field.

Formulas and database fields

To enhance the overall performances of the application and the template, we may combine the formulas with the database fields.

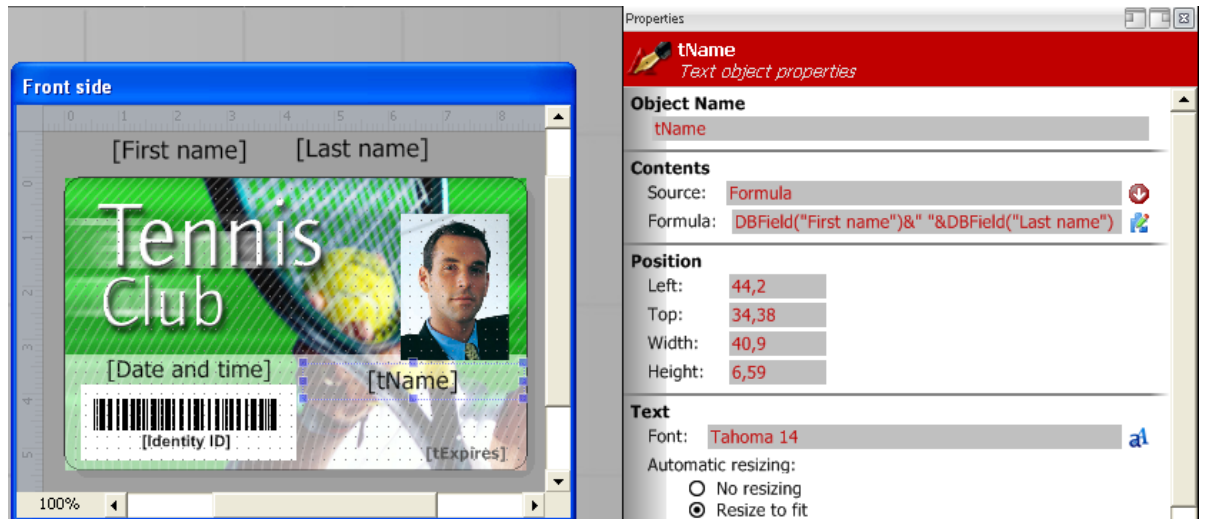
Suppose, for instance, that the **tName** card object has been designed to hold the full name of the holder.

But the first and last names of the holders are in two different fields of the database...

Impossible? Nothing's impossible. Use the expression wizard to create a formula that concatenates two texts (such as a first and last name). And, instead of concatenating two objects of the card, ask the wizard to concatenate two database fields. Your **tName** object will then have the following characteristics:

The function (Formula source) is only programmable and active in the Professional and Expert eMedia-Card CS editions or in DEMONSTRATION mode

2



- **Source:** Formula
- **Data:** DBField("First name") & " " & DBField("Last name")

eMedia-Cards CS helps you to gain access to your own database, but also helps you to manage your data in order to print them out on the cards in the most coherent way.

Why maintain two text objects, **[First name]** and **[Last name]**... do you tell me?

Simply, like in Operating mode we are connected to the database fields, we need to continue to create new records or modify records and to do that, in having access to these two fields. You will notice that they are outside the template for not be printed.

We could to put them above the template with the setting "hidden" of the object property to not print them.



Here is the result in operating mode

Let's go further with the "Database choice"

By setting the "Source" property of a text or barcode object to the "Database choice" value, we'll help the user in operating mode to enter a value in the field, by selecting the correct one into a list of possible values.

The function (DB Choice source) is only programmable and active in the Professional and Expert eMedia-Card CS editions or in DEMONSTRATION mode

For instance... open the sample card template **"Corporate Card-1.eccs"** in DEMO mode
By default in C:\Documents and Settings\All Users\Documents\eMedia-Cards CS\Sample Cards\Enhanced cards\Corporate

The Corporate card must show the department in which the employee works without having to rewrite the information for each record in the database. Moreover, a color must make it possible to distinguish each department of the company.

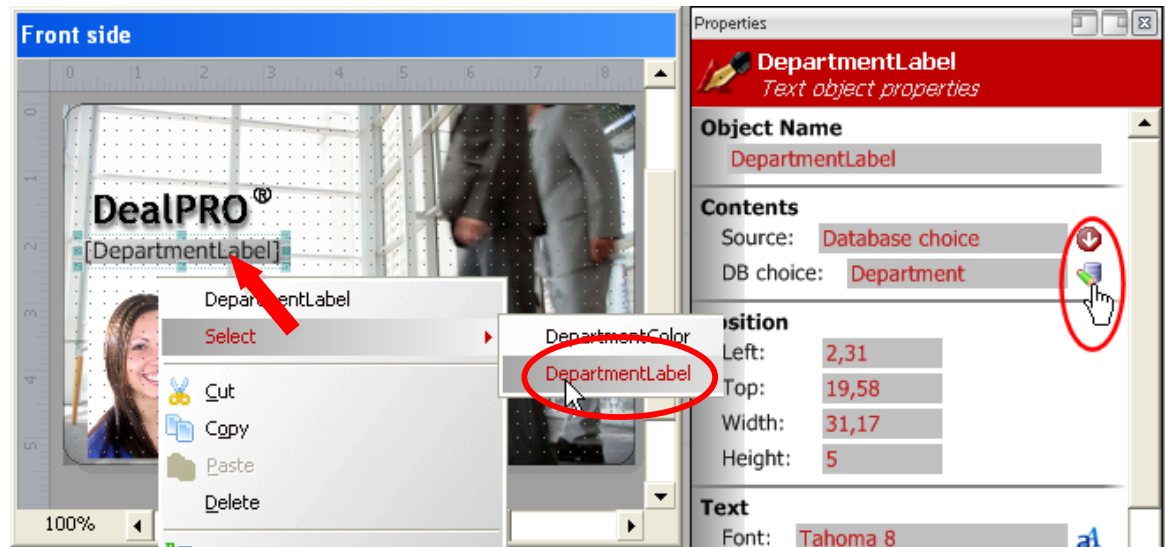
Let's define this solution...

For the "Database choice" source, we need another table in the database, containing all the possible values. So, in our database, we create a new table, named "Department_Labels", containing the following records:

Department_Labels	
DEPARTMENT_ID	LABEL
1	Management
2	Customer Department
3	Marketing Department
4	Engineering Department
5	Manufacturing
6	Security

Also, we have modified our main table, for that it contains the department in which the employee works.

Employee						
ID	Last name	First name	Job title	Department	Phone	
	MILLER	Michael	Employee	5	555-0123	
	CLEMENTINE	Sarah	Assistant	6	555-0127	
	ARDELLO	James	Manager	3	555-0126	
	CURTIS	Mel	Trainer	4	555-0122	
	WALTER	Soline	Assistant	2	555-0125	
	DEPRES	Norbert	Manager	1	555-0128	
*						

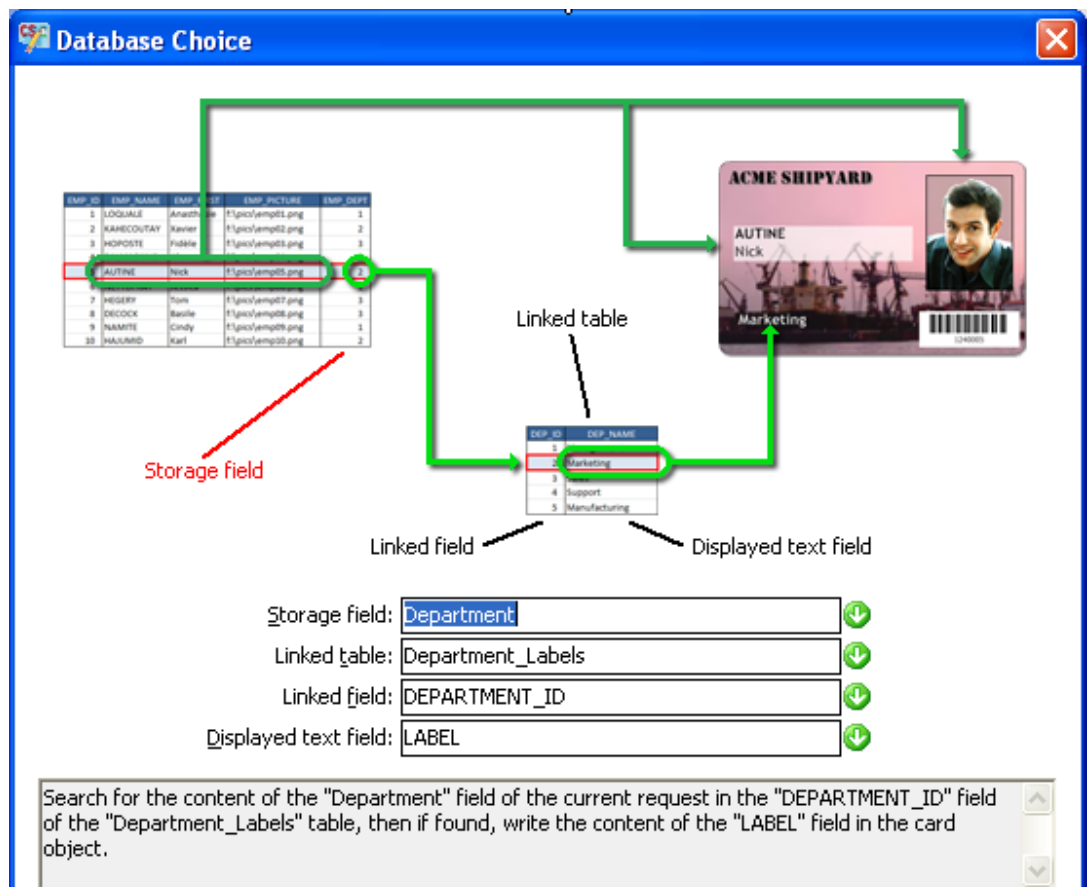


2

We have now to define an object on the card template, having its "Source" property set to "Database choice". When you click an object, never forget that two layers may overlap at this location.

Click right button to select the appropriate object

When we click on the button on the right of object property "Source" to define, what this object will contain in operating mode, where the data will be extracted from, and what kind of data will be stored, the following dialog box appears:



Settings of the object with "Database choice" source



Input

✓ ✗

Firstname: Michael

Name: MILLER

DepartmentLabel: Manufacturing

JobTitle: Management

IDPhoto: Customer Department

ID: Marketing Department

Phone: Engineering Department

Fax: Security

e-mail: miller.m@DealPro.com

Creation date: 10/14/2010

Identity ID: 250050

Click to select a choice

2

With these settings, in operating mode, when you create or modify a record, the input window will contain a combo-box filled in with all the possible values of the LABEL field of the Department_labels database table.

When the user will select one of these values and will save the record, the selected information will also be saved in the Department field of the main table, and the value will be the contents of the DEPARTMENT_ID field of the record that correspond to the value selected.

Employee						
	ID	Last name ▾	First name ▾	Job title ▾	Department ▾	Phone
		MILLER	Michael	Employee	5	555-0123
		CLEMENTINE	Sarah	Assistant	6	555-0127
		ARDELLO	James	Manager	3	555-0126
		CURTIS	Mel	Trainer	4	555-0122
		WALTER	Soline	Assistant	2	555-0125
		DEPRES	Norbert	Manager	1	555-0128
	*					

When the record will be saved, the Department field for Mr. MILLER will contain the value corresponding to "Manufacturing": 5.

Why 5?

In the Department_Labes table, for the record "Manufacturing", the DEPARTMENT_ID field contains...5

More and more further...

Our card template now holds a text object in which the Department is displayed. Now, suppose that we must have a particular color to distinguish each department of the company.

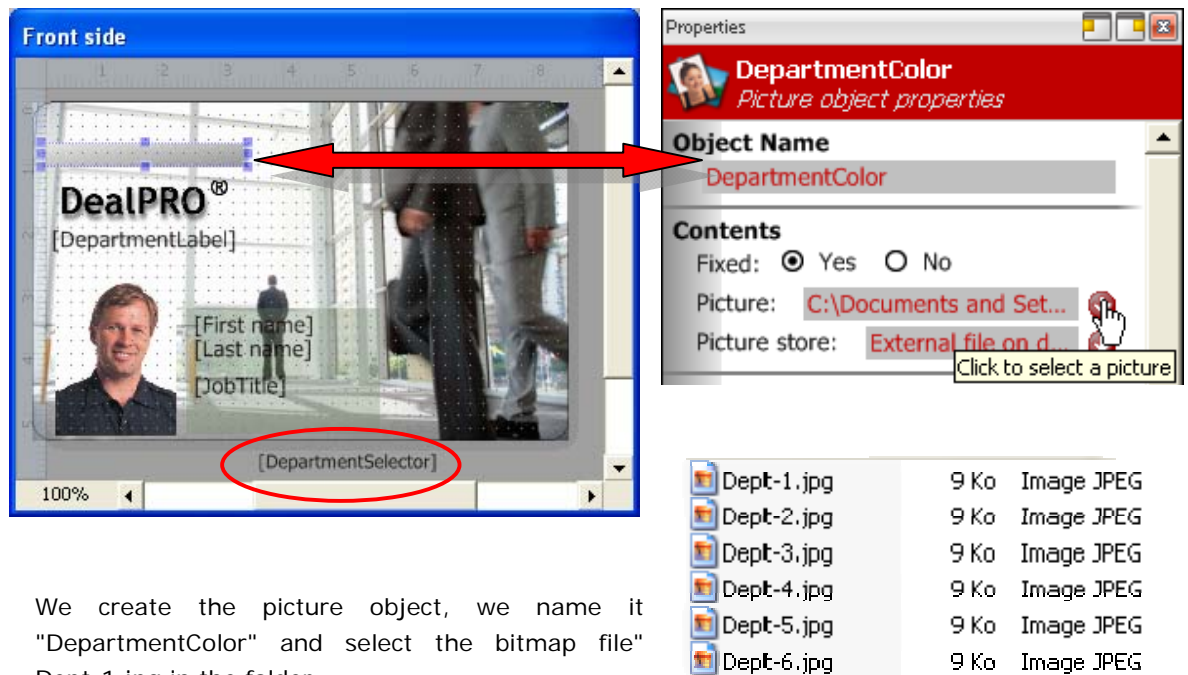
How may we do that?

Try to realize this exercise by yourself, and if you can't do it... read the following, which may be one of the possible solutions (but not the only solution).

Solution

In the installation folder you have 6 pictures, in the form of bitmap files

The name of these files is very important because the numbering of these files will allow to set up a formula that we will name "DepartmentSelector"



We create the picture object, we name it "DepartmentColor" and select the bitmap file "Dept-1.jpg" in the folder:

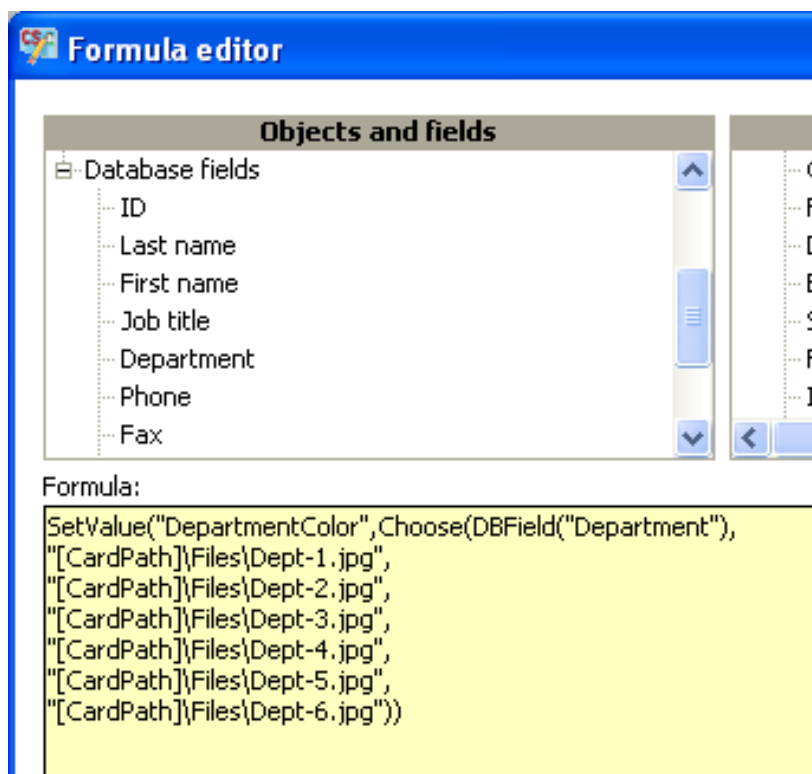
(by default *C:\Documents and Settings\All Users\My Document\eMedia-Cards CS\Sample Cards\Enhanced cards\Corporate\Files*)

We create the text object, named "DepartmentSelector" with "Formula" as Source property and "External file on disk" as Picture store property.

Now, we go take control of DepartmentColor picture object by creating a formula in DepartmentSelector text object

For this functionality you need a "Professional license"

1. You have your 6 different bitmap files , for identification by color
2. The display of these files will be done via an object "DepartmentColor"
3. The variable is in reading/writing of the database field "Department" (DBField ("Department")),
4. The variable value (1.jpg, 2.jpg, 3.jpg ,4...) corresponds to the identifier.
5. You write the following expression:



"DepartmentColor" Image object: The picture displayed in this object is under control of the "DepartmentSelector" formula. This formula forces the object to load one of the 6 bitmap files containing the background color

If the Department field of the database contains the value 1 (associated to "Dept-1.jpg"), then the formula will allow the display of the color corresponding to the "Management" Department. "Manufacturing" Department if it's 5, etc...

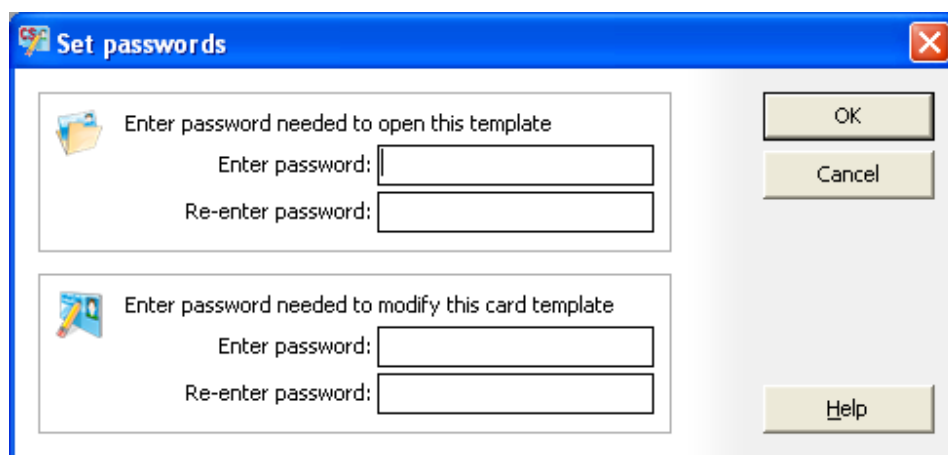
Let's put the finishing touches

Of course, we saved our template from times to times. And, if our template must be used by many users, we saved it on a network resource.

But now, if we want to lock the template so the users will not be able to modify it, how may we do that?

Of course, we may change the ACLs of the hard disk file, but this will not prevent the card from being modified by a user...

So, we are able to lock out the card template from eMedia-Cards CS by assigning to it a password. To do so, open the "Edit" menu of the software and select the "Set password" command. The following dialog box appears:



Passwords definition dialog box

You may define two passwords, and for each, you must enter the password two times (to avoid keyboard errors).

- The first password locks the access to the design mode for this template. The user will have to enter the password to be able to open it in design mode. Of course, the user will not have to enter any password to print out cards from the operating mode. So, only designers will have the ability to modify the contents of a card template.
- The second password locks completely the card. The user will have to enter the password to open it in design mode and also in operating mode. The card is restricted only to the people that know this password.

3. THE OPERATING MODE

The operating mode is intended to be used for printing cards out and/or to encode cards (magnetic strips, smart card and contactless smart cards) from one of the templates already created in design mode.

The operating mode doesn't need any particular skill (the user must also be able to use a mouse and a keyboard). In this mode, the user will only have to enter data from the keyboard (for instance the name, the company, etc of the holder) and to click on buttons to select data and to print the card out.

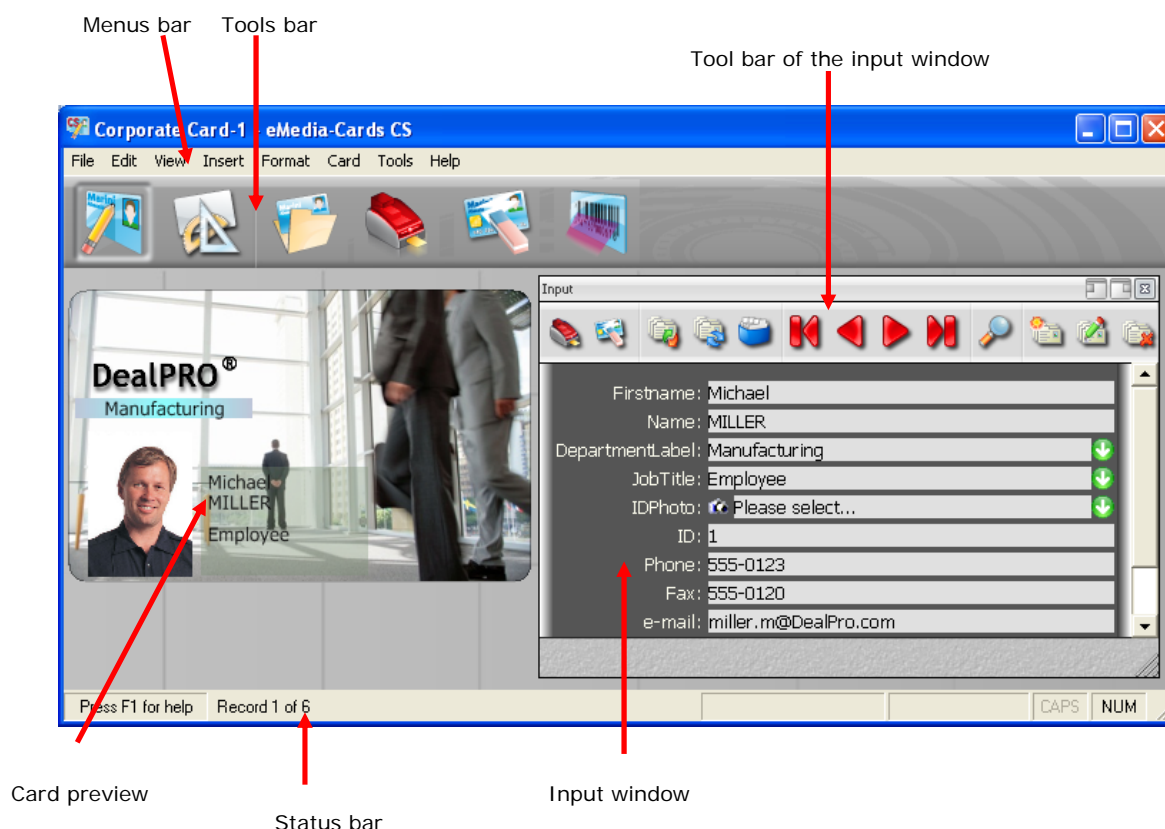
Launching eMedia-Cards CS in operating mode

eMedia-Cards CS may be launched from the "Start" menu, "All programs" command. The icon located on the desktop may also be used.

If eMedia-Cards CS was already launched in design mode, you may switch to the operating mode by clicking on the first toolbar button (the second button switches you back to the design mode). You may also use the two first commands of the "View" menu.

It's also possible to start the software and load a card template in a single operation. To do this, just create a shortcut to a card template file.

The main window of the software in operating mode looks like this one:



3

This window mainly holds the following elements:

- The **Menus bar**, which gives access to the software functionalities.
- The **Tool bar**, which gives access to the main functions.
- The **card preview**, in which you may see at any time the card as it will be printed.
- The **input window**, which allows us to enter information relative to the current card and/or relative to the current record of the database.
- The **tool bar of the input window**, which helps us to move between records, to create, modify or delete the current record, to search record(s), etc.
- The **status bar**, which displays information about the location in the database and about the information to enter in the input window.

At launch time, no card template is opened (unless a card template has been asked for): the preview contains a blank card and the input window is empty. We must open a card template.

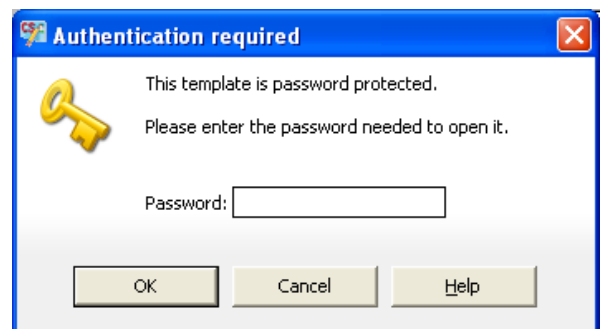
Opening a card template

To print a card out, we must before open a template that contains the graphical design of the card and the encoding information.

To do so, select the "Open" command in the "File" menu, or in the tool bar, click on the "Open template" button (the third one). A "file open" dialog box appears. In this one, select the card template file you want the software to load in memory and click on the "Open" button.

This card template may be locked out with a password. In this case, the dialog box on the right appears. Enter the correct password in the yellow text-box (this password was delivered to you by the card designer or the administrator) and click OK. If you don't know the password, click on "Cancel", accept the error message and try to open another card template.

Once the template opened, you just have to enter the needed information in the input window and to print the card out.



The input window

In this window, you'll enter the data to be printed on the card. You'll also enter database information if the card template is linked to a database. In this case, the tool bar of the window will help you. The tool bar contains buttons only enabled if the card is linked to a database:



Refresh the records

This button tells the database server to resend all the data.



Refresh the current record

This button tells the database server to resend the current record.



Display the records in a grid

This button opens a window containing a grid with all the database records.

**Display the first record**

This button moves to the first record. The input window and the card are updated.

**Display the previous record**

This button moves to the previous record. The input window and the card are updated.

**Display the next record**

This button moves to the next record. The input window and the card are updated.

**Display the last record**

This button moves to the last record. The input window and the card are updated.

**Search one or many records**

This button opens a dialog box allowing us to search for records then print them.

**Create a new record**

This button empties all the text-boxes and prepares the display for a new record.

**Modify the current record**

This button allows us to change the data of the currently displayed record.

**Delete the current record**

This button deletes the current record (a confirmation is requested).

**Launches the print of active card****Resets all entered values on the card displayed**

These two last buttons are also present on the tools bar.

Under the tool bar, the data are located in fields defined as a label and an input box. This one may look like the following:

A grayed out box can't be modified.

A pink box may be modified. Click on it to place the cursor, or use the TAB key to move from boxes to boxes.

The pink box is the enabled one. Data entered from the keyboard appear in it.

Manufacturing	
< Close >	
Management	
Customer Department	
Marketing Department	
Engineering Department	
Manufacturing	
Security	

Some boxes may have a button on the right. Clicking on it makes a list to appear. This list contains the allowed choices for the box.

Select in the list the choice you want, and then click on it. The list disappears and the selection made is now in the box.

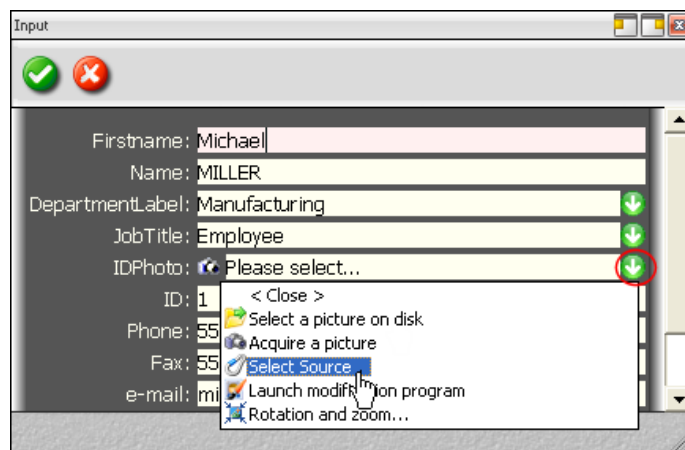
This kind of combo-box allows faster and easier inputs than having to use the keyboard.

Image acquisition

To acquire a picture, just click on the button with a camera on it. The user interface of the manufacturer of your camera or webcam appears on the screen (if your device has been correctly installed). Acquire your picture. Once performed, the window closes and the picture is transferred in the image or photo object in the card.

If, when you click on the button with a camera in eMedia, the user interface that appears is not the one that corresponds to the device you want to use, cancel the acquisition, and select **"Select source"** in the combo-box. The dialog box that appears then helps you to select the correct device.

The list contains choices for managing the picture: selection of an acquisition device, loading a new picture from disk, access to a dialog box for changing the zoom level and the rotation angle, calling an external program for image modification.



Using a database

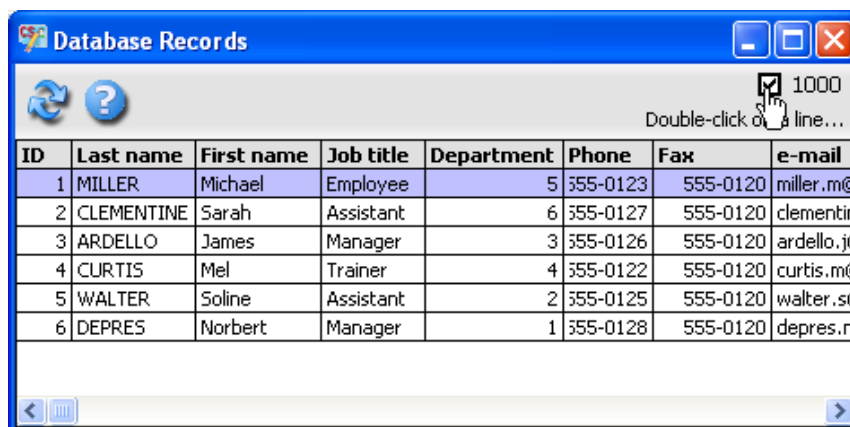
When the data of your card are stored in a database, the buttons of the tool bar of the input window are enabled.



Two of them have special meanings that require an explanation. These buttons are the "Display records" button and the "Find record" button.

The data grid

Click on the third button of the tool bar of the input window ("Display records"). A new window appears, in which the contents of the database is displayed. This window can be used for two purposes: it allows you to review the whole database contents (use the scroll bars on the right and below the grid), and it also allows you to display the card that corresponds to a particular record: just double-click on the corresponding record.



This window doesn't display all the records of the database (because it may require a large amount of time to display many many records located on a database server very far away from your computer), but only the first 1,000 records. If you want to display all the records, then uncheck the box at the bottom of the dialog box. Don't be surprised if the refreshment of the grid may require a very very long time, then. This window may be kept opened. It doesn't prevent the software from running.

But, sometimes, the window may be desynchronized from the database (because other user that may have changed some record contents). New records may be invisible, for instance. You may then click on the "Refresh" button to resolve the issue.

Finding records

For searching records, a window appears when you click on the corresponding button of the tool bar of the input window (the one with the magnifying glass). This window allows the search of records using four different methods: search of a value, utilization of a SQL filter, search of a range of values, search by record number.

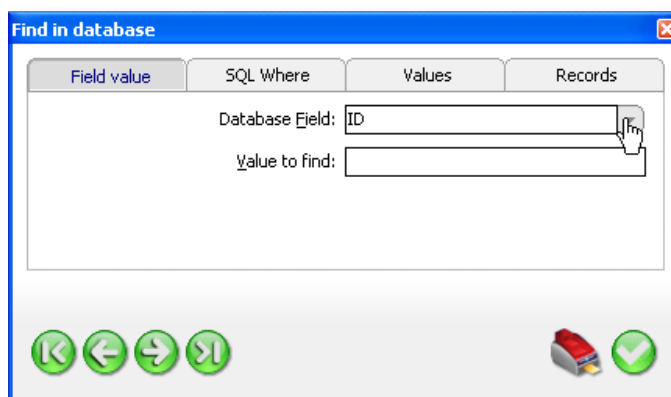
This window also allows you to perform batch printing, e.g. to print out in a single pass all the records selected by the search options.

Search of a value

This is the default mode. When you click on the tool bar button, the window on the right appears.

Just select in the combo-box the name of the field on which to search, and below the value to search for.

Once these two informations entered, use the four arrow buttons on the bottom left of the window to display in the eMedia main window the first, previous, next and last record respectively. If no record can be found, or if no more records can be found, a beep will be heard.

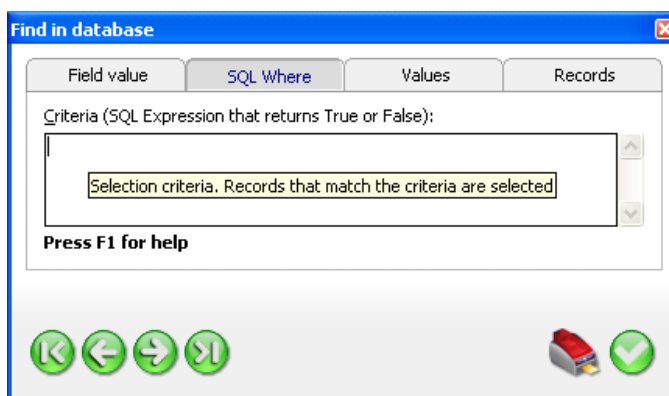


Search with a SQL filter

Click on the "Advanced" button at the top of the window to be able to search from a SQL filter. The window looks like:

This search mode requires some skills in SQL language to be able to enter a filter without syntax errors.

Enter in the text-box in the middle of the window the filter clause of a SQL statement (i.e. the WHERE clause of a SELECT command). Then, as described previously, use the four arrow buttons to review first, previous, next and last record that correspond to this filter.



Search in a value range

The search mode is very useful when you don't know the exact value to search, as you are here able to ask the software to find all the values between a mini and a maxi.

Click on the "Field range" button to display the following:

Select the database field in the combo-box and enter in the two text-boxes the range of values (mini and maxi values) to search for in the field. All records having in this field a value between the two ones entered will be selected.

Use the four arrow buttons at the bottom of the window to display in the eMedia-Cards CS main window the first, previous, next and last records.

Search by record numbers

This search mode may only be used with DBMS that supports book marking, and for which numbers may be assigned to records. It allows you to select many records between two of them, so you are able, for instance, to request the first ten records (from #1 to #10).

Click on the "Record range" button to show the following:

Enter then in the two text-boxes the numbers of the first record to display and of the last record to display.

As before, use the buttons at the bottom left of the window to display in the main window of eMedia-Cards CS the first, previous, next and last record of the selection.

Batch printing

Batch printing means: printing a set of records based on a common template (similar graphics and electric personalization) and on common data (having similarities).

To perform a batch printing, you must first select the records that will be printed out. For this purpose, as explained in the previous paragraph, you'll search for records. You may use any of the search features described above: search of a value, with a SQL filter, in a value range, by record numbers.

Once the records you want to print selected, just click on the button holding a printer icon at the bottom right of the dialog box, and the cards will be printed, one for each record.

Don't forget to feed the printer with a sufficient number of blank cards, or feed your printer from times to times.

Remember: it's not a good idea to print large amount of cards in a single operation. If eMedia-Cards CS can handle large amount of copies, the printer has its own limits: the capacity of the card charger, or the ribbon which has an end and the printing head that must be cleaned once a certain amount of copies is reached.

During a batch printing, in case of emergency, you may, at any time, click the "Abort" button of the print dialog box to stop immediately any printing operation from the software. Don't forget in this case to also cancel the print jobs in the printer queue.

Printing the card out

Once the data entered and displayed on screen, we can print the resulting card out. You may perform this operation in four ways:

- The "Print" button at the bottom of the input window,
- The "Print" button in the tool bar on the top,
- The keyboard shortcut Ctrl+P,
- The "Print" command of the "File" menu.

Notice that the "File" menu allows supplemental operations, or partial operations. The other ways to print can be considered as the "Print all" command.

From the "File" menu, you'll be able, for instance, to print out only the front side, or the back side, or to perform only the encodings.

The "File" menu will also allow you to:

- configure the default printer, from the "Print setup" command. eMedia-Cards CS doesn't use the default printer of the workstation, but uses its own default printer (because the card printer is not often the default printer!)
- preview the data that will be printed and encoded on the card (for instance to preview the data that will be stored in the magnetic strip).
- Specify a number of times a card will be printed: if you can enter a number of copies from the printer preferences dialog box, these copies will be strictly identical, including the value of the print counter and even the value of the Mifare serial number! To avoid this, you may use the "Print count" command. With this one, the print counter will change between each card and the Mifare serial number will be read on each card. Be aware that specifying a number n of copies from the device preferences and p copies from this menu command, you'll obtain $n \times p$ cards.

You may also control the printout of the front and the back side of the card from data located on the card and from data in the database. But, as this is advanced features not covered by the current document, please refer to the online help.

From our internet web site, you may gain access to our users' forum, in which you may post your questions, exchange your tips and tricks with us and the other users.

Your contacts are ready to help you:

internet web site: **<http://www.eMedia-CS.com>**