Contents

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1. Learning the Card Software

The Card Software user manual will guide you through this powerful application, starting with creating a simple card working with objects and using system variables to the advanced features like Database, Image Acquisition Logins and Passwords. All about Printing and Encoding you find in Appendix A and B of this manual. Complementary the Card Software Help function is a complete online tool, you can use anytime you need information quickly or when your Card Software User Manual is not available.

Note: Some features described in this manual are not available in all Card Software editions.

Using the Card Software Manual

Before you start using the Card Software, it's important to understand the terms and typographical conventions we use in the documentation.

General Conventions

We use the following kinds of formatting in the text to identify special information:

- ¨ **Diamond bullet**: Step-by-step procedures. You can use procedural information by using both the mouse and keyboard. To choose a command from a menu, you can use either the mouse or a keyboard shortcut.
- **CAPITAL LETTERS**: Keys on the keyboard appear in small capital letters. For example, the Enter key appears as ENTER.
- When we ask you to press a combination of keys, you'll see them connected by a +. For example, **CTRL+P** means to press the CTRL key and the P key at the same time.
- **Capitalized Words**: Commands you choose from the menus or dialog boxes appear capitalized. For example, you choose the **Rectangle** command from the Draw menu.

- Also, tool and button names are capitalized. For example, you use the **Text Tool** to type text, and the **Bar Code Tool** to define a bar code.

Mouse Conventions

The Card Software makes use of both mouse buttons. Unless you've programmed it differently, the left mouse button is the primary mouse button. Whenever a procedure tells you to use the secondary mouse button, the documentation refers to it as the right mouse button.

- **"Point"** means to position the mouse pointer so the tip of the pointer rests on whatever you want to point to on the screen.
- **"Click"** means to press and then immediately release the left mouse button without moving the mouse.
- **"Double-click"** means to press and immediately release the mouse button twice without moving the mouse.
- **"Drag"** means to point, and then hold down the mouse button as you move the mouse. Releasing the mouse button completes the action.
- "**Right-click**" means to press and then immediately release the right mouse button with out moving the mouse.

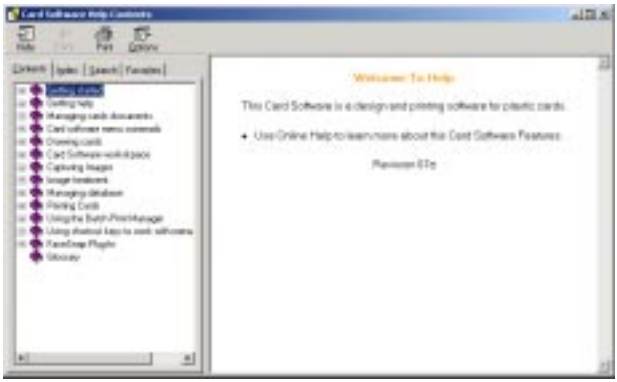
Special Graphical Conventions

- **Note -** Indicates information that emphasizes or supplements important points of the main text.
- **Tip** - A type of note that helps you apply the techniques and procedures described in the text to your specific needs. A tip suggests alternative methods that may not be obvious and helps you understand the Card Software benefits and capabilities.
- **Important** - Provides information essential to the completion of a task. You can disregard information in a note and still complete a task, but you should not disregard an important note.
- **Caution** - A note that advises you that failure to take or avoid a specified action could result in loss of data.
- **Warning** - A note that advises you that failure to take or avoid a specific action could result in physical harm to you or the hardware.

- **Advanced Feature** – Describes functions that may not be available in all editions, see your Quick Install, section "Basic Features" to know if your edition or product supports a specific feature.

Using Online Help

You can view the Card Software Online Help Contents window by choosing Contents from the Help menu.



From this window, you can "jump" to more-specific information.

Getting Help

You can get help in several ways. For example, you can use the **Help** button on the Upper Toolbar to get context-sensitive help about items on the screen and commands.

Context sensitive help is always available by pressing the **F1** key from any screen.

In addition, many dialog boxes and message windows contain a **Help** button. To use the comprehensive online index, open the Card Software Help Contents window. To use other features in Help, use the **Help** command. You can even get help about how to use the Help system. Choose **Using Help** from the Help menu.

Topical Help

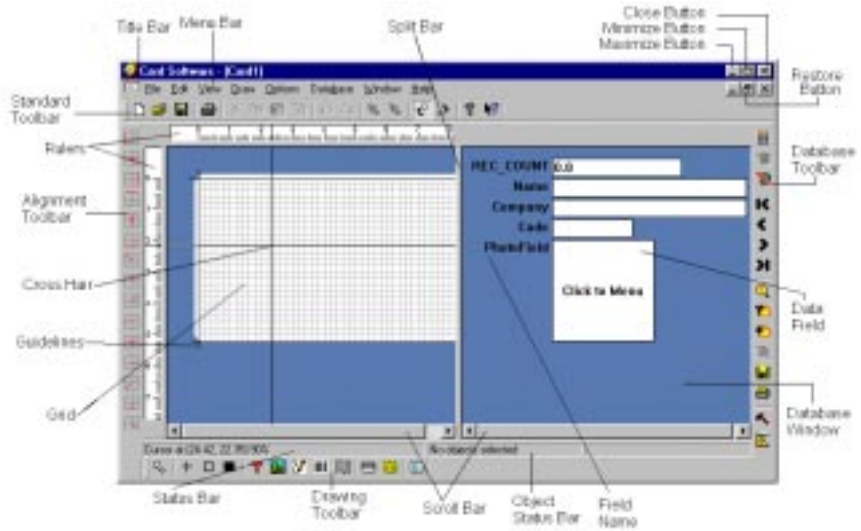
To find out about an item on the screen, ***click*** the **Help** button on the Upper Toolbar.

When the pointer changes to a question mark, choose the command or ***click*** the window item on which you want help. The Card Software displays the Help topic for the selected command or window item in the Help window.

The Main Card Software Window

The main Card Software window, with its accompanying toolbars and menus, closely resembles the windows you work in for other Windows based programs. You will be working in the main window (and its sub-windows) as you design and print your cards.

The following illustration identifies and names each part of the main Card Software window. The text explains how each part functions.



The Title Bar

The title bar displays the name of the Card Software program and the name of the active card file.

The Menu Bar

The Menu bar lists the available menus. A menu contains a list of commands, or actions, you can carry out with the Card Software.

Close Button

Using the mouse, you can ***click*** the **Close** button to end your Card Software session.

Minimize, Maximize Button

Using the mouse, you can ***click*** the **Maximize** button to enlarge the active program window so that it fills the entire desktop, or you can ***click*** the **Minimize** button to reduce the window to an icon.

Restore Button

Using the mouse, you can ***click*** the **Restore** button a window to its previous size and location. The restore button is only available when your window is maximized.

The Scroll Bars

When the Card Work Area is zoomed-in (enlarged), Scroll Bars appear that you can use to view information that exists beyond the borders of the window. When you can view all the contents of the window without scrolling, the Scroll Bars are absent. Drag a Scroll Box or ***click*** one of the Scroll Arrows to scroll the window and move the desired part of the card image into view.

The Standard Status Bars

Messages appear at the bottom of the window in areas called status bars. These messages describe what you are seeing and doing in the Card Software window as you work. The Status Bar displays the x and y coordinates of the pointer, and the type, location, and size of the currently selected card object. Dsplays also the name of the tool when selecting the tool's button and when you choose a command provides a short message telling you what that command will do.

The Toolbars

You can use toolbars for quick access to some of the most commonly used commands and tools. The Standard Tool Bar contains mostly common Windows commands, the Database Tool Bar, the Alignment Tool Bar and the Drawing Tool Bar contains only Card Software command buttons.

Tooltips explaining the functions of each button are displayed if you hold the mouse pointer over the desired button.

Note: You must use a mouse to choose buttons on the toolbars. You cannot use the keyboard.

The Card Work Area

All your work to layout a card is done in the Card Work Area. This area displays a card outline depicting the physical limits of the card. Any objects placed outside the card borders will not be printed.

The Rulers

Card Software includes Rulers to help you align your artwork and arrange image elements symmetrically. Rulers can be configured to display inches or centimeters. Set your unit of measure, from the Options menu **Metrics**. To display the rulers, choose **Rulers** from the View menu. To hide the rulers, choose **Rulers** from the View menu again.

The Grid

An invisible network of lines covering the card. As you draw objects, they will co-interect with the grid, if **Snap To Grid** is checked in the Grid Settings Dialog box (Options Menu). You can turn it on and off using the **Grid** command from the View menu.

The Cross Hair

The Cross Hair represent the cursor position within the card document. You can turn it on and off using the **Cross Hair** command from the View menu.

The Split Window Bar

Used to separate vertically the Card Work Area Window from the Database Window. The split window can be sized with the mouse.

The Database Window

Displays all data field names and provides a field to enter or edit data, for the current database.

The database window can be attached, or “anchored”, to one edge of the screen or the application window. You can dock the database view below the menu bar to the left, right, or bottom edge of the application window. When you drag the database view to the edge of the screen or the application window.

Field Name

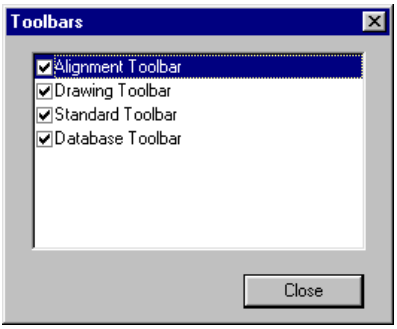
Display the database field names.

Data Field

Used to enter and display database data.

Screen Setup

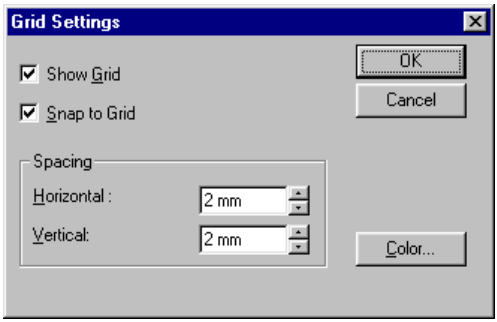
Using the command **Toolbars** on the View menu, you can display or hide any of the individual Card Software Toolbars.



The command **Cross Hair** from the View menu toggles the cross hair cursor.

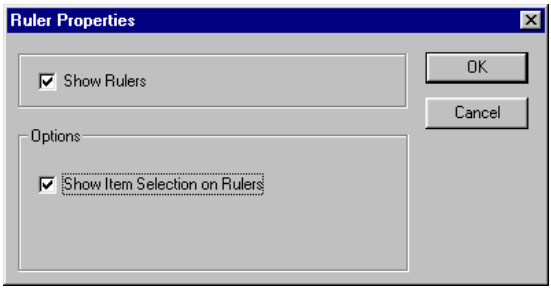
Using the command **Grid** on the View menu you can, display or hide the layout grid (**CTRL+G**). Use the **Grid Settings**

command from the Options menu to control the grid spacing and color.



Using the command **Guidelines** on the View menu you can, display or hide the card-edge guidelines (**CTRL+L**).

Using the command **Rulers** on the View menu you can, display or hide the rulers layout. Use the **Rulers Settings** command from the Options menu to control the rulers behaviour. Use the **Metrics** command from the Options menu to change the measurement unit.



Use the **Object Tooltips** from the View menu to displays a brief description of the objects names and size. A ToolTip is displayed when the mouse pointer rests over the object.

Zooming the Card Image

The size of the card image can be changed by using the **Zoom In** (+) and **Zoom Out** (-) commands on the View menu. Exact placement of objects on the card is sometimes easier if the image is larger.

Using the command **Fit Workspac**e on the View menu, you can display the intire card page.

User Metrics

From the Options menu select the command **Metrics**. Choose between millimetres or inch. All measurements are displayed in the selected unit.

Changing the Card/Workspace Color

From the Options menu select the command **Card Color**. Changing the card color doesn't affect the print process. This option only tries to get you closer of the WYSIWYG (What You See Is What You Get) interface.

From the Options menu select the command **Workspace Color**. Choose the desired color from the color pallet.

Working with the Card Software Commands

A command is an instruction that tells the Card Software to perform an operation. The Card Software provides several ways for you to choose commands. You can choose commands from a menu or toolbar, or you can use shortcut keys.

Toolbar Commands

The Card Software toolbars provide you with one-step access to lots of tasks. You can draw a rectangle, place a photograph, define a bar code, edit text and much more - all with just one ***click*** of a mouse button on one of the Card Software tools.

For more information about each of the Card Software toolbars, see Chapter 13 Toolbars and Tools.

Menu Commands

Commands are grouped in menus. Some commands carry out an action immediately; others display a dialog box so that you can select options. You'll know that a command will display a dialog box, if it is followed by three periods (...).

Mouse Shortcuts

You can use a mouse shortcut to give you quick access an object's property sheet, or to display a shortcut menu.

¨ **To display an object's property sheet.**

1. Just ***double click*** the object.

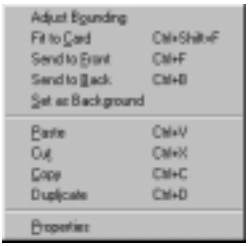
or

1. **Point** to the object.
2. **Click** *the* **right** *mouse button. The Shortcut menu appears.*

3. *Choose* ***Properties****.*
4. *When you have finished with the properties dialog box,* **click** ***OK*** *or* ***Cancel****, or* **press** ***ESC****.*

¨ **To display the Shortcut menu.**

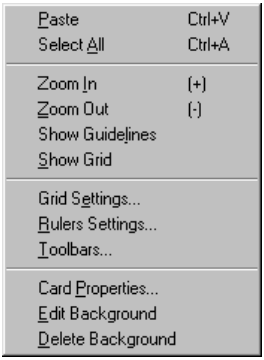
1. Move the mouse pointer to a place not on an object.
2. ***Click*** the ***right*** mouse button. The Shortcut menu appears.



3. Choose the action you want to perform.

¨ **To display the Shortcut menu when you have an object selected.**

1. Move the mouse pointer over the selected object.
2. ***Click*** the ***right*** mouse button. The Shortcut menu appears.



3. Choose the action you want to perform.

Shortcut Keys

You can choose some commands by pressing the keyboard shortcut keys listed on the menu to the right of the command.

The Card Software uses many of the shortcut keys found in other Windows programs. You find a list of shortcut keys in Chapter 14 - “Keyboard Shortcuts”.

2. Creating Cards

This section explains the procedures for opening existing card files, saving your work and creating the layout of a new card.

Opening and Saving Card Files

You'll find that opening and saving your card files are pretty much the same as in other Windows programs.

Opening Card Files

 To create a new card at any time, ***click*** the **New** button on the Standard toolbar. To quickly open one of the last cards you worked on, choose it from the list of recently used files at the bottom of the File menu.

 To open an existing card, ***click*** the **Open** button on the upper toolbar. When the Open dialog box appears, select the document in the File Name box, and then ***click*** **OK**.

If you don't see the Card you want

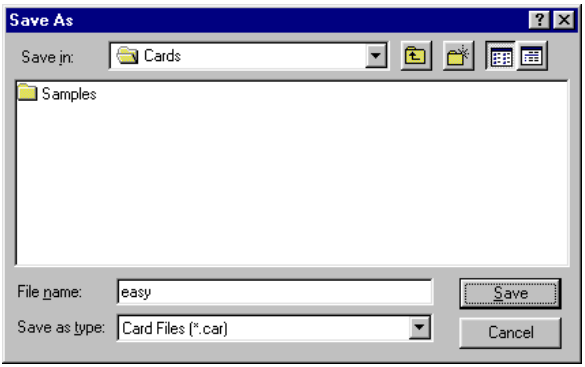
The File Name box initially lists card files in the directory in which you last saved or opened a card. If the card file you want is not listed, ***click*** another drive and/or directory.

If you choose, you can open several card files during a Card Software session. Use the methods listed above to select the desired card files. If more than one window is open, the title bar for the active window (the one in which you are working) is a different color or intensity than other title bars.

Saving Card Files

Until you give a new card document a unique name, the Card Software displays in the title bar a temporary name. The first new document is CARD1, the second, CARD2 and so on.

 To save a card on disk, ***click*** the **Save** button on the Standard tool bar. When you save a card for the first time, the Card Software displays the Save As dialog box so that you can type a name for the card file.



Naming a Document

To make it easier to find your documents, you can use long, descriptive filenames. The complete path to the file, including drive letter, server name, folder path, and filename, can contain up to 255 characters. Filenames cannot include any of the following characters: forward slash (/), backslash (\), greater-than sign (>), less-than sign (<), asterisk (*), question mark (?), quotation mark (“), pipe symbol (|), colon (:), or semicolon (;).

Displaying Card Information

You can display information about the current card. From the View menu, choose **Card Properties.** The Card Properties dialog box appears.

General Tab

Displays a brief card description, card dimensions and card and workspace colors.

File Information

Display the card document full path, name of the person who last saved and printed the card as well as the date.

Object List

You can change object properties directly from this dialog box, useful if you want to change small or hidden items. You also can export images from this dialog box.

Note: Lines and Rectangles will not show a preview.

· **Select:** Click this button to select on the card the selected object on the card items list.

· **Properties**: Select any object and click this button. The corresponding Object Properties dialog box opens. Perform the changes you want and confirm with OK. Changes are applied immediately at the card workspace.

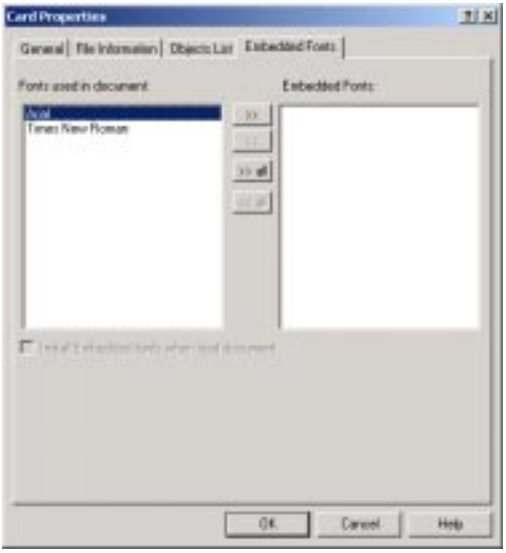
· **Export**: Select an image and click this button to export it. The Save As dialog box appears. Provide a filename for your image and select the type you want to use to save the image, you can choose between; Windows Bitmap Format (*.bmp), Zsoft PCX Format (*.pcx), and Tagged Information File (*.Tif).

· **Delete**: Click this button to delete permanently the selected item. Confirm with OK.

· **Close**: Exit Edit Item List dialog box.

Embedded Fonts

Allows you to include the font types used on the card design in to the card document file. This option will avoid the card design to be changed in case of the used fonts isn't installed on your system. If you check the Install Embedded fonts when load the document options the fonts listed in the Embedded fonts section will be automatically installed in your system.



Creating a Basic Card

This section explains the processes involved in creating a basic card using a few of the most common tools.

Card Setup

A card can be created in either portrait (print across the narrow side of the card) or landscape (print across the wide side of the card) orientation. The card defaults to landscape orientation. To set the card orientation to portrait, on the File menu choose **Card Setup**. In the Card Setup dialog box, ***click*** **Portrait**. The card orientation can be changed at any time.

Note: For more information on card setup when working with a windows printer driver see Chapter 18. Printing

Adding a Line

To add a horizontal or vertical line

1. On the Drawing toolbar, ***click*** the **Line** tool; the pointer changes to a hand with the Line icon.
2. Move the pointer to the point on the card where you want to place one end of the line.
3. ***Press*** and hold the left mouse button and drag in a horizontal or vertical direction. As you ***drag***, a line is drawn, with one end fixed where you began to drag, and the other end following the pointer. Continue ***dragging*** until the line is the desired length.
4. Release the mouse button. The line appears on the card.

Adding a Diagonal Line

To add a horizontal or vertical diagonal line

1. Proceed like to draw a line but press **SHIFT** before dragging the mouse pointer.
2. Release the mouse button. The line appears on the card.

Adding a Rectangle

¨ **To add a rectangle**

1. On the Drawing toolbar, ***click*** the **Rectangle** tool; the pointer changes to a hand with the Rectangle icon.

2. Move the pointer to the point on the card where you want to place the upper left corner of the rectangle.

3. Press and hold the left mouse button and ***drag*** in any direction. As you ***drag***, a rectangle forms with one corner fixed where you began to ***drag***, and the other corner following the pointer. Continue dragging until the rectangle is the desired size.

4. Release the mouse button. The rectangle appears on the card.

Adding Text

¨ **To add text**

1. On the Drawing toolbar, ***click*** the **Text** tool; the pointer changes to a hand with the Text icon.

2. Move the pointer to the point on the card where you want to place a corner.

3. Press and hold the left mouse button and drag in any direction. As you ***drag***, a rectangle forms with one corner fixed where you began to ***drag***, and the other corner following the pointer. Continue dragging until the rectangle is the desired size.

4. Release the mouse button. The Text Properties dialog box appears.

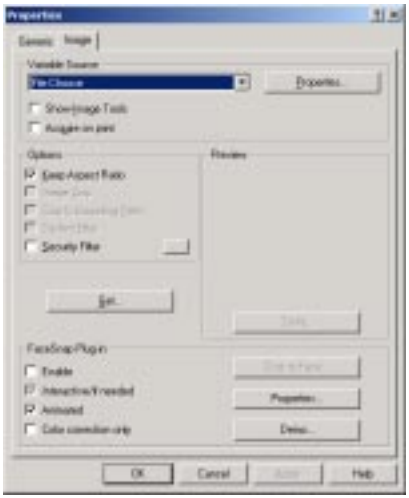
5. Type some text into the box, for example: “Card Software”.
6. ***Click*** **OK** to complete the action.

Adding an Image

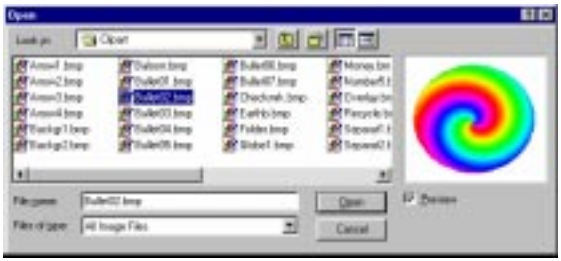
¨ **To add an Image to the card**

1. On the Drawing toolbar, ***click*** the **Image** tool; the pointer changes to a hand with the Image icon.

2. Move the pointer to the point on the card where you want to place the upper left corner of the image.
3. Press and hold the left mouse button and drag in any direction. As you ***drag***, a rectangle forms with one corner fixed where you began to ***drag***, and the other corner following the pointer. Continue dragging until the rectangle is the desired size.
4. Release the mouse button. The Image Properties dialog box appears.



5. ***Click*** **Get**. The Import Bitmap dialog box appears.



6. Choose a file name that has one of the extensions listed in the List Files of Type box, for example, tiger.bmp. ***Click*** **OK**. The image will appear on the screen with its upper left corner at the position you clicked in step 3.

Note: The previous steps showed you how to add a photograph (or other artwork) to your card from a bitmap file. You can also add an image that is not in a file by using the Twain or VfW Image Source. See Chapter 10 - “Image Acquisition”

Adding a Bar Code

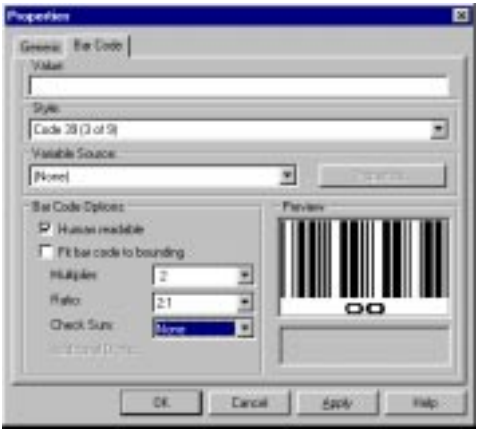
¨ To add a bar code to the card

1. On the Drawing toolbar, ***click*** the **Bar Code** tool; the pointer changes to a hand with the Bar Code icon.

2. Move the pointer to a place on the card where you want to place a corner of the bar code.

3. Press and hold the left mouse button and ***drag*** in any direction. As you ***drag***, a rectangle forms, with one corner fixed where you began to ***drag***. The other corner follows the pointer. Continue dragging until the rectangle is the desired size.

4. Release the mouse button. The Bar code Properties dialog box appears.



5. Select a bar code **Style** from the list. Card Software defaults to Code 39, but you can choose from among the 20 styles listed.

6. Type the data you want to appear in the bar code.

7. ***Click*** **OK**. The bar code will appear on the card.

Note: While some bar codes will accept numbers, letters and symbols, others will accept only numbers. See Chapter 15, "About Bar Codes."

Adding a PDF Symbol

¨ To add a PDF Symbol

1. On the Drawing toolbar, ***click*** the **PDF Symbol** tool; the pointer changes to a hand with the PDF icon.

2. Move the pointer to a place on the card where you want to place a corner of the PDF symbol.

3. Press and hold the left mouse button and drag in any direction. As you ***drag***, a rectangle forms, with one corner fixed where you began to ***drag***; the other corner follows the pointer. Continue dragging until the rectangle is the desired size.

4. Release the mouse button. The PDF Symbol Properties dialog box appears.

5. Type the data you want to appear in the PDF symbol.

6. **Click OK**. The PDF symbol will appear on the card.

3. Working with Objects

This section provides information on objects, their properties, and how to edit them.

Card Software Objects

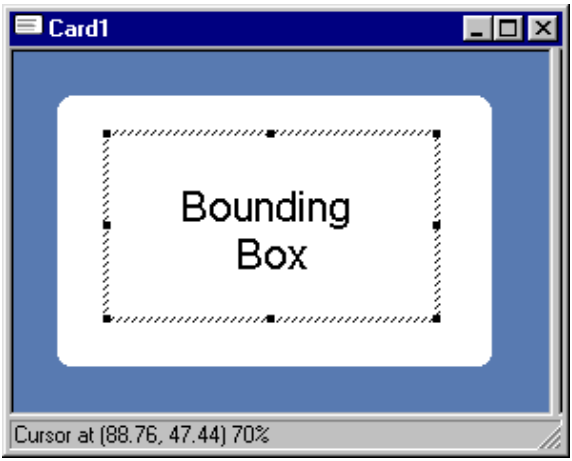
With the exception of magnetic encoding information and Smart Card data, all cards are made up of objects. Lines, text, images, bar codes are objects. What you can do with an object depends on whether you created it in the Card Software or you inserted it from another application.

Once you know how to manipulate the different types of objects, you've mastered a lot of what's involved in creating cards.

Terms That Apply to Objects

As you've already discovered, objects are the key building blocks in the Card Software. Just about everything you work on is an object. There are different types of objects, and the behavior of an object depends on its type. The Card Software objects are native to the Card Software; embedded objects are objects you create in another application. Some of the terms used to describe working with objects may be new to you.

- **Object**: The text, lines, and bar codes that you create using the Card Software tools and the pictures you import from other applications.
- **Property**: Each aspect of an object that you can manipulate using the Card Software tools and commands, including size, color, line width, and content.
- **Sizing handle**: The square at each corner and along the sides of a selected object. Dragging a sizing handle resizes the object.
- **Bounding Box**: The box framed by the sizing handles when an object is selected. When you click an object to select it, the selection rectangle appears.



- **Picture**: An image from another application. It can have some, but not all, of the attributes of an object created in the Card Software. You can move and resize a picture and change its rotation.
- **Stacking**: Placing objects on top of one another. Each object is separate from any other object as well as from the card background. Although the objects seem to be drawn on a flat card, it's helpful to think of objects as pieces of paper in a stack. The object you draw first is on the bottom of the stack; the most recently drawn object is added to the top of the stack. The "stacking order" is important because the object on the top of the stack can cover those underneath it. You can see this effect when you stack one filled rectangle on top of an-other.

Selecting and Deselecting Objects

You need to tell to the Card Software, which object you want to work with. To do this, you must select it.

¨ **To select one object**

1. Touch a visible part of the object with the mouse pointer, and then ***click***. You select an object in a stack in the same way.

2. Once it's selected, you're free to rotate it, change its size, or color, or move it to another location.

¨ **To select multiple objects**

1. Hold down the **SHIFT** key and ***click*** each object you want to select.

- or -

2. Move the pointer outside of the objects you want to select.
3. Press and hold the left mouse button and ***drag*** in any direction. As you ***drag***, a rectangle forms, with one corner fixed where you began to drag, and the other corner following the pointer. Continue dragging until the rectangle encloses all the objects you want to select.
4. Release the browse button. The objects enclosed by the rectangle are selected.

¨ **To select all objects**

1. From the Edit menu, choose **All**, or press **CTRL+A.**

¨ **To deselect objects**

1. ***Click*** anywhere outside the object(s).

Tip: An object will be selected automatically if you right-click the object to edit its properties.

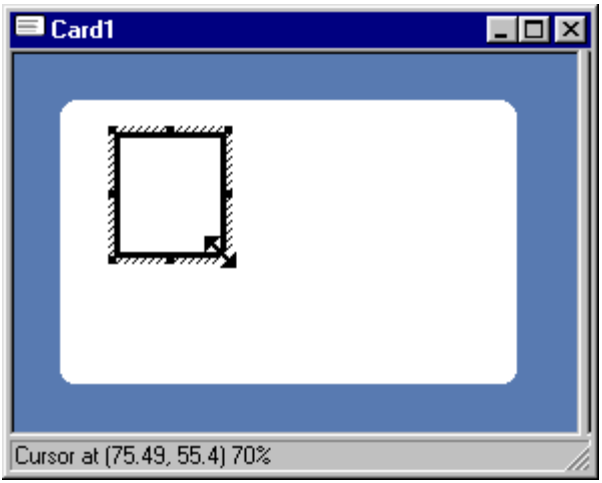
Resizing Objects

You can change the size of an object by dragging one of the sizing handles that surround a selected object.

Tip: If you want to resize an object (except a PDF Symbol) by an exact amount or to a specific size, use the object's property dialog box.

¨ **To resize an object**

1. Select the object.
2. Move the mouse pointer over a sizing handle. The pointer changes appearance to indicate the direction in which you can resize the object.



3. ***Click*** and ***drag*** a sizing handle until the outline of the object is the right shape and size.

Resizing Text

¨ **To resize text**

1. Select the text object.
2. ***Double-click*** the object. The Text Properties dialog box appears.
3. On the Generic Tab type or select the desired size and position.
4. ***Click*** **OK**. The text is changed to the new size.

Note: See “Editing Object Properties” for more detailed information.

Resizing a Line

¨ **To resize a line**

1. Select the line. Sizing handles appear on each end of the line.
2. ***Drag*** one of the sizing handles to make the line the length you want.

Resizing a Bar Code

¨ **To resize a bar code**

1. Select the bar code object.
2. ***Double-click*** the object. The Bar Code Properties dialog box appears.
3. On the Generic Tab type or select the desired size and position.
4. ***Click*** **OK**. The bar code is changed to the new size.

Important: Resizing a bar code requires special consideration to maintain the correct aspect ratio and data density for the bar code type being printed. See Chapter 15, “About Bar Codes.”

Resizing a PDF Symbol

You cannot resize a PDF Symbol. It’s appearance depends on the amount of encoded Data and the output resolution settings. See Chapter 16 - “About PDF Symbols”.

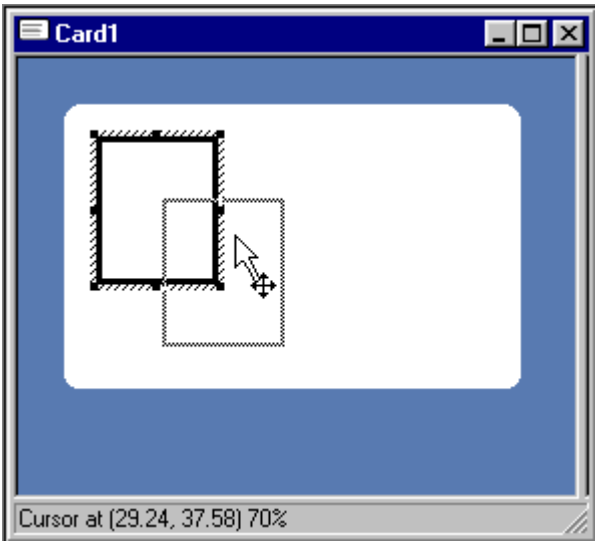
Moving and Aligning Objects

Naturally, you’ll want to move objects on your cards as you create them. And sometimes you’ll need to line up objects in a particular way - along the bottom of the card, perhaps, or with each other.

Moving Objects

¨ **To move an object**

1. Select the object. When you move an object, a dotted outline appears as you ***drag***.
2. ***Drag*** the object to its new location.



Tip: You can place an object more precisely if it's not trying to snap to the grid. Disable the **Snap to Grid** checkbox in the Grid Settings dialog box from the Options menu (**CTRL+H**).

Aligning Objects

Use the Alignment Toolbar to align multiple selections of objects on the card. The selected objects will be align with the dominant object. Dominant Object is the last to be selected.

The available alignments are:

Left Alignment - Aligns the selection to the left.

Center Horizontally Alignment - Centers the selection horizontally.

Right Alignment - Aligns the selection to the right.

Top Alignment Button - Aligns the selection to the Top.

Center Vertically Alignment - Centers the selection vertically.

Bottom Alignment - Aligns the selection to the bottom.

Top Left Alignment - Aligns the selection to the top left.

Top Center Alignment - Aligns the selection to the top center.

Top Right Alignment - Aligns the selection to the top right.

Left Center Alignment - Aligns the selection to the left center.

Center Alignment - Centers the selection.

Right Center Alignment - Aligns the selection to the right center.

Bottom Left Alignment - Aligns the selection to the bottom left.

Bottom Center Alignment - Aligns the selection to the bottom center.

Bottom Right Alignment - Aligns the selection to the bottom right.

You can also use the **Snap to Grid** feature.

¨ **To align objects using the Snap to Grid**

1. From the View menu, select **Grid** (**CTRL+G**). The grid will appear on the card.
2. From the Options menu, select **Grid Settings**. The Grid Settings dialog box will appear.
3. Select the **Snap to Grid** checkbox. Type or select the Spacing Width and Height to provide adequate grid spacing.
4. Select and move the objects to be aligned. The upper left corner of the object will snap to the grid, providing a reference location for alignment.

Rotating Objects

You can rotate bar codes, PDF symbols, images, and single lines of text in 90 degrees increments.

¨ **To rotate an object**

1. Select the object you want to rotate and ***bouble-click*** it to display the object's property sheet.
2. ***Click*** the **Generic** Tab and select the desired rotation amount.

3. ***Click*** **OK**. The object will be rotated to the new position.

Tip: To rotate the entire card 180 degrees when the card is printed, select Rotate 180 degrees in the Card Print dialog box.

Stacking Objects

When you're working with objects, you'll find that you sometimes stack them to get the effect you want. When you stack objects on top of each other, they overlap. Sometimes you'll want to change their order - put the top object on the bottom, for example.

The Card Software has two commands you can use to move objects up or down in a stack. Having these commands means you don't have to keep track of the order of the objects as you draw them. That is, you don't have to draw the bottom object first, then the object that would be next on the stack, and so on.

You can draw objects in any order and then move them up and down the stack as needed.

¨ To stack an object

1. Select the object you want to move up or down in the stack.
2. On the upper toolbar, ***click*** the **Send to Front** or the **Send to Back** tool.
3. The selected object will be placed at the front or the back of the stack.

Tip: If you are working with stack of three objects and want to place the front object in the middle, select the middle object and move it to the front.

Duplicating Objects

Duplicating an object creates a copy of the object that's slightly offset from the original.

The **Duplicate** command doesn't place a copy of the object on the Clipboard.

¨ **To duplicate an object**

1. Select the object.
2. From the Edit menu, choose **Duplicate Item** or ***press*** **CTRL+D**.
3. The duplicated item appears on top of the object you selected. ***Drag*** it to place it where you want it.

Tip: You can use the Duplicate command to make an array of objects.

Editing Object Properties

Each object has certain properties associated with it. You can change the properties of an object editing its Object Properties dialog box.

Open the Object Properties Dialog Box

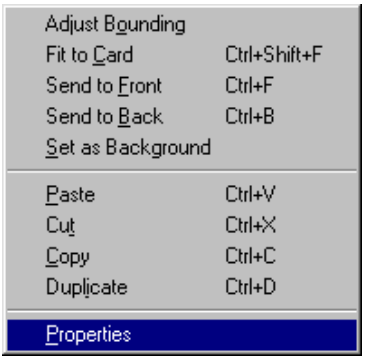
The card Software provides tree ways to display an object's property dialog box.

¨ **Double-click an object**

1. ***Double-click*** the object whose properties you want to edit.
2. The Object Property dialog box appears.
3. Examine or change any properties.
4. ***Click*** **ok** to exit the Properties dialog box saving the changes. ***Click*** **Cancel** or ***press*** **ESC** to leave without applying any changes.

¨ **Use the object mouse shortcut**

1. In the Card Software work area, ***right-click*** the object whose properties you want to edit.
2. From the shortcut menu select the **Properties** command.



3. Examine or change any properties.
4. ***Click*** **ok** to exit the Properties dialog box saving the changes. ***Click*** **Cancel** or ***press*** **ESC** to leave without applying any changes.

¨ **Use the Object List tab**

1. From the View menu select the **Card Properties** Command. The card Properties dialog box appears. ***Click*** the **Object List Tab**.

2. Select the object whose properties you want to edit and ***click*** **Properties**.
3. Examine or change any properties.
4. ***Click*** **ok** to exit the Properties dialog box saving the changes. ***Click*** **Cancel** or ***press*** **ESC** to leave without applying any changes.

Object Properties Dialog Box

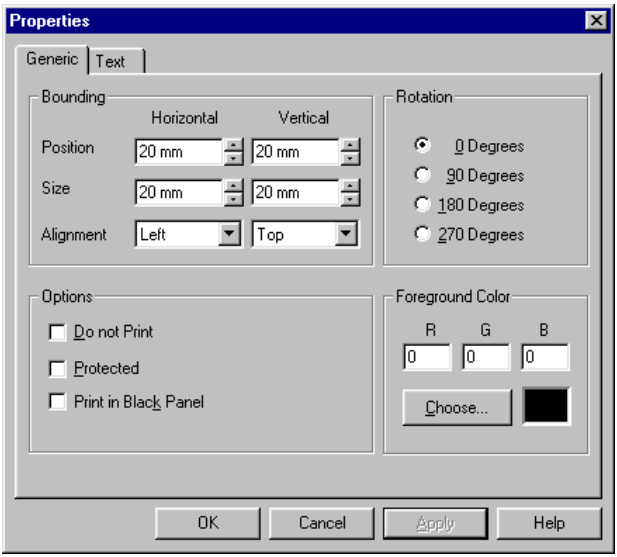
The properties dialog box of an object is divided in two tabs. The two tabs are:

Generic Tab: X and Y position, rotation, options, color and alignment settings.

Specific Tab: specific settings for each object, see further down in this section.

Generic Object Properties

The Generic tab contain settings, common for all objects.



Bounding

Position - Defines the exact placement of the upper left bounding border of an object, measured from the upper left label corner.

Size - Defines the size of the bounding box.

Alignment - Allows to align vertically and horizontally the object delimited by the Bounding box.

Rotation

Rotates an object clockwise in 90 degrees steps. Line, rectangle and multiline text objects cannot be rotated.

Options

Do Not Print - if checked the object doesn't print.

Protected - if checked, you can turn the object not selectable enabling the Activate Protected Objects command from the Options menu.

Print in Black Panel - if checked, the quality of the black will be improved. The object will be printed on the black panel of the ribbon.

Foreground Color

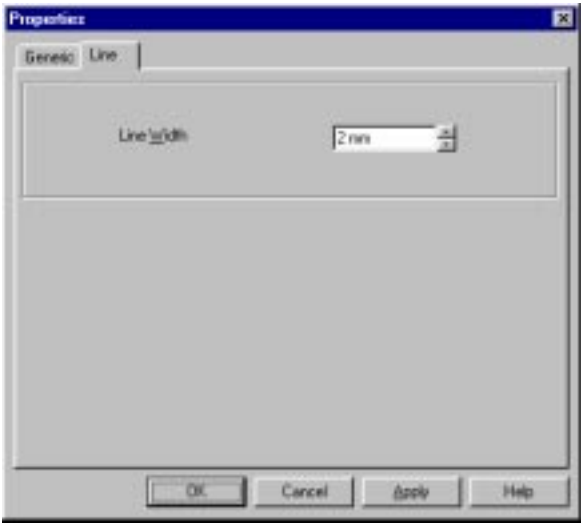
Sets the object foreground color. Type the RGB values or use the Choose button to select the color.

Note: Not applicable for PDF Symbol and image objects.

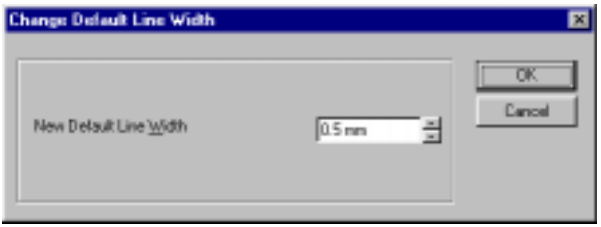
Line Properties

Line properties are:

Line Width: Enter the desired line width.



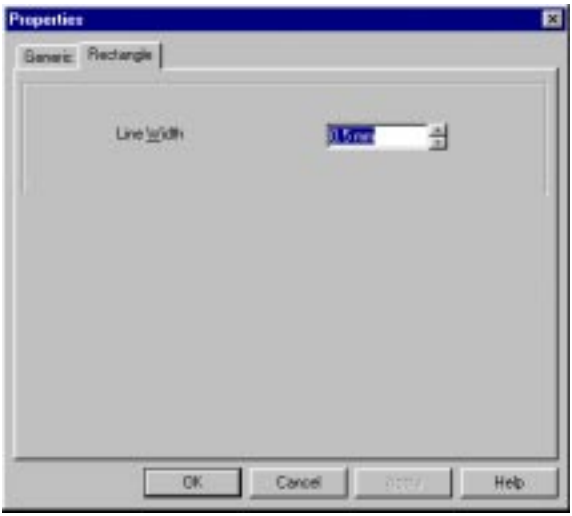
Note: You can set a default line width. From the Options menu, choose **Default Line Width**. Enter the desired default line width. ***Click*** **OK**. All new line objects, including rectangles, will be drawn with the new width.



Rectangle Properties

Rectangle properties are:

Line Width: Enter the desired line width.



Filled Rectangle Properties

For this type of object only the Generic Properties are applied.

Text Properties

Text properties affect the position of the text on the card, and its appearance. How your text looks depends on the attributes you assign to it. (Think of an attribute as a characteristic of the text - its font, size, color, whether it is italic or boldface, and so on.)

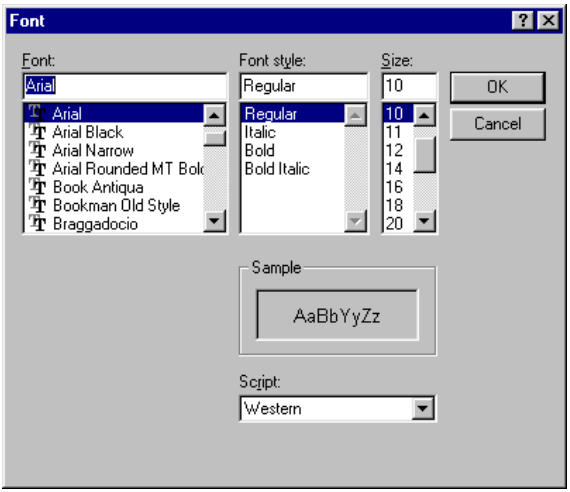
Style	Examples of text attributes
Regular:	Card Software works wonders.
Bold:	**Card Software works wonders.**
Italic:	*Card Software works wonders.*
Bold Italic:	***Card Software works wonders.***

You use the Font and the Font Color dialog boxes to change text attributes.

Note: The attributes you select apply to all the text comprising the selected text object. You cannot, for example, make one word bold and leave the rest of the text regular. If you want text with different attributes, use the Text tool to create another text object. Then, apply the desired attributes to the new text object.

Text properties are:

Default Text: Type the text you want to appear on the card.
Font type and style: ***Click*** **Choose.** The Font dialog box appears. Select the desired font and style.



Point Size: Enter the desired size. Point size can also be changed from the Font dialog box.

Important: You cannot edit text directly on the screen in the Card Work Area. You edit text only by displaying it in the Text Properties dialog box.

Note: In the following sections, when the manual refers to editing text it means adding, replacing, deleting or otherwise changing the text box content, not the text attributes.

¨ **Edit text**

1. ***Double-click*** the text object you wish to edit.
2. The Text Properties dialog box appears.
3. Using the techniques listed below, select the text you want to edit.
4. Perform the desired alterations.
5. ***Click*** **OK.**

¨ **Select text using the mouse**

1. Point where you want the selection to begin, and then drag over the text..
2. To select a single word, ***double-click*** the word.

¨ **Select text using keyboard shortcuts**

· For keyboard enthusiasts, selecting text using the keyboard is often faster than using the mouse.

To select	**Press**
One character right:	SHIFT+RIGHT ARROW
One character left:	SHIFT+LEFT ARROW
To end of word:	CTRL+SHIFT+RIGHT ARROW
To start of word:	CTRL+SHIFT+LEFT ARROW
One line up:	SHIFT+UP ARROW
One line down:	SHIFT+DOWN ARROW

Deleting Text

¨ **Delete a character**

1. Position the pointer after the character you want to delete, ***click*** and then ***press*** **BACKSPACE**.

¨ **To delete a block of text**

1. ***Drag*** across the text to highlight it, and then press **BACKSPACE** or **DELETE**.

Cutting, Copying and Pasting Text

¨ **Cut or copy and paste a block of text**

1. ***Drag*** the text to select it; then, press **CTRL+X** (cut) or **CTRL+C** (copy).
2. Position the pointer where you want to paste the text and ***click***.
3. With text on the Windows clipboard (cut or copied), press **CTRL+V** (paste).

Image Properties

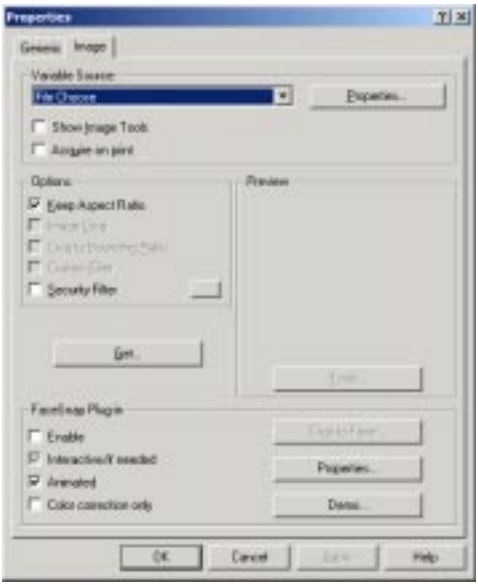
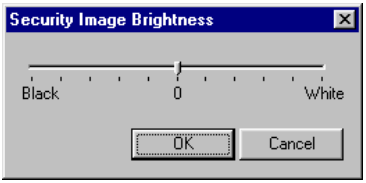


Image properties are:

- **Keep Aspect Ratio:** Select this check box to keep the same horizontal to vertical aspect ratio when changing the image size. This will prevent image distortion.
- **Image crop**: Select this check box to simulate an image crop. Only the selected area will be displayed. (Note: although the unselected area isn't displayed will no be deleted. For that propose use the Crop Tool from the Image Tools).
- **Crop to Bounding Ratio**: Select this check box to use the image ratio on crop.
- **Custom Filter** - Allows you to use a customized DLL to enhance the image properties according to your needs. To turn this option available you will need developer knowledge.
- **Security Filter** - Opens the Security Image Brightness (dialog box) which allows to increase/decrease the image brightness.



- **Tools** - opens the image tools workspace, see further in this manual Appendix A - Image Tools.
- **Get** - displays the Open Image File dialog box to browse to an image file and to open it.

FaceSnap Plug-in

Enable - Enables the FaceSnap Plug-in and automatically crops the image.

Interactive/if needed - Invokes the FaceSnap dialog box for user confirmation or adjustment of face crop always (full checked) or only if no face is found (greyed check).

Animated - If checked, displays a progress indicator (image thumbnail with circle mark evolving as face detection goes on).

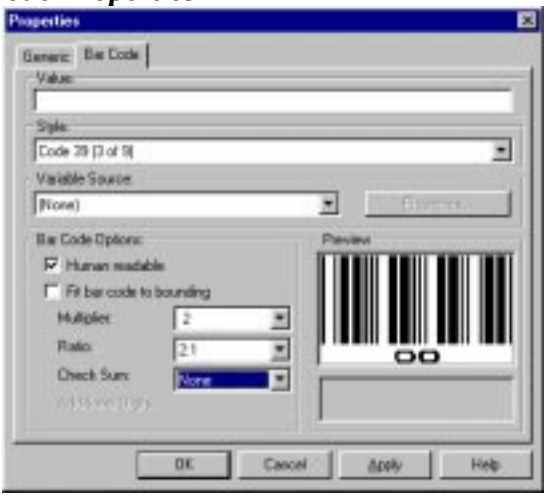
Color correction only - If checked, doesn't apply face crop but color equalization only.

Use the **Crop to Face** button to crop the image manually.

Use the **Properties** button to display the FaceSnap FOTOMODUL properties dialog box which allows you to change permanent settings for the detection of faces and processing of images.

The **Demo** button displays information about FaceSnap FOTOMODUL.

Bar Code Properties



Bar code properties are:

Value: Type the data you want to appear in the bar code. Ensure the data is valid for the selected bar code style.

Style: Select the type of bar code you wish to print.

Bar codes Options

Human Readable - Select this check box if you want the data to be printed in human readable form below the bar code symbol.

Fit Bar Code to Bounding - If this option is checked, a bar code can be resized with the mouse.

Multiplier - This function controls the bar code size. If the Fit bar code to bounding option is checked, the multiplier value is changed automatically, when resizing a bar code with the mouse.

Ratio - Some bar code symbologies permit to change the ratio between thin and thick bars.

Checksum - In order to increase the reading accuracy, some bar code symbologies use checksums. The checksum algorithm, which varies greatly between symbologies, performs a series of mathematical operations on the characters encoded in the bar code. This value is added to the text to be encoded in the bar code. When a bar code reader scans the bar code, it reverses the checksum mathematical formula and compares the result with the checksum character in the bar code. If they differ, it means that the data in the bar code was read improperly.

Aditional Digits - Some Bar Codes allows you to provide two or five characters of supplemental information.

Note: While some bar codes will accept numbers, letters and symbols, others will accept only numbers. See Chapter 15, "About Bar Codes."

PDF Symbol Properties

PDF symbol properties are:

Data to Encode: Type the data you want to appear in the bar code. Ensure the data is valid for the PDF bar code style.

Resolution: Select the desired vertical and horizontal resolution. This specifies the symbol's aspect ratio, used during symbol encoding for row and column calculations.

PDF Parameters

Number of Rows: Select the desired number of rows.

Number of Cols: Select the desired number of columns.

Flip Option: Select the desired flip option: None, Left/Right, Top/Bottom, or Flip Both.

ECC Level: Select the desired ECC level.

ECC Percent: Select the desired ECC percent, if ECC level is set to Auto.

PDF Options

Reduce Bar Width: Select to reduce the bar width.

Reduce Bar Height: Select to reduce the bar height.

Truncated: Select to truncate.

Binary Encode: Select to encode the data in binary.

Note: For more information on the characteristics of PDF symbols see Chapter 16, "About PDF symbols."

FaceSnap Plug-in

Enable - Enables the FaceSnap Plug-in and automatically crops the image.

Interactive/if needed - Invokes the FaceSnap dialog box for user confirmation or adjustment of face crop always (full checked) or only if no face is found (greyed check).

Animated - If checked, displays a progress indicator (image thumbnail with circle mark evolving as face detection goes on).

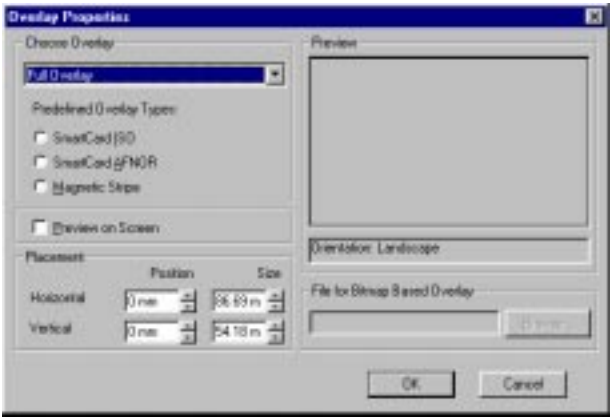
Color correction only - If checked, doesn't apply face crop but color equalization only.

Use the ***Crop to Face*** *button to crop the image manually.*

Use the **Properties** button to display the FaceSnap FOTOMODUL properties dialog box which allows you to change permanent settings for the detection of faces and processing of images.

The **Demo** button displays information about FaceSnap FOTOMODUL.

Overlay Properties



Overlay properties are:

Overlay coverage: From the Choose Overlay box, select the overlay coverage desired.

Predefined Overlays: If the selected overlay coverage was "Predefined Selected Area Without Overlay," select one of the option buttons.

Tip: If you select one of the Predefined Overlays option buttons, the overlay coverage box will automatically be set to "Predefined Selected Area Without Overlay."

Preview on Screen: Select this checkbox if you want to see the overlay depicted on the screen. For the Bitmap Based Overlay there is no preview on screen.

Position: Use these boxes if the selected overlay coverage was “User Selected Area, With Overlay” or “User Selected Area, Without Overlay.” They define the horizontal (X) and vertical (Y) location of the upper-left corner of the overlay area. The overlay in this area is printed or not printed depending on which user selected area was chosen.

Size: These boxes define the size of the overlay area, it’s origin (0,0) is defined by the position values.

File for Bitmap Based Overlay: If the selected overlay coverage was “Bitmap Based Overlay,” type the path of the ***.bmp** (bitmap) file you wish to use as overlay pattern. If you don’t know the file name, ***click*** Browse to select the file. The Bitmap Based Overlay concept was designed to provide the possibility to create a hologram effect on the printed card. It is based on a monochrome pattern, which tells the printer to spare out all dark areas in the bitmap when printing the overlay, which produces the “hologram” effect.

Tip: Use black & white images for bitmap overlay. Anyway, you may use a colored bitmap. The Card Software will automatically convert your bitmap to Black & White.

Tip: For more information on this subject, see Chapter 6 “Overlay”.

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4. Clipart Viewer

The Clipart Viewer is a simple, but powerful tool to browse through the clipart samples, which are provided with the Card Software CD-ROM. You also can use it for any other clipart library.

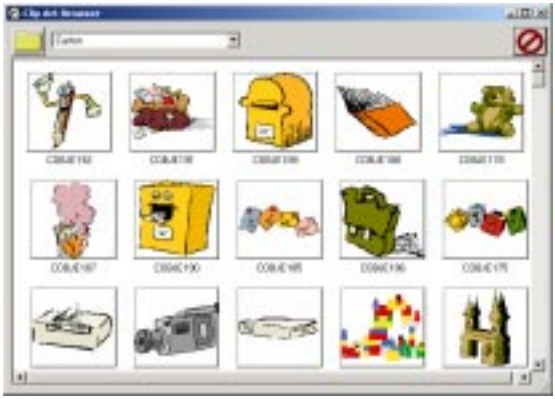
The Clipart Viewer Utility

Starting Clipart Viewer

¨ **Open the Clipart Viewer**

1. Open the "Card Software" program group and ***double-click*** the Clipart Viewer program icon.

2. The main Clipart Viewer window appears.



 **Close button:** Exits the Clipart Viewer

Export an Image

¨ **Export an image to your card working area**

1. Choose an Image and **click** on it with the right mouse button. A popup menu appears, select copy and the image will be automatically exported to the Windows clipboard.
2. Activate the Card Software and select Use Windows **Clipboard** from the Edit menu.

Tip: You can toggle between the Card Software and Clipart Viewer pressing Alt + Tab.

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3. Import the image from the Windows **Clipboard**. Select Paste from the Edit menu.

Tip: Use the keyboard shortcut **Ctrl + V** to paste the image.

---

5. Working with Variables

This section explains how to use variable data with the Card Software.

Variable Data

Contrary to fixed data, which is edited when the card is designed, variable data changes. It is edited or becomes available at the time the card is printed. When you design the card, instead of typing the actual data, you create a placeholder called a variable. At print time, the variable data replaces your named variable at its location on the card.

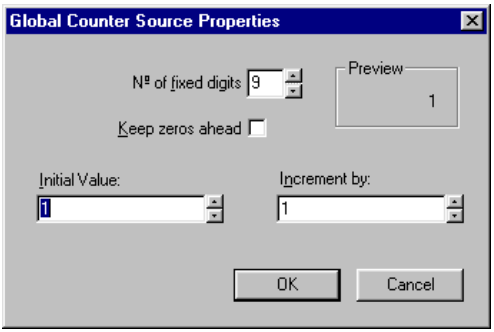
Some of the sources for variable data are: the computer keyboard, internal information that the computer system keeps track of the date and time, ODBC sources and concatenation of sources.

Before variable data can be used with the tools that support it (text, bar code, PDF, image or magnetic encoding), you must create and name a variable field for each piece of information you wish to add to the card at print time. This named field then becomes the "target" for the data when you print the card.

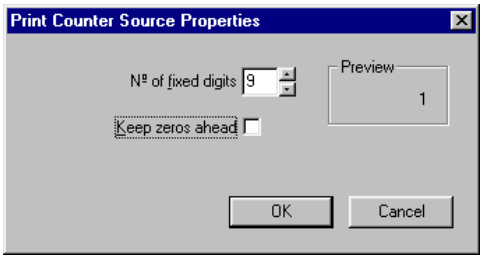
This eliminates the need to manually edit the card to enter each piece of data before printing. You can use the same card format, knowing that your card design will remain constant, with only the variable data changing from card to card.

The Variable Sources

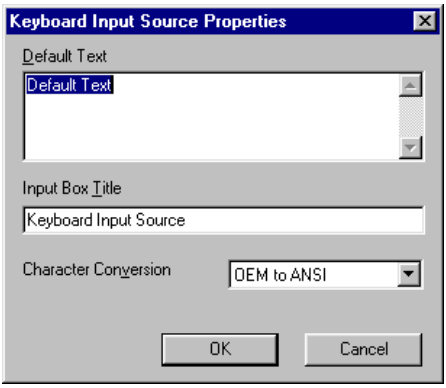
Global Counter: An integer counter that starts at a number that you choose, and, each time you print a card, is increased by the value of a second number that you choose.



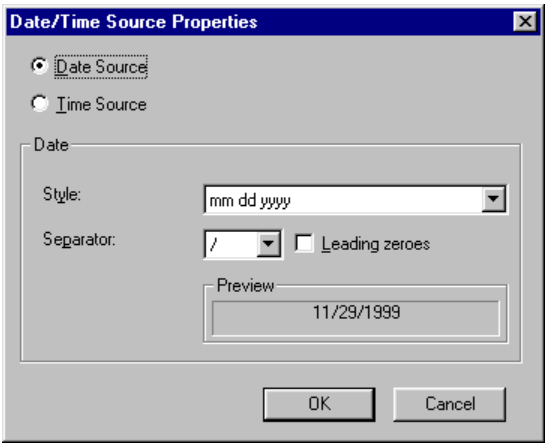
Printer Counter: An integer counter that starts at 1 and is increased by 1 each time you print a card.



Keyboard Input: Data that you type from the computer system's keyboard.



Date/Time: The Date/Time kept by your computer system.



Concatenation: Data that result from the concatenation of two or more sources. In the Prefix, Separator and Suffix boxes you can edit constant data. To achieve multi-line concatenation press **Ctrl + Enter** in the Separator box.

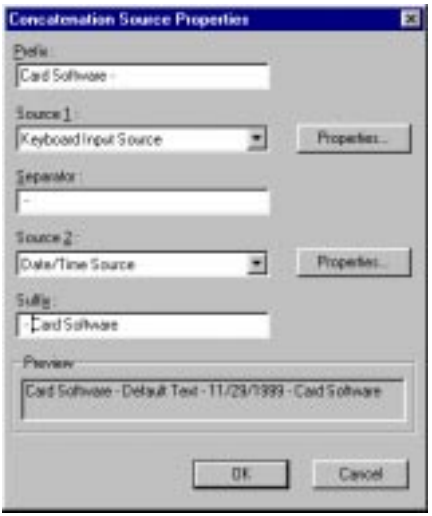
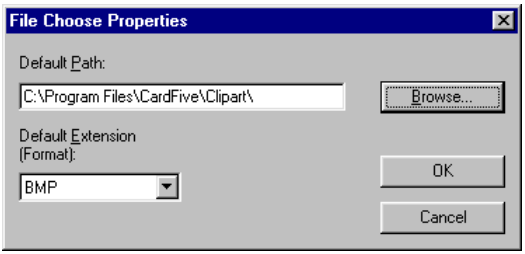


Image Sources:

File Choose Image: At print time, the Card Software will prompt you to select the name of an image file.



Scan Image: An image acquired from any twain compliant source at print time. See Chapter 10 - "Image acquisition".

Video: An image acquired using the Video for windows (VFW) interface (see chapter 10 -"Image Acquisition").

ODBC Data from internal or external database that you can access using ODBC (see Chapter 10 - "Image Acquisition").

Adding Variable Data

Variable Image

¨ **To add a variable image to a card**

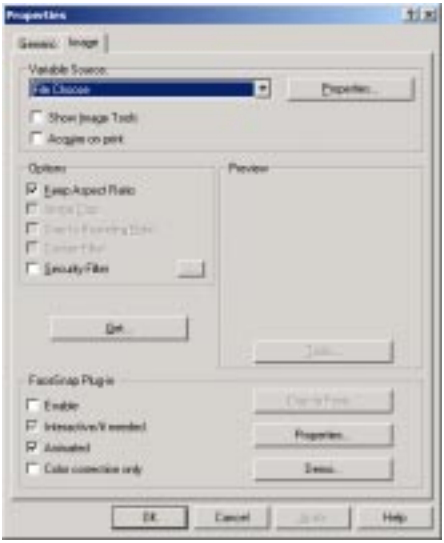
1. On the lower toolbar, ***click*** the Image tool; the pointer changes to a hand with the Image icon.

2. Move the mouse pointer to the point on the card where you want to place the upper left corner of the image.

3. Press and hold the left mouse button and ***drag*** in any direction. As you drag, a rectangle forms, with one corner fixed where you began to drag, and the other corner following the pointer. Continue ***dragging*** until the rectangle is the desired size.

Tip: You can change one or both of the dimensions, but you should ensure that Keep Aspect is checked. Doing so will maintain accurate image proportions.

4. Release the mouse button. The Image Properties dialog box appears.



5. Choose the Image Source you want and ***click*** **OK**. The image box you created in step 3 will appear on the (on-screen) card with two diagonal lines through it. This indicates that the image will be provided at print time.

Tip: Select the **Show Images Tools** checkbox if you want to modify the image at print time.

6. On the Standard toolbar, ***click*** the **Printer Tool**. The Card Print Dialog box appears (See Chapter 18 - Printing).
7. ***Click*** **OK**, to complete the action.
8. Depending on the selection you made at step 5, you will be prompted to choose an image file or to acquire the image from your twain source.
9. Repeat step 6 to 8 as many times as needed to print any number of cards, with a different image on each card.

Note: More information about how to use image sources you find in Chapter 10 - "Image Acquisition".

Variable Text

¨ **To add variable text**

The following steps assume you want to create a variable text object "Employee Name" for the employee's name. At print time, you will type the employee's name on the keyboard, so you set the Variable Source field to **Keyboard Input**.

Advanced Feature: You could also create a database with all the information about the employee names and set the variable source field to ODBC Source. See Chapter 8, "Card Software and Database".

---

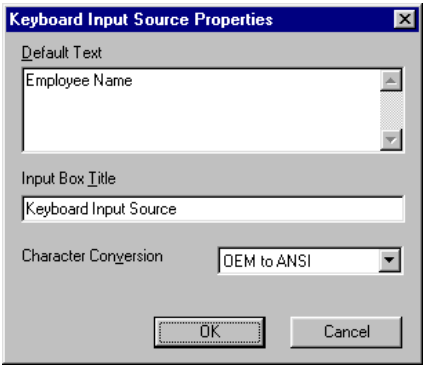
1. On the lower toolbar, ***click*** the **Text** tool; the pointer changes to a hand with the Text icon.

2. Move the mouse pointer to the point on the card where you want to place a corner.

3. Press and hold the left mouse button and drag in any direction. As you ***drag***, a rectangle forms, with one corner fixed where you began to ***drag***, and the other corner following the pointer. Continue dragging until the rectangle is the desired size.

4. Release the mouse button. The Text Properties dialog box appears.

5. Set the Variable Source as Keyboard Input. The Source Keyboard Input Properties Dialog Box appears.
6. Type “Employee Name” as default text on the Source Keyboard Input Properties Dialog box



7. ***Click*** **OK** to confirm and close the Source Keyboard Input Properties Dialog box.
8. ***Click*** **OK** to confirm and close the Text Properties Dialog box.
9. The text box you created on step 3 will appear on the (on-screen) card with the words “Employee Name” inside. This indicates that the text (the employee’s name) will be provided at print time.

10. On the Standard toolbar, ***click*** the **Printer Tool**. The Card Print dialog box appears (See Chapter 18. Printing).

11. ***Click*** **OK.** The Text Input Dialog box appears prompting you to enter data for the employee’s name.

12. Enter the employee’s name and confirm with **OK**.

Note: Repeat step 10 to 12 as many times as needed to print any number of cards, with a different name on each card.

Variable Bar Code

¨ **To add a variable bar code**

The following steps assume you want to create a variable bar code for the Employee's ID Number. At print time, you will type the employee's ID number on the keyboard, so you set the Variable Source field to **Keyboard Input**.

Advanced Feature: You could also create a database with all the information about the employee's and set the variable source field to ODBC Source. See Chapter 8, "Card Software and Database"

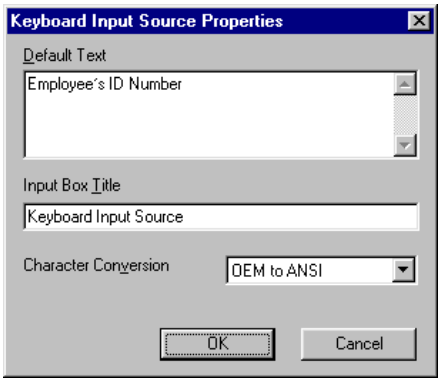
1. On the lower toolbar, ***click*** the **Bar code** tool; the pointer changes to a hand with the Bar code icon.

2. Move the mouse pointer to a place on the card where you want to place a corner of the bar code.

3. Press and hold the left mouse button and ***drag*** in any direction. As you ***drag***, a rectangle forms, with one corner fixed where you began to drag; the other corner follows the pointer. Continue dragging until the rectangle is the desired size.

4. Release the mouse button. The Bar code Properties dialog box appears.

5. Select a bar code Style from the list. The Card Software defaults to Code 39, but you can choose from among the 20 styles listed (See Chapter 15 - "About Bar Codes").
6. Set the Variable Source as Keyboard Input. The Source Keyboard Input Properties Dialog Box appears.
7. Type "Employee's ID Number" as default text on the Source Keyboard Input Properties Dialog box.



8. ***Click*** **OK** to confirm and close the Source Keyboard Input Properties Dialog Box.
9. ***Click*** **OK** to close the Bar code Properties dialog box.
10. The bar code, which appears on the (on-screen) card, contains the encrypted information "Employee's ID Number". At print time you'll provide the correct data.

11. On the Standard toolbar, ***click*** the **Printer** Tool. The Card Print dialog box appears (See Chapter 18 -Printing).
12. ***Click*** **OK** . The Text Input Dialog box appears prompting you to enter data to the employee's ID number.

Note: repeat step 11 and 12 as many times as needed to print any number of cards, with a different bar code on each card.

Important: While some bar codes will accept numbers, letters and symbols, others will accept only numbers. See Chapter 15 - "About Bar Codes."

Variable PDF

¨ **To add a Variable PDF Symbol**

The following steps assume you want to create a variable PDF symbol for the Employee's ID Number. At print time, you will type the employee's ID number on the keyboard, so you set the Variable Source field to **Keyboard Input.**

Advanced Feature: You could also create a database with all the information about the employee's and set the Variable source field to ODBC Source. See Chapter 8, "Card Software and Database"

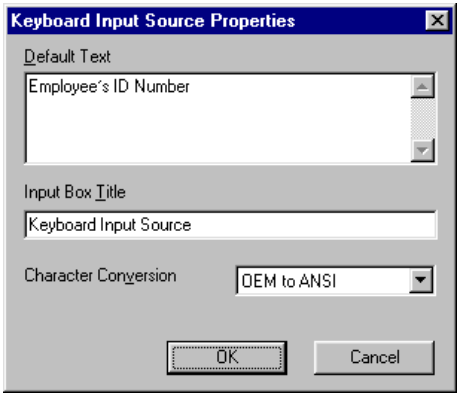
1. On the lower toolbar, click the PDF Symbol tool; the pointer changes to a hand with the PDF Symbol icon.

2. Move the mouse pointer to a place on the card where you want to place a corner of the PDF Symbol.

3. Press and hold the left mouse button and ***drag*** in any direction. As you ***drag***, a rectangle forms, with one corner fixed where you began to ***drag***; the other corner follows the pointer. Continue dragging until the rectangle is the desired size.

4. Release the mouse button. The PDF Symbol Properties dialog box appears.

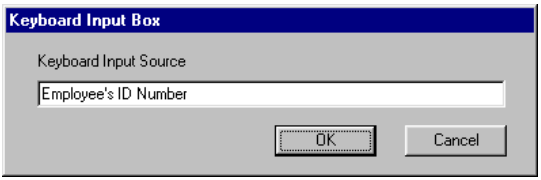
5. Select the desired options for the PDF symbol (See Chapter 16 - “About PDF Symbols”)
6. Set the Variable Source as Keyboard Input. The Source Keyboard Input Properties Dialog Box appears.
7. Type “Employee’s ID Number” as default text on the Source Keyboard Input Properties Dialog box.



8. ***Click*** **OK** to confirm and close the Source Keyboard Input Properties Dialog Box.
9. ***Click*** **OK** to close the PDF Symbol Properties dialog box.
10. The PDF Symbol, which appears on the (on-screen) card, contains the encrypted information "Employee's ID Number". At print time you'll provide the correct data.

11. On the Standard toolbar, ***click*** the **Printer** Tool. The Card Print dialog box appears (See Chapter 18 - Printing).

12. ***Click*** **OK**. The Text Input Dialog box appears prompting you to enter data to the employee's ID number.



Note: repeat step 11 and 12 as many times as needed to print any number of cards, with a different PDF Symbol on each card.

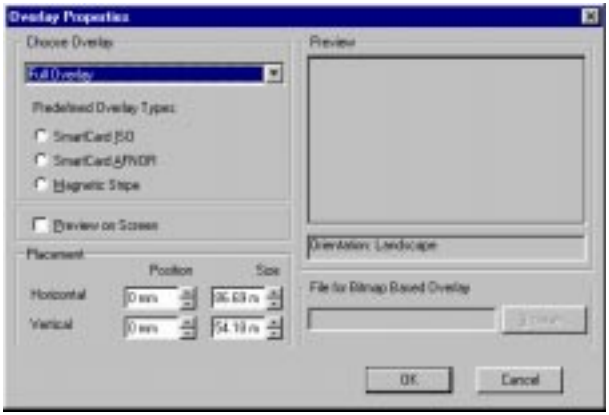
6. Overlay

An overlay (or varnish layer) is a thin transparent coating applied to a card to protect the underlying printed information from wear. You can include a bitmap pattern in the overlay as a security measure, creating a hologram effect.

Defining an Overlay

¨ To define an overlay

1. From the Draw menu or Drawing Toolbar, choose **Overlay Varnish**
2. The Overlay Properties dialog box appears.



As you define the overlay, the Overlay Preview section will show the area of the card where the overlay will be applied.

3. In the Choose Overlay list box, select the desired overlay type:

Full Overlay (the default): The overlay varnish is applied over the entire surface of the card.

No Overlay: No overlay varnish is applied to the card.

User Selected Area, With Overlay: The overlay varnish is applied only to the area you define.

User Selected Area, Without Overlay: The overlay varnish is applied to the entire surface of the card except to the area you define.

Bitmap Based Overlay: In the Choose bitmap for Overlay list box you select or browse a bitmap file on disk to use as the overlay.

Tip: the bitmap should be monochrome (e.g.: black & white, where white defines areas with overlay varnish). The size of the bitmap should be the same as the card size (85,34mm * 52,83mm), to achieve varnish coverage over the whole card. Anyway the Card Software automatically transforms 2 colored bitmap to black & white and adjust it to the right size. This may cause some distortion.

Predefined Selected Area Without Overlay: This overlay varnish is automatically selected if you choose one of the following predefined area selections:

- Smart Card ISO
- Smart Card AFNOR
- Magnetic Stripe

AutoLocation Overlay: The overlay varnish is applied only over the objects desing on the card.

4. Define the position and size of the overlay or the excluded area. Type the x and y coordinate values in the X Placement and Y Placement boxes. These numbers indicate the coordinates of the upper left corner of the overlay area. The origin (0, 0 point) is the upper left corner of the card. The x and y coordinates are measured from the origin. The Width and Height numbers indicate the size of the overlay or the excluded area.
5. If you wish to see the overlay area depicted on the card, select the Preview on Screen check box, bitmap based overlay has no preview.
6. ***Click* OK.** You have defined the overlay.

Important: Because the overlay is used to protect the printed information, overlay should not be applied to card areas containing the magnetic stripe, smart chips, or barcodes. Parts of Card Objects which reach into User Selected Area Without Overlay or Predefined Selected Area Without Overlay are not printed. Areas without overlay appear white.

Printing Overlay with Memory Extension: The printable area without Memory Extension (ME) does not cover all the card surface, only with ME the printable area is extended to the edge of the card, and the whole card can be printed with overlay.

Important: You may not delete the overlay. If you want to print without overlay, choose the Overlay Clipping Option from the Options Menu and enable the option No Overlay. It is not allowed to send the object overlay to the other layer. To print both sides of the card with overlay, you need to choose the option Overlay Clipping from the Options Menu for both sides. With the feature Front and Back the overlay can be managed in both sides of the card independently.

Bitmap Based Overlay

¨ **To prepare a bitmap and define overlay properties**

1. Use a Windows™ application, like Paint to draw the bitmap. Set width = 85.3mm and height = 52.8mm. Type the number in the area where you want it later to appear on your card. Use black letters. Save the image as bitmap (phone.bmp)

2. From the Draw menu, choose Overlay Varnish. The Overlay Properties dialog box appears. In the Overlay Properties dialog box choose Bitmap Based Overlay. Browse to the overlay bitmap, you have created before. The overlay is printed in all white areas, sparing out the black number. Holding the printed card against the light, the number appears as a kind of hologram. ***Click*** **Ok.** You have created and selected a bitmap file to be used as overlay.

Note: you may only use one kind of overlay types for the same card side.

7. Chip Card

If your printer is equipped with a chip card encoder, you can encode data onto memory cards.

About Chip Cards

There are two basic types of chip cards: the memory card and the intelligent card.

- **Memory Card:** Can store a certain amount of data, which can be subsequently altered, but not adequately secured.
- **Intelligent Card:** Better known as smart card, the intelligent card has, like a PC, a memory, a central processing unit and a communications unit. As the smart card can carry out calculations it makes it easy to implement effective security features.

The chip has three types of memory: ROM, EEPROM and RAM

- **ROM:** contains fixed information, which remains at all times and cannot be changed.
- **EEPROM:** can be changed and remains in the chip even when no electrical power is flowing through the chip.
- **RAM:** temporary memory, which can be changed, but disappears when no electrical power is flowing through the card.

Chip Card Process

The Card Software allows to plug-in an executable file during the printing process. The Card Software will call an external chip card processing software.

To run this software you have to provide the necessary parameters in the Chip Card Properties dialog box.

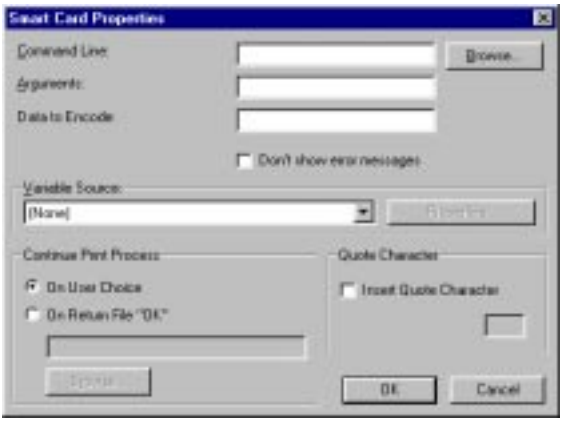
At print time the Card Software will position the card on the chip interface of your printer and call the external software.

The Card Software continues the print process either on user command or after receiving a return file OK-message (see “setting the chip card properties”).

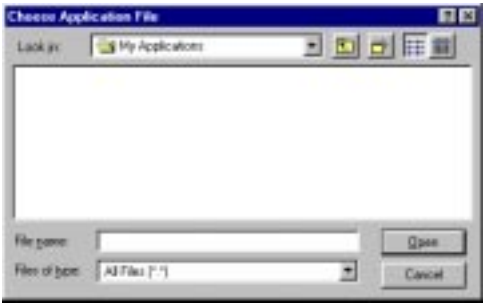
Chip Card Properties

¨ **Setting the chip card properties**

1. At the Drawing Toolbar ***click*** the **Chip Card** button. The Chip Card Properties dialog box appears.



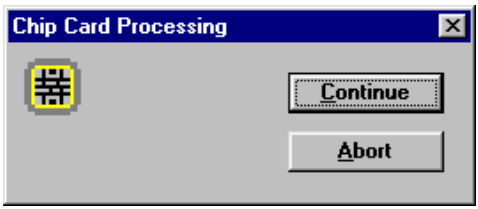
2. Type the path of the executable file of your chip card processing software in the Command Line box. You can also ***click*** the **Browse** button next to the Command Line box. The Choose Application dialog box appears. Select the directory of your executable file and ***click*** **OK**.



3. Set (optional) the arguments supported by your chip card processing software in the arguments box.

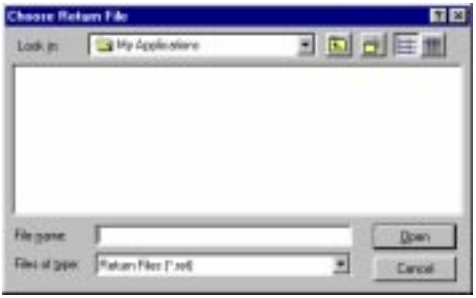
4. Check the option **Don't show error messages** if you want to skip the chip error process
5. From the Source drop-down box select the data source (variables) you want to provide (See Chapter 5 "Working with Variables"). The data source you defined will be displayed in the Source Data box.
6. From the Continue Print Process section select how you want the print process to continue.

- **On User Choice** you have to ***click*** the **Continue** button in the Chip Card Process dialog box, after the chip card encoding process terminated.



Note: If you click the Abort button the complete printing process will be canceled.

- **On Return File "OK"** the Card Software continues the printing process automatically, after receiving an OK-message from a file created and returned by the chip card processing software. Type the path of your return file in the Return File box. You can also ***click*** the **Browse** button next to the Return File box. The Choose Return File dialog box appears. Select the directory of your return file and ***click*** **OK**.



7. Check the **Insert Quote Character** option if you want to use a delimiter to specify the data to be encoded.

Important: Aassuming that my encoding program is named SMARTPRG.EXE and the data to encode that comes from a Keyboard Input Source is Hello World, and the option Insert Quote Character isn't checked. The application will be called like: SMARTPRG.EXE Hello World. The application will only encode the word Hello, because for the application;

SMARTPRG.EXE - is the application name
Hello - is the first argument
World - is the second argument

But if yu define a quote character, for example ". The application will be called like:
SMARTPRG.EXE "Hello World"
All data will be encoded, because for the application;

SMARTPRG.EXE - is the application name
Hello World - is the first argument***Click*** the **OK** button to confirm all settings.

---

8. ***Click*** the **OK** button to confirm all settings.

Chip Card Encoding

¨ **The chip card encoding process**

1. From the File menu choose **Card Print**. The Card Print Dialog Box appears (see Chapter 18. "Printing"). Select in the operation section the **Chip Card Processing** check box. ***Click*** **OK** to start the chip card encoding process.

Note: You can also select **Print** and **Encode** in the operation section. The operation sequence is set as: first chip card encoding, second magnetic encoding and third print.

---

2. Depending on your setting of the runtime options, either the Chip Card Process dialog box appears or the Card Software waits for a return file (see "setting the chip card properties").

8. Card Software and Database

This section explains how to work with the Card Software and databases. Learn how to create your own database from within the Card Software and how to connect to an external database using ODBC drivers.

Introduction to ODBC

ODBC Basics

The Card Software accesses databases through ODBC drivers, using SQL language.

The Open Database Connectivity (ODBC) interface allows accessing data in Database Management Systems (DBMS) using Structured Query Language (SQL) as a standard for accessing data.

ODBC allows different database technologies to be used by defining a standard interface.

File Formats

To access any database format from the Card Software you will need the ODBC driver for that standard. The default drivers, which come with the Card Software CD-ROM supply the most common formats:

Microsoft Access Driver (*.MDB)

Microsoft dBase Driver (*.DBF)

Microsoft Excel Driver(*.XLS)

Microsoft FoxPro Driver(*.DBF)

Microsoft Paradox Driver(*.DB)

Microsoft Text Files Driver(*.TXT ; *.CSV)

Microsoft Visual FoxPro Driver

SQL Server

Note: You can add anytime your specific drivers to meet your needs. Just as an example, you can add drivers to access AS400 files directly from the Card Software.

Purpose of ODBC

ODBC was created as a way of setting a standard to access data on files. Using concepts like layers and layer abstraction, it allows the user to access data on his hard disk, in a local network or even in a Wide Area Network, using desktop or server/client specifications, in any database format that have available ODBC driver.

Desktop versus Server/Client

Desktop file access means, that the file is accessed opening it as a disk file, in the local hard disk or even in a local network.

Server/Client supposes that somewhere a DBMS server is running. The local machine sends requests to the server resulting in data available to the client.

The Card Software does the access to both types in an easy and similar way. One difference will be that in a DBMS Server the user will need to "login" the database.

Card Software Sources

Card Software classifies data in two classes:

Internal Data Sources, which it assures to exist and automatically configures.

External Data Sources, which must be configured by the user running the ODBC administrator to gain access to his files.

Basically both data types use the same methods. Internal Data Sources make life easier for a user, who does not have a database system already installed.

SQL

SQL (Structured Query Language) is the standard that the Card Software uses to "talk" to ODBC, issuing commands to read and write data on the files.

Database Structure

Database, Table, Record, Field, Data: Those five terms build the structure of a database. It is easy to understand which meaning each term has, if you imagine an office closet.

Database: the office closet itself

Table: a card-index box inside the closet

Record: a file-card inside the card-index box

Field (Column): a predefined part of the file-card, for example name field or address field, etc.

Data: the particulars typed in the name field

Data Type

About Data Types

Database columns are defined to contain a certain type of data, the most commonly used data type is maybe CHAR (stands for character). You need to define different data types for each column, if you want to store data like images directly in a column.

Each database format supports different data types, which are translated by the ODBC driver into a SQL data type. This allows an application to interact with a database bi-directionally. This interaction is not 100%, though, as each different driver imposes certain limitations.

Card Software Internal Database Data Types

The Card Software supports five Data types: Text, Number, Integer Number, Photo and Memo.

Text: The data type text builds a single lined field, which may contain up to 254 characters.

Number: The data type number builds a single lined field, which may contain any value between 1.7e-308 to 1.7e+308

Integer Number: The data type integer number builds a single lined field, which may contain any value between -2,147,483,648 and 2,147,483,647

Memo: The data type Memo builds a multi-line field for text editing.

Photo: The data type Photo builds a field, which allows the storage of an image.

Data Source

Introduction

Before you can access data with an ODBC driver, you must add a data source for it. You can change or delete a data source at any time. A data source contains the information which ODBC driver is to be used, including driver specific setup and the indication where to find the database itself.

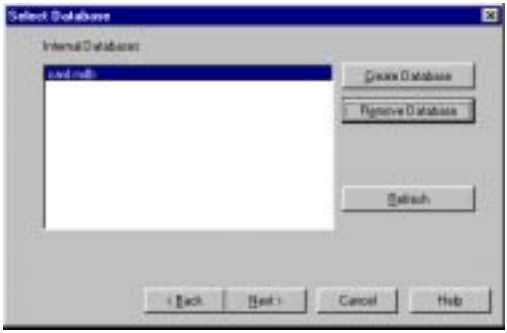
See section External Database later in this chapter to learn, how to work with data sources.

Card Software Internal Database

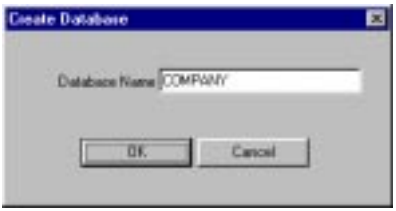
Create a New Internal Database

¨ **Creating an internal Card Software Database**

1. From the Database menu choose **Connect**. The ODBC Source Selection dialog box appears. Select **Create Database**.

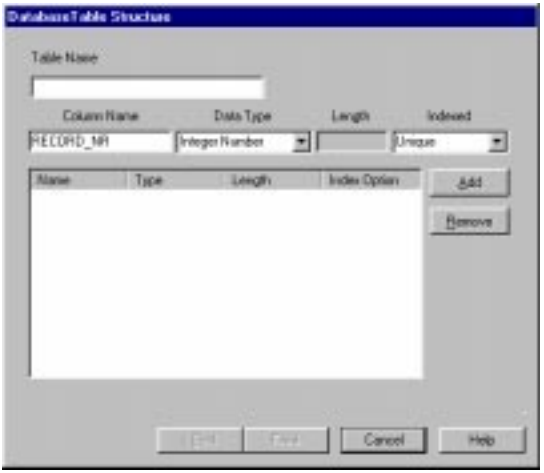


2. The Create Database dialog box appears. Type the database name, for example **COMPANY** and ***click*** **Create**.



3. Select the Database you just created and ***click*** **Next**. The list of the available tables appears and prompts you to select the table you want to work with. As there is no table available yet, you have to create it, by ***clicking*** **New Table**.

4. The Database Table Structure dialog box appears. Proceed as explained later in this chapter “Create a New Table”.



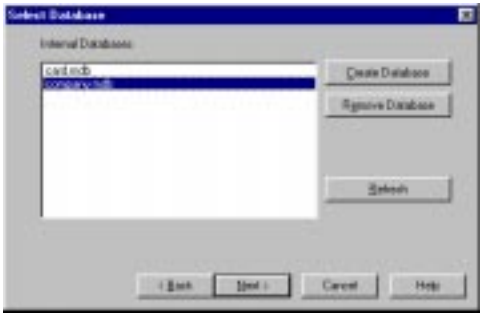
¨ Creating a Card Software Database

1. Some editions of the Card Software are specially designed to access an external , already existing database. If you need to create a database from within the Card Software you must use the MsAccess ODBC driver setup (see later in this chapter at section “Setup MsAccess Data Source”).

Open an Internal Database

¨ **Opening an Internal Card Software Database**

1. From the Database menu choose **Connect**. The ODBC Source Selection dialog box appears. Select the database filename you want and ***click*** **Next**.



2. Select the operation you want to perform, and proceed as explained later in the chapter section “Working with Tables”.

Disconnect from a Database

¨ Disconnect from a Database

1. From the Database menu choose **Disconnect**.

Note: As soon as you link a database field to the card layout, this option is disabled.

Card Software Internal Text Data Source

Card Software allows you to connect directly to a text file (*.asc, *.csv, *tab or *.txt), which are ASCII text files with data sets in individual lines and fields separated by comma, tab or custom delimiter. This type of file are read only, you cannot use Card Software to edit data.

Connecting to a Internal Text data source

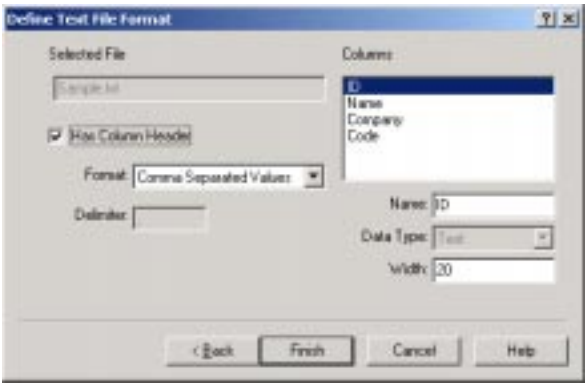
1. From the Database menu choose Connect. The ODBC Source Selection dialog box appears. Select “Card Software Text Data Source”, and click Next to continue.

2. A list of available text files appears. Select the file you want to work with and click Next.

Note: If you don’t see the file you want, use the Browse button to select the directory where you stored the file(s).

---

3. The Define Text File Format dialog box appears. Make sure all the settings are correct and click Finish to open the table.



Selected File - Specifies the selected text file.
Has Column Header - Specifies weather the columns of the selected table first row will be used as column names.
Format - Lists all the available formats:

Comma Separated Values,
Tab Separated Values,
Pipe Separated Values or
Custom Defined

If Custom Defined, indicates the type of delimiter used.
Delimiter - The custom delimiter character to be used to separate columns. Must be only one character in length, and double quotation marks (“) cannot be used. Enable when Custom Defined is selected from the Format list box.
Columns - Lists the column names for each column in the table selected in the Selected File and reflects the order of the columns in the table.
Name - Displays the name of the selected column. Can be used to specify a new column name for an existing column.
Data Type - Displays the data type.
Width - The width of the column.

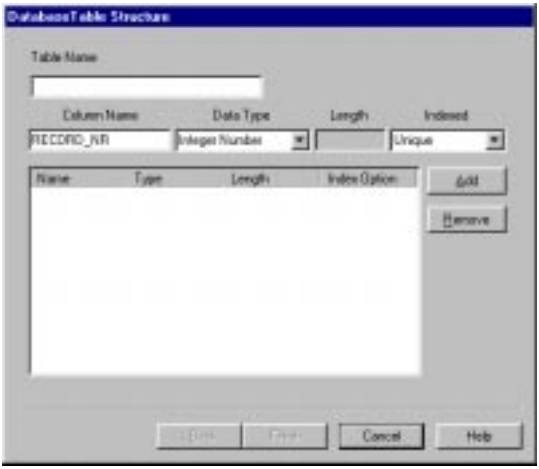
Working With Tables

Create a new Table

¨ Create a new table

1. After connecting successfully to an Internal Card Software database the select table dialog box appears.

2. ***Click*** **New**. The Database Table Structure dialog box appears.



3. Type the table name (e.g.: Clients_Hardware); You may not use the space character do separate words, as it provokes a syntax error in the create table statement..
4. Define the columns. For each column you want to create provide column name (e.g.: Name, Idnumber and Photo) or use the default name (Field1, Field2, Field3).
5. Select column data type (see section Card Software internal database data type earlier in this chapter) and length (if

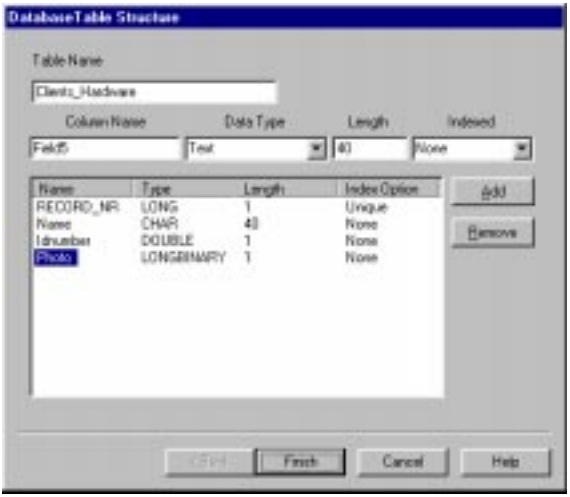
necessary).

6. Provide the type of Index you want to apply to the column. An index is used to control data storage and queries in a column. Choose between None (in this case, no indexing occurs), Unique (indexed, each record must contain unique data, used to set a primary key) or Duplicate (indexed, but allows equal data, speeds up queries).

Note: The field RECORD_NR is automatically created and indexed as unique to provide at least one column, where data differs in all records (primary key). This is to avoid affection on multiple records at delete or edit operations. You may delete this column, but you should provide at least one column indexed as unique.

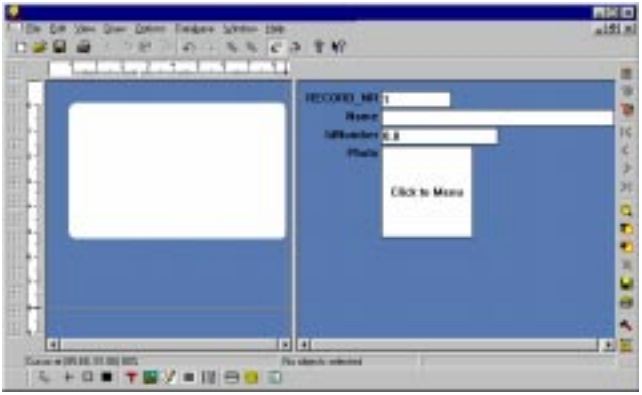
---

7. Remove a column: choose this options if you want to remove a column from your table.



8. Create your table by ***clicking*** **Finish**. The Select Table dialog box appears. Your table named Clients is highlighted. Choose it by ***clicking*** **Finish**.

9. The database view appears in a split-window next to the card view. Use the database toolbar to navigate, add new, modify or delete records (see as explained later in this chapter section “The Card Software Database Functions”).

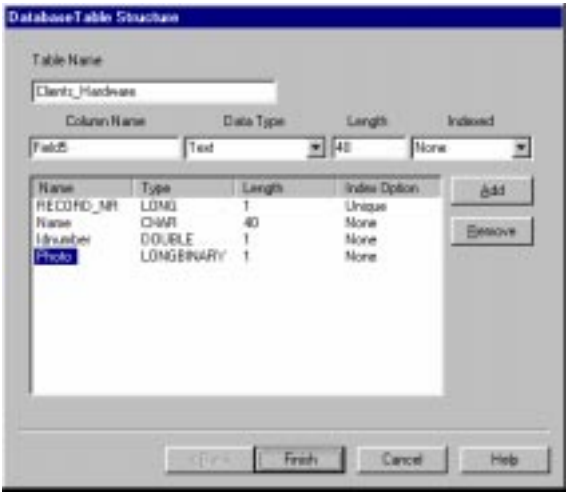


Edit an existing Table

¨ **Edit a table**

1. After connecting successfully to an internal Card Software database the select table dialog box appears. Select the table you want to change.

2. ***Click*** **Modify**. The Database Table Structure dialog box appears.



3. Add and Remove Columns as explained in the section Create a New Table earlier in this chapter.

Remove a Table

¨ **Remove a table**

1. After connecting successfully to an internal Card Software database the select table dialog box appears. Select the table you want to remove.

2. Select the table you want to remove and ***click*** **Remove**. The Card Software prompts you with a warning message. If you really want to remove permanently the table you selected confirm by ***clicking*** **Yes**.

Connect to an External Database

ODBC Source Selection

Before you can connect to a database you must define a data source first (as explained earlier in this chapter in section “Data Source). When you connect to a database for the first time, you will find default data sources listed in the Data Source Selection dialog box. These sources are set for each of the installed drivers, defining the default driver settings and the default database directory, which is c:\windows\system\. To connect to your database you have to setup a new data source for it first (or edit an existing source). The next sections explains, driver specific, the ODBC data source setup.

Note: See our web site for more information about how to setup the different ODBC data sources.

Working with N5 Database Interface

After connecting successfully to a database, the selected table is displayed in a split window next to the card design area. To access the record information of a column you have to create Card Software objects and connect them with the database fields.

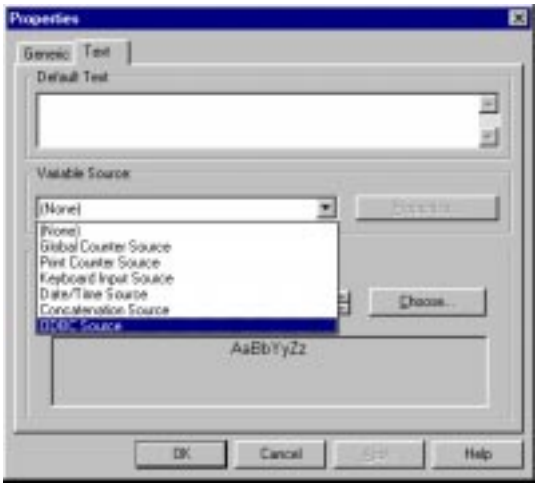
How to link database fields with the card layout:

¨ **Linking a Text Object**

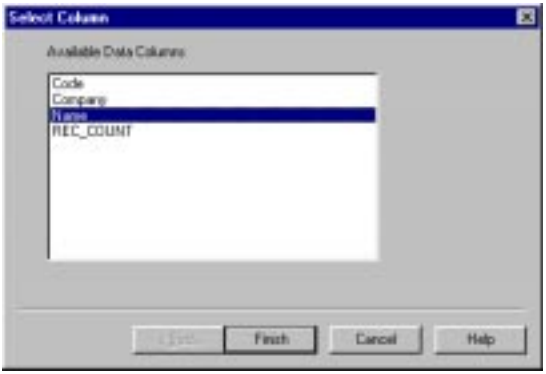
Note: you can easily create a Text Object linked to the database by drag and drop the field name from the database area into the card work area.

---

1. Open a text object and select ODBC Source as Variable Source.



2. The Source ODBC Source Selection dialog box appears. Select the column which contains the records you want to appear in your text object and ***click*** **Finish**.



3. Edit the font properties you want and confirm ***clicking*** **OK**.
4. In the card work area resize, if necessary, the selection rectangle of the text box in a way that makes the largest record of your column fit inside.
5. Save your card layout. Your card and the database are connected. Whenever you'll open your card, the database automatically will be found and opened as well.

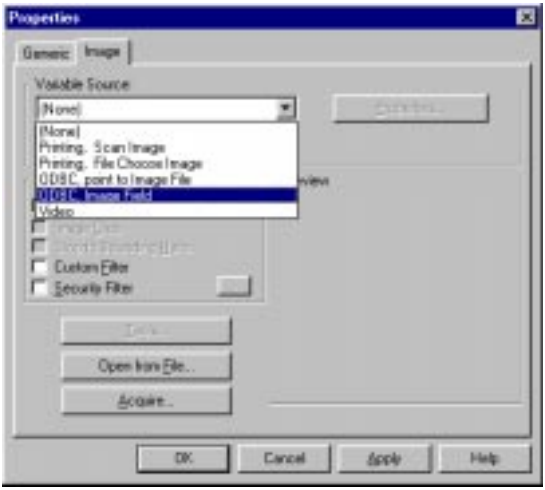
¨ Linking an Image Object

There are two forms image information is stored in a database. Either the image is part of the database itself, stored in an image field (ODBC, point to image field), or the complete path directory of an image field is stored in an text field, like c:\images\001.bmp (ODBC, point to image file). The Card Software supports multiple image field and/or image file linking.

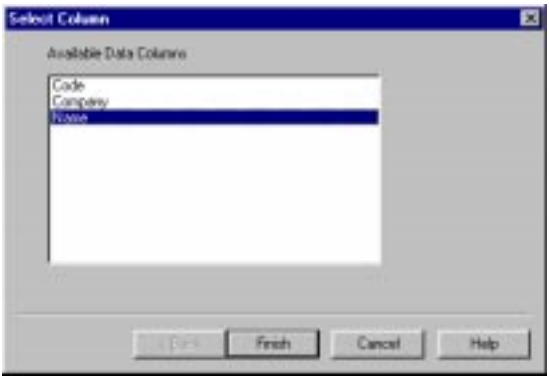
Note: you can easily create a Text Object linked to the database by drag and drop the field name from the database area into the card work area.

---

1. Open an image object and choose either ODBC, point to image field or ODBC, point to image file.



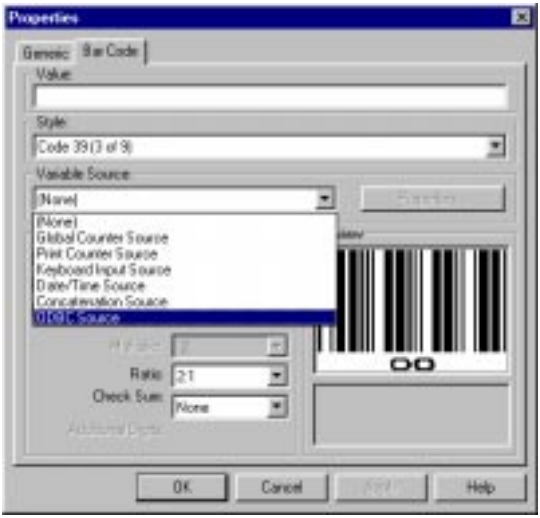
2. Select the column which contains the information of your image and ***click*** **Finish**.



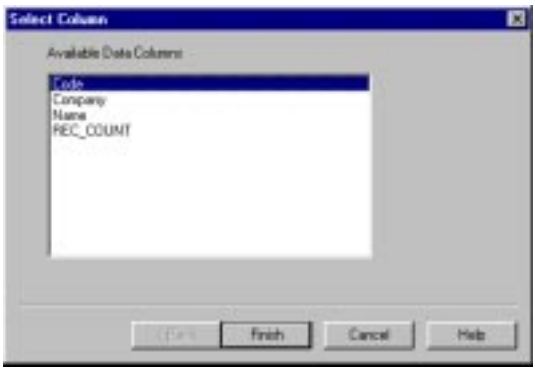
3. Confirm the Source Image Properties, ***clicking*** **OK**. In the image Object dialog box, choose the options (rotation, keep aspect, protected) you want to apply and ***click*** **OK**.
4. In the card work area resize, if necessary, you can resize the image with the mouse.
5. Save your card layout. Your card and the database are connected. Whenever you'll open your card, the database automatically will be found and opened as well.

¨ **Linking a Bar Code Object**

1. Open an bar code object and select ODBC Source as Variable Source.



2. The Source ODBC Source Selection dialog box appears. Select the column which contains the records you want to appear in your bar code object and ***click*** **Finish**.



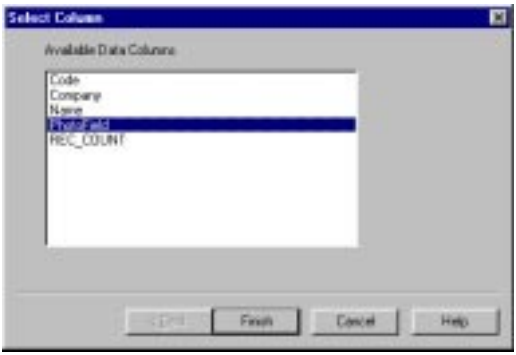
3. Set the Bar Code Object Properties you want to apply, and confirm ***clicking*** **OK**.

4. In the card work area, if necessary, you can resize the bar code with the mouse.
5. Save your card layout. Your card and the database are connected. Whenever you'll open your card, the database automatically will be found and opened as well.

¨ **Linking a PDF Symbol Object**

1. Open a PDF symbol object and select ODBC Source as Variable Source.

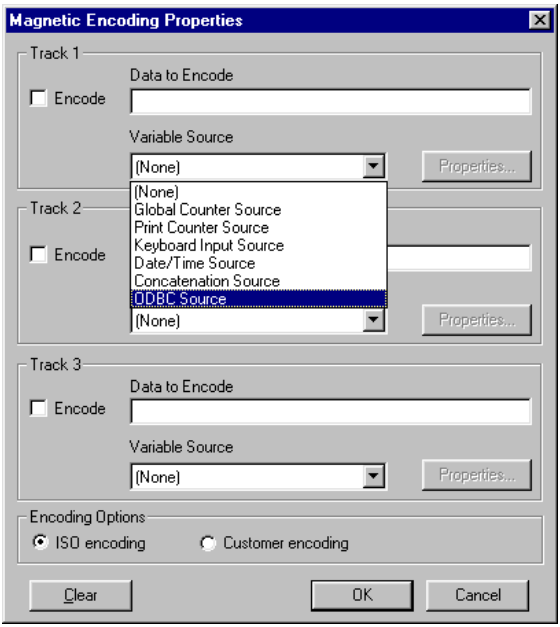
2. The Source ODBC Source Selection dialog box appears. Select the column which contains the records you want to appear in your PDF symbol object and ***click*** **Finish**.



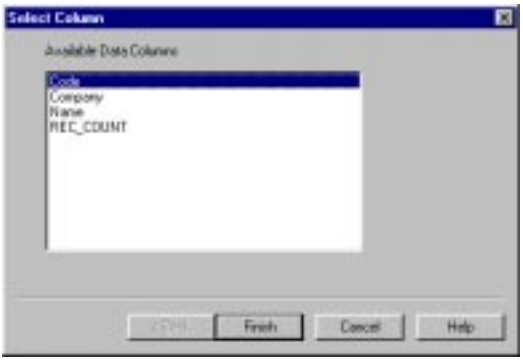
3. Set the PDF symbol Object Properties you want to apply, and confirm ***clicking*** **OK**.
4. Save your card layout. Your card and the database are connected. Whenever you'll open your card, the database automatically will be found and opened as well.

¨ Linking a Magnetic Code Object

1. Open a Magnetic Code object and select for the track(s) (1 to 3) you want to encode ODBC Source as Variable Source.



2. The Source ODBC Source Selection dialog box appears. Select the column which contains the records you want to encode in each track and ***click*** **Finish**.



3. Save your card layout. Your card and the database are connected. Whenever you'll open your card, the database automatically will be found and opened as well.

The Card Software Database Functions

Editing a Database

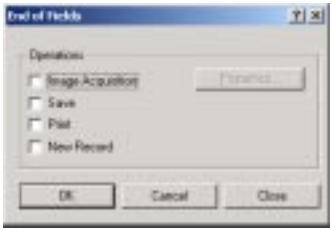
- To add a new record to your database select Add from the database menu. You also can click the Add Record button at your database toolbar.

- Edit the record and save it clicking the Save Record button at your database toolbar.

- To delete a record select Delete from the database menu. You also can click the Delete Record button at your database toolbar.

Quick Editing

The End of Fields dialog box is a Card Software concept, which offers the possibility to customize how to proceed with an image field and which database functions you want to perform. The End of Fields dialog box appears after you press Enter in the last record field or by pressing the Operations button and allows you to configure and decide what you want to do next.



The Operations section allows you to choose the functions you want to perform:
Image Acquisition, use the properties button to decide how to proceed with the image field.

Save, saves the current record.

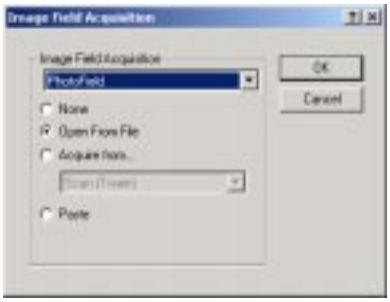
Print, prints the current record. Make sure the settings in the print dialog box are correct.

New Record, display a new blank record with all fields.

Multiple combinations are allowed.

How to proceed with the Image Field:

The command Open From File lets you select an image from a local or network disk.



Choose **Acquire From**, and select the source you are going to use.

Paste copies a bitmap from the Windows Clipboard.

Select **Freeze** if you are using the VFW interface to transform the analog signal in digital data.

Moving between Records

- To move to the first record, select **Move First** from the database menu. You also can ***click*** the **Move First** button at your database toolbar.

- To move to the last record, select **Move Last** from the database menu. You also can ***click*** the **Move Last** button at your database toolbar.

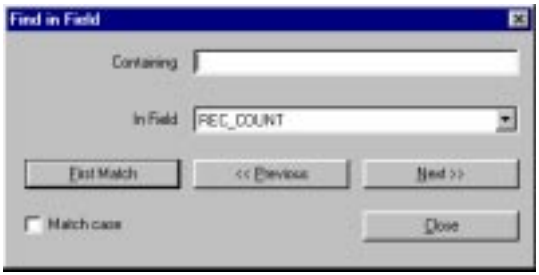
- To move to the next record, select **Move Next** from the database menu. You also can ***click*** the **Move Next** button at your database toolbar.

- To move to the previous record, select **Move Previous** from the database menu. You also can ***click*** the **Move Previous** button at your database toolbar.

The Find Function

¨ **Finding a record**

1. From the Database Menu, select *Find Record*. You also can ***click*** the **Find** button at your database toolbar. The Find in Field dialog box appears.



2. Type the characters (normally names or numbers) you are looking for in the Containing box, select the corresponding field in the In Field box and ***click*** **Find Next**.

Note: Use the First Match, Previous and Next buttons to the define the search direction.The First Match button searches from the beginning of the table and finds the fist record that match the condition.The Previous button searches from the current table position to the beginning of the table.The Next button searches from the current table position to the end of the table.

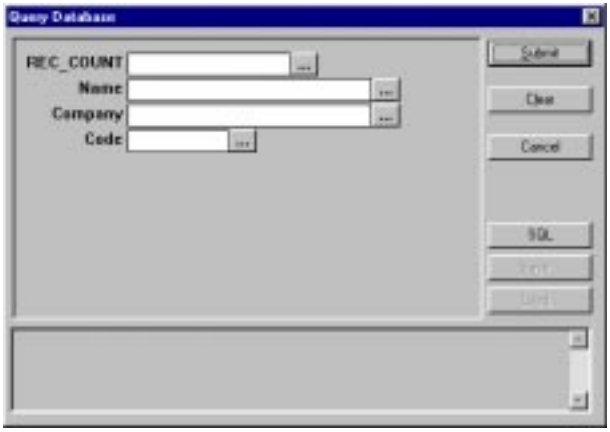
Note: If you click the Match Case check box the Card Software will find only the exact match(es) of what you typed in the Find What box. The Find Function is case sensitive!

3. If no records match or the end of the database is reached the Card Software displays the message: “Card Software has finished searching the table. No more records found”.

The Query Function

¨ **Working with Queries (Filters)**

1. From the database Menu, select **Query**. You also can ***click*** the **Query** button at your database toolbar. The Query Database dialog box appears.



2. To find, for example, all clients, which start with letter **P**, ***click*** the **…** button next to the field which contains your clients names. Edit the query dialog box applying **O** in the Greater than box and **Q** in the **Less than** box.

Tip: You can achieve the same result typing P in both, the Greater Than and Less Than box and enabling the Exact Match check box.

---

3. You may set further comparison condition for other fields.
4. If you are familiar with SQL commands you can edit directly the command string for your query, ***clicking*** the *SQL* button.
5. ***Click*** **Submit** to start the Query function.
6. If you need to know the number of records found, ***click*** **Properties** from the database menu and enable the Record Set Counter check box. The number of records is listed in the box below.

Note: The Query function is not case sensitive!

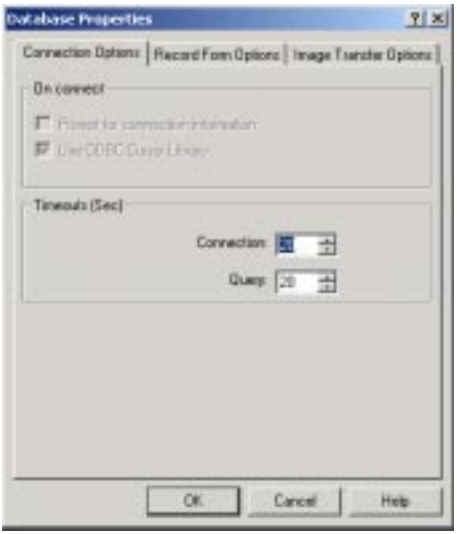
---

7. To access all records again, ***click*** the **Clear** button in the Query Database dialog box.

Note: if you save a card after applying the Query function, the queries performed are saved as well.

Database Interface Properties

Connection Options Tab



Prompt for Connection Information: Normally, communication between the ODBC driver and a database is not visible for the user. If the Prompt is enabled, it allows an ODBC driver to interact with the user (e.g.. asking for login, password or database directory)

Use ODBC Cursor Library: disable this check box only if you are working with a powerful database engine like (SQL Server, Informix, Oracle, etc.). It gives complete control to these engines overriding ODBC drivers.

Connection Time Out: determines the period after which a connection to a data source is interrupted (e.g.: if server is down) and control returned to the Card Software.

Query Time Out: determines the period after which a query to a data source is interrupted (e.g.: if server is down) and control returned to the Card Software.

Record Form options Tab

Allow data edition: check this box if you want to edit a database from within the Card Software. Please note, that not all ODBC drivers permit data edition.

Trailing Decimals: allows you to specify the number of decimal places for numeric floating print data.

Record Set Counter: if enabled the Card Software lists the number of records of a database (or in a query) found.

Design View Refresh Delay: determines the time that the Card Software waits for to refresh the card view, after editing a field in your database.

Browse view | Show Photos: if checked the photos will be displayed also in browse view.

Image Acquisition | Show Image Tools: If checked the image tools will appear during the image acquisition.

Count Records - displays the number of found records of a database (or in a query).

Image Transfer Options

Controls image data transfer between database and the Card Software bi-directionally.

Select, which format you, want to use.

- **DASE** is the proprietary format - Data Abstraction Structured Encapsulation, which permits to encapsulate in a “Long binary” any type of binary data and to mark it with an identifier.

To reduce database size you can enable the Compress Images check box. Images are compressed if greater than the value determined in the corresponding box. If you enable the Use Maximum Compression check box, the best compression to be achieved is applied, but the Card Software may need more time for this performance. The Card Software image compression algorithm is a variant of the LZW algorithm.

- **JPEG**

- **Bitmap**

Memory Usage: Allows you to specify the amount of memory that will be used.

Define View

The Card Software allows you to change the column sequence of the displayed database. From the database menu, select Define View or press the Define View button from the database toolbar. Click on the field name you want to move and drop it at the place you want.

Hide/Unhide Fields

Besides moving you can also Hide/Unhide fields.

¨ **How to Hide Fields**

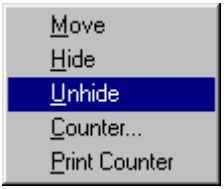
1. ***Click*** the **Define View** button from the database toolbar.

2. ***Right-click*** on the field name you want to hide and choose Hide.

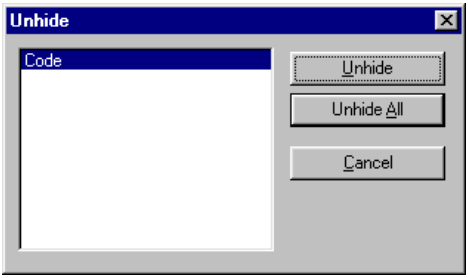
¨ **How to Unhide Fields**

1. ***Click*** the **Define View** button from the database toolbar.

2. ***Right-click*** anywhere on the database area and choose **Unhide**.



3. The Unhide dialog box appears, select the field you want to unhide one by one or ***click*** **Unhide All** to show all the database fields in the database area.



Auto Counter

This option allows you to define an automatic counter for your numeric fields.

¨ **How to Set an Auto Counter**

1. ***Click*** the **Define View** button from the database toolbar.

2. ***Right-click*** the numeric field you want to configure. The shortcut menu appears. Choose **Counter**.

3. The Auto Counter dialog box appears, check **Enable** to activate the counter, set the Next value and the increment value as you wish.

Note: Auto counter can only be add to numeric fields. You can define different counter for different fields.

Print Counter

This option allows you to set a specific field (Interger type only) as a print counter. This means that from the moment you configured a field as Print Counter it's data will be replaced by the number of times the record has been printed.

¨ **How to Set a field as a Print Counter**

1. ***Click*** the **Define View** button from the database toolbar.
2. Right-click the Integer field you want to configure. The shortcut menu appears. Choose **Print Counter**.

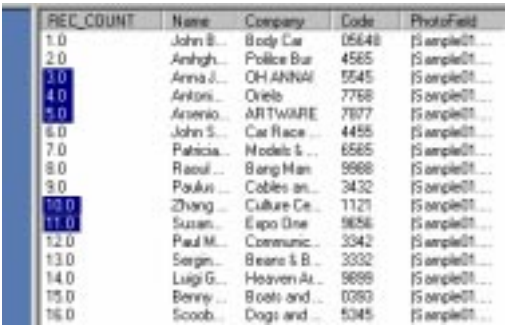
Browse View

 ***Click*** the **Browse/Record** button to change the database display from Record View to Browse View. Use this function to get a list of all available records. To browse quickly to a certain record, just double click it (you must use the first column). The record and its fields is displayed in Record View.

You can also select several records to send to the printer when you are in the Browse View. For that do:

 **1. *Click*** the **Browse** button and select the records you want.

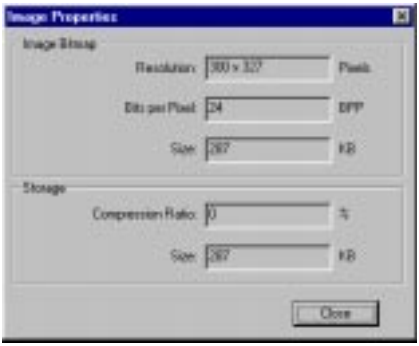
2. You can use the **CTRL + Mouse Pointer** to make a random selection, or **SHIFT + Mouse Pointer** to make a sequential selection. This selection can only be made over the Key field.
3. ***Click*** the **Print** button and on the Database section check the **Print Selected** option. Only the marked records will be printed.



REC_COUNT	Name	Company	Code	PhotoField
1.0	John B...	Body Car	05648	(Sample01...
2.0	Anhgh...	Police Bur	4565	(Sample01...
3.0	Anna J...	OH ANNA!	5545	(Sample01...
4.0	Antoni...	Oriels	7768	(Sample01...
5.0	Arsenio...	ARTWARE	7877	(Sample01...
6.0	John S...	Car Race ...	4455	(Sample01...
7.0	Patricia...	Models & ...	6565	(Sample01...
8.0	Raoul ...	Bang Man	9868	(Sample01...
9.0	Paulus ...	Cables an...	3432	(Sample01...
10.0	Zhang ...	Culture Ce...	1121	(Sample01...
11.0	Susan...	Expo One	9856	(Sample01...
12.0	Paul M...	Communic...	3342	(Sample01...
13.0	Sergin...	Beans & B...	3332	(Sample01...
14.0	Luigi G...	Heaven At...	9899	(Sample01...
15.0	Benny ...	Boats and ...	0393	(Sample01...
16.0	Scoob...	Dogs and ...	5345	(Sample01...

Datbase Image Properties

To open the database image properties dialog box ***right-click*** the database image field. Image size, resolution and compression ratio are displayed.



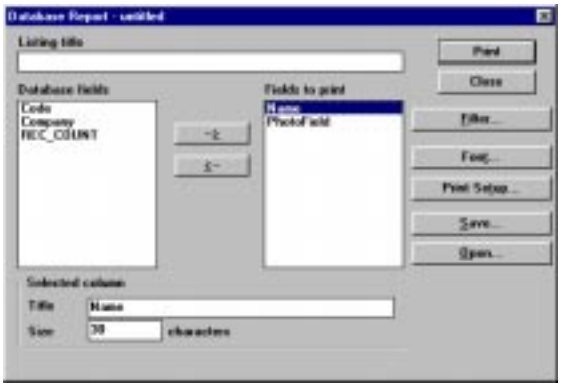
The Card Software Database Reports

The Card Software Database Report is an useful tool, providing you to create, save and print a customizable listing of your whole database or selections thereof.

Create Database Report

¨ **Creating a new database report**

1. From the Database menu, select **Reports** or ***click*** the **Report** button in the Database Toolbar. The Database Report dialog box appears. Type the listing title. Select a field you want in your report from the Database Field box and ***click*** the **Move Right** button. You also can ***double-click*** the field to move it to the Fields to Print box. To deselect a field from the Fields to Print box, select it and ***click*** the **Move Left** button. You also can ***double-click*** the field to move it back to the Database Field box.



Attention: Make sure that the sum of field characters to print isn't larger than the paper width, otherwise the print result will be truncated. If you need you can reduce de display size for a field, for that just enter a lower value in the Size of the Database Report dialog box. You can also change the font size.

2. Save your database report, ***clicking*** the **Save** button. The Save As dialog box appears. Type a filename and ***click*** **OK**.

3. Use eventually the Card Software Filter Functions to make a selection of records.

4. To select the font style and size you want your report printed with ***click*** the **Font**… button. The Font dialog box appears. Make your choice and ***click*** **OK**.
5. Optionally you can change your Printer Setup. ***Click*** the **Print Setup…** button and make your choices (page layout, default printer, print to file, etc.) and ***click*** **OK**.
6. To print your report ***click*** the **Print** button in the Database Report dialog box.

Attention: If you click the Close button without saving your database report, the selection you made will be permanently lost.

Open a Database Report

¨ **Open a database report**

1. From the Database menu, select Reports. The Database Report dialog box appears. ***Click*** the **Open** button. The Open dialog box appears
2. Make your selection and ***click*** **OK**. The Database Dialog box appears, containing the data of your saved report.

The Auto Print Function

The Auto Print concept is a powerful additional database/ print function which permits database edition and automatic print on one or in different workstations. Information about which cards (records) were already printed is automatically added to the database, the Card Software keeps track of the printing process and only newly edited cards (records) will be printed.

Preparing the Card Software for Auto Print

Prepare a Database for Auto Print

Plan the layout of the database to be used for auto print, adding all fields you need to store the information you require. Create one extra field (field type must be numeric or char), which will store the information if cards (records) were printed or not. This field may not be indexed 'unique'. Make sure you choose a database format which comes with an ODBC driver permitting bi-directional editing (like dBase, Access, etc.). If

you need to use an already existing database, add one filed which will contain the print information of the cards (records). If you define an already existing field to contain these information, all data in this field will be erased. The database file must be shareable between different users (may not be exclusive, read only, etc.).

Prepare Workstations

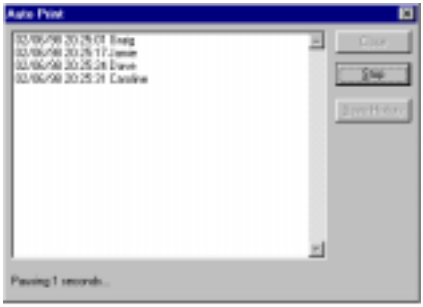
On the first workstation prepare all settings to edit the database you have prepared in step 1. In the second workstation create the card layout and link it to the database (as explained earlier in this chapter). Make sure the Allow data edition check box in the database interface properties dialog box is enabled. Make sure the right printer/ribbon settings are defined (see Appendix B). Save the card document.

Start Auto Print

1. From the database menu select **Auto Print…**. The Auto Print Configuration dialog box appears

2. Define the Print Control Field. From the scroll down menu select the control field you defined before in step 1. If the print control field is text type, it's data will be replaced by a "*****" (or and if the field is big enough the data will be replaced by the print date and time) if the print process was performed correctly, otherwise by "**E**". If the print control field is numeric type, it's data will be replaced by "**1**" if the print process was performed correctly, otherwise by "9".

3. Define a **Guide field.** Choose a field which identifies best each card (record), like a field which includes a name, id-number or similar. Besides the print date and time its contents is displayed in the Auto Print dialog box, helping you to control the print process.
4. Set the **Poll Delay**. This value indicates the time (in seconds) the Card Software will wait before refreshing the database table. After refreshing the table all cards (records), which were not printed yet are sent to the printer.
5. Create Icon on Desktop and Start when opened. Pressing the Create Icon button will create an icon with a shortcut to the Auto Print card document at your desktop. If the start when opened check box is enabled, the Auto Print process starts performing immediately.
6. If you want to apply a filter to the database ***click*** the **Query Filter** button (see earlier in this chapter).
7. Mark all as printed/not printed: These buttons allow to change the information of the complete record set to printed/not printed status.
8. OK/Cancel. The **OK** button saves the Auto Print settings and closes the Auto Print Configuration dialog box. Press Cancel to leave the Auto Print dialog box without saving any changes/ settings.
9. **Start Auto Print**. The final step. ***Click*** this button to perform Auto Print on workstation 2. The Auto Print dialog box appears



10. Stop/Close: Stops the Auto Print function and closes the Auto Print dialog box
11. Save History. ***Click*** this button if you want to save the information displayed in the Auto Print dialog box as *.txt file.

9. Photo in PDF Symbol

The Card Software provides the possibility to encode the information of an image or photo in your database into a PDF symbol. The maximum size of an image, which still can be encoded, is 80 x 80 pixels. If the height or width of an image is larger than 80 pixels, its size will be recalculated to this value, maintaining the image's proportions.

Photo Encoding

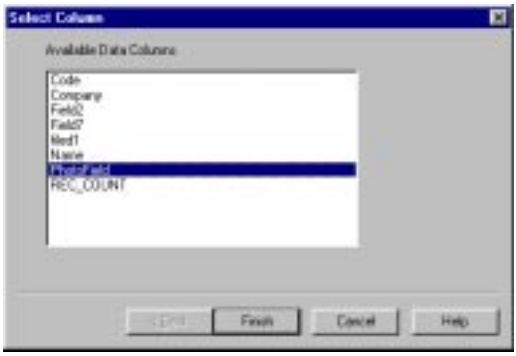
¨ **To encode an image into a PDF symbol**

1. Open or create the card and database with the image you want to encode.

2. On the lower toolbar, ***click*** the **PDF Symbol** tool; the pointer changes to a hand with the PDF icon.

3. ***Click*** on the card where you want to place a corner of the PDF symbol. The PDF Symbol Properties dialog box appears.

4. Select **ODBC Source** as Variable Source. The Source ODBC Properties dialog box appears.



5. Select the column, which contains the image you want to encode.
6. ***Click*** **OK** to close the Source ODBC Properties dialog box. Edit the PDF Symbol Properties you want and ***Click*** **OK**. The PDF symbol appears on the card.

Photo Reader

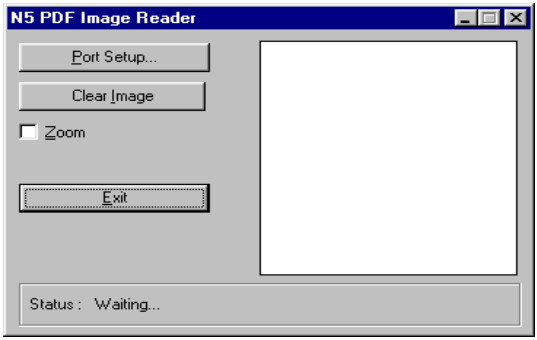
The Photo Reader is a security tool, which you can use in combination with a PDF card reader to decode the image information of a PDF symbol.

Setting up the Photo Reader

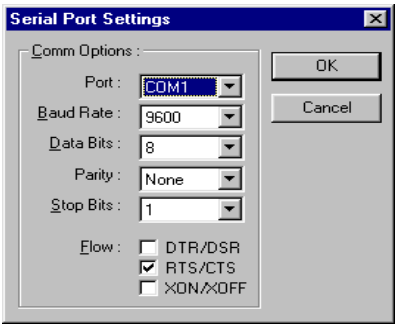
¨ **To set up the Photo Reader**

1. Open the Card Software Program Group. ***Click*** on the Read pdf icon.

2. The PDF Photo Reader window appears.



3. ***Click* Port Setup….** The Serial Port Settings dialog box appears.

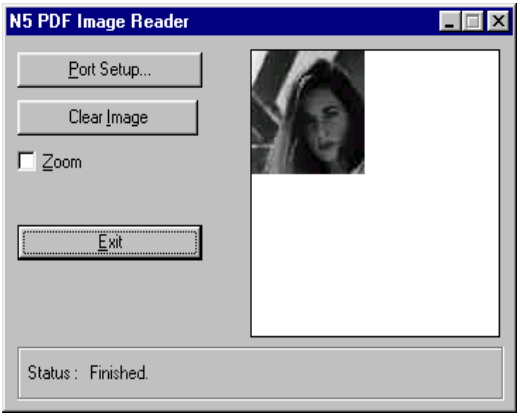


4. Select the port your PDF card reader uses (normally COM2). Check the correct baud rate and data format of your computer system. See your PDF Card Reader manual for the correct settings. ***Click* OK** to confirm your settings.

Reading a Photo

¨ Using the Photo Reader

1. Start the Photo Reader
2. Read the card with your PDF card reader. The encoded image appears (black & white) in the PDF Photo Reader window.



3. To proceed ***click*** **Clear Image** and repeat step 2. To end the PDF Photo Reader session ***click*** **Exit.**

Tip: You can toggle between the Card Software and PDF Photo Reader pressing **Alt + Tab.**

Limitations:

The PDF417 symbol used by the Card Software may contain up to 64K of data. Anyhow, the photo encoding process is limited to 1,5K of data, which composes a PDF symbol still fitting onto the card. Therefore the Card Software uses 3 methods of data compression:

- Colored images are converted to grayscale.
- The maximum size of an image, which still can be encoded, is 80 x 80 pixels. If the height or width of an image is larger than 80 pixels, its size will be recalculated to this value, maintaining the image's proportions.
- The Card Software uses the JPEG logarithm, one of the most powerful data compression formats, to reduce image size to make it still encodable.
- Use uniforme, highly contrasted backgrounds when acquiring an image. Try to reduce the image size to a still acceptable minimum.

10. Image Acquisition

Besides opening images from a file, the Card Software allows direct image acquisition in three ways: using the TWAIN interface, the VfW (Video for Windows) interface or the serial port, combined with a proper application.

The Card Software supports the use of any camcorder and VCR, with video output as well as digital cameras to acquire images.

Image Sources

Open from file: Allows to browse to an image file and open it

Open from File at Print Time: Allows to browse to an image file and open it at print time

Scan: Scans a new image using a defined Twain driver

Scan at Print Time: Scans a new image using a defined Twain driver at print time

Paste: Pastes an image from the Windows clipboard

Point to Image File: links to an image, which location (path) is stored in a related database field

Point to Image Field: links to an image, which is stored in a related database image field

Video for Windows: Acquires an image using the VfW interface (see later in this chapter).

Image Transfer with Video for Windows (VfW)

VfW is the latest standard for image acquisition, an evolution of the older MCI-concept. Camcorders or VCRs produce an analog image dataflux, which is transferred as analog signal from the camera to the capture card and from here to the video card using the PCI-bus. Your operating system must support directX (image-information crosses directly to the capture card) and direct Draw (image information is directly displayed on screen). The image information is transformed into digital data at freeze-time (when captured).

Digital cameras store images on a (floppy) disk as digital information, which can be transferred to the PC using the serial port and a proper application or the Twain interface. Some digital cameras allow also the use of a video capture board (e.g. Canon Ion or Canon Powershot) or the use of a proper video capture board.

Capturing Images

Using the TWAIN interface

Twain is an industry-standard protocol for exchanging information between application software (like this Card Software) and image capture devices such as scanners or camcorders.

After installing a TWAIN driver, you must define, which TWAIN driver the Card Software shall use. Simply use the command Video Sources from the Options menu. To select a TWAIN driver as default TWAIN source click the corresponding Setup button. In the Select Source dialog box choose your Twain driver from the list.

Click the image button from the Drawing toolbar or use the command Image Object from the Drawing Tools menu. Select the area, which the image shall occupy later on the card. The image object dialog box appears. Click the Acquire… button. A driver specific preview dialog box opens, displaying the captured area. Movements are displayed depending on the transfer speed of the capture board. Make your settings and capture (grab) the desired image. The image tools dialog box appears. Make your changes as described in chapter 5, section “Image Tools” .

Using the Video for Windows (VfW) interface

The 32 bit Card Software supports now Video for Windows. VfW is the latest standard for image acquisition, an evolution of the older MCI-concept. Cheap and powerful video capture cards are available on the market, primarily designed for

Internet Video Conferences, but perfectly suitable for image acquisition with the Card Software.

Most of these capture cards are using Brooktree Bt848 chipset, which tackles the tough challenges of blending and displaying the complex video, graphics and text data streams embedded within Intercast video and broadcast transmissions. It supports image resolutions up to 768 x 576 (full PAL resolution).

Image transfer occurs as analog signal from the camera to the capture card and from here to the video card using the PCI-bus. Your operating system must support directX (image-information crosses directly to the capture card) and direct Draw (image information is directly displayed on screen).

Before you can use Video for Windows with the Card Software you must set the video source. Use the **Video Source** command from the **Options** menu. In the appearing dialog box click the **Setup** button for the Video for Windows driver. Choose your VfW driver. The **Source** button calls a driver specific dialog box for the overlay control settings (saturation, brightness, contrast, etc.). The **Format** button calls a driver specific dialog box for the video format settings (image format, dimensions, etc.).

Choose between **Overlay** or **Preview** video mode. Both modes display in a reserved space the image information, coming from the camera. Besides this transfer is digital using the PCI-bus, images don't occupy a processor power and space on our hard disk until freeze-time (capturing and transforming the image into digital). The **Overlay** video mode displays image information in real time. The **Preview** mode is recommendable, if your capture card or it's driver causes conflicts in overlay mode. In **Preview** mode the Card Software takes control over image display, but it's not in real-time.

The **Test** button calls a dialog box, which displays the captured images, depending on the settings above. Click the **OK** button, to confirm all settings.

Life Video Acquisition

¨ **Life video acquisition on your card work area**

1. Use the **Image** button from the drawing toolbar to open the image object dialog box.
2. Choose **Image Source** as variable source and **Video** in the source image properties dialog box. If you want to call automatically the image tools workspace, enable the corresponding check box.
3. After eventually performing changes with the image tools **click** the OK button in the Image Object dialog box.
4. The image appears on your card workspace. **Click** on the image to toggle between freeze and unfreeze.

¨ **Life video acquisition on your database photo field**

1. **Click** inside the database photo field. A shortcut menu appears. Select **Video**. The analog image appears inside the database photo field.
2. To freeze/unfreeze the image (stop the image movement and transform it in bitmap) press **F8**.

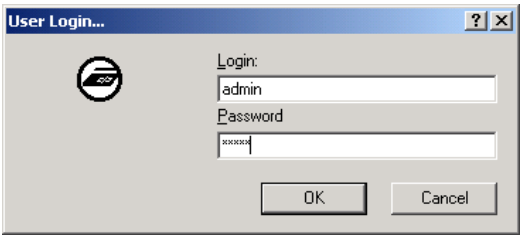
Using the serial port

Some models of digital cameras come with a proper software, which reads the images from the digital camera's floppy disk using the serial port. Save the image(s) in any of the file formats used by the Card Software (*.bmp, *.tif, *.tga, *.pcx, *.jpg).

Use the image objects tool and choose open from file to acquire the desired image.

11. Logins and Passwords

The Card Software provides customizable security and access level. Whenever you start the Card Software the Login Dialog box appears, if the Disable Logins check box is cleared.

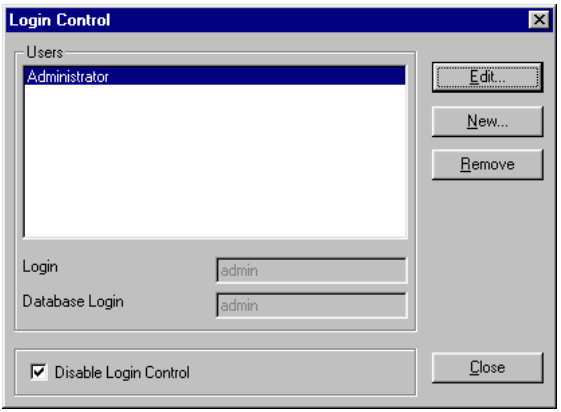


The default login and password is admin. Login means an access level, password the access authorization.

Administrator Login

¨ **Edit Administrator Logins**

1. From the File menu, select **Logins**. The Logins dialog box appears.



2. Clear the **Disable Logins** check box to activate this security feature.
3. Select **Administrator** and ***click*** the **Edit** button. The Edit User Properties dialog box appears.

4. Type a login of your choice. Proceed equal with your Card Software password and confirm it. The database login and password give access authorization to an external database of yours. Make sure all areas are selected.

Create User Login

¨ **Add User Login**

1. From the File menu, select **Logins**. The Logins dialog box appears. ***Click*** the **New** button. The New User dialog box appears.

2. Edit user name, login and password, as well as Database login and password, if necessary.
3. Depending on what kind of job you want your employee may perform select one or multiple access areas.

Permissions

- **No area selected:** The following operations are available for any access area:

- File Menu: open, close cards, exit program.

- View Menu: turn on/off database window, obtain printer info, zoom in/out, view front/back side.

- Window Menu: cascade, tile, arrange icons.

- Help menu: contents, using help, about the Card Software.

- **Can administer Login Control:** permits to edit logins and passwords.
- **Can do Card Design**: permits all card editing functions, including magnetic encoding and chip card setting.
- **Can Print Cards:** permits print cards.
- **Can configure Card and Printer:** permits to operate all print functions.
- **Can edit database data:** permits to edit all databases accessible.

12. Menu Commands

This section summarizes the commands available in the Card Software menus. Depending on the Card Software version/ edition some menu items may be not available.

Main Window

The File Menu

New

Creates a new card file.

Open...

Opens an existing card file.

Close

Closes the active card file

Save

Saves the card to a disk file.

Save As...

Saves the card, with a name you specify, to a disk file.

Card Setup...

Selects portrait or landscape orientation.

Card Print...

Displays the Card Print dialog box to print and/or encode a magnetic stripe/chip.

[Recently used File List]

Provides a means to quickly open a card you recently worked with. The names of up to four recently used files will be displayed. **Click** on the desired file name and the card will be opened and displayed.

Logins

Configuration of user login, password and area access.

Batch Print File Management (Advanced Feature)

Batch print file configuration, preview and printing.

Exit

Exits the Card Software program.

The Edit Menu

Undo

Reverses the last command or action up to 3 levels.

Redo

Reverses the action of the Undo command up to 3 levels. Immediately after you undo an action the Redo command turns available, allowing you to restore what you reversed.

Cut

Deletes the selected object and places it on the Clipboard so you can paste it elsewhere.

Copy

Makes a copy of the selected object and places it on the Clipboard.

Paste

Pastes the object from the Clipboard onto the card work area. A copy of the pasted object remains on the Clipboard until it is replaced by another Cut or Copy command.

Duplicate

Makes a copy of an object and places it slightly offset and overlapping from the original. Unlike the Copy command, Duplicate doesn't place a copy of the object on the clipboard.

Select All

Selects all the objects on the card.

Adjust Bounding

Fits the bounding to the object if applicable.

Fit to Card

Fits the selected object to the card.

Send To Front

Moves the selected object to the front of a stack of other objects.

Send To Back

Moves the selected object to the back of a stack of other objects.

Align

Allows you to align multiple selections of objects.

Object Properties

Edits the object properties.

Use Private Clipboard

Selects the Card Software private clipboard. The private clipboard allows the transfer of all Card Software objects maintaining their properties.

Use Windows Clipboard

Selects the standard Windows clipboard. The Windows clipboard transfers Card Software objects as bitmaps.

The View Menu

Card Front

Displays the front side of the active card.

Card Back

Displays the back side of the active card.

Zoom In

Magnifies the size of the card depicted on the screen.

Zoom Out

Reduces the size of the card depicted on the screen.

Fit Workspace

Displays the entire card document page.

Preview Mode

Displays the card exactly as will be printed. The card appear without grids or guidelines (in despite of menu settings) and the Objects linked to Data Sources are drawn without the bounding box that denotes that case.

Object ToolTips
Displays a brief description of the objects names and size.

Rulers

Let you show or hide the rulers.

Guidelines

Toggles the display of the guidelines that mark the edges of the printable area of the card.

Grid

Toggles the display of the layout grid.

Cross Hair

Let you show or hide the cross hair.

Toolbars…

Let you show or hide any of the individual Card Software Toolbars.

Card Properties...

Displays the card document information of the active card.

The Draw Menu

Selector

Activates the Selector tool, used to select objects.

Line Object

Activates the Line tool for drawing horizontal or vertical lines.

Rectangle Object

Activates the Rectangle tool for drawing rectangles of variable size.

Filled Rectangle Object

Activates the Filled Rectangle tool for drawing filled rectangles of variable size.

Text Object

Activates the Text tool for editing text.

Image Object

Activates the Image tool for editing images.

Bar Code Object

Activates the Bar Code tool for editing bar code symbols.

PDF Symbol Object

Activates the PDF Symbol tool for editing PDF symbols.

Magnetic Code Object

Activates the Magnetic Code tool for encoding magnetic stripe cards.

Smart Card Options

Activates the Chip Card Options for setting the parameters of a chip card processing application

Overlay Varnish...

Defines the size, shape and placement of the overlay coating.

Keep Placing Objects
Keeps the current drawing tool selected.

The Options Menu

Snap to Grid

Toggles the snap to grid option.

Activate Protected Objects

Toggles the read only property of an object.

Video Sources *(Advanced Feature)*

Selects the default Twain and Video for Windows source

Metrics

Configure the measurements unit. You can choose between Inches and Millimetres.

Rulers Settings…

Configure the ruler settings.

Grid Settings...

Selects the horizontal and vertical spacing of the layout grid and toggles the snap-to the grid option.

Front & Back

Configure the front and back layer switching options.

Card Color…

Allows you to change the color of the card.

Workspace Color…

Allows you to change the workspace color.

Default Line Width...

Changes the default line width for all drawn objects that contain lines.

Default Text Font...

Changes the default font for all text objects.

Monochrome Conversion

Allows you to choose between four different algorithms to make the Monochrome Conversion: Threshold, Ordered, Floyd-Steinberg and Burkes. Each algorithm gives slightly different results. You select an algorithm by clicking on it. If you prefer you can Disable the Monochrome Conversion by choosing the Disable option.

The Database Menu

Connect

Connects to a database.

Disconnect

Disconnects from the database.

Browse View

Toggles between the Browse/Record View.

First

Moves to the first record.

Previous

Moves to the previous record.

Next

Moves to the next record.

Last

Moves to the last record.

Find …

Finds data in the current table.

Query …

Sets a search criteria.

Add

Adds a new record.

Delete

Deletes the current record.

Save

Saves the current record.

Reports

Creates and prints database reports.

Properties

Allows to configure the database interface properties.

Define View

Allows to define the database view.

Auto Print …

Sets and activates the auto print function.

The Window Menu

Cascade

Arranges open card windows so that they overlap and the title bar of each window is displayed.

Tile

Arranges open card windows horizontally with no overlapping.

Arrange Icons

Arranges icons.

[Card window list]

Provides a means to quickly display any open card and database or batch print (Advanced Feature) window. The

names of all open windows will be displayed. Click on the desired file name to activate the window.

The Help Menu

Contents

Displays the Card Software Help contents.

Using Help

Displays information about using the Card Software help system.

About Card Software...

Displays the Card Software version serial number and copyright information .

Batch Print File Manager Window

The File Menu

Close

Closes the Batch Print File Manager window.

The View Menu

Back

Switchs between front and back view.

The Log Menu

First

Goes to the first card document.

Previous

Goes to the previous card document.

Next

Goes to the next card document.

Last

Goes to the last card document.

13. Toolbars and Tools

This section provides a summary of the Card Software tools.

The Card Software Tools

"**Tools**" is the term used to describe commands that are available with a single mouse click on a command button.

The command buttons for all the Card Software tools are arranged in various "**Toolbars**". Tooltips which explain the function of each button are displayed if you move the mouse pointer slowly over the buttons.

The Standard Toolbar

The Standard Toolbar contains command buttons for accessing the commands in the File menu, the Edit menu and Help menu.

The tools of the Standard Toolbar are:

 **New** - Creates a new card file.

 **Open** - Opens an existing card file.

 **Save** - Saves the card to a disk file.

 **Print** - Displays the Card Print dialog box to print and/or encode the active card.

 **Cut** -Deletes the selected object and places it on the Clipboard so you can paste it elsewhere.

 **Paste** - Pastes the object from the Clipboard onto the card. A copy of the pasted object remains on the clipboard until it is replaced by another cut or copy command.

Copy - Makes a copy of the selected object and places it on the Clipboard.

Duplicate - Makes a copy of an object and places it slightly overlapping the original. Unlike the Copy command, Duplicate doesn't place a copy of the object on the Clipboard.

Undo - Reverses the last action.

Redo - Redoes the last action that was undone.

Send to Front - Moves the selected object to the front of a stack of objects.

Send to Back - Moves the selected object to the back of a stack of objects.

Card Front Side - Sets the view to the front side of the card.

Card Back Side - Sets the view to the back side of the card.

About - Displays the Card Software version, serial number and copyright information.

Topical Help - Displays help information about a command or window object.

The Drawing Toolbar

The Drawing Toolbar contains command buttons for accessing the commands in the Drawing Tools menu.

The tools on the Drawing Toolbar are:

Selector - Used to select an object.

Line - Draws horizontal or vertical lines.

Rectangle - Draws a rectangle of variable size.

Filled Rectangle - Draws a filled rectangle of variable size.

Text - Defines a text field.

Image - Draws a frame to contain an image.

Bar code - Draws a bar code symbol.

Bar code PDF - Draws a bar code PDF symbol.

Magnetic Encoder - Encodes magnetic stripe cards with fixed or variable data.

Chip Card Encoder - Sets parameters for an external chip processing application.

Overlay Clipping - Defines the size, shape and placement of the overlay coating.

The Database Toolbar

The Database Toolbar contains command buttons for accessing the commands in the Database menu.

The tools on the Database Toolbar are:

Browse View - Toggles between Browse and Record View.

Connect - Connects to a database.

Disconnect - Disconnects from the database.

First - Moves to the first record.

Previous - Moves to the previous record.

Next - Moves to the next record.

Last - Moves to the last record.

Find …- Finds data in the current table.

Query … - Sets a search criteria.

Add - Adds a new record.

Delete - Deletes the current record.

Save - Saves the current Record.

Reports - Creates and prints database reports.

Properties - Allows to configure the database interface properties.

Define View - Allows to define the database view.

The Batch Print Toolbar

The Batch Print Toolbar contains command buttons for accessing the commands in the View and Log menus.

The tools on the Batch Print Toolbar are:

To Print - Sets the Status To Print to a card document.

Error - Sets the Status Error to a card document

Printed - Sets the Status Printed to a card document

Held - Sets the Status Held to a card document

 **Front/Back View** - Toggles between both sides of the card.

 **Print** - Prints cards according to the status checked on the status to print dialog box.

 **First** - Moves to the first card document.

 **Previous** - Moves to the previous card document.

 **Next** - Move to the next card document.

 **Last** - Move to the last record.

 **Close** - Closes the current Batch File

14. Keyboard Shortcuts

This section lists the keyboard shortcuts available for many of the Card Software commands.

Shortcut Keys

Use the following key combinations to execute the command listed next to it. When the keys are connected by a +, it means to press both keys at the same time.

General

Ctrl+F4 - Close. Closes the active Card/Batch Print Window.

Ctrl+F6 - Next. Moves to the next Card/Batch Print Window.

Del - Delete. Deletes the selected object completely without putting a copy on the Clipboard.

Card Work Area

Ctrl+N - New. Creates a New card file.

Ctrl+O - Open. Opens an existing card file.

Ctrl+S - Save. Saves the card to a disk file.

Ctrl+P - Print. Displays the card Print dialog box to print and/or encode a magnetic strip/chip card.

Ctrl+Z - Undo. Reverses the last action.

Ctrl+Y - Redoes the last action that was undone.
Ctrl+X - Cut. Deletes the selected object and places it

on the Clipboard so you can paste it elsewhere.

Ctrl+C - Copy. Makes a copy to the selected object and places it on the Clipboard.

Ctrl+V - Paste. Pastes the object from the Clipboard onto the card. A copy of the pasted object remains on the Clipboard until it is replaced by another Cut or Copy command.

Ctrl+D - Duplicate. Makes a copy of a n object placing it slightly overlapping the original. Unlike the Copy command, Duplicate doesn't place a copy of the object on the Clipboard.

Ctrl+A - Select All. Selects all the objects on the card.
Ctrl+Shift+F - Fit to card. Expands the selected image to fill the full size of the card.

Ctrl+F - Send to Front. Moves the selected object to the front of a stack of objects.

Ctrl+B - Send to Back. Moves the selected object to the back of a stack of objects.

Ctrl+1 - Front side. Displays the front side of the active card.
Ctrl+2 - Back side. Displays the back side of the active card.
+ - Zoom in. Magnifies the size of the card depicted on the screen.

– - Zoom out. Reduces the size of the card depicted on the screen.

Ctrl+L - Guidelines. Toggles the display of the guidelines that mark the edges of the printable area of the card.

Ctrl+G - Show grid. Toggles the display of the layout grid.
Ctrl+K - Keep Placing Objects. Keeps the current drawing tool.

Ctrl+H - Snap to Grid. Toggles the Snap to Grid option.

Database Window

To enable these shortcuts you must focus to the database view, simply clicking into one of the database fields.

F6 - Open from File. Opens an image file from disk

F5 - Paste. Pastes an image from the clipboard to the database image field.

F8 - Freeze. Freezes an image

15. About Bar Codes

This section provides information on bar codes and their use with the Card Software.

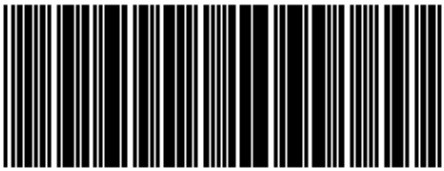
Bar Codes

Introduction

A bar code is a machine-readable symbol representing human-readable information.

The information represented can be alpha or numeric only, limited alphanumeric, or the full character set. The human-readable alpha or numeric characters are represented in the bar code symbol by a series of varying width vertical lines (called bars) and spaces. Bars and spaces together are elements.

An element can be a wide black bar or white space, or a narrow black bar or white space. Each element is assigned a binary value of either “1” or “0”. To represent the necessary character in the bar code, the elements must follow a precise sequential order as part of a group.



Scanning is the process of acquiring or “reading” the information encoded in a bar code symbol. To read the information contained in a bar code symbol, a scanning device such as a light pen is moved across the symbol from one side to the other. As the scanning device is moved across the symbol, the width pattern of the bars and spaces is translated back into the original information. Bar code is an optical technique because information is scanned using light that reflects off dark or light regions of the symbol.

Bar Code Standards

The number of elements and their order is defined by the bar code standard used.

There are many bar code standards to choose from and each standard was developed for the specific data requirements of various industries. Each standard dictates the maximum number of characters a symbol can represent, as well as what kind of data is represented.

Consequently, the number of characters in the information field and the type of information represented will play a role in which bar code standard can be used.

Other considerations include what standard(s) trading partners use, the scanning environment (type of scanner, printable area, symbol durability, etc.) and the symbol printing requirements.

Symbologies

Symbology is the term used to describe the rules specifying the way data is encoded into the elements (bar and space widths) that comprise a bar code standard. Various characteristics further describe the symbology. Some of these characteristics are described below.

- The **Character Set** is the range of data characters that can be encoded into a given symbology. Numeric symbologies only encode numbers; others can encode numbers and letters and are called alphanumeric.
- The **Symbology Type** can be either discrete or continuous. In a discrete type, each character stands alone and can be decoded separately from adjacent characters. A continuous type has no inter-character gaps; the end of one character is the start of the next. This results in a higher density symbology than the discrete type, allowing more information to be encoded in less space, resulting in a smaller bar code symbol.

- The **Number of Element Widths** is either two (wide and narrow) or multiple. Multiple element width symbology is usually the higher density continuous type.
- The symbology **Length** can be fixed or variable.
- **Density** describes the amount of data that can be encoded in a given unit of length.
- A symbology is said to be **Self Checking** if a single printing defect will not cause a character to be transposed into another character in the same symbology.
- A **Start Code** is a particular pattern of lines and spaces indicating the beginning of the bar code symbol. A **Stop Code** indicates the end of the symbol. The start and stop codes are sometimes also used to indicate the scanning direction. In the most common symbology, Code 39, the start and stop codes are asterisks.
- The **Check Character** is used by the scanner to validate that the correct data has been decoded. It is placed in a predetermined position and its value is based on a mathematical relationship of the other characters in the symbol. A Check Digit is a check character that can assume only numeric values.
- A **Bi-directional** symbology can be successfully scanned in either direction. Almost all symbologies in use today are bi-directional.

Card Software Symbologies

The symbologies listed below can be printed with the Card Software.

Summary of Supported Bar Codes

Bar Code Type	Input Length	Encodes	Elements per Character	Characters per Inch
Codabar	2 to 50	D	11	9
Code 128	2 to 50	U-L-D-C	11	9
Code 128 A	2 to 50	U-D-C	11	9
Code 128 B	2 to 50	U-L-D	11	9
Code 128 C	2 to 50	D	5.5	18
Code 39 (3 of 9)	2 to 50	U-D	15	6.7
Code 93	2 to 50	U-D	9	11
EAN/JAN-13	12, 14 or 17	D	7	14
EAN/JAN-8	7, 9 or 12	D	7	14
Extended 39	2 to 50	U-L-D-C	30	3.3
Extended 93	2 to 50	U-L-D-C	18	5.6
HIBC (3 of 9)	2 to 50	U-D	15	6.7
Interleaved 2 of 5	2 to 50	D	9	11
MSI Plessey	2 to 50	D	12	8.3
UCC/EAN-128	19	D	5.5	18
UPC-A	11,13 or 16	D	7	14
UPC-E (11 digit)	11, 13 or 16	D	4	25
UPC-E0 (6 digit)	6, 8 or 11	D	4	25
UPC-E1 (6 digit)	6, 8 or 11	D	4	25
Zip+4 POSTNET	5, 9 or 11	D	5	4.2

U- Upper Case, L - Lower Case, D - Digits, C - Control Characters

Codabar

Codabar is a numeric, variable length, discrete, self-checking, two-element width symbology used mostly by libraries, package tracking systems, and blood banks. Developed in 1972, it was one of the original bar code symbologies. The numbers 0 through 9 and the following six characters comprise its character set: $: / . + -

Code 128

Code 128 is a variable length, alphanumeric, continuous, multiple-element width, high-density symbology used in the shipping industry and on labels. The Code 128 character set

comprises 106 different printed characters, and will use the least amount of space for data of six characters or more of any one-dimensional symbology. Each printed character can have one of three different meanings, depending on which of three different character sets (A, B or C) is employed. Three different start characters tell the scanner which of the character sets is initially being used, and three shift codes permit changing character sets inside a symbol. Every Code 128 symbol ends with a check character.

Code Subset A: includes all of the standard uppercase alphanumeric keyboard characters plus the control and special characters.

Code Subset B: includes all of the standard uppercase alphanumeric keyboard characters plus lowercase alphabetic and the special characters.

Code Subset C: includes the set of 100 digits pairs from 00 to 99 inclusive, as well as special characters. This enables double-density numeric digits (two digits per bar-coded character) to be encoded.

Code 39

Code 39 (also called 3 of 9) is a variable length, discrete, self-checking, two-element width symbology that was the first alphanumeric symbology to be developed. Code 39 is currently the most widely used bar code for industrial and commercial (non-retail) purposes in the world. Every Code 39 character has five bars and four spaces, making a total of nine elements. Three of the elements are wide, hence the name 3 of 9. While being very accurate, Code 39 is not a very dense bar code symbology, taking many bars and spaces to represent a single character. The Code 39 character set consists of the numbers 0 through 9, the upper-case alphabet, and the following characters: **- . $ / + %** and **Space**. Asterisks are reserved as the start and stop characters.

Code 93

Code 93 is a variable length, alphanumeric, continuous, four-element width symbology specifically designed to complement Code 39. The two symbologies can be freely mixed in an environment with no software change required. Because of its small size, it is used on electronic components, but it is a not very popular bar code symbology.

Code 93 encodes 43 data characters consisting of: **0-9, A-Z**, 6 symbols and **space**, four control characters and a unique start/stop character. The entire ASCII character set can be encoded using the expanded version similar to Code 39. Code 93 can encode the same characters as Code 39, but has the advantage of being smaller.

EAN//JAN-13

EAN-13 is one of two versions of the European Article Numbering system (EAN) and is a superset of UPC. EAN-13 has the same number of bar as UPC version A, but encodes 13th digit. The 12th and 13th define the country code. The codes 00-04 and 06-09 are assigned to the United States.

The EAN-13 code numbers are assigned by numerous international agencies.

EAN-13 code support the numeric characters:

0123456789

EAN-13 bar code height, by specification, is six (6) individual EAN-13 bar code characters high.

EAN//JAN-8

European Article Numbering, now also called IAN (International Article Numbering), is the international standard bar code for retail food packages corresponding to the Universal Product Code (UPC) in the United States. The symbology is used to encode a seven-digit EAN-8 number. A eight digit is a check digit that is automatically generated by the printer.

The EAN code number and check digit are assigned by numerous international agencies.

EAN-8 code support the numeric characters:

0123456789

EAN-8 bar code height, by specification, is six (6) individual EAN-8 bar code characters high.

Extended Code 39

The Extended Code 39 bar code supports every character in the ASCII set, except for ASCII 0 and those above ASCII 127. This enables full support of upper case and lower case letters, as well as control codes.

Extended Code 93

The Extended Code 93 bar code uses Code 93 to encode the entire 128 ASCII characters.

HIBC (3 of 9)

The Health Industry Bar Code (HIBC) is a modified Code 39 bar code. This bar code uses all of the characters of Code 39. The application automatically inserts the required '+' character after the start character and before the stop character.

Interleave 2 of 5

The name Interleaved 2 of 5 is derived from the method used to encode two characters. In the symbol, two characters are paired, using bars to represent the first and the interleaved spaces to represent the second character. Each character has two sets, one bars and one spaces. Each consisting of two wide elements and three narrow elements. Bars and spaces are wide or narrow and the wide bars are set by the ratio.

Interleaved Two of Five code support the numeric characters:

0123456789

It will be automatically added a leading zero (0) to the odd number of bar code data characters.

The supported ratio of narrow bar to wide bar widths are:

2:1, 2:5 (2.5:1), and 3:1.

The minimum recommended height of a Code 2/5 bar code is 0.25 inches (6.35 mm) or 75 dots.

MSI Plessey

MSI is a numeric, variable-length (up to 15 digits), continuous, low-density, symbology developed in the early 1970s for (mainly) retail shelf marking and inventory control.

Each four-bit character is 12 units wide, with each zero bit being a one-unit bar followed by a two-unit space, and each one bit being a two-unit bar followed by a one-unit space.

The complete symbol includes a start pattern, data characters, one or two check digits, and a stop pattern. Though MSI is a variable-length symbology, it is usually used in a fixed-length format since it is not self-checking. The character set comprises the ten digits plus six additional characters.

UCC/EAN-128

UCC-128 is the name given by the Uniform Code Council to a specially defined subset of Code 128 used most often for shipping containers.

Telepen

Telepen is an old, numeric two-part symbology used mainly in England.

UPC-A

UPC-A (Universal Product Code) is a numeric, fixed-length (12 digits), continuous, four-element width symbology and encoding system, used since 1973 almost exclusively by the retail industry. This makes UPC the most widely used bar code in North America.

It was designed to uniquely identify a product and its manufacturer. In the U.S., manufacturers numbers are assigned by the Uniform Code Council in Dayton, Ohio.

It is important to differentiate between the UPC coding scheme and the UPC symbology. The actual UPC code is a 10-digit code: the first five digits represent the manufacturer, and the next five digits contain a unique product number. This 10-digit code is preceded by a “number system” digit and followed by a check digit, based on the preceding 11 digits and used for error detection.

UPC-E

UPC-E is also a numeric, fixed-length symbology, but is limited to six digits versus the 10 digits of UPC-A. It is used where space is at a premium, such as a small product label.

The application supports three forms of UPC-E. You can select UPC-E System 0 to enter six numbers an let the application give you a bar code with those same digits for system number 0. Choosing UPC-E System 1 gives you the same six numbers for system number 1. If you chose e UPC-E11, you are required to perform a zero-suppression check.

Zip+4 POSTNET

The Zip+4 Postal Code (POSTNET Bar Code) is a bar code that is placed on envelopes or postcards to be mailed. It is used by the United States Postal Service (USPS).

The POSTNET bar code is made up of evenly-spaced tall and short bars. There 5, 9 or 11 digits plus a correction digit encoded into every POSTNET.

16. About PDF Symbols

About Two-dimensional Bar Codes

The typical bar codes we have been discussing in Chapter 15, "About Bar codes" are one-dimensional. Since they have height and width, you may wonder why they are called one-dimensional. It's because when they are read, it is only the width of the bars and spaces that is taken into account. The height of the bars is only to give the symbol some built-in redundancy. Typical bar code symbols, therefore, are only read in one dimension. Another important aspect of one-dimensional bar code symbols is that they seldom represent more than a dozen characters. Therefore, the bar code usually does not contain any data, per se. Rather, the bar code most often represents the key to a record in a database, where the related information is stored.

Two-dimensional (2D) bar code symbols surpass these two preclusions. Data is encoded in both the height and width of the symbol, and the amount of data that can be contained in a single symbol is significantly greater than that stored in a one-dimensional symbol. In fact, over a thousand alphanumeric characters can be placed in a single symbol the size of a large postage stamp! Obviously, the main advantage of using 2D bar codes is that potentially a large amount of easily and accurately read data can accompany the item to which it is attached. There are new applications being created for 2D bar code technology every day.

The reading (scanning) of 2D codes is accomplished using different scanners than those made to scan 1D symbols. Two strategies are currently used. The first and most common, uses a moving laser beam scanner that not only sweeps back and forth across the symbol, but also up and down in what is termed a "raster" pattern. Alternately, CCD (charge-coupled device) scanners are used. CCD scanners use a two-dimensional array of photo-sensors to scan the image in its entirety.

One of the beneficial aspects of two-dimensional symbols is

their potential durability. To sabotage the readability of a 1D symbol, one only has to add another bar to the beginning or end of the symbol or draw a line through the symbol, parallel to the stripes.

This throws off the checks and balances, built into the decoding algorithms of a 1D decoder and makes the symbol unreadable. By comparison, many degrees of redundancy can be built into a 2D symbol. While it makes the symbol somewhat larger, the remaining symbol is remarkably secure.

There are a number of two-dimensional symbologies in growing use today. The 2D bar code supported by the Card Software is PDF417.

PDF417

PDF417 is a multi-row, two-dimensional, high-capacity, high-density bar code developed by Symbol Technologies, Inc. and announced in 1990. It essentially consists of a stacked set of smaller bar codes. The symbology is capable of encoding the entire (255 character) ASCII set. PDF stands for "Portable Data File" because it can encode as many as 2725 data characters in a single bar code comprising 17 modules, each containing 4 bars and spaces (thus the number "417"). Each symbol has a start and stop bar group that extends the height of the symbol.

The complete specification for PDF417 provides many encoding options including data compression options, error detection and correction options, and variable size and aspect ratio symbols. The low level structure of a PDF417 symbol consists of an array of code words (small bar and space patterns) that are grouped together and stacked on top of each other to produce the complete printed symbol. An individual code word consists of a bar and space pattern, 17 modules wide. The user may specify the module width, the module height, and the overall aspect ratio (overall height to width ratio) for the complete symbol. A complete PDF417 symbol consists of at least 3 rows of up to 30 code words and may contain up to 90 code word rows per symbol with a maximum of 928 code words per symbol.

The code words in a PDF417 symbol are generated using one of three data compression modes currently defined in the symbology specifications. This allows more than one character to be encoded into a single data code word. Because different data compression algorithms may be used, it is possible for different printed symbols to be created from the same input data.

The symbology also allows for varying degrees of data security or error correction and detection. Nine different security levels are available with each higher level adding additional overhead to the printed symbol. Using a higher level of security will give you a better chance to decode information in a damaged bar code. The error-correction capability uses built-in error detection code words, to reconstruct partially destroyed bar codes. It works by checking the value of columns and rows, and then calculating and rebuilding the data missing from any damaged cells.

17. The Twain Interface

This section explains the Twain interface.

Overview of Twain

Twain is an industry-standard protocol for ex-changing information between application software (like this Card Software) and image capture devices such as scanners or video cameras.

It was developed by a coalition of imaging hardware and software manufacturers, and eliminates the need to close the application software in order to scan an image.

Goals of Twain

The primary purpose of Twain is to solve the need for consistent, easy integration of sophisticated input devices and the information they generate for use in any Twain-compliant software.

The Twain Process

The Old Way

In the past, the process for scanning images into an application was to:

1. Create a document in an application.
2. Close the application.
3. Open the scanning software.
4. Scan the image.
5. Save the image to a file.
6. Close the scanning software.
7. Open the document application again.
8. Find the scanned image file.
9. Import the image file.
10. Place and size the image in the document.

The Twain Way

With Twain hardware and software the process is to:

1. Create a document in an application.
2. Select Acquire from the document application's File menu.
3. ***Click*** final scan from the Twain source.
4. Place and size the image. Obviously, the process of acquiring images has been greatly simplified.

History of the Twain Consortium

In early 1990, a substantial number of industry representatives joined the Macintosh Scanner Roundtable, which was formed by Dave Nelson of Nuvo Labs. This group broadened industry awareness of the need for an open interface, and defined technical issues for the integration of raster (bitmap) devices and applications.

While participation was active, it was difficult to resolve issues and progress was slow. At one of the Roundtable's last meetings in 1990, it was suggested that a small group of industry leaders form a consortium and create a specification for review, revision, and ultimate adoption by the imaging industry.

The "Twain" consortium was formed soon after that from representatives of Aldus, Caere, Eastman, Kodak, Hewlett-Packard and Logitech. The goals of this smaller workgroup were to resolve technical and marketing issues of the open interface as quickly as possible, and then to circulate the specification among the developer community for review and feedback.

The group was designed to be as small as possible (so the specification could be written quickly), while maintaining representation from a wide spectrum of application developers (desktop communications and OCR) and hardware vendors (hand-held scanners, desktop scanners, and high-end color scanners).

Working group members represented diversity in the industry, and brought in-depth imaging experience to both the hardware and software development and marketing fields.

A key requirement of participation was that companies in the working group have been willing to represent an interest, passing the elementary interest of each company. The primary goal of this effort was to raise the awareness of a new end-user base through an easy-to-use image acquisition functionality integrated directly into the user's application and work flow.

The effort was successful and resulted in the Twain interface specification.

18. Printing

This section explains how to setup your printer, the setup for ribbon and the procedure to print your cards. For specific information about your printer, see the printer user manual.

Printing Process

Printer Setup

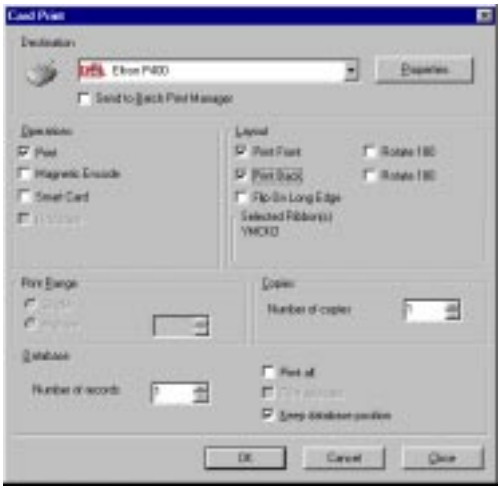
Before you use a specific printer for the first time you must tell the program which printer port to use, the ribbon type and other specific options. In most cases the default configuration makes this step obsolete.

Printing Cards

Printing cards with the Card Software is easy. It's the final step after the card design process.

¨ **To print cards**

1. From the File menu, choose **Card Print**; the Card Print dialog box appears.



2. Select the **Destination** corresponding to the installed card printer. Use the properties button to change the selected printer configuration. Destination may be a specific printers (see further in this chapter section Specific Printers) or any printer through Windows driver (see further in this chapter section Print with Windows Driver).
3. In the Operation section, select the operation(s) to perform when printing.
    - **Print** will print a card containing all the objects you placed on the card.
    - **Magnetic Encode** will write data to the magnetic stripe on the card (see Appendix C - "Magnetic Encoding").
    - **Smart Card** will call an external chip card processing application (see Chapter 7 - "Chip Card").
    - **Hologram** will print a hologram on your cards. Contact your ribbon supplier to inform you about hologram ribbons.
4. If you are using a printer with a card-flip assembly check both **Print Front** and **Print Back** to print both sides of the card in one passage. Select **Rotate 180 Degrees** if you want the card to be printed "upside down" , this options is available for each card layer separately. This feature can be used if, for example, you wish to punch a hole in the card on the opposite side of the magnetic stripe, avoiding that way to damage the stripe. Check the **Flip on Long Edge** option to reverse the back side of the card, when printing both sides of the card. Information about the selected ribbon(s) will be displayed.
5. In the Print Range section select **Single** (1) or **Multiple** (2 or more) cards to print. If printing multiple, enter the number of cards to be printed.

6. If you using a database (Advanced Feature only) select the **Print All** box to print all records, or the type the **Number of Records** to be printed. If you want to print the previously selected range of records check the option **Print Seleced** (see earlier Chapter 8 - "Card Software and Database" section Browse View). If the **Keep Database**

Position is not checked, the record displayed after a database print process is the record next to the last printed.

7. In the **Copies** section enter the number of copies of each card to be printed.
8. ***Click*** **OK**. If you are printing variable data, you may be prompted to enter data from the keyboard, select an image file or acquire an image. Otherwise, your card will be printed, while on-screen messages keep you informed of the progress.

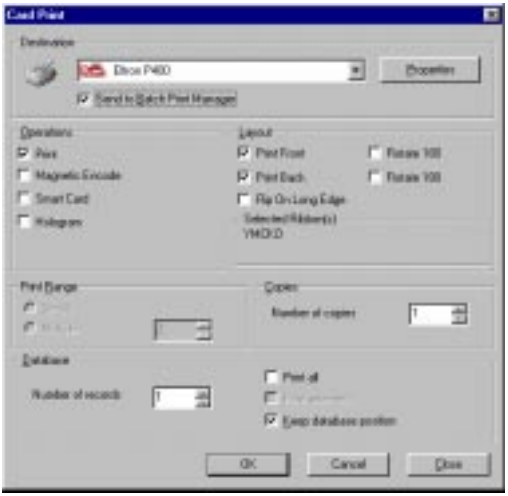
Print Manager

The Card Software allows you to create a batch file, which contains data of one or more card documents instead of printing the card documents right away.

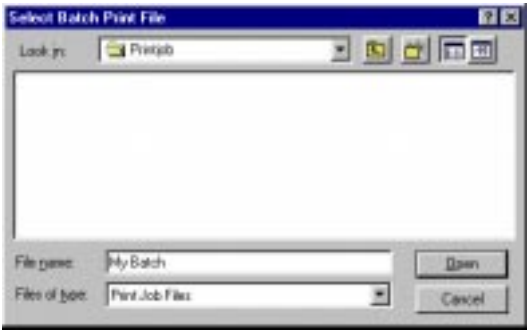
Printing to a File

¨ **To create a batch print file**

1. From the File menu, choose **Card Print**. You can also ***press*** the shortcut **Ctrl+P**. The Card Print dialog box appears.



2. In the Destination section check the option **Send to Batch Print Manager**. All other options work the same way as printing a card document directly (see above "Printing Cards"). If you want to print multiple cards and/or multiple copies, perform magnetic encoding or chip card processing you have to set these options before you proceed with step 3.
3. ***Click* OK**. The Select Batch Print File dialog box appears.



4. Select the file you want to append, or create a new batch print file giving a new name.
5. ***Click* Open** to complete the action. The Batch Print Job List and Batch Print Preview windows open.

The Batch Print File Manager

¨ To print cards

1. From the File menu, choose **Batch Print File Management**. The Select Batch Print File dialog box appears. Select the name of the document you want to open and ***click* OK**. The Batch Print Job List and Batch Print Preview windows appear.

Note: The Batch Print Job List contains card documents (*.car) itself and the (multiple) cards inside each card document.

2. Browse through the Batch Print Job list using the **Move** buttons at your Batch Print Toolbar. You can also use the up and down arrows of your keyboard.
3. You can control the card design and its variable fields (in case your card document contains multiple cards) in the Batch Print Preview window. To toggle between both sides of the card click the Front/Back View button.
4. Select the card document you want to print. ***Click*** the **Print** button at your Batch Print Toolbar.

Tip: If the selected card document contains multiple cards, you can print one specific card by selecting it instead of the card document itself.

Batch Print Options

¨ **Print Status Symbols**

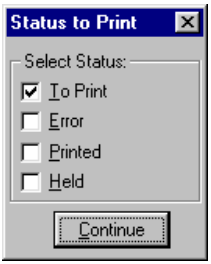
⌛ **To Print:** Cards marked with this symbol are ready to print.

✘ **Error:** If an error occurrs while printing, the card marked is with this symbol.

✋ **Printed:** Cards marked with this symbol were printed properly.

✓ **Held:** Cards marked with this symbol are excluded from printing.

- **Printing using Print Status:** Over the card document **click** the print button. The Status to Print dialog box appears. Select the status you want. All cards marked with the corresponding symbol will be printed. **Click Continue** to proceed.



Tip: You can manually change the Print Status of each card. Select the card you want to change. Click the status symbol you want at the Batch Print Toolbar. If you want to change the print status equally for all card included in the card document, select the card document and click the status button you want apply.

Print with Windows Driver

Printer Types

The Card Software allows you to print on any printer which is provided with a proper Windows driver.

Card Printer

Using the proper Windows printer driver for your card printer the Card Software allows you to use any card printer. For special printer/ribbon settings see your card printer documentation as well as related help files.

Besides that the Card Software allows you to use any card printer it also permits to work on card layout, database edition, etc. at print time simultaneously.

Label Printer

The Card Software allows you to print on any Label printer which is provided with its proper Windows driver.

Note: the label size settings must have the same measurements as the standard plastic card format (88.7 x 54.2 millimeters).

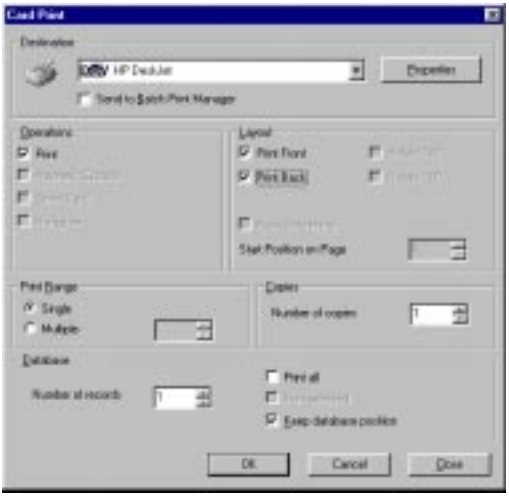
Paper Printers

The Card Software permits to print on paper with any Laser, Ink Jet or Needle printer, which comes with a proper windows driver. The Card Software' s special column and row settings permit to print front and back side of the card on the same sheet as well as several cards on one sheet. This concept permits to print card proofs on paper or creating low cost cards using paper lamination.

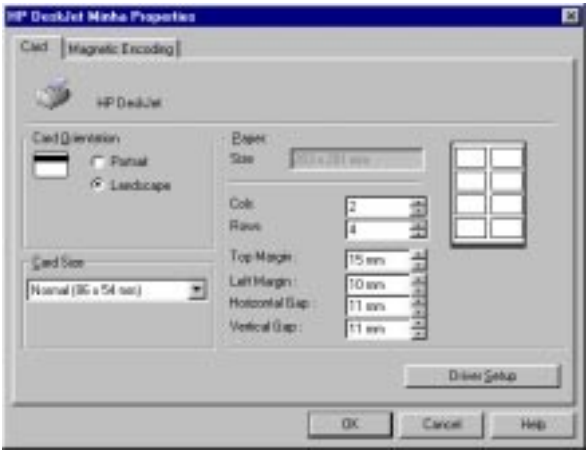
Card Setup

¨ **Setting up the card**

1. To setup the card, using a Windows Printer Driver, from the File menu choose **Card Print.** Choose the printer name you want to work with. ***Click*** **Close**.



2. The properties button allows you to perform driver driver specific settings (see your printer documentation) like paper size, orientation, etc.
3. From the File menu choose the **Card Setup**. The selected printer dialog box appears.

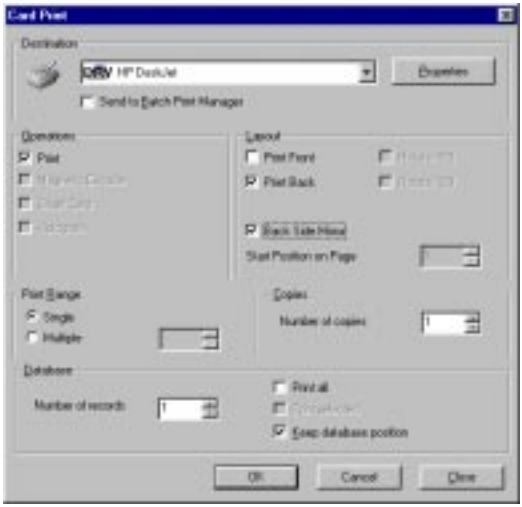


4. Set the card orientation to Portrait or Landscape and select the correct card size. The paper section displays the paper size you defined when setting your printer properties (see above, steep 2). The Card Software allows you to print both sides of the card on the same page (when using paper), for that select 2 in the cols section. The Card Software allows you to print several cards by page (when using paper) for that select the number of rows to print (max 5).

Special Windows Driver printing Options

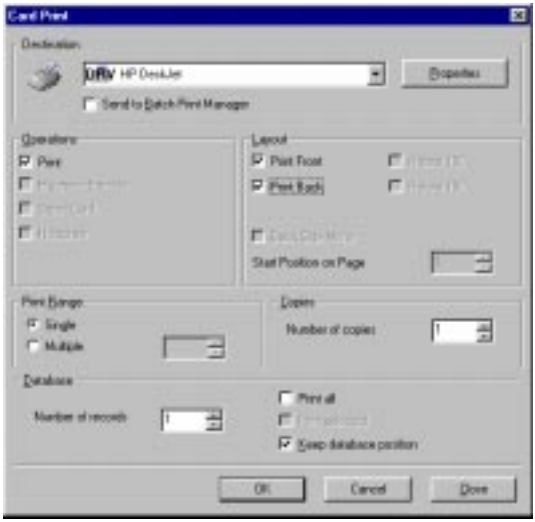
- ***Print Front and Back***

The Software allows you to print both sides of the card in the same sheet of paper, where you will have the front side of the card on a page and the back side on the other. To do that you will have to print the front first, switch the paper, check the option **Back side Mirror** and print the back side.



· ***Print Front and Back side by side***

If you prefer you can print front and back side by side in the same page. For that select 2 in the cols section (on the Card Setup dialog box), and check both Print Front and Print Back options on the Card Print Dialog Box



Print to a Specific Printer

Specific Printers

Specific printer is a printer to which the Card Software communicates through DCL - Direct Language Command.

The available specific printers are:

Apprint series - see Appendix B1 for more information

CIM series - see Appendix B2 for more information

Digicard series - see Appendix B3 for more information

Eltron series - see Appendix B4 for more information

Fargo series - see Appendix B5 for more information

Magicard series - see Appendix B6 for more information

NBS series - see Appendix B7 for more information

Polaroid series - see Appendix B8 for more information

Ulrich Series - see Appendix B9 for more information

New Specific Printers

Atlantek series - see Appendix B10 for more information

New Hermes series - see Appendix B11 for more information

Appendix A - Image Tools

The Image Tools is a collection of tool buttons and menu commands available to enhance the selected image.

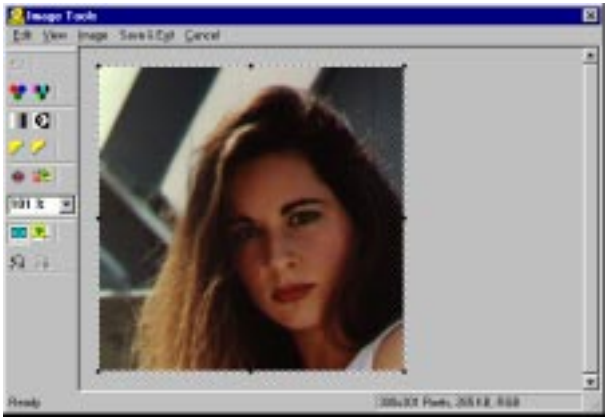


Image Tools Menu Commands

Edit Menu

Undo: Reverses the last command performed and returns the image to its previous state. Quickly perform this command clicking the corresponding tool button.

Keep Ratio: The tracker rectangle maintains its previously defined height and width relation.

View Menu

Toolbars: Shows or Hide the toolbar.

Zoom in: Zooms in the view.

Zoom out: Zooms out the view.

Image Menu

Adjust Colors: The command **Contrast** decreases or increases an image contrast by moving the RGB (red , green, blue) tracker bar. Unlock the control field **Lock** to change values for RGB separately. Quickly perform this command clicking the corresponding tool button. The command **Brightness** decreases or increases image brightness by moving the RGB tracker bar. Unlock the control field **Lock** to change values for RGB separately. Quickly perform this command clicking the corresponding tool button.

Effects: The command **Blur** decreases the contrast between pixels, the image appears smoother. **Sharpen** increases the contrast between pixels, the image appears more focused. **Sharpen More** has the same effect, but with higher intensity. **High Contrast** lets you set a threshold value to kodalith an image

Grayscale: Converts the image from color to gray

Remove Noise: Removes graining by averaging areas of the image.

Convert to Monochrome: Coverts the image to monochrome.

Convert to RGB: Converts the image to RGB

Crop: This command is only available, after selecting an image area with the select button from the image tools toolbar. Define the area you want to keep by dragging and resizing the

selection rectangle. Then use the command Crop from the Image menu.

Save & Exit Menu

Closes the Image Tools dialog box, saving all settings made.

Cancel Menu

Closes the Image Tools dialog box, not saving any settings made.

The Image Tools Toolbar

The Image Tools Toolbar contains a collection of command buttons to enhance the selected image.

The tools on the Image Tools Toolbar are:

 **Undo** - Reverses the last command performed and returns the image to its previous state.

 **Brightness** - Fast access to adjust image colors.

 **Contrast** - Fast access to adjust image colors.

 **Grayscale** - Converts the image from color to gray.

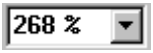
 **High Contrast** - lets you set a threshold value to kodalith an image.

 **Sharpen More** - Applies the Sharpen More effect.

 **Sharpen** - Applies the Sharpen effect.

 **Blur** - Applies the blur effect.

 **Remove Noise** - Removes graining by averaging areas of the image.



Zoom - Zoom control.


Aspect Ratio - Turns on or off the Keep Ratio option.


Crop - Allows you to crop the image.


Convert to Monochrome - Applies a dithering conversion to monochrome.

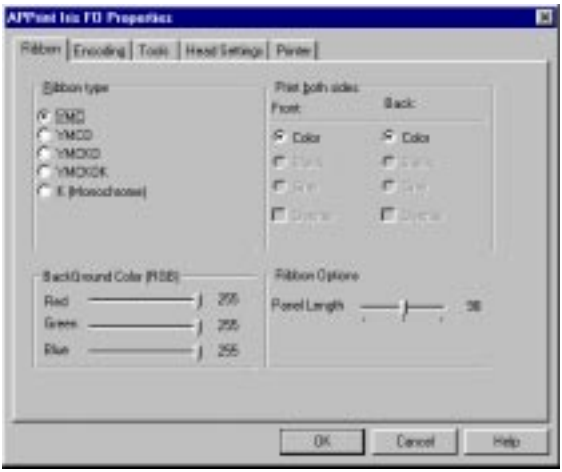

Convert to RGB - Converts a mono bitmap to color.

Appendix B1 - Apprint series

This section explains the specific properties of the Apprint series printers.

Ribbon

Click the **Ribbon** tab to setup the ribbon you want to use.



Ribbon Type

Select the type of ribbon you have installed on your printer.

YMC - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan)

YMCO - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan) and an overlay panel.

YMCKO - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan), a black resin panel and an overlay panel.

YMCKOK - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan), a black resin panel,

an overlay panel and an additional black panel. This ribbon selection is used in conjunction with the Front and Back options.

K (Monochrome) - This is a single-color resin ribbon.

Scratch - This ribbon is a single panel ribbon, that print's a area that can be scratched.

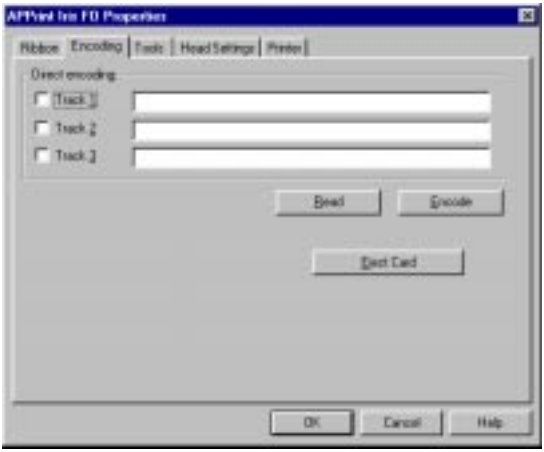
If you are using a printer with the ability to print both sides of the card, you can choose the colors to be used on each side.

The **Background Color** option allows you to configure the RGB values for the background color.

The **Ribbon Options** allows you to set the panel length

Encoding

Click the **Encoding** tab to change the encoding settings.



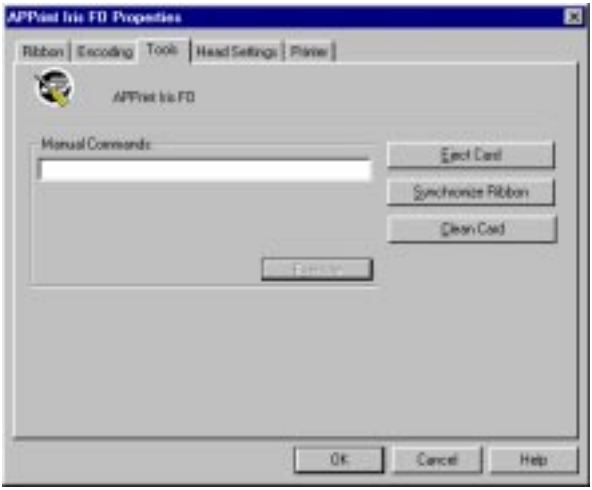
The **Direct Encoding** section allows you to read or encode the data of the checked track(s). The following table lists the number and type of characters alloed for each of tree tracks.

Track	Character Limit	Allowed Characters
1	79 alphanumeric	ASSCII codes 32-95 Field Separator is ^
2	40 numeric ASCII	ASSCII codes 48-63 Field Separator is =
3	107 numeric ASCII	ASSCII codes 48-63 Field Separator is ^

Note: For more information see Appendix C - Magnetic Encoding.

Tools

Click the **Tools** tab to communicate directly with the printer.



The **Manual Commands** field allows you to execute various printing commands. See your printer manual.

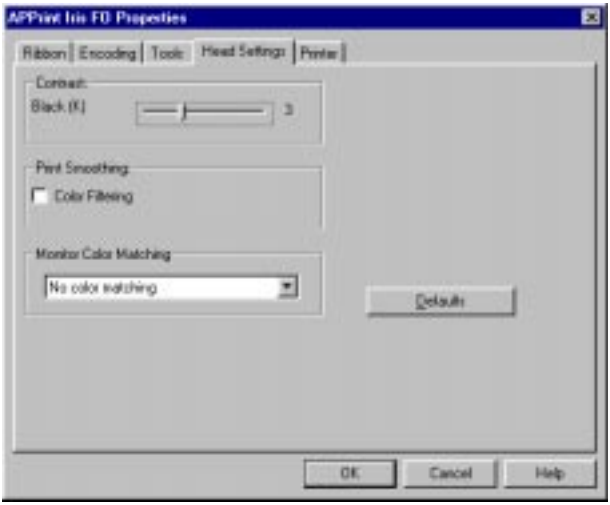
The **Eject Card** button moves and exits a single card from any position between the card feeder and the output tray and automatically synchronizes the ribbon.

The **Synchronize** Ribbon button automatically synchronizes the selected ribbon.

The **Clean Card** starts the cleaning printer process.

Head Settings

Click the **Head Settings** tab to adjust the head settings configurations for the current printer.



Color Contrast - Set the value of black to adjust the amount of heat applied to transfer a maximum contrast.

Pint Smoothing - Allows to smooth the color banding effect.

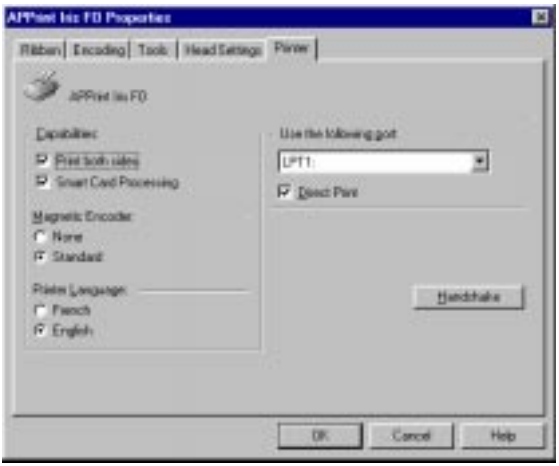
Monitor Color Matching - Tries to match the monitor colors with printed colors

Warning: Changing these values can adversely affect the operation of the printer.

Click **Defaults** to reset the settings in this tab to the original values.

Printer

Click the **Printer** tab to configure the printer and the printer capabilities.



Select the printer port to which you connected your printer, usually LPT1.

Use the **Handshake** button to recognize the printer capabilities directly (only available when Direct Print options is checked). Or if you know the printer capabilities check them manually.

The printer capabilities are listed below:

Print Both Sides - ability to print both sides of the card. Only available if your printer is equipped with a card flip assembly.

Smart Card Processing - allows to plug in an exe file (typically a chip card processing software) during the print process.

Choose the type of magnetic encoder installed in your printer.

Select your printer language French or English.

Specific Options

Special Apprint Iris TD property

Click the **Specific Options** tab to configure the Erasing Contrast, temperature settings, the erasing process, printers Ohmic values and the print zone.

Erasing Contrast - Allows you to set a new value for the contrast.

Temperature Settings - Allows you to set for the Level Number and for the Compensation Type.

Erasing Process Setup - Allows you to set the values for the PreHeating Passes for Erasing.

Printers Ohmic Value - Define the new value and click Set to apply.

Printing Zone - Allows you to change the values for the Printing Zone.

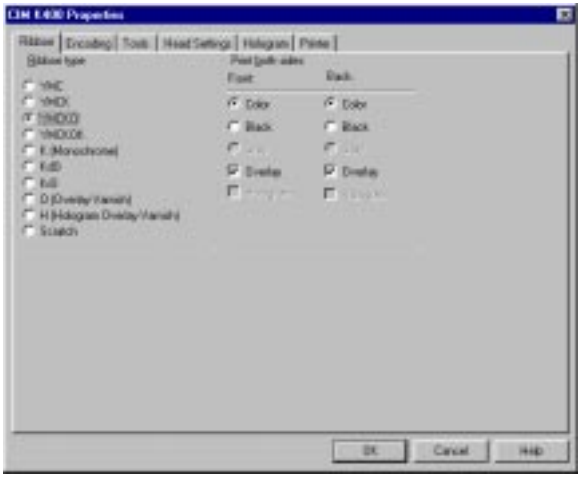
Click **Defaults** button to reset the settings to the factory default values.

Appendix B2 - CIM series

This section explains the specific properties of the CIM series printers.

Ribbon

Click the **Ribbon** tab to setup the ribbon you want to use.



Ribbon Type

Select the type of ribbon you have installed on your printer.

YMC - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan)

YMCO - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan) and an overlay panel.

YMCKO - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan), a black resin panel and an overlay panel.

YMCKOK - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan), a black resin panel,

an overlay panel and an additional black panel. This ribbon selection is used in conjunction with the Front and Back options.

K (Monochrome) - This is a single-color resin ribbon.

KdO - This ribbon has sections comprising one black dye-sublimation panel plus one overlay panel.

KrO - This ribbon has sections comprising one black resin panel plus one overlay panel.

O (Overlay Varnish) - This ribbon is a single overlay panel ribbon.

H (Hologram Overlay Varnish) - This ribbon is a single hologram panel ribbon.

Scratch - This ribbon is a single panel ribbon, that print's a area that can be scratched.

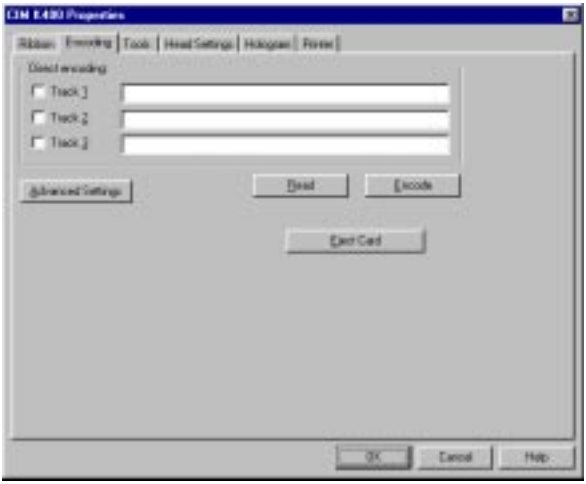
If you are using a printer with the ability to print both sides of the card, you can choose the colors to be used on each side. For the listed ribbons, the Card Software allows the following Front/back combinations.

Ribbon	Front	Back
YMC	Color	Color
YMCK	Color	Color
	Color	Black
	Black	Color
YMCKO	Color	Color
	Color	Black
	Black	Color
YMCKOK	Color	Color
	Color	Black
	Black	Color
K (Monochrome)	One color	One color
KdO	Gray	Gray
KrO	Black	Black

Note: The 5 Panel Ribbon does not support the Print in black panel function for the front/back combination Color-Black and Black-Color. You have to use the 6 Panel ribbon instead.

Encoding

Click the **Encoding** tab to change the encoding settings.



The **Direct Encoding** section allows you to read or encode the data of the checked track(s). The following table lists the number and type of characters allowed for each of tree tracks.

Track	Character Limit	Allowed Characters
1	79 alphanumeric	ASSCII codes 32-95 Field Separator is ^
2	40 numeric ASCII	ASSCII codes 48-63 Field Separator is =
3	107 numeric ASCII	ASSCII codes 48-63 Field Separator is ^

Note: For more information see Appendix C - Magnetic Encoding.

The **Advanced Settings** buttons allows you to define custom parameters for the Magnetic Encoder.

Advanced settings

Allows you to define custom parameters for the Magnetic Encoder.

HiCo/LoCo

Select the type of coercivity of your cards.

Coercivity is a measurement of a magnetic material's resistance to being magnetized. Low coercivity material magnetizes easier than high coercivity material. You must make sure that the setting in the driver matches the card type you are using, otherwise you will get a magnetic encoding error.

Encoder Position

Select the printer encoder position between Reversed and Normal.

Encoder Type

Select the printer encoder type; ISO or JIS. Important: Please ensure that you have the correct magnetic encoder fitted to the printer.

Track

Choose the track you want to configure.

Note: For the JIS encoder type only the Track 1 is available.

Track Settings

Choose the mode and density for the tracks. Each track can be configured individually.

Start/Stop Character

(Only available if your track mode is different from ISO)

Enter an ASCII value for the Start and Stop characters.

Encoding Start Position

(Only available if your track mode is different from ISO)

Enter the encoding start position in millimeters (mm).

Character Parity

(Only available if your track mode is different from ISO)

Choose the Character parity you want to work with, Even, Odd or No parity.

LRC Parity

(Only available if your track mode is different from ISO)

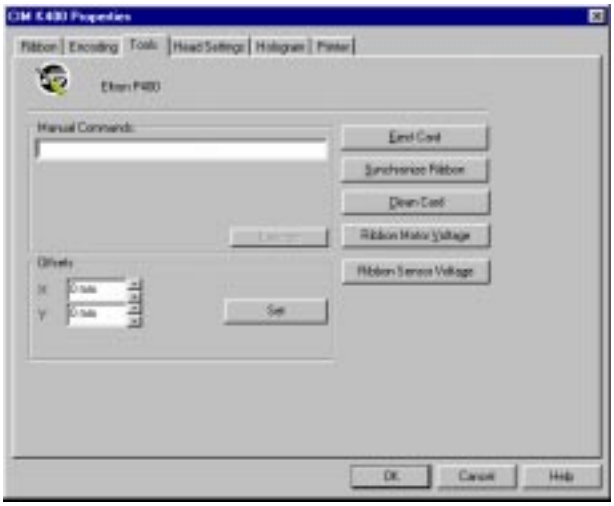
Choose the LRC parity you want to work with, Even, Odd or No parity.

Click the **Restore** Defaults button to reset the settings to the factory default values.

The **Read Printer Configuration** defaults the printer configuration.

Tools

Click the **Tools** tab to communicate directly with the printer.



The **Manual Commands** field allows you to execute various printing commands. See your printer manual.

The **Eject Card** button moves and exits a single card from any position between the card feeder and the output tray and automatically synchronizes the ribbon.

The **Synchronize Ribbon** button automatically synchronizes the selected ribbon.

The **Clean Card** starts the cleaning printer process.

Click **Ribbon Motor Voltage** to check the ribbon motor voltage.

Click **Ribbon Sensor Voltage** to check the ribbon sensor voltage.

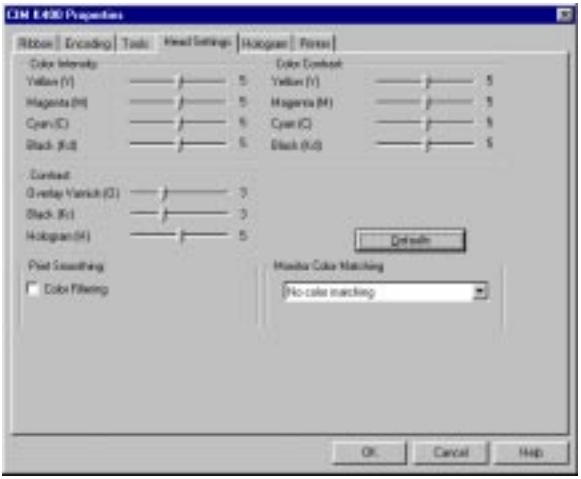
Offsets

Allows you to change the **X** and **Y** values of the start print offset point, in dots.

The EC specifies a point, beyond which, no card printing occurs.

Head Settings

Click the **Head Settings** tab to adjust the head settings configurations for the current printer.



Color intensity - Sets the value of yellow, magenta, cyan and dye diffusion to adjust the amount of heat applied, to transfer a maximum intensity color or monochrome dot.

Warning: High color intensity setting may cause ribbon rupture.

Color Contrast - Sets the value of yellow, magenta, cyan and dye diffusion to adjust the amount of heat applied, to transfer a maximum intensity color contrast.

Contrast - Sets the values of overlay, black and hologram to adjust the amount of heat applied, to transfer a maximum contrast.

Warning: Do not change the default values without consulting your card printer manual first.

***Click* Defaults** to reset the settings in this tab to the original values.

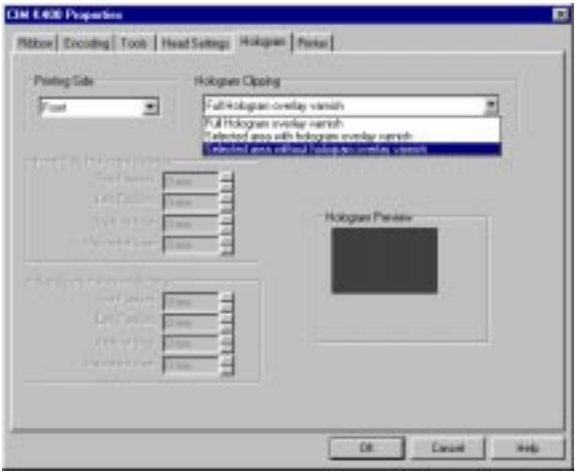
Pint Smoothing - Allows to smooth the color banding effect.

Monitor Color Matching - Tries to match the monitor colors with printed colors

Warning: Changing these values can adversely affect the operation of the printer.

Hologram

Click the **Hologram** tab to configure how the hologram will be printed (this option is only available if you choose a Hologram ribbon).



Printing Side

Allows you to choose the side of the card (front/back) that you will set up.

Hologram Clipping

Allows you to select the type of overlay you want to use:

The available options are:

Full Hologram Overlay Varnish

Selected area with Hologram Overlay Varnish

Selected area without Hologram Overlay Varnish

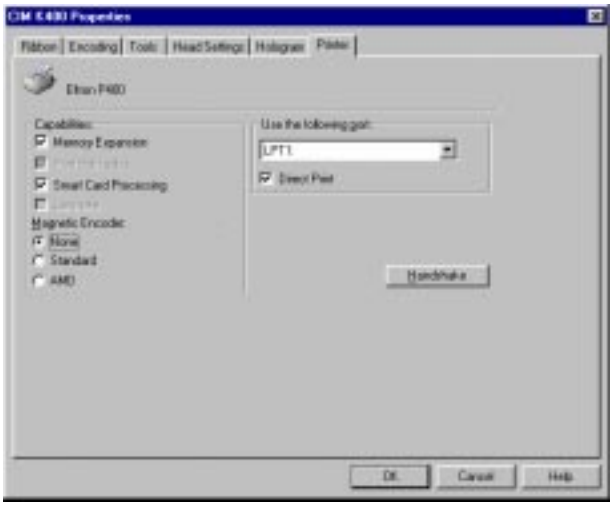
If you choose the Hologram type as Selected area with or without Hologram Overlay Varnish, you will need to enter the co-ordinates for the Hologram area (Top, Bottom, Left, and Right). The Hologram preview window illustrates the final results

Front/Back Side Hologram Position

Allows you to define the co-ordinates for the Hologram.

Printer

Click the **Printer** tab to configure the printer and the printer capabilities.



Select the printer port to which you connected your printer, usually LPT1.

Use the **Handshake** button to recognize the printer capabilities directly (only available when Direct Print options is checked). Or if you know the printer capabilities check them manually.

The printer capabilities are listed below:

Memory Expansion - It's an hardware option. There are two main advantages with this option: speed on printing process and ability to print cards edge to edge.

Print Both Sides - ability to print both sides of the card. Only available if your printer is equipped with a card flip assembly.

Smart Card Processing - allows to plug in an exe file (typically a chip card processing software) during the print process.

Laminate - Allows to laminate the card. This option is only available if your printer is equipped with a lamination station.

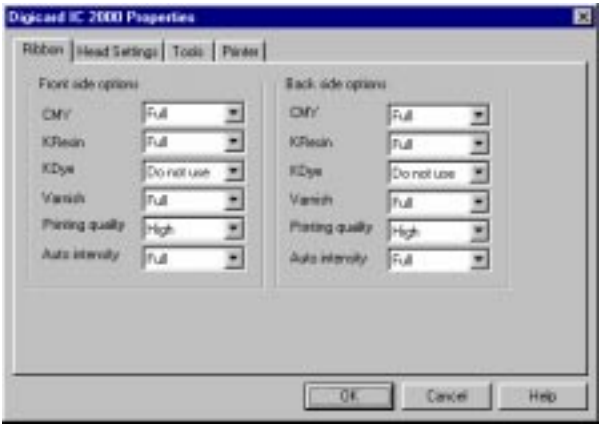
Choose the type of magnetic encoder installed in your printer.

Appendix B3 - Digicard series

This section explains the specific properties of the Digicard series printers.

Ribbon

Click the **Ribbon** tab to setup the ribbon you want to use on front and back.



The Front/Back Side Options are the following:

CMY - This option allows you to configure how the CMY will be printed. This ribbon has sections comprising three dye-sublimation panels (yellow, magenta, cyan). Choose between Do not Use, Half or Full.

KResin - This option allows you to configure how the KResin will be printed.This ribbon has sections comprising one black resin panel plus one overlay panel. Choose between Do not Use, Half or Full.

KDye - This option allows you to configure how the KDyewill be printed.This ribbon has sections comprising one black dye-sublimation panel plus one overlay panel. Choose between Do not Use, Half or Full.

Varnish - This option allows you to configure how the Varnish will be printed.This ribbon is a single overlay panel ribbon. Choose between Do not Use, Half or Full.

Print Quality - This option allows you to configure the print quality, between Low, Adaptive and High.

Auto Intensity - This option allows you to configure the auto intensity, between none, Limiter and Full.

Head Settings

Click the **Head Settings** tab to adjust the head settings configurations for the current printer.

Color intensity - Sets the value of yellow, magenta, cyan and dye diffusion to adjust the amount of heat applied, to transfer a maximum intensity color or monochrome dot.

Warning: High color intensity setting may cause ribbon rupture.

Color Contrast - Sets the value of yellow, magenta, cyan and dye diffusion to adjust the amount of heat applied, to transfer a maximum intensity color contrast.

Contrast - Sets the values of overlay and black to adjust the amount of heat applied, to transfer a maximum contrast.

Warning: Do not change the default values without consulting your card printer manual first.

Select for which side of the card you are setting the new values.

Click **Defaults** to reset the settings in this tab to the original values.

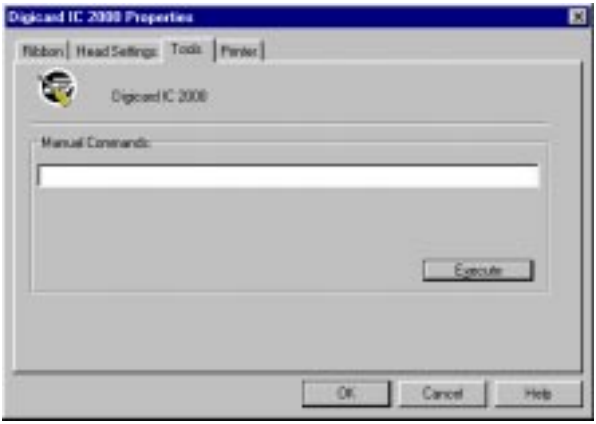
Pint Smoothing - Allows to smooth the color banding effect.

Monitor Color Matching - Tries to match the monitor colors with printed colors

Warning: Changing these values can adversely affect the operation of the printer.

Tools

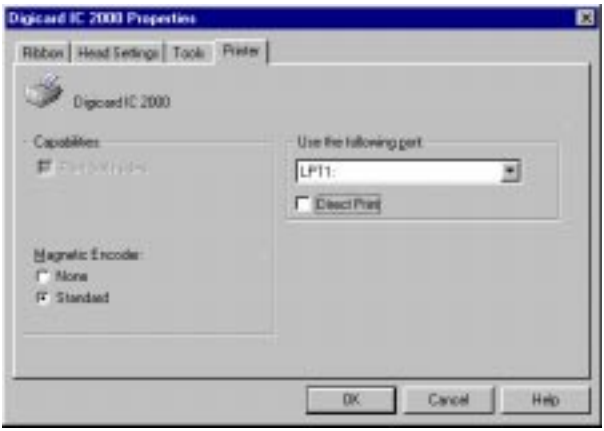
Click the **Tools** tab to communicate directly with the printer.



The **Manual Commands** field allows you to execute various printing commands. See your printer manual.

Printer

Click the **Printer** tab to configure the printer and the printer capabilities.



Select the printer port to which you connected your printer, usually LPT1.

The printer capabilities are listed below:

Print Both Sides - ability to print both sides of the card. Only available if your printer is equipped with a card flip assembly.

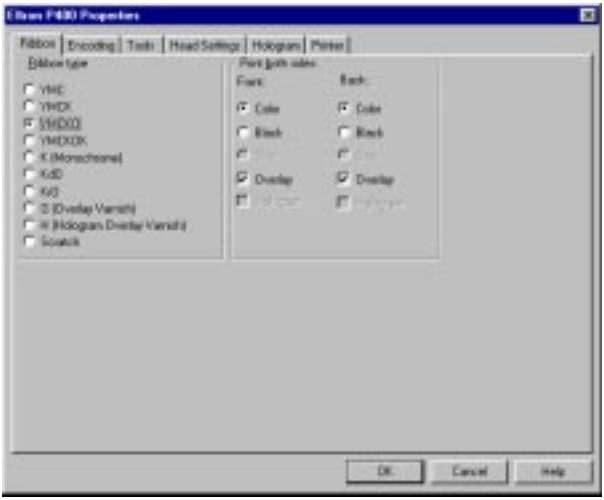
Choose the type of magnetic encoder installed in your printer.

Appendix B4 - Eltron series

This section explains the specific properties of the Eltron series printers.

Ribbon

Click the **Ribbon** tab to setup the ribbon you want to use.



Ribbon Type

Select the type of ribbon you have installed on your printer.

YMC - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan)

YMCO - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan) and an overlay panel.

YMCKO - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan), a black resin panel and an overlay panel.

YMCKOK - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan), a black resin panel,

an overlay panel and an additional black panel. This ribbon selection is used in conjunction with the Front and Back options.

YMCK_K - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan), a black resin panel, and an additional black panel.

K (Monochrome) - This is a single-color resin ribbon.

KdO - This ribbon has sections comprising one black dye-sublimation panel plus one overlay panel.

KrO - This ribbon has sections comprising one black resin panel plus one overlay panel.

O (Overlay Varnish) - This ribbon is a single overlay panel ribbon.

H (Hologram Overlay Varnish) - This ribbon is a single hologram panel ribbon.

Scratch - This ribbon is a single panel ribbon, that print's a area that can be scratched.

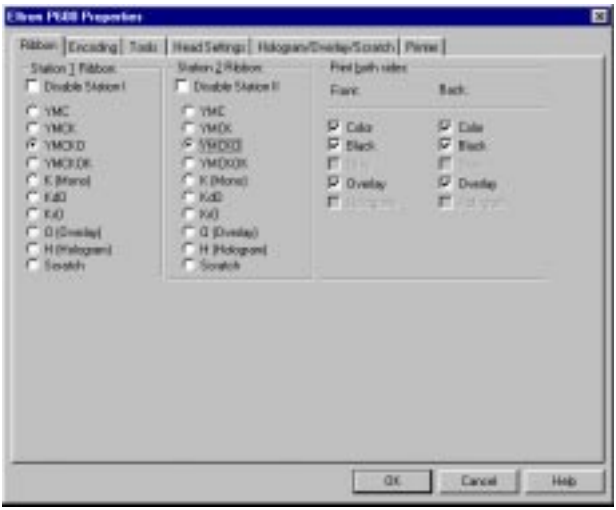
If you are using a printer with the ability to print both sides of the card, you can choose the colors to be used on each side. For the listed ribbons, the Card Software allows the following Front/back combinations.

Ribbon	Front	Back
YMC	Color	Color
YMCK	Color	Color
	Color	Black
	Black	Color
YMCKO	Color	Color
	Color	Black
	Black	Color
YMCKOK	Color	Color
	Color	Black
	Black	Color
K (Monochrome)	One color	One color
KdO	Gray	Gray
KrO	Black	Black

Note: The 5 Panel Ribbon does not support the Print in black panel function for the front/back combination Color-Black and Black-Color. You have to use the 6 Panel ribbon instead.

Special P600 Properties

A P600 includes two print stations, separated by a card-flip assembly, this means that if you use an Eltron P600 the Card Software allows you to increase the printing speed using two print stations at the same time as well as permits to combine different types of ribbon.

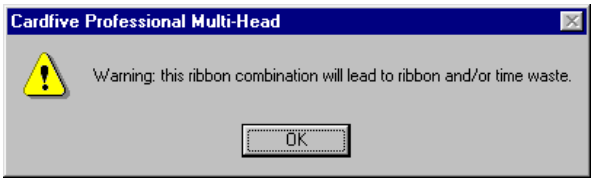


As the Eltron P600 consists of two print stations, both have to be configured.

The type of ribbon available are equal for both stations (see above in this Appendix “Ribbon”). ***Click*** the radio button for the proper ribbon type installed in each printer station.

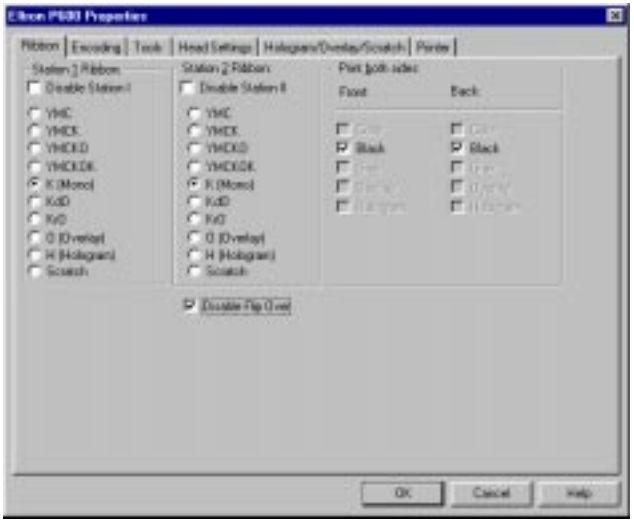
If you just want to use one of the print station check the option Disable Station I/II.

The Card Software displays a Warning message, if you set a ribbon combination not suitable for the Eltron P600.



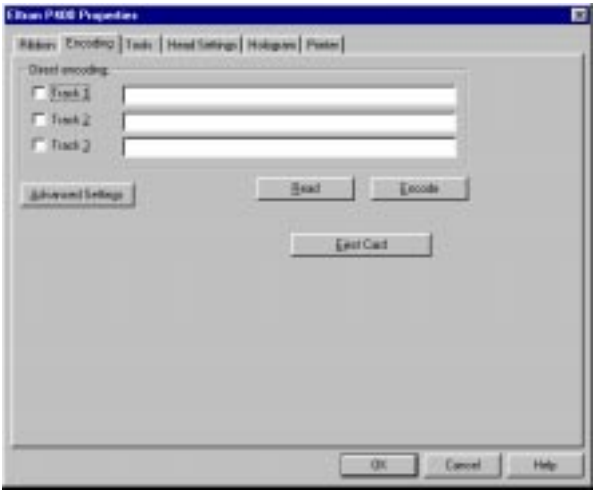
Disable Flip Over

If you want to use on each stations a different monochrome ribbon (for exempla Station I - Black, Station II - Red) but print both color on the same side of the card check the option **Disable Flip Over.**



Encoding

Click the **Encoding** tab to change the encoding settings.



The **Direct Encoding** section allows you to read or encode the data of the checked track(s). The following table lists the number and type of characters allowed for each of tree tracks.

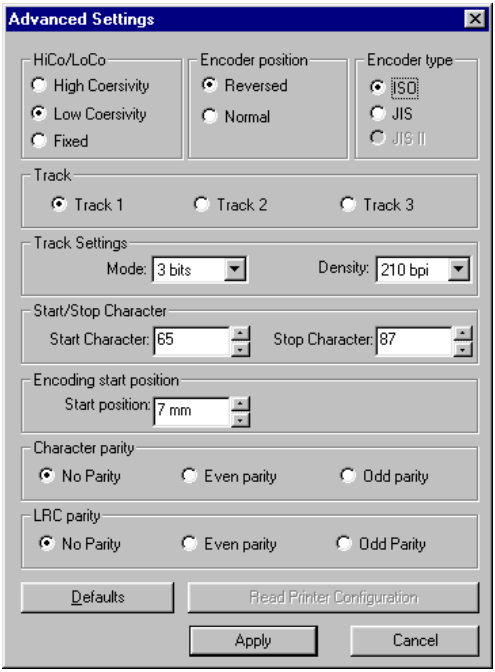
Track	Character Limit	Allowed Characters
1	79 alphanumeric	ASSCII codes 32-95 Field Separator is ^
2	40 numeric ASCII	ASSCII codes 48-63 Field Separator is =
3	107 numeric ASCII	ASSCII codes 48-63 Field Separator is ^

Note: For more information see Appendix C - Magnetic Encoding.

The **Advanced Settings** buttons allows you to define custom parameters for the Magnetic Encoder.

Advanced settings

Allows you to define custom parameters for the Magnetic Encoder.



HiCo/LoCo

Select the type of coercivity of your cards.

Coercivity is a measurement of a magnetic material's resistance to being magnetized. Low coercivity material magnetizes easier than high coercivity material. You must make sure that the setting in the driver matches the card type you are using, otherwise you will get a magnetic encoding error.

Encoder Position

Select the printer encoder position between Reversed and Normal.

Encoder Type

Select the printer encoder type; ISO or JIS. Important: Please

ensure that you have the correct magnetic encoder fitted to the printer.

Track

Choose the track you want to configure.

Note: For the JIS encoder type only the Track 1 is available.

Track Settings

Choose the mode and density for the tracks. Each track can be configured individually.

Start/Stop Character

(Only available if your track mode is different from ISO)

Enter an ASCII value for the Start and Stop characters.

Encoding Start Position

(Only available if your track mode is different from ISO)

Enter the encoding start position in millimeters (mm).

Character Parity

(Only available if your track mode is different from ISO)

Choose the Character parity you want to work with, Even, Odd or No parity.

LRC Parity

(Only available if your track mode is different from ISO)

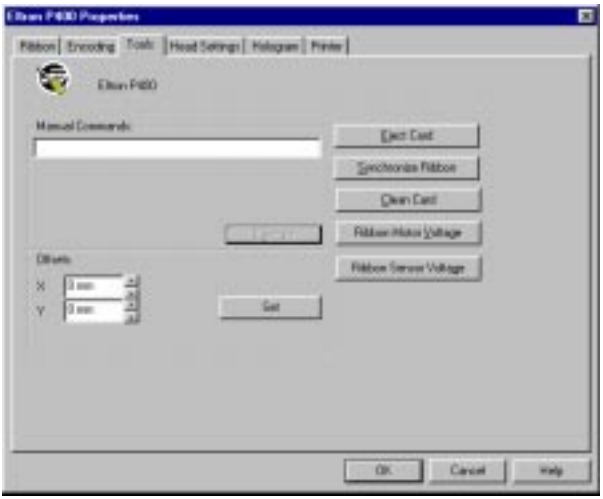
Choose the LRC parity you want to work with, Even, Odd or No parity.

Click the **Restore Defaults** button to reset the settings to the factory default values.

The **Read Printer Configuration** defaults the printer configuration.

Tools

Click the **Tools** tab to communicate directly with the printer.



The **Manual Commands** field allows you to execute various printing commands. See your printer manual.

The **Eject Card** button moves and exits a single card from any position between the card feeder and the output tray and automatically synchronizes the ribbon.

The **Synchronize Ribbon** button automatically synchronizes the selected ribbon.

The **Clean Card** starts the cleaning printer process.

Click **Ribbon Motor Voltage** to check the ribbon motor voltage.

Click **Ribbon Sensor Voltage** to check the ribbon sensor voltage.

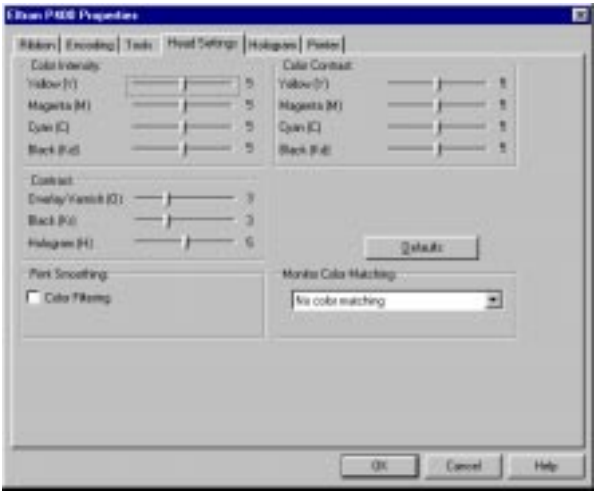
Offsets

Allows you to change the **X** and **Y** values of the start print offset point, in dots.

The **EC** specifies a point, beyond which, no card printing occurs.

Head Settings

Click the **Head Settings** tab to adjust the head settings configurations for the current printer.



Color intensity - Sets the value of yellow, magenta, cyan and dye diffusion to adjust the amount of heat applied, to transfer a maximum intensity color or monochrome dot.

Warning: High color intensity setting may cause ribbon rupture.

Color Contrast - Sets the value of yellow, magenta, cyan and dye diffusion to adjust the amount of heat applied, to transfer a maximum intensity color contrast.

Contrast - Sets the values of overlay, black and hologram to adjust the amount of heat applied, to transfer a maximum contrast.

Warning: Do not change the default values without consulting your card printer manual first.

Click **Defaults** to reset the settings in this tab to the original values.

Pint Smoothing - Allows to smooth the color banding effect.

Monitor Color Matching - Tries to match the monitor colors with printed colors

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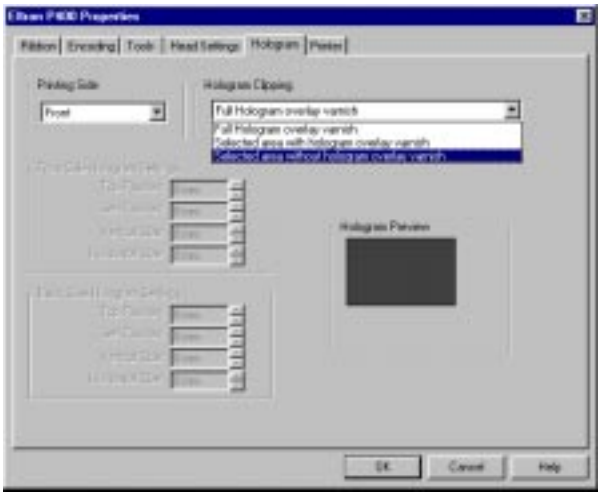
Warning: Changing these values can adversely affect the operation of the printer.

Hologram

Click the **Hologram** tab to configure how the hologram will be printed (this option is only available if you choose a Hologram ribbon).



Printing Side

Allows you to choose the side of the card (front/back) that you will set up.

Hologram Clipping

Allows you to select the type of overlay you want to use:

The available options are:

Full Hologram Overlay Varnish

Selected area with Hologram Overlay Varnish

Selected area without Hologram Overlay Varnish

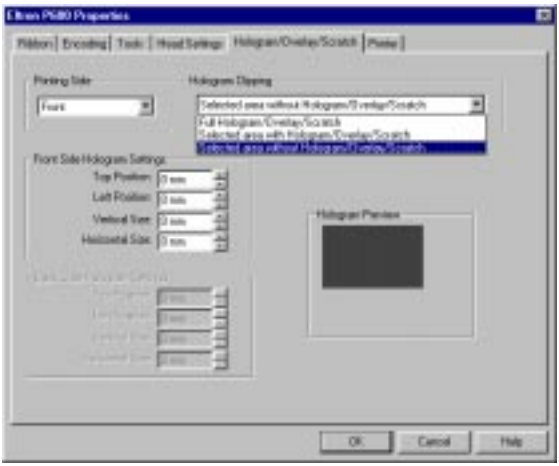
If you choose the Hologram type as Selected area with or without Hologram Overlay Varnish, you will need to enter the co-ordinates for the Hologram area (Top, Left, Vertical and Horizontal). The Hologram preview window illustrates the final results

Front/Back Side Hologram Position

Allows you to define the co-ordinates for the Hologram

Special P600 Properties

Click the Hologram/Overlay/Scratch tab to configure how the hologram/overlay/scratch will be printed (this option is only available if you choose a Hologram, Overlay or a Scratch ribbon).



Printing Side

Allows you to choose the side of the card (front/back) that you will set up.

Hologram Clipping

Allows you to select the type of overlay you want to use:

The available options are:

Full Hologram/Overlay/Scratch

Selected area with Hologram/Overlay/Scratch

Selected area without Hologram/Overlay/Scratch

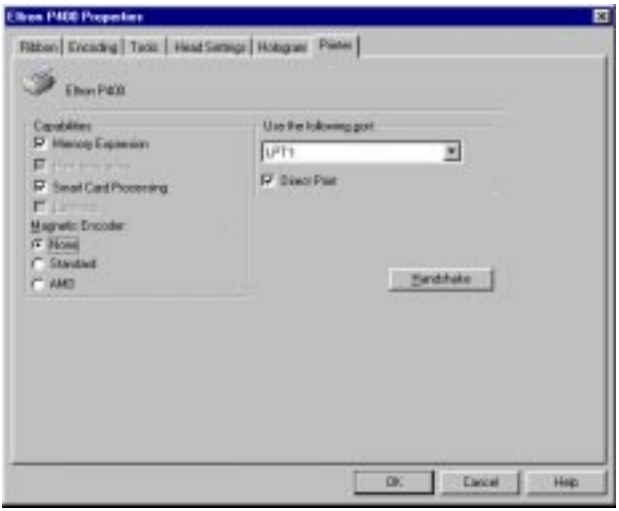
If you choose the Hologram type as Selected area with or without Hologram/Overlay/Scratch. you will need to enter the co-ordinates for the Hologram area (Top, Left, Vertical and Horizontal). The Hologram preview window illustrates the final results

Front/Back Side Hologram Position

Allows you to define the co-ordinates for the Hologram.

Printer

Click the **Printer** tab to configure the printer and the printer capabilities.



Select the printer port to which you connected your printer, usually LPT1.

Use the **Handshake** button to recognize the printer capabilities

directly (only available when Direct Print options is checked). Or if you know the printer capabilities check them manually.

The printer capabilities are listed below:

Memory Expansion - It's an hardware option. There are two main advantages with this option: speed on printing process and ability to print cards edge to edge.

Print Both Sides - ability to print both sides of the card. Only available if your printer is equipped with a card flip assembly.

Smart Card Processing - allows to plug in an exe file (typically a chip card processing software) during the print process.

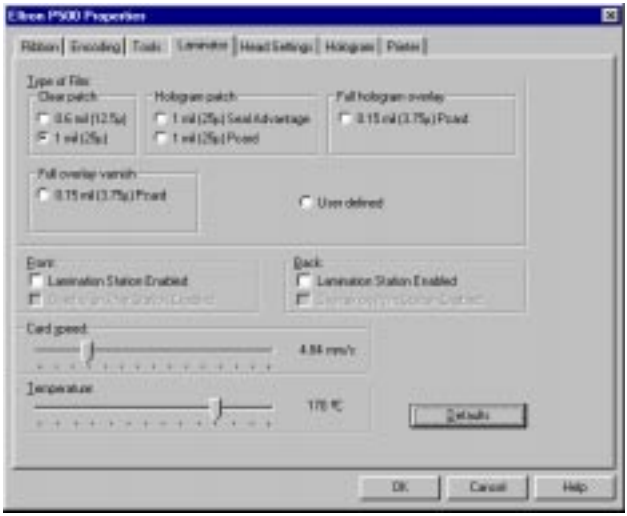
Laminate - Allows to laminate the card. This option is only available if your printer is equipped with a lamination station.

Choose the type of magnetic encoder installed in your printer.

Laminator

This options are only available if your printer includes a lamination station.

Click the **Laminator** tab to configure the type of film, temperature and speed for the lamination as well as the side of the card to be laminated.



The available type of film to laminate cards are:

Clear Patch

Hologram Patch

Full Hologram Overlay

Full Overlay Varnish or

User defined

On the **Front/Back** section, check the operation you want on each card layer.

Lamination Station Enable - Allows lamination on print station II.

Overlay Varnish on Print Station Enable - Allows overlay printing on print station I.

The **Card Speed** allows you to adjust the speed of the lamination process.

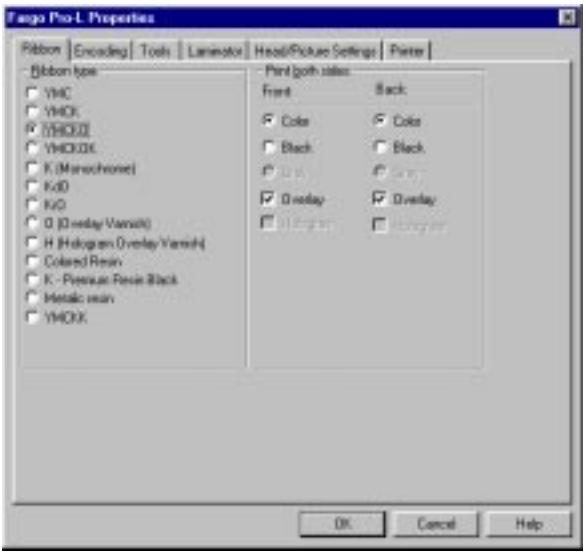
The **Temperature** allows you to adjust the temperature for the lamination.

Appendix B5 - Fargo series

This section explains the specific properties of the Fargo series printers.

Ribbon

Click the Ribbon tab to setup the ribbon you want to use.



Ribbon Type

Select the type of ribbon you have installed on your printer.

YMC - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan)

YMCK - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan) and a black resin panel.

YMCKO - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan), a black resin panel and an overlay panel.

YMCKOK - This ribbon has sections comprising tree dye-

sublimation panels (yellow, magenta, cyan), a black resin panel, an overlay panel and an additional black panel. This ribbon selection is used in conjunction with the Front and Back options.

K (Monochrome) - This is a single-color resin ribbon.

KdO - This ribbon has sections comprising one black dye-sublimation panel plus one overlay panel.

KrO - This ribbon has sections comprising one black resin panel plus one overlay panel.

O (Overlay Varnish) - This ribbon is a single overlay panel ribbon.

H (Hologram Overlay Varnish) - This ribbon is a single hologram panel ribbon.

Colored Resin - This is a single-color resin ribbon.

K - Premium Resin Black - This is a single-color resin ribbon.

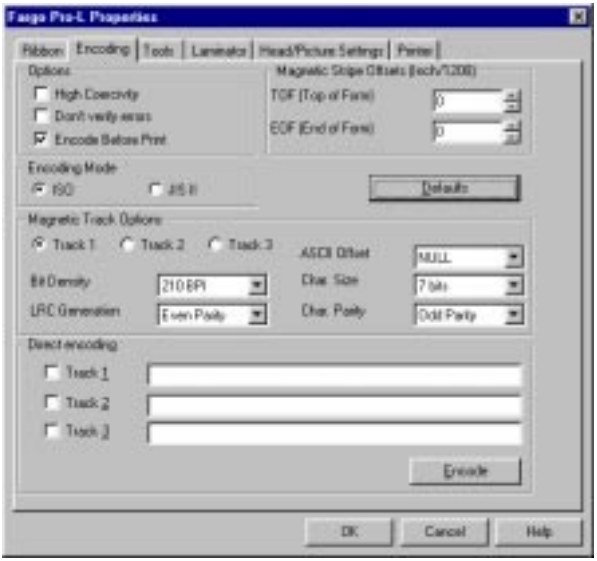
Metalic Resin - This is a single-color resin ribbon.

YMCKK - Full Color/ 2 Resin Black ribbon with two resin black panels and no clear overlay panel.

If you are using a printer with the ability to print both sides of the card, you can choose the colors to be used on each side.

Encoding

Click the **Encoding** tab to change the encoding settings.



Options

Check **High Coercivity** if you are working with high coercivity cards.

Check **Don't verify Errors** if you want to skip the error treatment process.

Check **Encode before Print** to encode the card before start the printing process.

Magnetic Stripe Offsets

Allows you to set the value for the start sentinel position.

Encoding Mode

Select the printer encoder type; ISO or JIS.

Important: Please ensure that you have selected the correct magnetic encoder of the printer.

***Click* Defaults** button to reset the settings to the factory default values.

Magnetic Track Options

Choose the track you want to configure and for each one configure the Bit density, LRC Generation, Character Size and Character Parity.

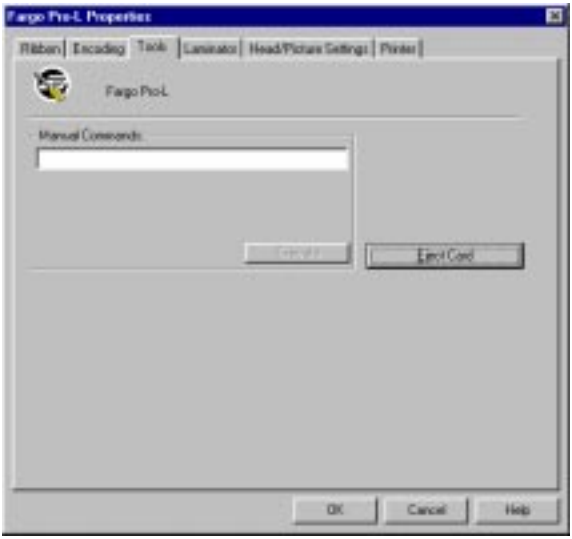
The **Direct Encoding** section allows you to read or encode the data of the checked track(s). The following table lists the number and type of characters allowed for each of tree tracks.

Track	Character Limit	Allowed Characters
1	79 alphanumeric	ASSCII codes 32-95 Field Separator is ^
2	40 numeric ASCII	ASSCII codes 48-63 Field Separator is =
3	107 numeric ASCII	ASSCII codes 48-63 Field Separator is ^

Note: For more information see Appendix B - Magnetic Encoding.

Tools

Click the **Tools** tab to communicate directly with the printer.

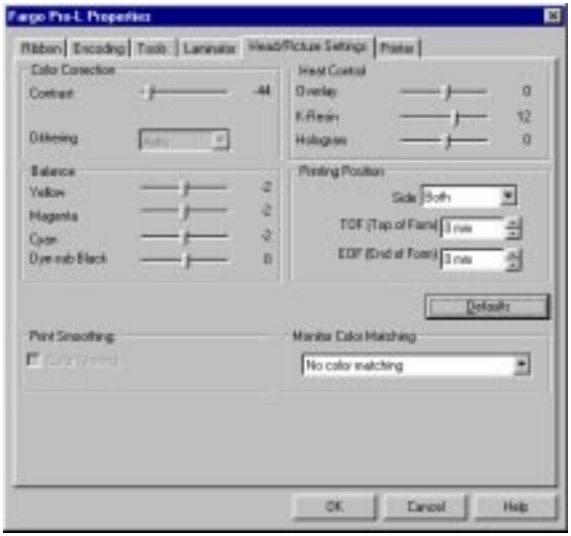


The **Manual Commands** field allows you to execute various printing commands. See your printer manual.

The **Eject Card** button moves and exits a single card from any position between the card feeder and the output tray and automatically synchronizes the ribbon.

Head/Picture Settings

Click the **Head Settings** tab to adjust the head settings configurations for the current printer.



Color Correction - Allows you to set values for the contrast and Dithering.

Heat Control - Allows you to set the heat amount for the Overlay, K-Resin and Hologram ribbon panels.

Warning: High color intensity setting may cause ribbon rupture.

Balance - Allows you to set values for the yellow, Magenta, Cyan and Dye-sub Black ribbon panels.

Printing Position - Allows you to change the print position for each card side separately or for both equally.

Warning: Do not change the default values without consulting your card printer manual first.

Click **Defaults** to reset the settings in this tab to the original values.

Print Smoothing - Allows to smooth the color banding effect.

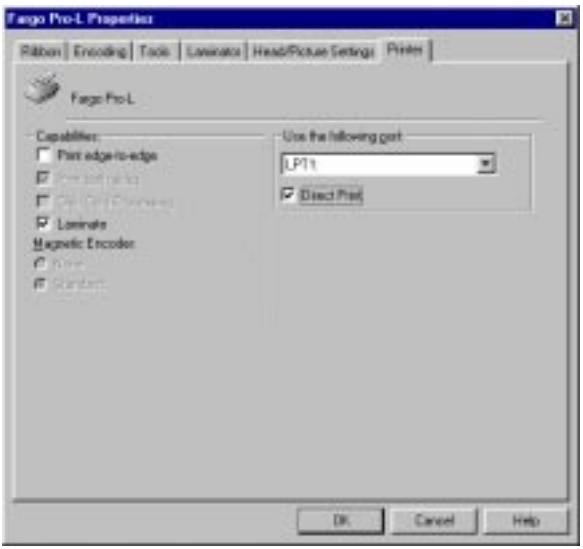
Monitor Color Matching - Tries to match the monitor colors with printed colors

---

Warning: Changing these values can adversely affect the operation of the printer.

Printer

Click the **Printer** tab to configure the printer and the printer capabilities.



Select the printer port to which you connected your printer, usually LPT1.

The printer capabilities are listed below:

Memory Expansion - It's an hardware option. There are two main advantages with this option: speed on printing process and ability to print cards edge to edge.

Print Both Sides - ability to print both sides of the card. Only available if your printer is equipped with a card flip assembly.

Chip Card Processing - allows to plug in an exe file (typically a chip card processing software) during the print process.

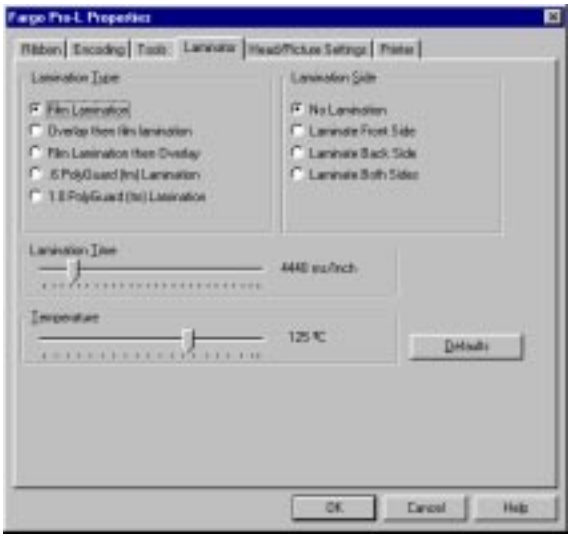
Laminate - Allows to laminate the card. This option is only available if your printer is equipped with a lamination station.

Choose the type of magnetic encoder installed in your printer.

Laminator

This Tab is only available if your printer includes a lamination station.

Click the **Laminator** tab to configure the type of film, temperature and speed for the lamination as well as the side of the card to be laminated.



Lamination Type

Select one of the available options to determine which type of lamination media is currently installed in the lamination station.

The available options are:

Film Lamination

Overlay then Film Lamination

.6 Polyguard(TM) Lamination

1.0 Polyguard(TM) Lamination

Lamination Side

Select one of the available options to determine which side(s) of the printed card should have a lamination film applied.

The available options are:

No Lamination

Laminate Front Side

Laminate Back Side

Laminate Both Sides

Lamination Time

Sets the Lamination Time (in seconds per card inch) used by the lamination station of the printer when applying the lamination film to the printed card.

Lamination Temperature

Sets the Lamination Temperature (in degrees Centigrade) used by the lamination station of the printer when applying the lamination film to the printed card.

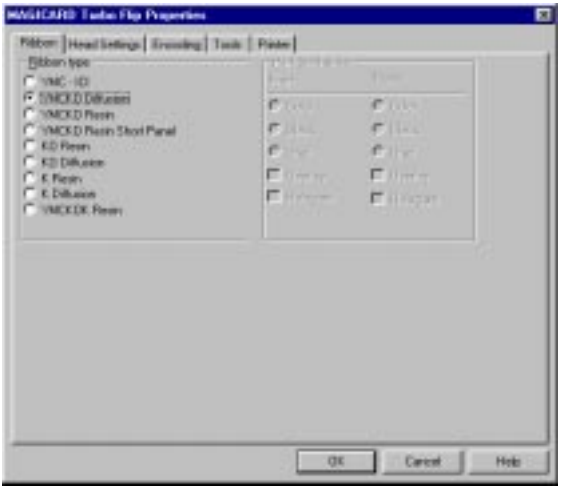
Click **Defaults** to reset the settings in this tab to the original values.

Appendix B6 - Magicard series

This section explains the specific properties of the Magicard series printers.

Ribbon

Click the Ribbon tab to setup the ribbon you want to use.



Ribbon Type

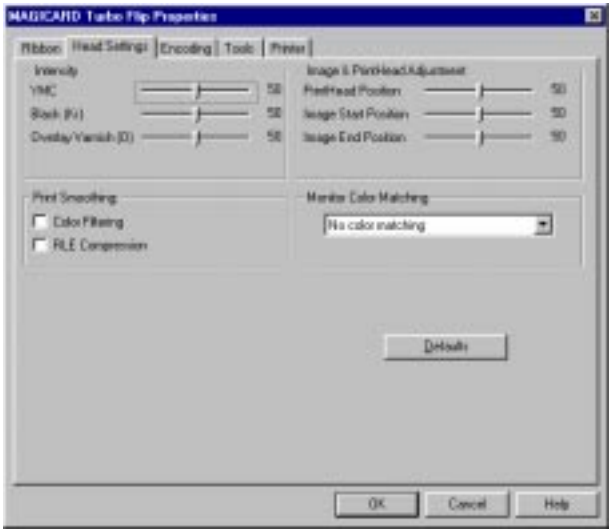
Select the type of ribbon you have installed on your printer. The available types are:

YMC-ICI
YMCKO Diffusion
YMCKO Resin
YMCKO Resin Short Panel
KO Resin
KO Diffusion
K Resin
K Diffusion
YMCKOK Resin

If you are using a printer with the ability to print both sides of the card, you can choose the colors to be used on each side.

Head Settings

Click the **Head Settings** tab to adjust the head settings configurations for the current printer.



Intensity - Sets the values of yellow, magenta e cyan, black and overlay to adjust the amount of heat applied, to transfer a maximum intensity color or monochrome dot.

Image & PrintHead Adjustments - Sets the values to the print head, image start and end position to adjust the image and the print head.

Pint Smoothing - Allows to smooth the color banding effect.

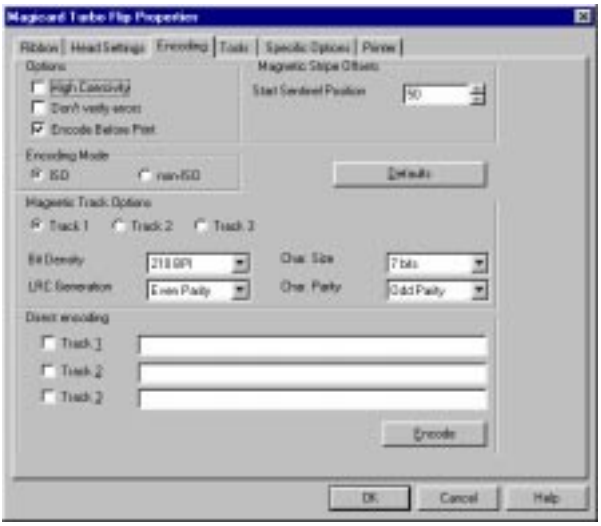
Monitor Color Matching - Tries to match the monitor colors with printed colors

Warning: Changing these values can adversely affect the operation of the printer.

***Click* Defaults** to reset the settings in this tab to the original values.

Encoding

Click the **Encoding** tab to change the encoding settings.



Options

Check **High Coercivity** if you are working with high coercivity cards.

Check **Don't verify Errors** if you want to skip the error treatment process.

Check **Encode before Print** to encode the card before start the printing process.

Magnetic Stripe Offsets

Allows you to set the value for the start sentinel position.

Encoding Mode

Select the printer encoder type; ISO or JIS.

Important: Please ensure that you have selected the correct magnetic encoder of the printer.

Click **Defaults** button to reset the settings to the factory default values.

Magnetic Track Options

Choose the track you want to configure and for each one configure the Bit density, LRC Generation, Character Size and Character Parity.

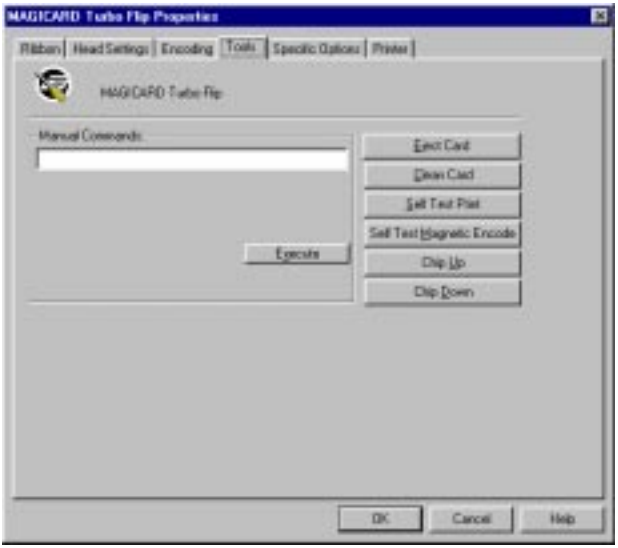
The **Direct Encoding** section allows you to read or encode the data of the checked track(s). The following table lists the number and type of characters allowed for each of tree tracks.

Track	Character Limit	Allowed Characters
1	79 alphanumeric	ASSCII codes 32-95 Field Separator is ^
2	40 numeric ASCII	ASSCII codes 48-63 Field Separator is =
3	107 numeric ASCII	ASSCII codes 48-63 Field Separator is ^

Note: For more information see Appendix B - Magnetic Encoding.

Tools

Click the **Tools** tab to communicate directly with the printer.



The **Manual Commands** field allows you to execute various printing commands. See your printer manual.

The **Eject Card** button moves and exits a single card from any position between the card feeder and the output tray and automatically synchronizes the ribbon.

The **Clean Card** starts the cleaning printer process.

The **Self Test Print** will print a self test card.

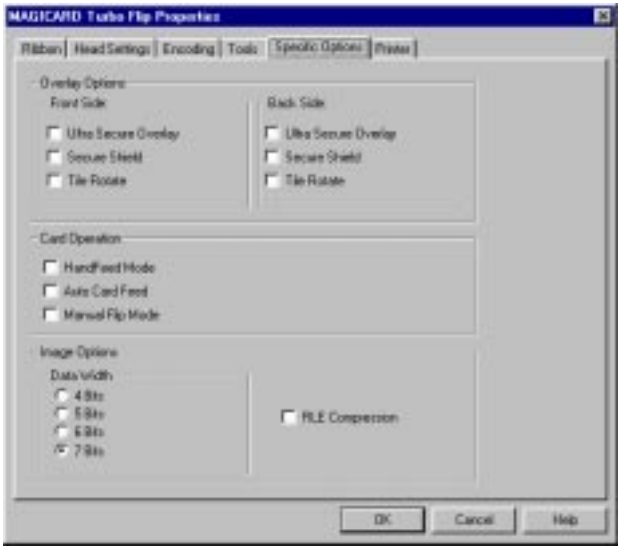
The **Self Test Magnetic Encode** will perform an encode test where the card will be encoded with the printer fixed test data and verifying.

The **Chip Up** button will break the chip contacts to the card.

The **Chip Down** button will make the chip contacts to the card.

Specific Options

Click the **Specific Options** tab to configure how the overlay will be printed on each side of the card, the card operations and the image options.



Overlay Options

For each side of the card select the type of Overlay you want to use.

Card Operation

Hand Feed Mode - Check this option if you want to be the operator to hand feed the cards.

Auto Card Feed - Check this option if you want the cards to be provided automatically.

Manual Flip Mode - Check this option if you want to flip the card manually.

Image Options

Select the Data Width you want to use; 4 Bits, 5 Bits, 6 Bits or 7 Bits.

Check the option RLE Compression if you want to use this compression algorithm.

Printer

Click the **Printer** tab to configure the printer and the printer capabilities.

Select the printer port to which you connected your printer, usually LPT1.

The printer capabilities are listed below:

Memory Expansion - It's an hardware option. There are two main advantages with this option: speed on printing process and ability to print cards edge to edge.

Print Both Sides - ability to print both sides of the card. Only available if your printer is equipped with a card flip assembly.

Smart Card Processing - allows to plug in an exe file (typically a chip card processing software) during the print process.

Laminate - Allows to laminate the card. This option is only available if your printer is equipped with a lamination station.

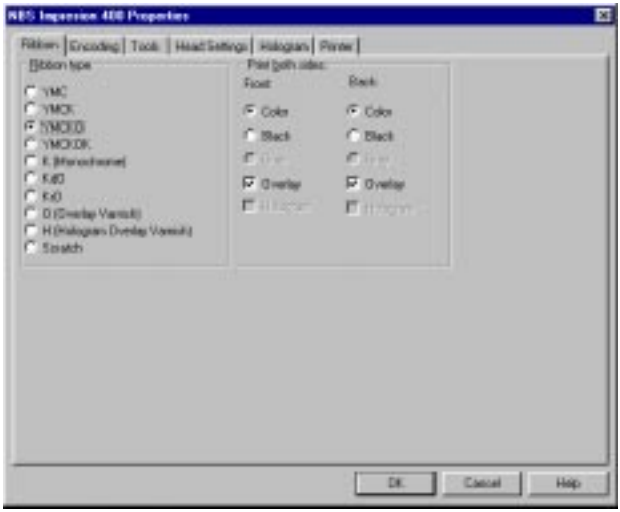
Choose the type of magnetic encoder installed in your printer.

Appendix B7 - NBS series

This section explains the specific properties of the NBS series printers.

Ribbon

Click the **Ribbon** tab to setup the ribbon you want to use.



Ribbon Type

Select the type of ribbon you have installed on your printer.

YMC - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan)

YMCO - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan) and an overlay panel.

YMCKO - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan), a black resin panel and an overlay panel.

YMCKOK - This ribbon has sections comprising tree dye-

sublimation panels (yellow, magenta, cyan), a black resin panel, an overlay panel and an additional black panel. This ribbon selection is used in conjunction with the Front and Back options.

K (Monochrome) - This is a single-color resin ribbon.

KdO - This ribbon has sections comprising one black dye-sublimation panel plus one overlay panel.

KrO - This ribbon has sections comprising one black resin panel plus one overlay panel.

O (Overlay Varnish) - This ribbon is a single overlay panel ribbon.

H (Hologram Overlay Varnish) - This ribbon is a single hologram panel ribbon.

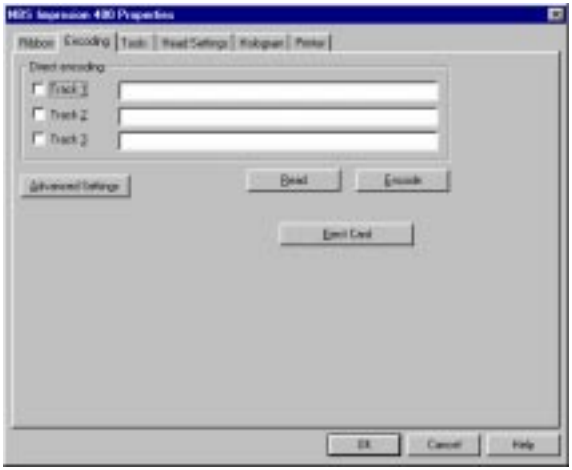
Scratch - This ribbon is a single panel ribbon, that print's a area that can be scratched.

If you are using a printer with the ability to print both sides of the card, you can choose the colors to be used on each side. For the listed ribbons, the Card Software allows the following Front/back combinations.

Note: The 5 Panel Ribbon does not support the Print in black panel function for the front/back combination Color-Black and Black-Color. You have to use the 6 Panel ribbon instead.

Encoding

Click the **Encoding** tab to change the encoding settings.



The **Direct Encoding** section allows you to read or encode the data of the checked track(s). The following table lists the number and type of characters allowed for each of tree tracks.

Track	Character Limit	Allowed Characters
1	79 alphanumeric	ASSCII codes 32-95 Field Separator is ^
2	40 numeric ASCII	ASSCII codes 48-63 Field Separator is =
3	107 numeric ASCII	ASSCII codes 48-63 Field Separator is ^

Note: For more information see Appendix C Magnetic Encoding.

The **Advanced Settings** buttons allows you to define custom parameters for the Magnetic Encoder.

Advanced settings

Allows you to define custom parameters for the Magnetic Encoder.

HiCo/LoCo

Select the type of coercivity of your cards.

Coercivity is a measurement of a magnetic material's resistance to being magnetized. Low coercivity material magnetizes easier than high coercivity material. You must make sure that the setting in the driver matches the card type you are using, otherwise you will get a magnetic encoding error.

Encoder Position

Select the printer encoder position between Reversed and Normal.

Encoder Type

Select the printer encoder type; ISO or JIS. Important: Please ensure that you have the correct magnetic encoder fitted to the printer.

Track

Choose the track you want to configure.

Note: For the JIS encoder type only the Track 1 is available.

Track Settings

Choose the mode and density for the tracks. Each track can be configured individually.

Start/Stop Character

(Only available if your track mode is different from ISO)

Enter an ASCII value for the Start and Stop characters.

Encoding Start Position

(Only available if your track mode is different from ISO)

Enter the encoding start position in millimeters (mm).

Character Parity

(Only available if your track mode is different from ISO)

Choose the Character parity you want to work with, Even, Odd or No parity.

LRC Parity

(Only available if your track mode is different from ISO)

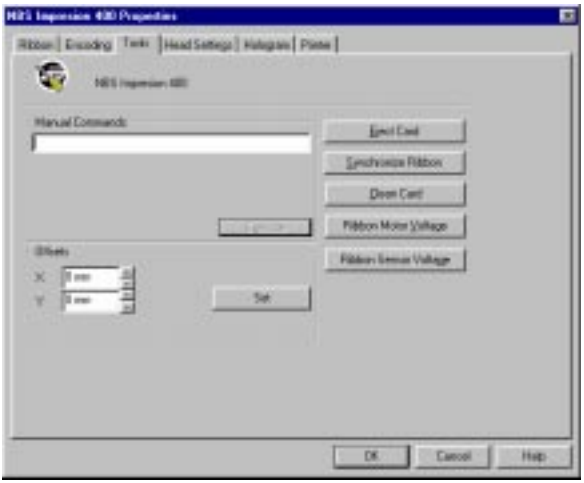
Choose the LRC parity you want to work with, Even, Odd or No parity.

Click the **Restore Defaults** button to reset the settings to the factory default values.

The **Read Printer Configuration** defaults the printer configuration.

Tools

Click the **Tools** tab to communicate directly with the printer.



The **Manual Commands** field allows you to execute various printing commands. See your printer manual.

The **Eject Card** button moves and exits a single card from any position between the card feeder and the output tray and automatically synchronizes the ribbon.

The **Synchronize Ribbon** button automatically synchronizes the selected ribbon.

The **Clean Card** starts the cleaning printer process.

Click **Ribbon Motor Voltage** to check the ribbon motor voltage.

Click **Ribbon Sensor Voltage** to check the ribbon sensor voltage.

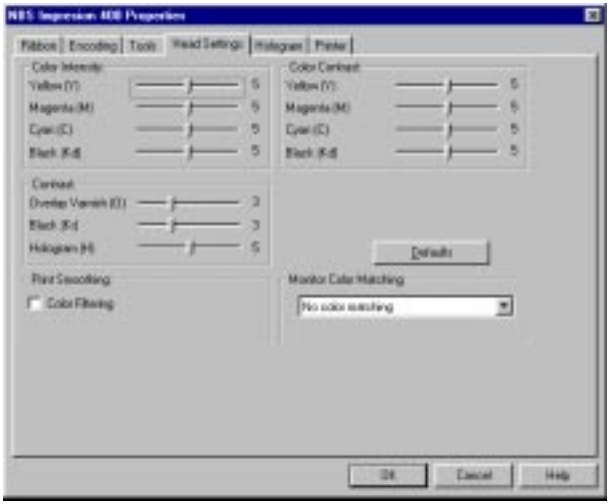
Offsets

Allows you to change the X and Y values of the start print offset point, in dots.

The EC specifies a point, beyond which, no card printing occurs.

Head Settings

Click the **Head Settings** tab to adjust the head settings configurations for the current printer.



Color intensity - Sets the value of yellow, magenta, cyan and dye diffusion to adjust the amount of heat applied, to transfer a maximum intensity color or monochrome dot.

Warning: High color intensity setting may cause ribbon rupture.

Color Contrast - Sets the value of yellow, magenta, cyan and dye diffusion to adjust the amount of heat applied, to transfer a maximum intensity color contrast.

Contrast - Sets the values of overlay, black and hologram to adjust the amount of heat applied, to transfer a maximum contrast.

Warning: Do not change the default values without consulting your card printer manual first.

***Click* Defaults** to reset the settings in this tab to the original values.

Pint Smoothing - Allows to smooth the color banding effect.

Monitor Color Matching - Tries to match the monitor colors with printed colors

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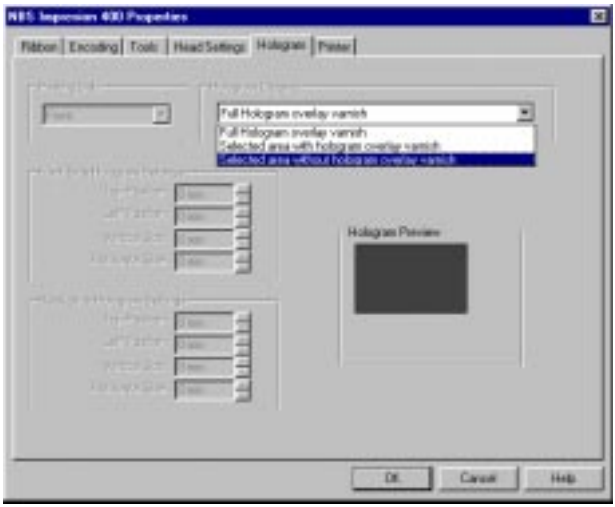
Warning: Changing these values can adversely affect the operation of the printer.

Hologram

Click the **Hologram** tab to configure how the hologram will be printed (this option is only available if you choose a Hologram ribbon).



Printing Side

Allows you to choose the side of the card (front/back) that you will set up.

Hologram Clipping

Allows you to select the type of overlay you want to use:

The available options are:

Full Hologram Overlay Varnish

Selected area with Hologram Overlay Varnish

Selected area without Hologram Overlay Varnish

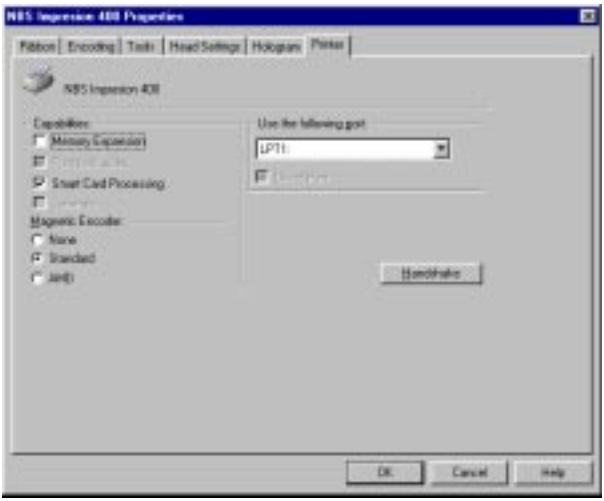
If you choose the Hologram type as Selected area with or without Hologram Overlay Varnish, you will need to enter the co-ordinates for the Hologram area (Top, Bottom, Left, and Right). The Hologram preview window illustrates the final results

Front/Back Side Hologram Position

Allows you to define the co-ordinates for the Hologram.

Printer

Click the **Printer** tab to configure the printer and the printer capabilities.



Select the printer port to which you connected your printer, usually LPT1.

Use the **Handshake** button to recognize the printer capabilities directly (only available when Direct Print options is checked). Or if you know the printer capabilities check them manually.

The printer capabilities are listed below:

Memory Expansion - It's an hardware option. There are two main advantages with this option: speed on printing process and ability to print cards edge to edge.

Print Both Sides - ability to print both sides of the card. Only available if your printer is equipped with a card flip assembly.

Smart Card Processing - allows to plug in an exe file (typically a chip card processing software) during the print process.

Laminate - Allows to laminate the card. This option is only available if your printer is equipped with a lamination station.

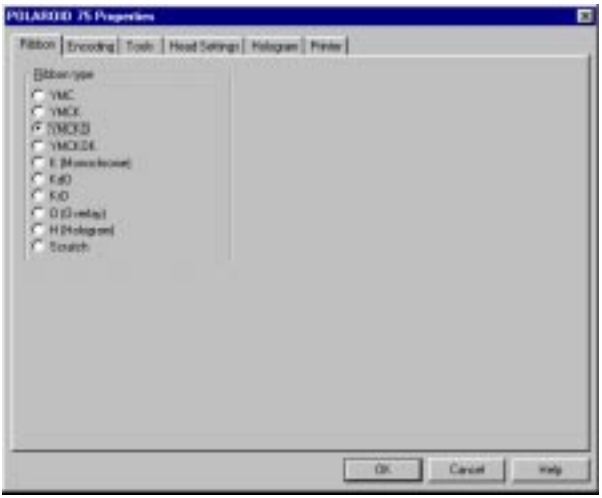
Choose the type of magnetic encoder installed in your printer.

Appendix B8 - Polaroid series

This section explains the specific properties of the Polaroid series printers.

Ribbon

Click the **Ribbon** tab to setup the ribbon you want to use.



Ribbon Type

Select the type of ribbon you have installed on your printer.

YMC - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan)

YMCO - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan) and an overlay panel.

YMCKO - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan), a black resin panel and an overlay panel.

YMCKOK - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan), a black resin panel,

an overlay panel and an additional black panel. This ribbon selection is used in conjunction with the Front and Back options.

YMCK_K - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan), a black resin panel, and an additional black panel.

K (Monochrome) - This is a single-color resin ribbon.

KdO - This ribbon has sections comprising one black dye-sublimation panel plus one overlay panel.

KrO - This ribbon has sections comprising one black resin panel plus one overlay panel.

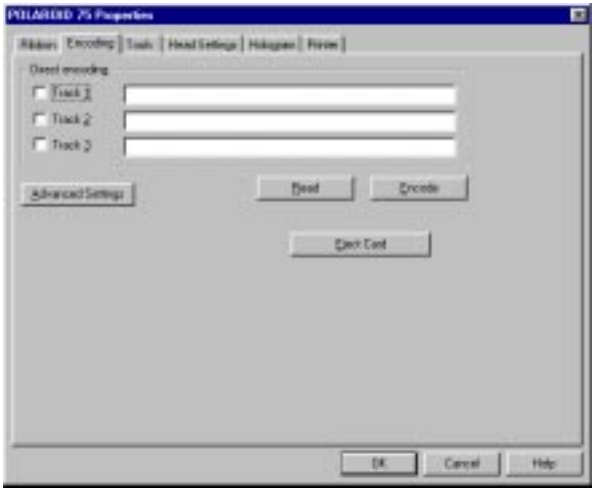
O (Overlay Varnish) - This ribbon is a single overlay panel ribbon.

H (Hologram Overlay Varnish) - This ribbon is a single hologram panel ribbon.

Scratch - This ribbon is a single panel ribbon, that print's a area that can be scratched.

Encoding

Click the **Encoding** tab to change the encoding settings.



The **Direct Encoding** section allows you to read or encode the data of the checked track(s). The following table lists the number and type of characters allowed for each of tree tracks.

Track	Character Limit	Allowed Characters
1	79 alphanumeric	ASSCII codes 32-95 Field Separator is ^
2	40 numeric ASCII	ASSCII codes 48-63 Field Separator is =
3	107 numeric ASCII	ASSCII codes 48-63 Field Separator is ^

Note: For more information see Appendix C - Magnetic Encoding.

The **Advanced Settings** buttons allows you to define custom parameters for the Magnetic Encoder.

Advanced settings

Allows you to define custom parameters for the Magnetic Encoder.

HiCo/LoCo

Select the type of coercivity of your cards.

Coercivity is a measurement of a magnetic material's resistance to being magnetized. Low coercivity material magnetizes easier than high coercivity material. You must make sure that the setting in the driver matches the card type you are using, otherwise you will get a magnetic encoding error.

Encoder Position

Select the printer encoder position between Reversed and Normal.

Encoder Type

Select the printer encoder type; ISO or JIS. Important: Please ensure that you have the correct magnetic encoder fitted to the printer.

Track

Choose the track you want to configure.

Note: For the JIS encoder type only the Track 1 is available.

Track Settings

Choose the mode and density for the tracks. Each track can be configured individually.

Start/Stop Character

(Only available if your track mode is different from ISO)

Enter an ASCII value for the Start and Stop characters.

Encoding Start Position

(Only available if your track mode is different from ISO)

Enter the encoding start position in millimeters (mm).

Character Parity

(Only available if your track mode is different from ISO)

Choose the Character parity you want to work with, Even,

Odd or No parity.

LRC Parity

(Only available if your track mode is different from ISO)

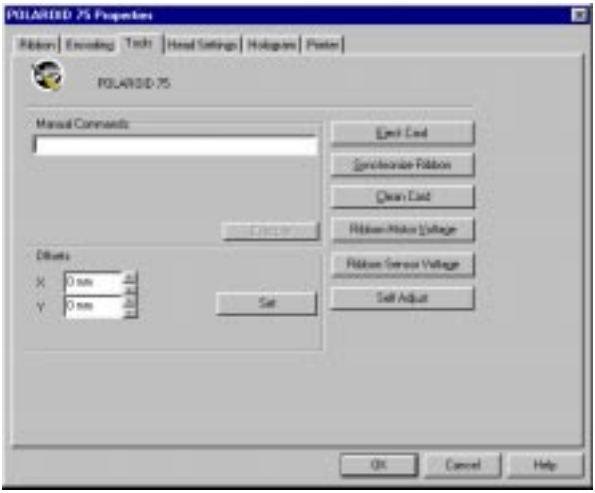
Choose the LRC parity you want to work with, Even, Odd or No parity.

Click the **Restore Defaults** button to reset the settings to the factory default values.

The **Read Printer Configuration** defaults the printer configuration.

Tools

Click the **Tools** tab to communicate directly with the printer.



The **Manual Commands** field allows you to execute various printing commands. See your printer manual.

The **Eject Card** button moves and exits a single card from any position between the card feeder and the output tray and automatically synchronizes the ribbon.

The **Synchronize Ribbon** button automatically synchronizes the selected ribbon.

The **Clean Card** starts the cleaning printer process.

Click **Ribbon Motor Voltage** to check the ribbon motor voltage.

Click **Ribbon Sensor Voltage** to check the ribbon sensor voltage.

Click **Self Adjust** to do a self adjust.

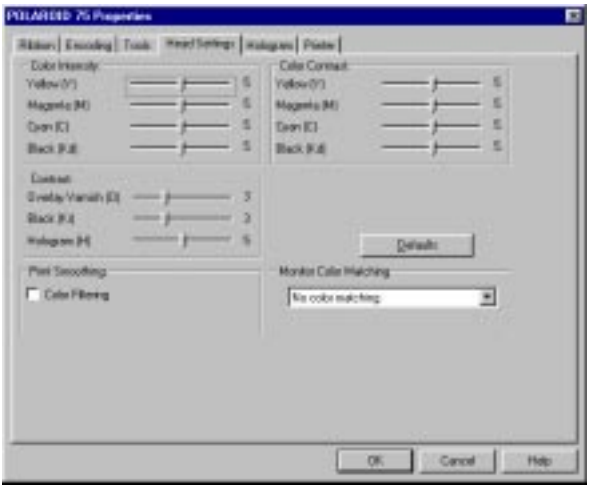
Offsets

Allows you to change the X and Y values of the start print offset point, in dots.

The EC specifies a point, beyond which, no card printing occurs.

Head Settings

Click the **Head Settings** tab to adjust the head settings configurations for the current printer.



Color intensity - Sets the value of yellow, magenta, cyan and dye diffusion to adjust the amount of heat applied, to transfer a maximum intensity color or monochrome dot.

Warning: High color intensity setting may cause ribbon rupture.

Color Contrast - Sets the value of yellow, magenta, cyan and dye diffusion to adjust the amount of heat applied, to transfer a maximum intensity color contrast.

Contrast - Sets the values of overlay, black and hologram to adjust the amount of heat applied, to transfer a maximum contrast.

Warning: Do not change the default values without consulting your card printer manual first.

Click **Defaults** to reset the settings in this tab to the original values.

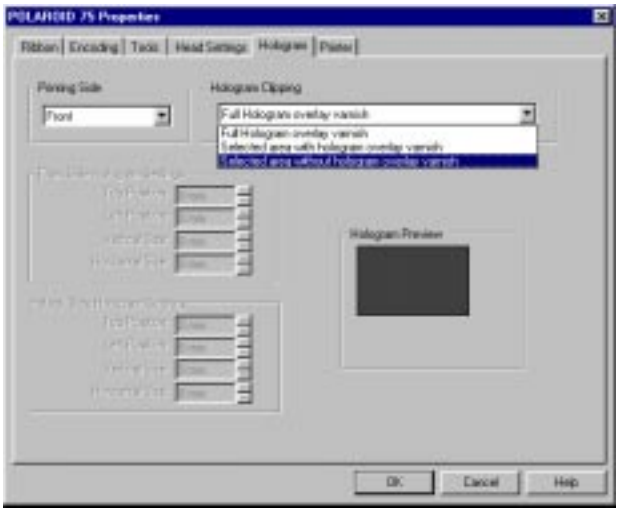
Pint Smoothing - Allows to smooth the color banding effect.

Monitor Color Matching - Tries to match the monitor colors with printed colors

Warning: Changing these values can adversely affect the operation of the printer.

Hologram

Click the **Hologram** tab to configure how the hologram will be printed (this option is only available if you choose a Hologram ribbon).



Printing Side

Allows you to choose the side of the card (front/back) that you will set up.

Hologram Clipping

Allows you to select the type of overlay you want to use:

The available options are:

Full Hologram Overlay Varnish

Selected area with Hologram Overlay Varnish

Selected area without Hologram Overlay Varnish

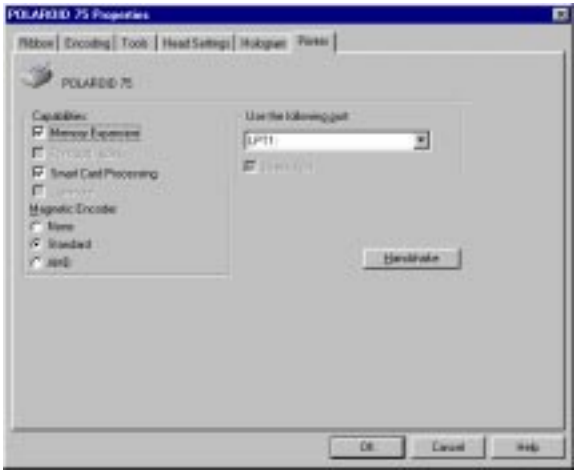
If you choose the Hologram type as Selected area with or without Hologram Overlay Varnish, you will need to enter the co-ordinates for the Hologram area (Top, Bottom, Left, and Right). The Hologram preview window illustrates the final results

Front/Back Side Hologram Position

Allows you to define the co-ordinates for the Hologram.

Printer

Click the **Printer** tab to configure the printer and the printer capabilities.



Select the printer port to which you connected your printer, usually LPT1.

Use the **Handshake** button to recognize the printer capabilities directly (only available when Direct Print options is checked). Or if you know the printer capabilities check them manually.

The printer capabilities are listed below:

Memory Expansion - It's an hardware option. There are two main advantages with this option: speed on printing process and ability to print cards edge to edge.

Print Both Sides - ability to print both sides of the card. Only available if your printer is equipped with a card flip assembly.

Smart Card Processing - allows to plug in an exe file (typically a chip card processing software) during the print process.

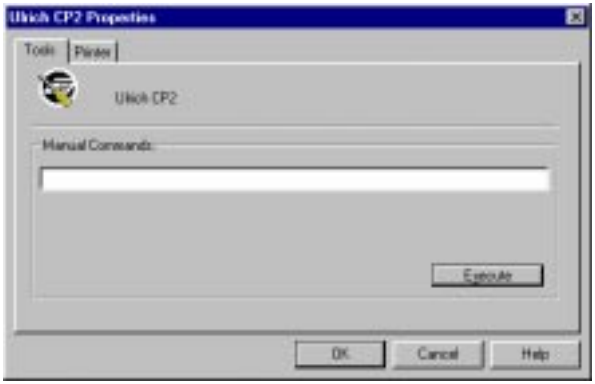
Laminate - Allows to laminate the card. This option is only available if your printer is equipped with a lamination station.

Appendix B9 - Ulrich Series

This section explains the specific properties of the Ulrich series printers.

Tools

Click the **Tools** tab to communicate directly with the printer.



The **Manual Commands** field allows you to execute various printing commands. See your printer manual.

The **Eject Card** button moves and exits a single card from any position between the card feeder and the output tray and automatically synchronizes the ribbon.

Printer

Click the *Printer* tab to configure the printer and the printer capabilities.

Select the printer port to which you connected your printer, usually LPT1.

The printer capabilities are listed below:

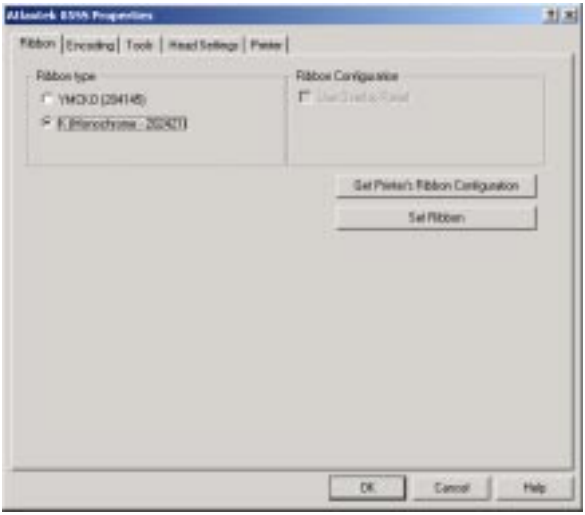
Smart Card Processing - allows to plug in an exe file (typically a chip card processing software) during the print process.

Appendix B10 - Atlantek Series

This section explains the specific properties of the Atlantek series printers.

Ribbon

Click the Ribbon tab to setup the ribbon you want to use.



Ribbon Type

Select the type of ribbon you have installed on your printer.

YMCKO - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan), a black resin panel and an overlay panel.

K (Monochrome) - This is a single-color resin ribbon.

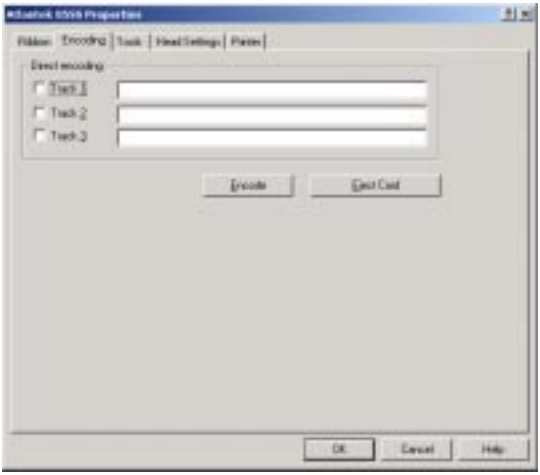
Use Overlay Panel – Check this option to use the overlay panel when print with the 5 panel ribbon.

Use the **Get Printer's Ribbon Configuration** button to get the printer ribbon configuration.

Use the **Set Ribbon** to send the new ribbon configuration to the printer.

Encoding

Click the Encoding tab to change the encoding settings.



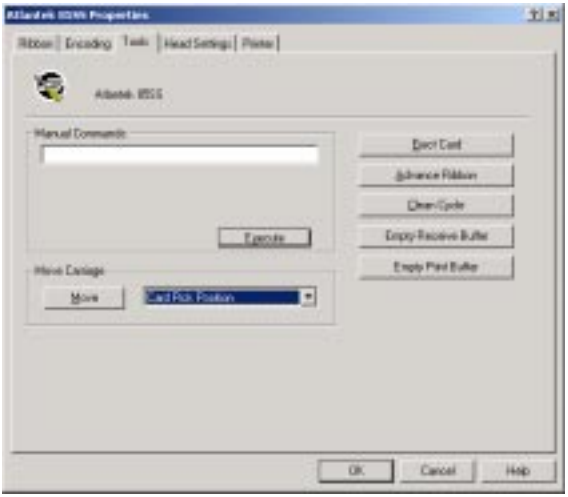
The Direct Encoding section allows you to read or encode the data of the checked track(s). The following table lists the number and type of characters allowed for each of tree tracks.

Track	Character Limit	Allowed Characters
1	79 alphanumeric	ASSCII codes 32-95 Field Separator is ^
2	40 numeric ASCII	ASSCII codes 48-63 Field Separator is =
3	107 numeric ASCII	ASSCII codes 48-63 Field Separator is ^

Note: For more information see Appendix C - Magnetic Encoding.

Tools

Click the Tools tab to communicate directly with the printer.



The **Manual Commands** field allows you to execute various printing commands. See your printer manual.

The **Eject Card** button moves and exits a single card from any position between the card feeder and the output tray and automatically synchronizes the ribbon.

Click **Advance Ribbon** to synchronize the ribbon.

The **Clean Cycle** starts the cleaning printer process.

The **Empty Receive Buffer** button cleans the receive buffer.

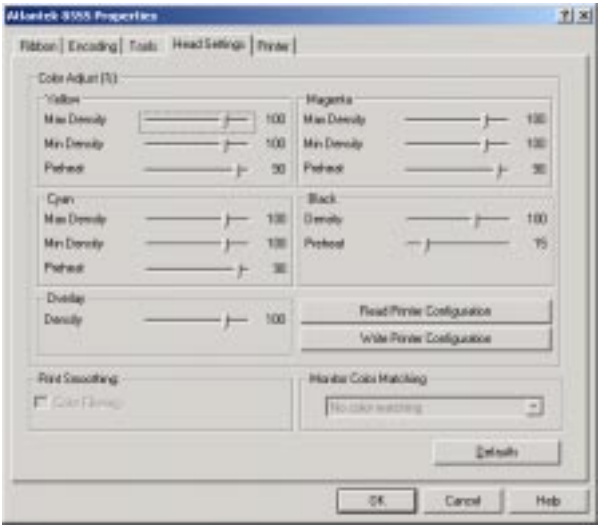
The **Empty Print Buffer** button cleans the print buffer.

Move Carriage

Select the position you want to move to and use the Move button to send the command to the printer.

Head Settings

Click the Head Settings tab to adjust the head settings configurations for the current printer.



Select the percentage value for each color for Max and Min density and also for the Preheat of the printer print head.

Warning: Do not change the default values without consulting your card printer manual first.

Use the **Read Printer Configuration** to read the printer configuration.

Use the **Write Printer Configuration** to send the new configuration to the printer.

Pint Smoothing - Allows to smooth the color banding effect.
Monitor Color Matching - Tries to match the monitor colors with printed colors

Warning: Changing these values can adversely affect the operation of the printer.

Printer

Click the Printer tab to configure the printer and the printer capabilities.

Select the printer port to which you connected your printer, usually LPT1.

The printer capabilities are listed below:

Print Both Sides - ability to print both sides of the card. Only available if your printer is equipped with a card flip assembly.

Smart Card Processing - allows to plug in an exe file (typically a chip card processing software) during the print process.

Contactless Smart Card - allows to plug in an exe file during the print process.

Choose the type of magnetic encoder installed in your printer.

Enable Printer's Print Button - Check this option to enable the printer print button.

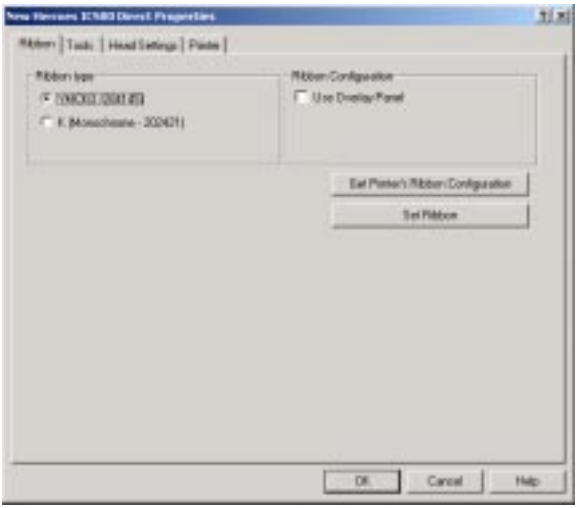
Enable Printer's Other Button - Check this option to enable the printer other buttons.

Appendix B11 – New Hermes Series

This section explains the specific properties of the New Hermes series printers.

Ribbon

Click the Ribbon tab to setup the ribbon you want to use.



Ribbon Type

Select the type of ribbon you have installed on your printer.

YMCKO - This ribbon has sections comprising tree dye-sublimation panels (yellow, magenta, cyan), a black resin panel and an overlay panel.

K (Monochrome) - This is a single-color resin ribbon.

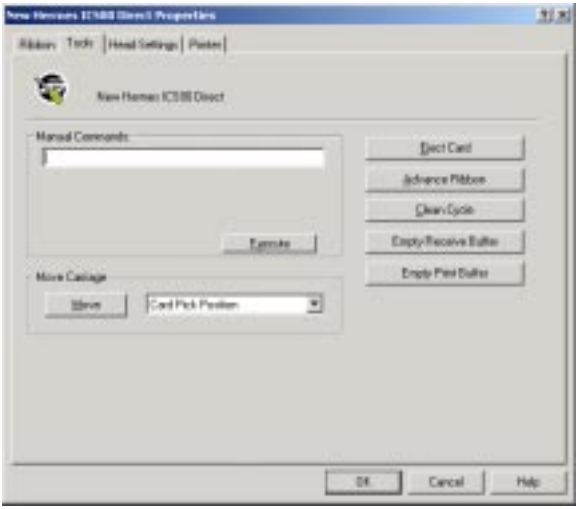
Use Overlay Panel – Check this option to use the overlay panel when print with the 5 panel ribbon.

Use the **Get Printer's Ribbon Configuration** button to get the printer ribbon configuration.

Use the **Set Ribbon** to send the new ribbon configuration to the printer.

Tools

Click the Tools tab to communicate directly with the printer.



The **Manual Commands** field allows you to execute various printing commands. See your printer manual.

The **Eject Card** button moves and exits a single card from any position between the card feeder and the output tray and automatically synchronizes the ribbon.

Click **Advance Ribbon** to synchronize the ribbon.

The **Clean Cycle** starts the cleaning printer process.

The **Empty Receive Buffer** button cleans the receive buffer.

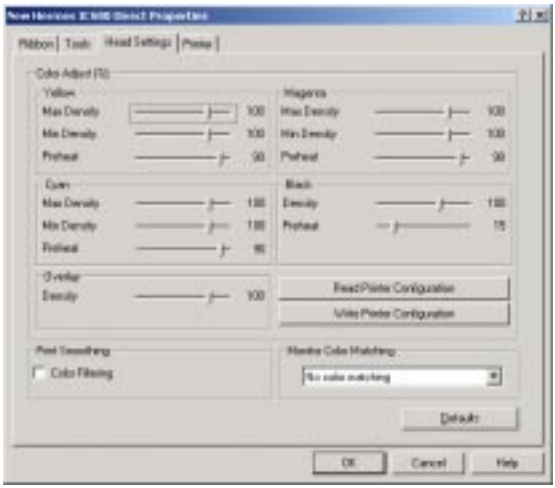
The **Empty Print Buffer** button cleans the print buffer.

Move Carriage

Select the position you want to move to and use the Move button to send the command to the printer.

Head Settings

Click the Head Settings tab to adjust the head settings configurations for the current printer.



Select the percentage value for each color for Max and Min density and also for the Preheat of the printer print head.

Warning: Do not change the default values without consulting your card printer manual first.

Use the **Read Printer Configuration** to read the printer configuration.

Use the **Write Printer Configuration** to send the new configuration to the printer.

Pint Smoothing - Allows to smooth the color banding effect.
Monitor Color Matching - Tries to match the monitor colors with printed colors

Warning: Changing these values can adversely affect the operation of the printer.

Printer

Click the Printer tab to configure the printer and the printer capabilities.

Select the printer port to which you connected your printer, usually LPT1.

The printer capabilities are listed below:

Print Both Sides - ability to print both sides of the card. Only available if your printer is equipped with a card flip assembly.

Smart Card Processing - allows to plug in an exe file (typically a chip card processing software) during the print process.

Contactless Smart Card - allows to plug in an exe file during the print process.

Choose the type of magnetic encoder installed in your printer.

Enable Printer's Print Button - Check this option to enable the printer print button.

Enable Printer's Other Button - Check this option to enable the printer other buttons.

Appendix C - Magnetic Encoding

If your printer is equipped with a magnetic stripe encoder, you can encode data onto cards that have an embedded magnetic stripe.

About Magnetic Stripe

There are two kinds of magnetic stripe cards: low coercivity and high coercivity. (Coercivity is the measurement of a magnetic material's resistance to being magnetized. Low coercivity material magnetizes easier than high coercivity material.) A magnetic stripe encoder is designed to be used with one type of cards only, either high or low coercivity.

Caution: High and low coercivity cards are not interchangeable. Refer to the printer manual to ensure that you have the correct type of card for your model printer.

There are three magnetic tracks on a magnetic stripe card. To comply with international standards, each track is limited to a certain number and type of character.

In addition to the user data, three format characters are added automatically by the printer. The data on each track is preceded by a Start Sentinel, then followed by a Stop Sentinel and Longitudinal Redundancy Check (LRC) character.

Important: Although the printer automatically inserts these three format characters at print time, you must include them in your character count to stay within the allowable character limit for each track.

The following table lists the number and type of characters allowed on each of the three

Track	Character Limit	Allowed Characters
1	79 alphanumeric	ASSCII codes 32-95 Field Separator is ^
2	40 numeric ASCII	ASSCII codes 48-63 Field Separator is =
3	107 numeric ASCII	ASSCII codes 48-63 Field Separator is ^

Encoding a Magnetic Stripe

There are three ways to use the Card Software to encode a magnetic stripe:

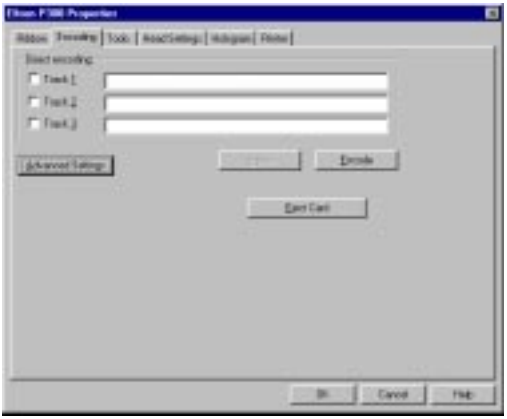
1. To encode a small number of cards, choose **Card Print** from the File Menu, the Card Print dialog box appears. Select the specific printer name for your printer and ***click*** **Properties**. The selected printer properties dialog box appears. ***Click*** the tab **Encoding**.
   - For each card, you must manually type in the information you want to be encoded on each track. It is not very efficient, but is okay for a few cards.
   - Also, you can use this method to erase the magnetic information from a card or to re-encode a card with the same or different data.
2. To encode more than a few cards, use the **Magnetic Encoder Tool** on the lower tool-bar. This more efficient method uses variable data fields in the same way you used them to print variable bar codes, and is preferred when printing imported data.
3. To encode using a Windows Printer Driver you will need to configure the magnetic encoding.

Important: When using either encoding method, ensure that the magnetic stripe cards are properly oriented in the card feeder. Typically, the magnetic stripe is oriented on the bottom of the card and toward the back of the printer. Refer to the printer user manual for more information.

Encoding with Specific Printer Properties

¨ To use the Printer Properties method

1. From the File menu, choose **Card Print**. The Card Print dialog box appears. Select the specific printer name for your printer and ***click*** **Properties**. The selected printer properties dialog box appears.
2. ***Click*** the **Encoding** tab. In the Direct Encoding section select the check box for each track you want to encode.



Tip: To erase magnetic data from a card, select all three track check boxes, but leave the data boxes blank.

3. In the box to the right of the track number, type the data you wish to encode.

Important: You must keep the number of characters (Including the three format characters) within the limits listed previously for each track. The Card Software will not prevent you from entering too many characters.

4. ***Click*** **Encode**. The printer will feed a card through the encoding station in the printer and encode the data on the card.

5. If you do not wish to print anything on the card, ***click*** **Eject Card** and the card will pass through the printer to the card out-put tray.
6. If you wish to print on the card, ***click*** **Ok**, then proceed as you would for printing a non-magnetic card. Don't forget to enable Encode in the Card Print dialog box.

Magnetic Encoder Tool

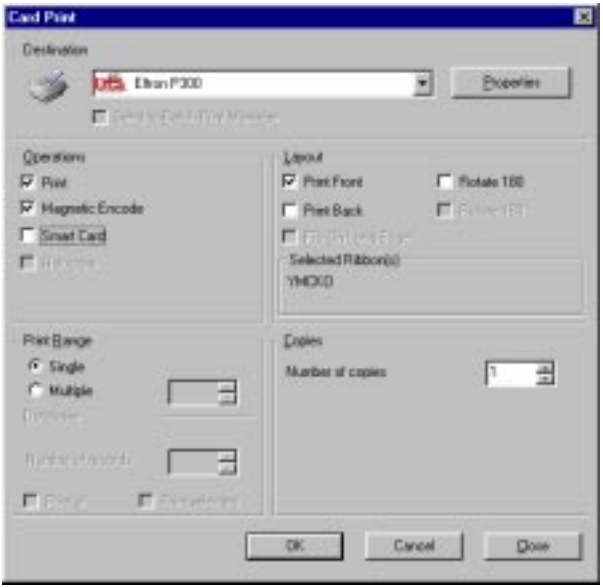
¨ **To use the Magnetic Encoder tool**

1. On the Drawing toolbar, ***click*** the **Magnetic Encoder** tool. The Magnetic Code Object Properties dialog box appears.

2. Select the **Encode** check box for each track (1, 2 or 3) you wish to encode.
3. If the data for a track will not be changing from card to card, type the data in the Default Code box for that track.
4. If the data for a track will be changing from card to card, in the Variable Source box select the variable that is going to provide the data for that track.

5. Repeat steps 3 and 4 for each track you wish to encode.
6. Check the option **ISO Encoding** to use the ISO norm to encode or check the **Costumer encoding** to use a different norm.
7. When finished, ***click*** **OK**.

8. On the Standard toolbar, ***click*** the **Printer** tool. The Card Print Dialog box appears.

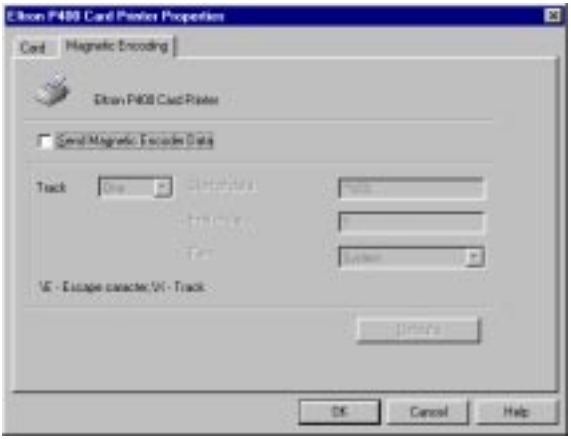


9. Select the **Encode** check box to enable magnetic stripe encoding.
10. If printing more than one card, ***click*** **Multiple**, and then type or select the number of cards to print. Type or select the number of **Copies** of each card to print.
11. ***Click*** **OK**, to print the card(s).
12. Every card will be magnetically encoded with the specified data. If the Print check box from the Operations section is enabled, printing starts after the encoding process.

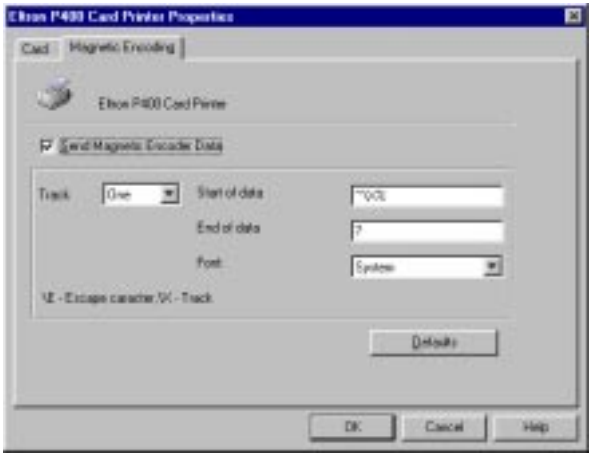
Encoding with a Windows Printer Driver

¨ **To use the Windows Printer Driver**

1. With the current Windows printer driver selected, from the File menu, choose Card Setup. The selected printer dialog box appears. ***Click*** the **Magnetic Encoding** tab.



2. Check the **Send Magnetic Encoder Data** option and configure the macro. Remember that the Start of Data macro must be identical to the driver macro.



Important: The default Card Software macro is a Fargo compatible. If you are using a Eltron Printer, for example, you will have to delete the last character of the **Start of Data** and keep the **End of Data** blank. For more information about other printers macros please consult the printer manual and/or the printers manufacture.

Note: If your printer track list is 0, 1, 2 please replace the X (capital case) for a x (lower case) on the macro.

3. From the File menu, choose **Card Print**. The Card Print dialog box appears. Check the **Encode** option, confirm all the others print operations and ***click*** **Ok**.