



Escan Technologies Corporation®

Exeba® SmartMag

User Guide

Smart Card /Magnetic Stripe Reader/Writer Software

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Exeba® SmartMag User Guide

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Serial Number

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Quick Start

Welcome to Exeba® SmartMag, a powerful smart card, and magnetic card reader/writer software designed to work with the hardware offered by Escan Technologies and Incode Corp. It has two main functions, first to obtain the data from various magnetic/smart card readers, second to send the data to be encoded on magnetic cards using an encoder or a smart card using smart card reader.

In this chapter you will learn,

About the main features of the software.

How to install the software.

How to register the software.

About the main window features.

Software Features

Exeba® SmartMag works with many different hardware. This topic lists the general features of the software as well the specific encoder, smart card reader or magnetic card reader features. The main features of are as follows:

General Software Features

In general, Exeba® SmartMag has the following features:

- ❖ Developed for Windows Vista/ Windows 7/ Windows 8/ Windows 10
- ❖ Provides a single menu to install software, install drivers, view documentation and link to our web site.
- ❖ Provides detailed on-line help and documentation.
- ❖ Easily switch between the different hardware types and application types without exiting the software.
- ❖ Create and manipulate a database.
- ❖ Provides database security by setting a password.
- ❖ Set a default database.

General Smart Card Reader Software Features

General Features

- ❖ Obtain readers and card features.
- ❖ Select between 14 different card applications (predefined and custom).
- ❖ Its Read/Write window provides user the flexibility to read and write any data to the smart card.
- ❖ Allows user to set a default application for quick access.
- ❖ Allows user to select software startup options.
- ❖ Auto connects to smart card readers on startup.

Predefined Applications Features

- ❖ Smart Mag Card application which allows you to use the same track data with all types of hardware.
- ❖ General Card application which contains standard fields such as ID, name, address...
- ❖ Member Card application which can be used for gym memberships...
- ❖ Health card application which can be used in healthcare for quickly identifying patients...
- ❖ Loyalty card application for tracking loyal customers' purchases...

Custom Applications Features

You can select between 9 different custom applications. For this category of applications you can:

- ❖ Select from the predefined layout.
- ❖ Enter a name and description.
- ❖ Customize the fields' name.

All Applications Features

Whether you select a predefined application or a custom application, you will be able to access the following features:

- ❖ Save, update, and delete records in the database
- ❖ Write data from the database into the card
- ❖ Read data from the card directly into the application
- ❖ Move to a previous, next, or any record number
- ❖ Search for a record by entering a criterion
- ❖ View card type
- ❖ Set a PIN# on the card
- ❖ Import data from a text file to the application database.
- ❖ Export data to a text file from the application database.
- ❖ Specify the order and the fields to be included in the export/import file.
- ❖ Query report data and print
- ❖ Compact and repair the application database

General Magnetic Reader and Encoder Software Features

The following features are available to all magnetic card readers and encoders.

- ❖ Select different ports and port settings.
- ❖ Adjust delays and time-out according to the hardware requirements.
- ❖ Select between American and European date formats.
- ❖ Compact and repair a database
- ❖ Import a database

Encoder(s) General Features

The following is a list of features available to encoders only.

- ❖ Auto initializes encoders on startup.
- ❖ Enable and disable each individual track.
- ❖ Select between two different account sequences.
- ❖ Import card data from a text file.
- ❖ Export card data to a text file
- ❖ Query report data and print.
- ❖ Setup a card type template and set a default card type.
- ❖ Setup a prefix database and manipulate it.
- ❖ Read and write standard ISO card data.
- ❖ Copy and write data from one card to another.
- ❖ Erase multiple cards.
- ❖ Write multiple cards.
- ❖ Advanced search for card data records.
- ❖ Swipe search for card data records.
- ❖ Extract fields from tracks' data.
- ❖ Build tracks from card data fields.
- ❖ Set coercivity to high or low.
- ❖ Create multiple database records with different accounts in sequence.

In addition to all the features listed above, each encoder has the following specific commands.

MSR206 Encoder Features

- ❖ Get coercivity settings from the encoder.
- ❖ Get encoder version.
- ❖ Get encoder model#.
- ❖ Send any command to the encoder.

MSR605/606 Encoders' Features

- ❖ Get coercivity settings from the encoder.
- ❖ Get encoder version.
- ❖ Get encoder model#.
- ❖ Send any command to the encoder.

MSR905 Encoder Features

- ❖ Get coercivity settings from the encoder.
- ❖ Get encoder version.
- ❖ Get encoder model#.
- ❖ Send any command to the encoder.

MSRx6/MSR605x Encoder Features

- ❖ Get coercivity settings from the encoder.
- ❖ Get encoder version.
- ❖ Set coercivity.
- ❖ Read, write, duplicate and erase card.

MSR905H Encoder Features

- ❖ Automatically detects HID port

- ❖ Get coercivity settings from the encoder.
- ❖ Get encoder version.
- ❖ Get encoder model#.
- ❖ Send any command to the encoder.

In addition to the general features, all readers share the following features.

Magnetic Card Reader General Features

- ❖ Built in text editor.
- ❖ Poll data from readers.
- ❖ Purge data in the readers.
- ❖ Save data to a database.
- ❖ Save data in a text file.
- ❖ View data in the same format stored in reader.
- ❖ View data formatted to tracks and date and time fields.
- ❖ View data in a tabular format.
- ❖ View and manipulate date in American or European format.
- ❖ Query data to view.
- ❖ Query report data.

In addition to the general software features and the reader general features, each reader has specific features. Here is a list for each reader,

Mini400/Mini400 BT/ Mini400 2G Reader Features

- ❖ Manual log in to the reader.
- ❖ Automatic log in to the reader.
- ❖ Get the total number of records stored in the reader.
- ❖ Set Password for security purpose.
- ❖ Provides a way to retrieve the password.

- ❖ Get product version.
- ❖ Set the date and time.
- ❖ Get the data and time.
- ❖ Set inactivity time out.
- ❖ Get inactivity time out setting.
- ❖ Program track(s) settings.
- ❖ Set buzzer settings.
- ❖ Send programming commands

Mini 600 Reader Features

- ❖ Manual log in to the reader.
- ❖ Automatic log in to the reader.
- ❖ Get total number of records stored in reader memory.
- ❖ Set Password for security purpose
- ❖ Reset password to default.
- ❖ Get product version.
- ❖ Set date and time.
- ❖ Get date and time.
- ❖ Set inactivity power timeout.
- ❖ Get inactivity power timeout setting.
- ❖ Program tracks settings.
- ❖ Send programming commands.
- ❖ Set backlight duration.

Mini123U-SC Reader Features

- ❖ Manual log in to the reader.
- ❖ Automatic log in to the reader.
- ❖ Get the total number of records stored in the reader.
Set Password for security purposes.
- ❖ Get password set in reader.

- ❖ Get product version.
- ❖ Set the date and time.
- ❖ Set power off options.
- ❖ Get power off setting.
- ❖ Setup tracks options.
- ❖ Set buzzer settings.
- ❖ Send programming commands

Mini123EX Reader Features

- ❖ Manual log in to the reader.
- ❖ Automatic log in to the reader.
- ❖ Get the total number of records stored in the reader.
- ❖ Set Password for security purposes.
- ❖ Get password set in reader.
- ❖ Get product version.
- ❖ Set the date and time.
- ❖ Get the date and time.
- ❖ Set power mode.
- ❖ Get power modes setting.
- ❖ Setup tracks options.
- ❖ Set buzzer settings.
- ❖ Send programming commands

TA32 Reader Features

- ❖ Provides two different log in modes: with password for security or without password for faster log in.
- ❖ Provides a menu to change the reader password.
- ❖ Provides a way to get the reader password without deleting or updating the reader's data.
- ❖ Set echo mode.
- ❖ Set the inactivity time-out.
- ❖ Change the reader date and time.

- ❖ Get reader version.
- ❖ Get reader status.
- ❖ Get the hardware serial #.
- ❖ Change the settings for tracks 1, 2 and 3.
- ❖ Send programming command.

MiniDX3 HID/ MiniDX4 HID Reader Features

- ❖ Log in and out of the reader
- ❖ Set and change a password.
- ❖ Get the number of records in the reader.
- ❖ Get the reader version number.
- ❖ Set the power mode.
- ❖ Set the track(s) options
- ❖ Change the time.

MiniDX3 HID/ MiniDX4 HID Reader Features

- ❖ Log in and out of the reader
- ❖ Set and change a password.
- ❖ Get the number of records in the reader.
- ❖ Get the reader version number.
- ❖ Set the power mode.
- ❖ Set the track(s) options
- ❖ Change the time.

MiniDX3/ MiniDX4 Reader Features

- ❖ Log in the reader.
- ❖ Set and change a password.
- ❖ Reset the password.

- ❖ Get the number of records in the reader.
- ❖ Get the reader version number.
- ❖ Set the power mode.
- ❖ Set the track(s) options
- ❖ Change the time.
- ❖ Set the buzzer.
- ❖ Send a command.

Installing Exeba® SmartMag

The installation program installs Exeba® SmartMag from a CD. Before you begin, ensure that your computer meets the requirements listed below.

System Requirements

Exeba® SmartMag has the following system requirements:

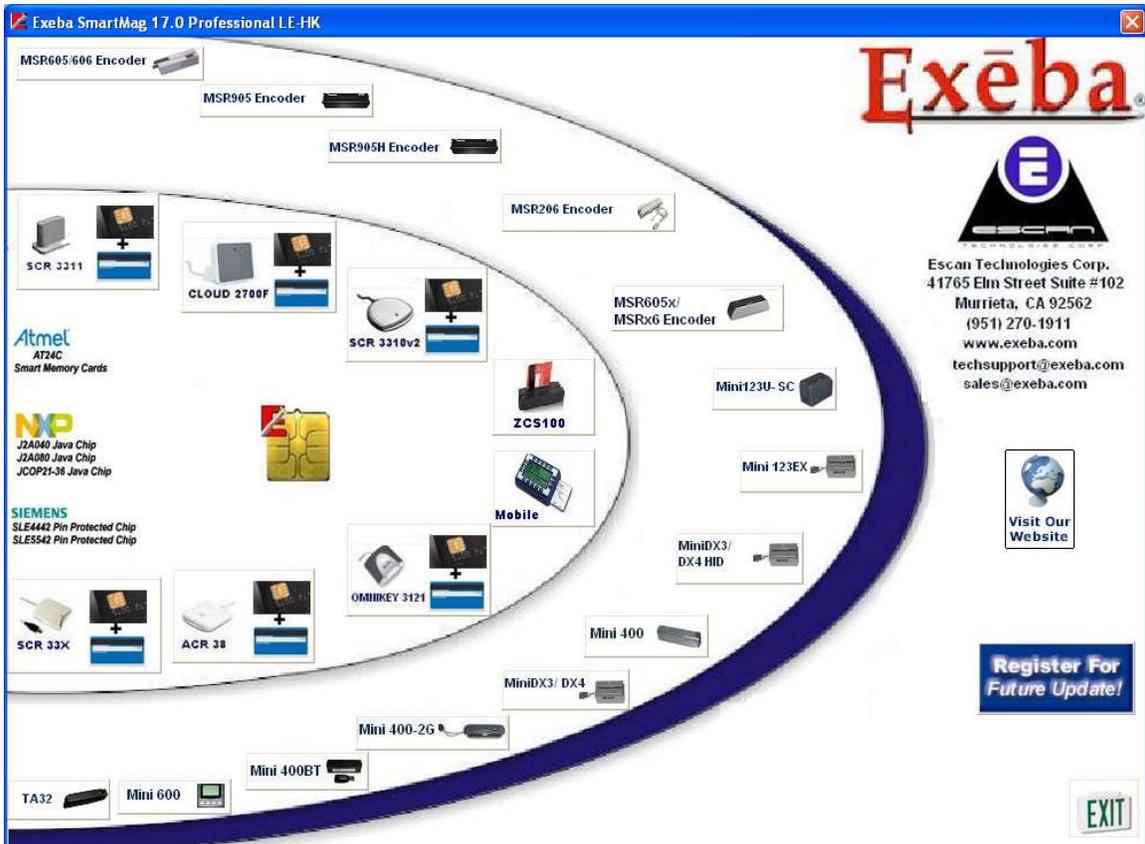
- An IBM PC or compatible computer
- Microsoft Windows 10, Win 8, Win 7, Vista
- A Pentium processor
- Approximately 30 MB of available disk space

Installation

- Make sure all applications are closed.
- Insert the Exeba® SmartMag CD-ROM into your CD-ROM drive. The installation program will start automatically.
- From the first screen that appears select between the English or the Spanish language by clicking on the designated button. Then a screen with the following buttons will appear:
- Install Exeba® SmartMag* - Allows you to install the software on your computer. Once you click on this button the setup program will automatically start. Follow online instructions.
- Install Drivers* - Installing the drivers before connecting the hardware is a must for the hardware to work properly. Click on this button to go to the driver selection screen.
- View Exeba® SmartMag Manual* - Allows you to view/print this manual in PDF format
- Browse CD Contents* - Allows you to view the files on the installation CD
- Register Now* - Connects you to our registration web page. You should be connected to internet to be able to use this feature.
- Download Acrobat Reader* - Connects you to Adobe Acrobat web page to download a free copy of Adobe to view the manual in PDF format.
- Contact Us* - Displays our contact information.

Starting the Software

When you start Exeba® SmartMag, the window below will appear. This window is used to select the hardware you are communicating with, to register the software, and to link to the Exeba® web site.



If the hardware key is not properly installed or is not connected, an error message will appear. You can connect the key without restarting the software. Once the key is detected the following message will appear:



Click on the Ok button and then select the hardware type to access the main screen.

Hardware Types

The required hardware models should be activated, click on the hardware icon and it will open the menu commands that correspond to that hardware model.

Before you start the application, click on one of the following buttons:

Smart Card/Microprocessor Readers

SCR3311 - Click on the button when the SCR3311 card reader is used with the software.

SCR33X – Click on this button when the SCR33X card reader is used with the software.

SCR3310v2 - Click on the button when the SCR3310v2 card reader is used with the software.

CLOUD2700F - Click on the button when the CLOUD 2700F card reader is used with the software.

Mobile – Click on this button when the Mobile card reader is used with the software.

OmniKey3121 – Click on this button when OmniKey3121 card reader is used with the software.

ZCS100 – Click on this button when ZCS100 card reader is used with the software.

ACR38 – Click on this button when ACR38 card reader is used with the software.

Magstripe Encoders

MSR206 Encoder - Click on the button when the MSR206 encoder is used with the software.

MSR 905 Encoder – Click on this button when the MSR905 encoder is used with the software.

MSRx6/MSR605x Encoder – Click on this button when the MSRX6 encoder or MSR605x are used with the software.

MSR 905H Encoder – Click on this button when the MSR905H encoder is used with the software.

MSR605/606 Encoder – Click on this button when either the MSR605 or the MSR606 encoder is used with the software.

Magstripe Portable Readers

Mini400 – Click on this button when a Mini400 reader is used with the software. This will make the Mini400 menu appear in the application's main window.

Mini 400BT – Click on this button when a Mini400BT reader is used with the software. This will make the Mini400BT menu appear in the application's main window.

Mini400-2G – Click on this button when a Mini400-2G reader is used with the software. This will make the Mini400 menu appear in the application's main window.

MINI600 – Click on this button when a Mini600 reader is used with the software. This will make the Mini 600 menu appear in the application's main window.

Mini123U-SC - Click on this button when a Mini123U-SC reader is used with the software. This will make the Mini123 menu appear in the application's main window.

TA32 – Click on this button when a TA32 reader is used with the software. This will make the TA32 menu appear in the application's main window.

Serial Reader (Non Portable) - Click on the button when the RS232 serial reader communication type reader is used with the software.

Mini 123EX – Click on this button if the hardware type is a Mini123EX portable reader.

MiniDX3/DX4 – Click on this button if the hardware type is either a MiniDX3 or MiniDX4 portable reader.

MiniDX3/DX4 HID – Click on this button if the hardware type is either a MiniDX3 HID or MiniDX4 HID portable reader.

Main Window

When starting Exeba® SmartMag, the hardware selection window will appear. From this window, select the hardware type being used.

The hardware can be divided into the following three categories: Smart Card Readers/Writer, Magnetic Card Readers and Magnetic Card Encoders. Once a hardware is selected, the main window appears with different menus and submenus according to selection made.

The following section explains the features of the main window for each category.

Main Window for Encoders/Magnetic Card Readers

When running the program for the first time, you need to create a database and save it as default. From the Database Menu, select Create Database. The default database will always open when an encoder or reader is selected from the hardware menu. A database is where polled reader data will be saved. It is also used by the encoder when the Encode Card menu is opened.

Since the default database automatically opens when the encoder or reader is selected from the hardware menu, the same database is shared between the encoder and the reader. Any data polled from the reader can be accessed by the encoder from the Encode Card menu.

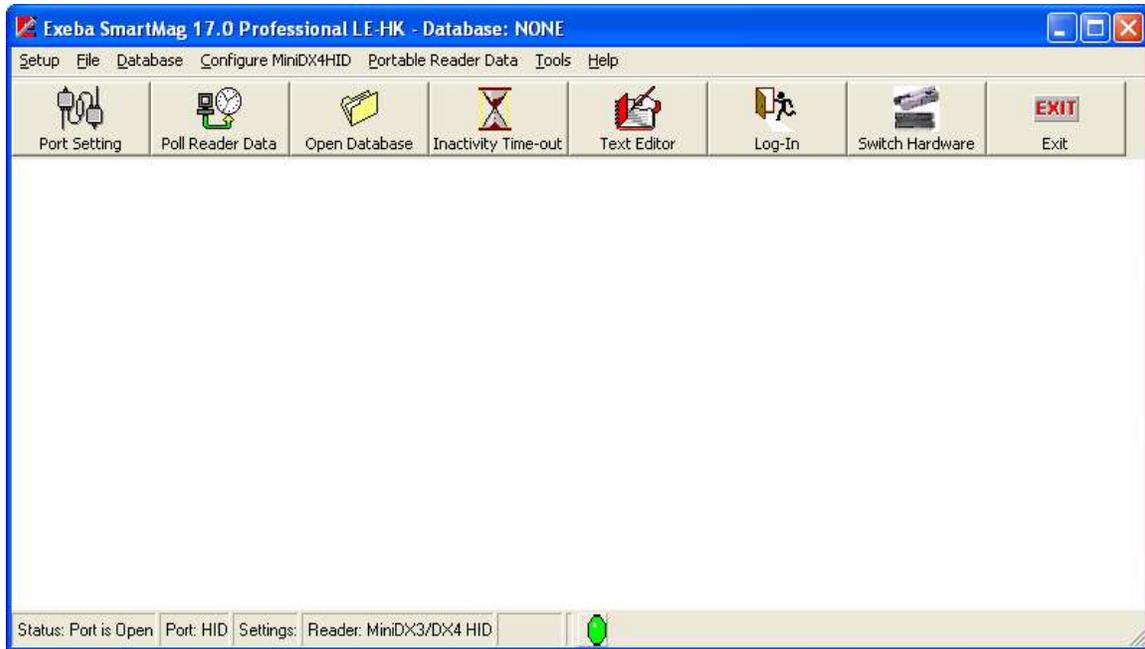
After your default database is created, it is recommended to secure your database by adding a password using the Set Database Password window.

Once a database is created or opened, the main menu will appear with various options.

You will notice that some options in the menu may disappear or appear when a different hardware type is selected. If you are working with more than one hardware type, select the hardware type by clicking on Switch Hardware button.

In this section you will learn about the various options available while navigating through Exeba®-SmartMag. Each menu has its own chapter. Each Chapter describes the function for each option in more detail.

From this window, you can access all the software functions.



Main Menu - This menu has several selections. It is located at the top of the main window.

Button Bar - It is located under the main menu and contains buttons that can be used to easily access some of the frequently used commands in Exeba® SmartMag

Status Bar - It is located at the bottom of the main window and displays communication status messages being used in Exeba® SmartMag.

The following is an explanation of each:

Status – displays any error message returned from the port

Port – displays the port number for the selected port

Settings – displays the current port settings for the selected reader

Reader/Encoder – displays the current settings for the selected reader/encoder

Encoder Settings – the last panel of the status bar, displays encoder settings such as coercivity.

The status bar might be slightly different depending on the hardware selected.

Opening the port

When you select any of the menu commands that require the communication port (USB or RS232) to be open, Exeba® SmartMag will open the port automatically.

Exeba® SmartMag will open the port only if it is closed. It will also reopen it when the port settings are modified.

To open the port manually, click on the light bulb icon in the Status Bar.

The light bulb icon also serves as an indicator for the status of the port. A green bulb icon indicates that the port is open. A red bulb icon indicates that the port is closed.

The status bar for the main window displays the status and settings for the communication port.

NOTE

When communicating with an HID hardware, Exeba® SmartMag will automatically select and open the port or allow you to select between a list of HID ports.

Closing the Port

Once the port is opened, it will not automatically close. To close the port, click on the light bulb icon in the status bar.

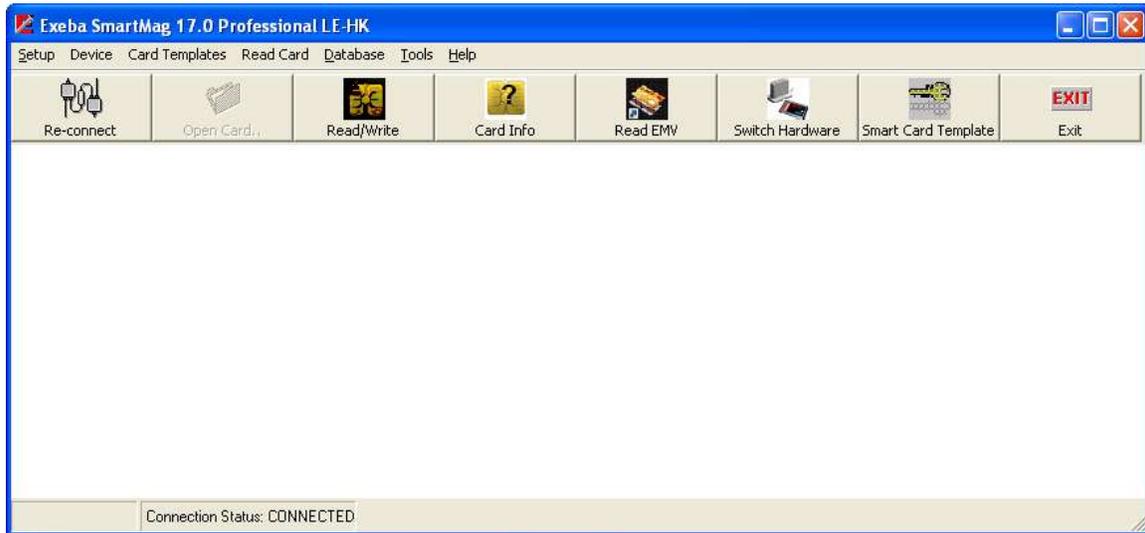
The port is closed automatically when you exit Exeba® SmartMag.

NOTE

When a communication error occurs, Exeba® SmartMag will ask you to cancel or ignore the error. If you select to cancel, the port will be closed.

Main Window for Smart Card Readers

After selecting any of the smart card readers, the following window will appear:



From this window, select the desired software function(s).

Main Menu

It is located at top of the main window. From the main menus, you can access all the program's functions. And these menus are:

- Setup – under this menu you will find commands to setup the application settings and to exit.
- Device – from this menu you can access all the device menu commands such as getting more information about the device, and connecting to it.
- Card Template – the commands under this menu are all related to the type of application that you want to create, whether it is predefined or custom. You can also open an existing, default or the current card application.
- Read Card – the commands under this menu will redirect you to other applications to read/write different type of cards.

- Database – once an application is created, access commands from this menu to manipulate the data in your application such adding or deleting a password. Once you have added data to your application, you can access the commands under this menu to create a report, export and import data.
- Tools – commands under the Tools menu allow you to compact your database, change the application or switch to a different reader.
- Help – the help menu allows you to access on-line help and to get information about the software such as the version number.

Button Bar

It is located under the main menu. The button bar contains buttons that can be used to easily access some of the frequently used commands in Exeba® SmartMag. These buttons are:

- Re-Connect – quick access to the Re-Connect command under the Device menu.
- Open DB – opens an existing database, same as the menu command Open Existing Database under the database menu.
- Read/Write – this is the only access to the Read/Write function of the software. This function allows you to read and write a card without creating an application.
- Card Info – Same as the menu command Card Info under the Card Type menu.
- Read EMV – Access the Import Data command under the File menu.
- Switch Hardware – Same as the menu command Switch Hardware under the Tools menu.
- Card Template – Same as the Create Card Template command under the Card Type menu.
- Exit – quickly access the exit command under the Setup menu.

Status Bar

It is located at the bottom of the main window and displays communication status messages being used in Exeba® SmartMag.

It is displayed as follows:

- Status – displays any communication status with the reader
- Reader – displays the name of the connected reader

Quick Start

If you just need to test the reader or card, then you can

- access the Re-connect button if the software has not established communication with the hardware.
- access the Read/Write button to test the card or reader.

Before you get started with the software, select the application. There 14 different applications in the software. Four applications are predefined (Loyalty, health, general card and members) Nine applications are customized where you can change the name of the field and the name of the application.

Once you decide on the application, create it and save the database file. You can setup a password. Once created, you can manipulate your database as explained in chapter 4.

After an application is created, you can create records that can be read and written from and to the card. Once you have data in the database, you can search for records using the advanced search of the application, create a report of the existing records, export and import the data.



Smart Card Readers - Setup Menu

The Setup menu allows you to change the application's main settings and to exit.

You will be introduced to the following topics,

- General Settings
- Exit application

General Settings

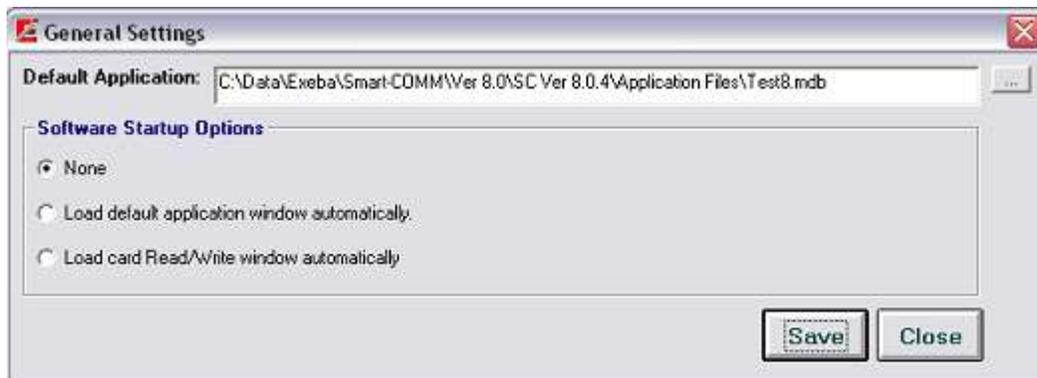
Command Access

From the Setup main menu, select General Settings.

Command Function

This command allows you to change settings that are applied to all of the application features.

Currently there are two settings to change in the software as shown in the figure below,



Default Application

This is the location and name of the database file that the software will save as default. This will allow you to quickly access the application that is linked to the database by clicking on Open Default Database command under the Database menu or by automatically opening the application on startup depending on the Software Startup Options as described below.

Software Startup Options

Once you select the hardware type from the Hardware Switch window, the software will load a function on startup depending on your selection as follows:

None – nothing will start automatically.

Load default application window automatically – loads the default application if any was set as default.

Load card read/write window automatically – load the Card Read/Write window.

Exit Program

Before you exit Exeba® SmartMag make sure you saved your data. To exit the software use one of the following methods:

- From the Setup menu select Exit command.
- Click on the Exit button of the main button bar.
- From the hardware switch window click on the Exit button.

Upon exit, the software will disconnect from the reader if connected and will warn you about any unsaved changes.



Smart Card Readers – Device Menu

This chapter describes the Device menu commands as well as the Read/Write command in details. And these commands are:

- Re-Connect
- Device Settings
- Read/Write Card

Re-Connect

Command Function

This command allows you to connect to the reader if it was connected or disconnected after the software was launched.

Command Access

From the Device menu, select Re-Connect command. Or click on the Re-connect button from the main button bar.

If successful, a message will appear in the status bar.

Device Settings

Command Function

The Device Settings window allows you to get additional information about the card and the reader settings.

Command Access

From the Device menu, select Device Settings. The following window will appear,



Click on the List connected Reader to obtain the name of the reader.

Click on the Get Card Attributes button in order to obtain information about the insert card such as type, memory, no of pins...

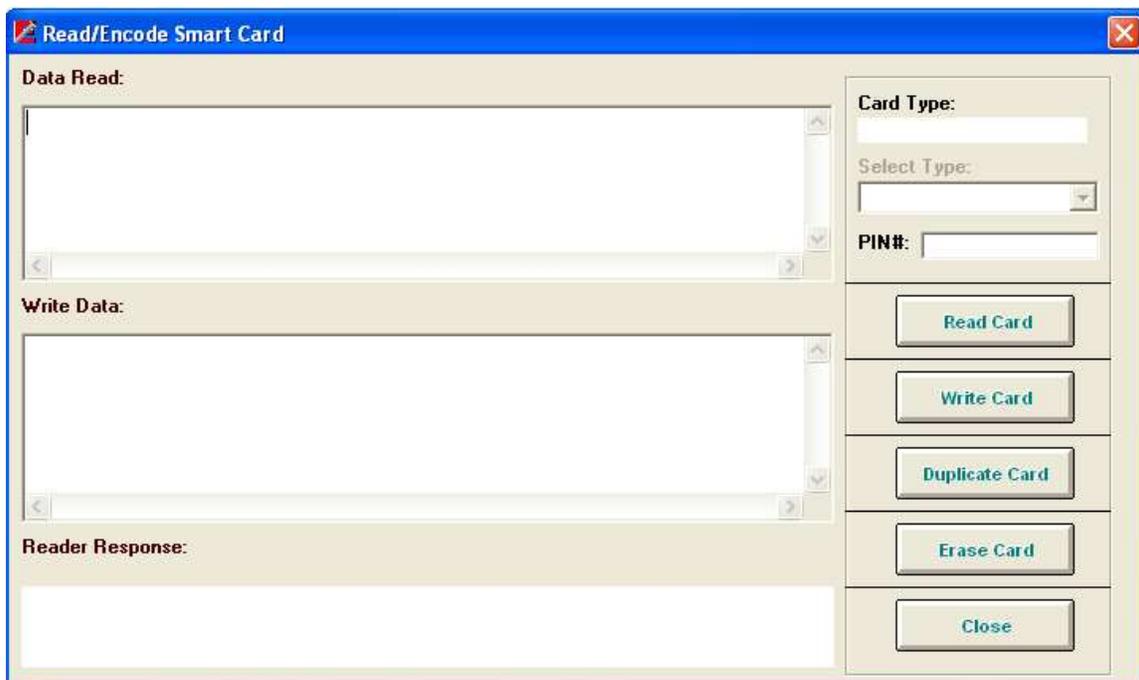
Card Read/Write

Command Function

All of the card applications in the software, defined and custom, allow you to read and write a card based on the fields in the application. However, this window allows you to write the data without linking it to any field. And to read the data from the card as it is stored. You may want to use this command to test the card or read/write data quickly. It also has several other card functions that are not available in any of the card applications.

Command Access

One way to access this command is by clicking on the Read/Write button of the main button bar. Another way would be to select Read Card and then select Read/Write Smart/Memory Card. The following window will appear.



The screenshot shows a software window titled "Read/Encode Smart Card". The window is divided into several sections. On the left side, there are three text areas: "Data Read:" at the top, "Write Data:" in the middle, and "Reader Response:" at the bottom. On the right side, there is a control panel with the following elements: a "Card Type:" label above a text input field; a "Select Type:" label above a dropdown menu; a "PIN#:" label above a text input field; and five buttons stacked vertically: "Read Card", "Write Card", "Duplicate Card", "Erase Card", and "Close".



Smart Card Readers – Card Type

Menu

The applications in the software are divided into two categories Predefined applications and Custom applications. This chapter explains the following in detail:

- What is a predefined application
- How to create a predefined application
- Explain each of the following predefined application card
 - General Card
 - Member Card
 - Health Card
 - Loyalty Card
- What is a custom application
- How to create a custom application
- Sample custom application
- Features common to all applications
- How to search for a record
- Open an Existing Card
- Open Active Card
- Open Default Card

Predefined Applications

In the predefined application, all the fields are predefined by the software. The user is not able to make any customization.

There are 5 types of predefined applications in this version of the software.

Smart Mag Card

General Card

Member Card

Loyalty Card

Health Card

All of these applications can be access through the Card Type menu. When you first open a predefined application, a temporary database is created. Upon closing the application, you will be asked to save your data to the database.

Make sure you check the documentation for each application and/or create a temporary database before you decide on the final application for your card.

Smart Mag Card

This type of application allows you to share the same data between magnetic card readers and smart card readers. From the Card Type menu, select Smart Mag Card and the following screen will appear.

Field Name	Type	Size	Description
Record Date	Date		This is the date on which the record was created in the database. It is automatically generated by the application.
Title	Alphanumeric	5	The title field is predefined in this application. Select one of the following: Mr., Mrs., Ms., Miss, Dr., or Atty. Or leave it blank

First Name	Alphanumeric	25	Card holder first name.
Last Name	Alphanumeric	25	Card holder last name.
Account#	Alphanumeric	20	Card holder account number.
Issue Date	Date		Card Issue date
Member Since	Numeric	4	Year which the card holder became member
Expiration Date	Date		Card Expiration date
Extra Info	Alphanumeric	20	Any other extra information
Notes	Alphanumeric	65,536	Enter any extra information that is different from the predefined fields.
Track1	Alphanumeric	150	Track 1 data
Track2	Alphanumeric	150	Track 2 data
Track3	Alphanumeric	150	Track 3 data

General Application

This type of application consists of basic fields that most cards would have. From the Card Type menu, select General Card and the following screen will appear.

Field Name	Type	Size	Description
Record Date	Date		This is the date on which the record was created in the database. It is automatically generated by the application.
Record Time	Time		This field is also generated automatically by the application once a new record is created. It represents the time.
Title	Alphanumeric	5	The title field is predefined in this application. Select one of the following: Mr., Mrs., Ms., Miss, Dr., or Atty. Or

			leave it blank
ID	Alphanumeric	12	Card holder ID, can be any combination of alpha or numeric characters.
SSN	Alphanumeric	11	Card holder SSN including dashes.
First Name	Alphanumeric	50	Card holder first name.
Last Name	Alphanumeric	50	Card holder last name.
Address	Alphanumeric	60	Street address
City	Alphanumeric	20	City
State	Alphanumeric	5	State
Zip	Alphanumeric	10	Zip code
Phone	Alphanumeric	20	Phone#
Notes	Alphanumeric	65,536	Enter any extra information that is different from the predefined fields.

Member Application

This application can be used to keep track of membership (i.e. gym or club attendance).

Field Name	Type	Size	Description
Title	Alphanumeric	5	The title field is predefined in this application. Select one of the following: Mr., Mrs., Ms., Miss, Dr., or Atty. Or leave it blank.
ID	Alphanumeric	12	Member's ID, can be any combination of alpha or numeric characters.
SSN	Alphanumeric	11	Member's Social Security number.
First Name	Alphanumeric	50	Member's first name.
Last Name	Alphanumeric	50	Member's last name.
Issue Date	Alphanumeric	10	Card issue date.

	ic		
Department	Alphanumeric	30	Membership department or division. Can be used as membership type also.
Address	Alphanumeric	60	Member's street address.
City	Alphanumeric	20	Member's city
State	Alphanumeric	5	Member's state.
Zip	Alphanumeric	10	Member's zip.
Phone	Alphanumeric	20	Member's phone#.
Fax	Alphanumeric	20	Member's fax#.
Email	Alphanumeric	50	Member's email.
Stations Visited	Alphanumeric	65,536	The stations visited by the member. That could be any activity or use of equipment.
Notes	Alphanumeric	65,536	Type in any additional information that is not part of the fields.

Health Application

This type of application allows you to store the patient's data. You can add the patient's insurance information, medicines taken or any other related information.

Field Name	Type	Size	Description
Card ID	Alphanumeric	5	The card holder's ID. Any combination of characters and numbers.
Group#	Alphanumeric	30	Card holder insurance group#.
Group Name	Alphanumeric	50	Card holder insurance group name.
Subscriber ID	Alphanumeric	30	Subscriber's ID
Subscriber Name	Alphanumeric	50	Subscriber's name

Member ID	Alphanumeric	30	Card holder's member ID
Member Name	Alphanumeric	50	Card holder's name.
SSN	Alphanumeric	15	Card holder's social security number.
Date of Birth	Alphanumeric	10	Card holder's date of birth. Enter a valid date of 10 characters. It can be in any format.
Issued Date	Alphanumeric	10	Card issue date.
Plan	Alphanumeric	30	The plan that the member is on.
Medicine Fill Date	Alphanumeric	20	
Medicine	Alphanumeric	50	Medicine name
Medicine Dosage	Alphanumeric	50	Medicine dosage.
Notes	Alphanumeric	65,536	This field is left for any extra information that is not included in the fields' data.

Loyalty Application

This application should be selected for loyalty applications to keep track of a stored value. (i.e. parking, laundry, gaming...)

Field Name	Type	Size	Description
Issued Date	Alphanumeric	15	Date the card was issued.
Store ID	Alphanumeric	50	An ID to identify a store or location.
Points	Alphanumeric	10	Total points.
First Name	Alphanumeric	50	Card holder's first name.
Last Name	Alphanumeric	50	Card holder's last name.
Age	Alphanumeric	5	Card holder's age.
Address	Alphanumeric	60	Card holder's street address.

City	Alphanumeric	15	Card holder's city.
State	Alphanumeric	2	Card holder's state.
Zip	Alphanumeric	10	Card holder's zip code.
Phone	Alphanumeric	20	Card holder's phone#.
Fax	Alphanumeric	20	Card holder's fax.
Email	Alphanumeric	20	Card holder's email.
Value 1	Alphanumeric	15	Stored value 1.
Value2	Alphanumeric	10	Stored value 2.
Draft	Alphanumeric	30	
Notes	Alphanumeric	65,536	Extra information.

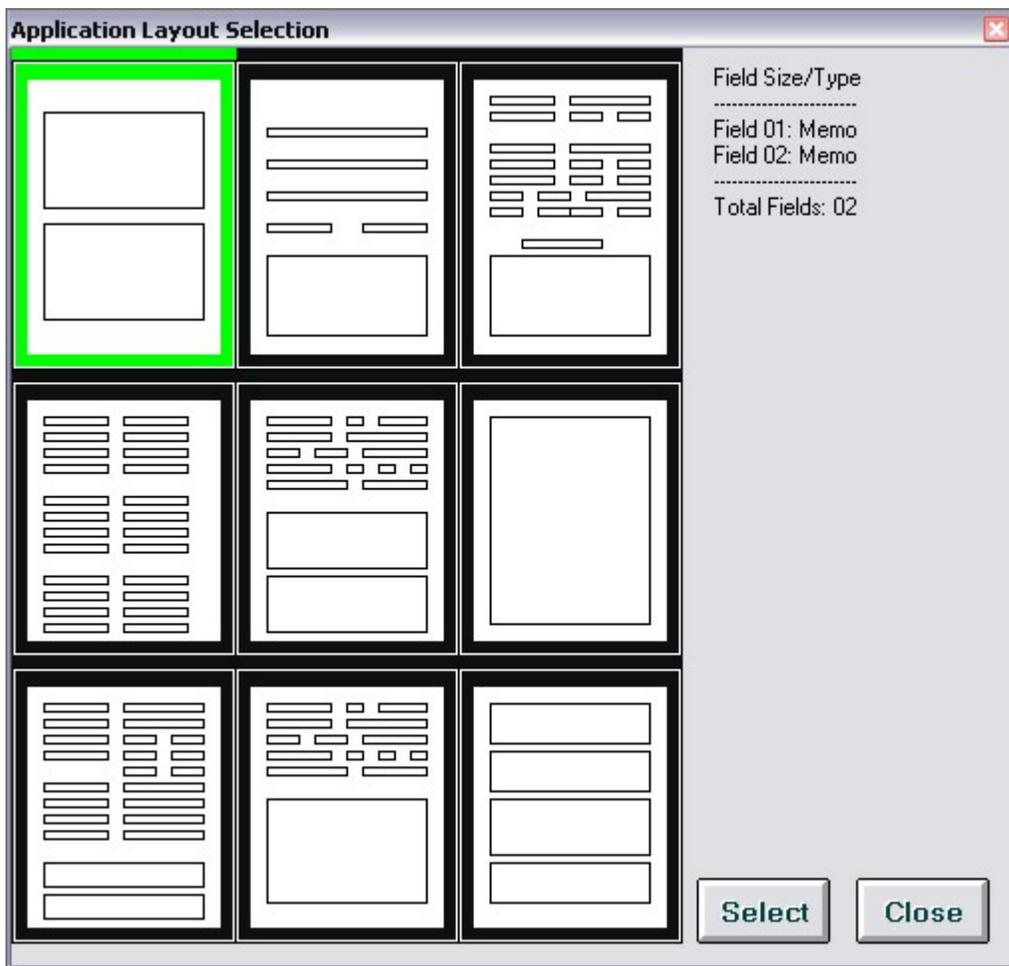
Custom Applications

Command Function

If none of the predefined applications defines all the fields you would like in your application, you can select one of the custom applications defined in the software. To do so you need to start by selecting the application field layout.

Command Access

From the Card Type menu select Create Card Template. The following window will appear.



When you click once on any layout, the field description will appear on the right. Select the layout that best suits your need and double click on it or click on the Select button. This will take you to the next step which is to define the names of the fields.

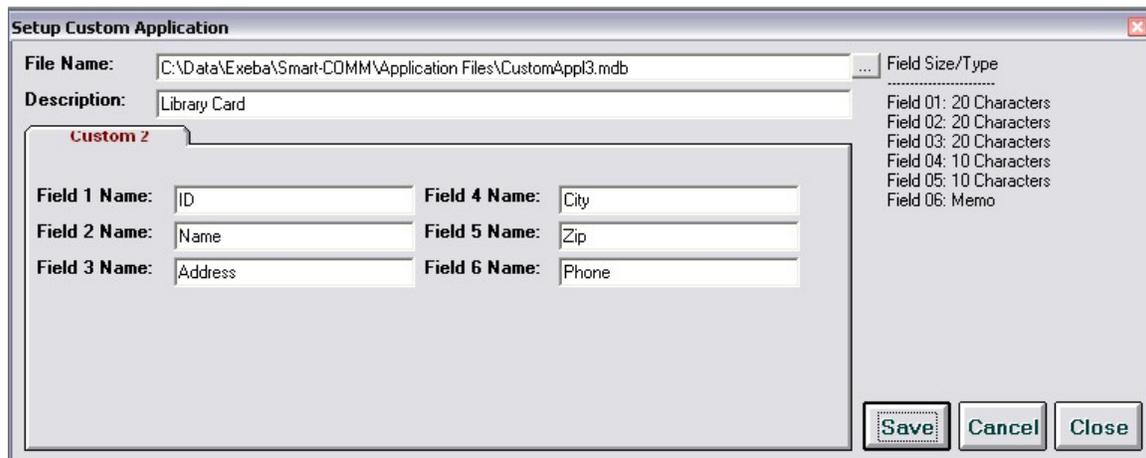
Custom Applications Fields

Command Function

This command allows you to change the name default field names and to enter a description for you custom application.

Command Access

This window will appear automatically once you select the fields' layout.



How does it work?

Start by entering the name and folder of the database file in the File Name box. You can use the browse button as well.

Enter a description for your application in the Description text box.

Enter a name for each field. If the designated box for the field name is left blank, the application will use the default "Field 1", "Field 2", ...for the name.

The window above shows example for a library card application.

- Click on the Save button to save the changes made so far.

- Click on the Cancel button to cancel the creation of a new application. All the selection made will be lost.
- Click on the close button to close this window. If the database file name is missing, you will be prompted to enter one before closing.

Custom Fields Description

This topic provides the list of fields that each application has, as well as their type and size.

Custom Application 1

Total Fields: 2

Field Name	Type	Size
Field1	Alphanumeric	65,536
Field2	Alphanumeric	65,536

Custom Application 2

Total Fields: 6

Field Name	Type	Size
Field1	Alphanumeric	20
Field2	Alphanumeric	20
Field3	Alphanumeric	20
Field4	Alphanumeric	10
Field5	Alphanumeric	10
Field6	Alphanumeric	65,536

Custom Application 3

Total Fields: 22

Field Name	Type	Size
Field1	Alphanumeric	20

Field2	Alphanumeric	20
Field3	Alphanumeric	20
Field4	Alphanumeric	10
Field5	Alphanumeric	10
Field6	Alphanumeric	20
Field7	Alphanumeric	20
Field8	Alphanumeric	20
Field9	Alphanumeric	10
Field10	Alphanumeric	10
Field11	Alphanumeric	20
Field12	Alphanumeric	10
Field13	Alphanumeric	10
Field14	Alphanumeric	10
Field15	Alphanumeric	10
Field16	Alphanumeric	20
Field17	Alphanumeric	10
Field18	Alphanumeric	10
Field19	Alphanumeric	10
Field20	Alphanumeric	10
Field21	Alphanumeric	20
Field22	Alphanumeric	65,536

Custom Application 4

Total Fields: 24

Field Name	Type	Size
-------------------	-------------	-------------

Field1	Alphanumeric	20
Field2	Alphanumeric	20
Field3	Alphanumeric	20
Field4	Alphanumeric	20
Field5	Alphanumeric	20
Field6	Alphanumeric	20
Field7	Alphanumeric	20
Field8	Alphanumeric	20
Field9	Alphanumeric	20
Field10	Alphanumeric	20
Field11	Alphanumeric	20
Field12	Alphanumeric	20
Field13	Alphanumeric	20
Field14	Alphanumeric	20
Field15	Alphanumeric	20
Field16	Alphanumeric	20
Field17	Alphanumeric	20
Field18	Alphanumeric	20
Field19	Alphanumeric	20
Field20	Alphanumeric	20
Field21	Alphanumeric	20
Field22	Alphanumeric	20
Field23	Alphanumeric	20
Field24	Alphanumeric	20

Total Fields: 16

Field Name	Type	Size
Field1	Alphanumeric	20
Field2	Alphanumeric	10
Field3	Alphanumeric	20
Field4	Alphanumeric	20
Field5	Alphanumeric	20
Field6	Alphanumeric	10
Field7	Alphanumeric	10
Field8	Alphanumeric	20
Field9	Alphanumeric	20
Field10	Alphanumeric	10
Field11	Alphanumeric	10
Field12	Alphanumeric	10
Field13	Alphanumeric	20
Field14	Alphanumeric	20
Field15	Alphanumeric	65,536
Field16	Alphanumeric	65,536

Custom Application 5

Total Fields: 1

Field Name	Type	Size
Field1	Alphanumeric	65,536

Custom Application 7

Total Fields: 21

Field Name	Type	Size
Field1	Alphanumeric	20
Field2	Alphanumeric	20
Field3	Alphanumeric	20
Field4	Alphanumeric	20
Field5	Alphanumeric	20
Field6	Alphanumeric	10
Field7	Alphanumeric	10
Field8	Alphanumeric	20
Field9	Alphanumeric	10
Field10	Alphanumeric	10
Field11	Alphanumeric	20
Field12	Alphanumeric	10
Field13	Alphanumeric	10
Field14	Alphanumeric	20
Field15	Alphanumeric	20
Field16	Alphanumeric	20
Field17	Alphanumeric	20
Field18	Alphanumeric	20
Field19	Alphanumeric	20
Field20	Alphanumeric	65,536
Field21	Alphanumeric	65,536

Custom Application 8

Total Fields: 15

Field Name	Type	Size
Field1	Alphanumeric	20
Field2	Alphanumeric	10
Field3	Alphanumeric	20
Field4	Alphanumeric	20
Field5	Alphanumeric	20
Field6	Alphanumeric	10
Field7	Alphanumeric	10
Field8	Alphanumeric	20
Field9	Alphanumeric	20
Field10	Alphanumeric	10
Field11	Alphanumeric	10
Field12	Alphanumeric	10
Field13	Alphanumeric	20
Field14	Alphanumeric	20
Field15	Alphanumeric	65,536

Custom Application

Total Fields: 4

Field Name	Type	Size
Field1	Alphanumeric	65,536
Field2	Alphanumeric	65,536
Field3	Alphanumeric	65,536
Field4	Alphanumeric	65,536

Application Windows

This is an example of an application that was created using custom application #2 layout.

The screenshot shows a 'Library Card' application window. The main area contains several input fields for card information: ID (090909), Name (John Doe), Address (898 Tyler Cir), City/Zip (98098), and Phone (9999999999). A 'Notes' text area is also present. On the right side, there are fields for 'Record#: 1 of 1', 'Card Type:', and 'PIN:'. Below these are four buttons: 'Read Card', 'Write Card', 'Clear Fields', and 'Edit Fields'. At the bottom, there is a toolbar with icons and labels for 'New', 'Save', 'Delete', 'Previous', 'Next', 'Move To...', 'Search...', 'Report...', and 'Close'.

The fields will be different for every application. However, they all the following in command.

Common Fields

Record # - displays the record number of the displayed record as well as the total records in the database.

Pin # - displays the pin (if any) of the card data once a card is read. You can also type in a pin before the data is written to the card.

Card Type – displays the type of the card once a card is read.

Common Buttons

New – click on this button to create a new record. This button will change into Cancel button when a new record creation is in process.

Save – once you read a card, create a new record or update an existing one, click on this button to save the changes made.

Delete – deletes an existing record from the database.

Previous – moves to a previous record in the database.

Next – move to the next record in a row in the database.

Move To... - click on this button to move directly to a particular record based on the number you enter.

Search... - click on this button to search for a record based on a criterion.

Report... - this button will open the report query window.

Close – this button will close the application window.

Read Card – click on this button once you are ready to read a card. This button is similar to creating a new record but in this case the data will be coming from the card. Please insert the card before click on this button. Also make sure the software has established communication with the reader. If the data on the card matches the application it will appear in the designated fields.

Write Card – click on this button to write that data that appears on the screen of the application window to the card insert in the reader. As in the Read Card function, make sure the software is communicating with the hardware and a card is already inserted in the reader. Please note that if any data exists on the card it will be overwritten.

Clear Fields – this button will simply clear any data entered or read from the application window. It will not affect the data on the card or the database.

Search for a Record

Command Function

This command is available to all applications. It allows you to search for a record in the database based on criteria.

Command Access

You can access the Search command from the application's setup window by clicking on the Search... button.

How it works?

Once you click on the Search button a window with different fields according to your application will appear. The following application displays a sample custom application 2 fields.

Rec#	Title	Author	Group	Start Date	Due Date	Notes
▶ 2	Arthur Secret Club	Arthur Zulac	Kids Club	08/11/08	01/09/09	
*						

To search for an account number, enter the complete number in the text box. After clicking on Using this utility you can search for a record based on a criterion you set for a field in your application. When this window appears, the Search For list box will be populated by a number of fields from you application.

To search for a record,

Select the criteria from the Search For list.

If your criterion is of date type, then enter the correct date in the Enter Data box. Otherwise enter the exact data or part of the data and wild cards (* any number of character, ? any single characters). For example, if you know only the first 3 digits of the author fields enter the 3 digits followed by an asterisk (Such as Art*). The search function will look for all records that have an author that start with Art

Click on the Search button. If one or more records are found, they will be displayed in the table as shown above. Highlight the record you want and double click on it. This window will disappear and you will go back to the Application Setup window.

If you need to start over, click on the Clear button to clear the Enter Data box.

Open Active Card

Command Function

This submenu command allows you to open or reopen the current active card window. For example, if you closed the current General Card application window, you can reopen it again later by using this command.

Command Access

From the Card Type menu, select Open Active Card.

This command is available if the current application database is active.

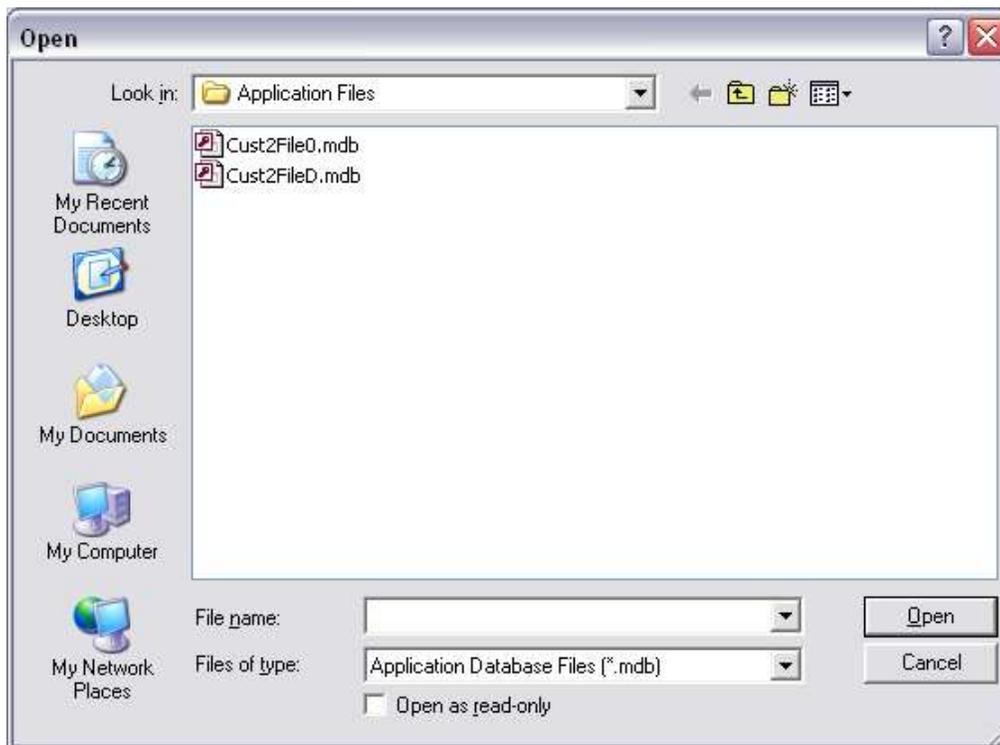
Open Existing Card

Command Function

The Open Existing Card command will allow you to open a previously created card database.

Command Access

From the Card Type menu, select Open Existing Card. Or click on the Open DB button of the button bar. The following window will appear,



How it works?

1. In the Look In box, select the drive and folder where the database file is located.
2. In the File Name box enter or select the name of the database file.
3. Click on the Open button to open the database.

If the database file you selected is password protected, the following window will appear.



Enter the database password. Then click on the Ok button.

The name of the active database file will appear at the top of the main menu and the window linked to application database will appear. For example, if the database was created using Loyalty card then the loyalty card application window will appear.

Open Default Card

Command Function

This command allows you to open the default application automatically. First, a default database should be created in the software. A database can be created either by entering the name and folder in the General Settings or by selecting to save a newly created application as your default when prompted to do so by the software.

Command Access

From the Card Type menu, select Open Default Card.

This command is available only if no database is currently open.



Smart Card Readers - Database Menu

The Database menu is used to open an existing database and to change the database password. The commands in this menu will appear enabled or disabled according to status of the database.

In this chapter the following topics are explained in details:

- Set Password
- Clear Password
- Import Card Data records
- Export Card Data records
- Print Card Data Reports

Set Database Password

Command Function

This command is used to create a new password or change the existing one for the active database.

Command Access

This command is available only if a database file is open. From the Database main menu, select Set Password. The following window will appear,



How it works?

1. In the Current Password box, enter the existing password for the active database, if any. Leave this field blank if you are creating a password for the first time.
2. In the New password box, enter a new password. The password can be up to 14 alphanumeric characters. Passwords are case sensitive. You cannot leave the new password blank.
3. Reenter the new password in the Confirm password box. Make sure you write down the new password. Once lost, you will NOT be able to open the database file again.

4. Before you click on the Ok button, if you decided not change the existing password click on the Cancel button. The following window will appear and this window will be closed automatically.



4. Click on the Ok button to save the changes made to the password. If any of the Current Password, New Password, or Confirm Password are invalid the following message will appear,



If the changes were successful, the following message will appear and the window will be closed automatically.



Clear a Password

Command Function

Use this command to clear the existing database password.

Command Access

From the Database menu select Clear Password. The following window will appear,



How it works?

In the Current Password box, enter the existing password. Then click on the Clear button to clear the password. If the password you entered is correct then the following message will appear and the window will be closed automatically.



Otherwise, the following message will appear,



Enter the password and try again. If you do not wish to clear the password then click on the Cancel button. The following message will appear, and the window will be closed automatically.



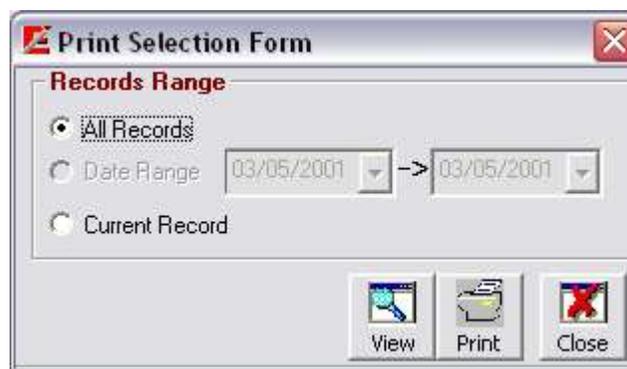
Create a Report

Command Function

This command allows you to print reports of the active database application. It also allows you to select the range of data to print.

Command Access

In order for this command to be available, a database should be open. From the File menu, select Report. If the application setup window is open, you can also access this window by just clicking on the Report button. The following window will appear.



How it works?

1. Start by selecting the range of data to be included in the report. Please note that some options in this window might be disabled for different application types.

All Records – When you select this option, all the existing records in the database, will be included in the report.

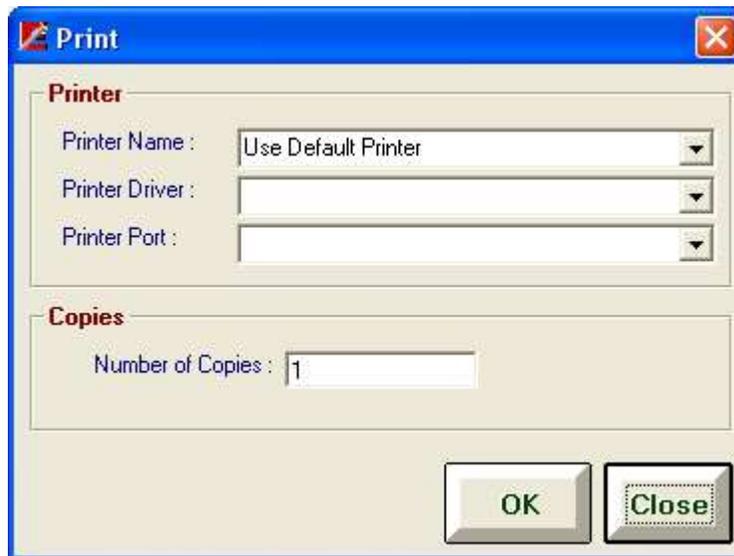
Date Range– Available to some applications. Select this option if you would to see a report of all the records that were created between specific dates. Then select the dates from the calendar provided.

Current Record – this option is available only when you are accessing the Report Query window from the application setup window. It allows you to print a report of the current record shown in the setup window.

2. Click on one of the following buttons,

View – this button allows you to preview a report before printing it. Then you can click on the printer icon of this window to print the report.

Print – click on this button to print a report without viewing it.



From this window select the printer name, printer driver, printer port and the number of copies and then click on the OK button.

To close this window, click on the Close button.

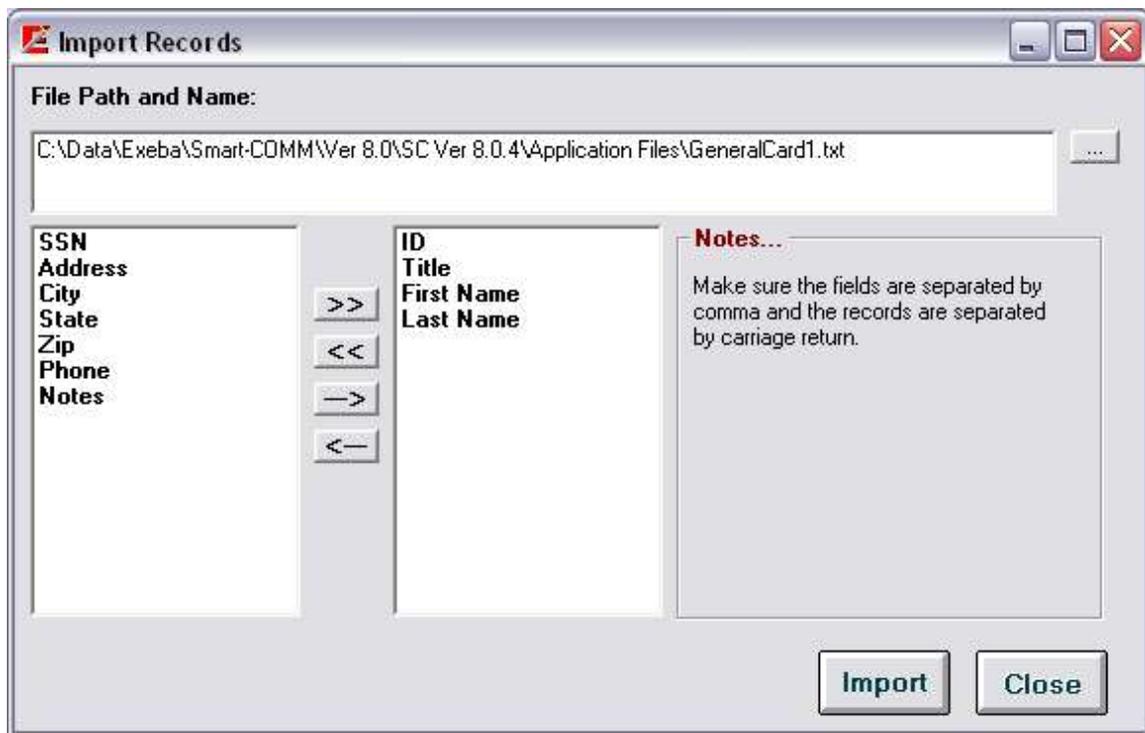
Import Records

Command Function

This command is used to import data from a comma delimited text file to the active application database.

Command Access

This command is available only if an application is open. From the File menu, select Import, then select Import Records. Or click on the Import button of the button bar. Depending on the application, a window similar to the one below will appear.



How it works?

1. Create the file to be imported while keeping the following rules in mind:

Unless the file contains only one field, all fields should be separated with commas even if field is blank.

The records (or lines) must end with a carriage return.

The order of the fields in the file should be the same as the order of the fields in import list of the window above.

2. In the File Name and Path box, enter the location and name of the file to import. You can also use the browse button (...). When you click on this button the Save As standard window appears. Select the drive, folder and name of the file to be imported.

3. Select the fields list by highlighting the field, then clicking on one of the following buttons to add it to the import list.

→ - adds a single field to the end of the list

← - deletes a single field from the list

>> - adds all the fields to the import list

<< - deletes the import list

4. Click on the Import button to import the file. If successful a message will be displayed and the data can be viewed in the application window, Reports, etc...

Export Records

Command Function

This command exports data from the application database into a comma delimited text file.

Command Access

The command is available only when an application is open. From the File menu, select Export Records. Depending on the application type and fields a window similar to the one below will appear.



How it works?

1. Enter the location and name of the file in the File Path and Name box. You can also click on the Browse button to locate or create the file using the Save as standard window. When this window appears, select the drive, folder and name of the file to export the data to.

2. Then select the range of data you would like to include in the file. These options are available options to some types of applications only and they are:

All Records – will basically export all the data in the current database.

Record Date – if you need to export only the records that were created between specific dates select this option then select the range of dates.

Issue Date – if you only need the records that have an issue date between specific dates, select this option and select the range of date.

3. If you would like the name of the fields to be the first line in the text file, then click on the Include Header in Export File option.

The next step would be to select the field(s) to export and in the order required.

Export From List - This box lists all the available fields that can be exported.

Export To List - This box shows the fields that you select to export.

Field Selection

- ->This button will add a single field to the end of the Export To List. Highlight the field in the Export From List then click on this button.

>> - This button will move all the fields in the Export From List to the Export To List. The contents of the Export To List will be replaced by the Export From List.

<- - To remove a field from the export list, highlight the field in the Export To List, and click on this button.

<< - To remove all the fields from the export list, click on the Export button

Export - By clicking this button, the fields in the list box Export To List will be written to the specified text file.

Close - Use this button to close the window and return to the main menu.



Smart Card Readers – Tools Menu

Under this menu you will find commands to compact or repair, the application database, to change the selected application, and to change the hardware selection.

- Compact & Repair Database
- Switch Application
- Switch Hardware

Compact & Repair Database

As the data in the application is updated, the size of the database file grows over time. The Compact Database utility compacts and repairs the database, thus making it smaller in size. It also allows all of the software functions to run more efficiently.

To compact the database, select the Tools menu, then select Compact and Repair Database.

Before you use this function, make sure all the windows in the software are closed and only a single user is running the software.

If the database is corrupted, the Compact Database utility will attempt to repair it. Since this utility cannot fix all the possible forms of database corruption, it is recommended to always back-up the database files to avoid unrecoverable data loss.

Switch Application

Command Function

As mentioned in this manually, currently there are 13 different applications that you can work with in the software. While working with one application, to create or switch to another one of the same type or different type, select Switch Application command.

Command Access

This command is only available when an application is open. From the Tools menu, select Switch Application.

How it works?

All the open application windows, such as Application Setup window, Import Records, Export Records, and Search By should be closed before you can switch to a different application. Once you click on this menu selection, the following menu commands will be enabled / disabled accordingly:

Menu Command	Enabled/Disabled
General Card	Enabled
Member Card	Enabled
Health Card	Enabled
Loyalty Card	Enabled
Create Card Template	Enabled
Open Existing Database	Enabled
Open Default Database	Enabled
Open Current Database	Disabled
Set Password	Disabled
Clear Password	Disabled

Report	Disabled
Export Records	Disabled
Import Records	Disabled
Compact & Repair Database	Disabled

As shown in the table above the commands available for an open database application, will be disabled and the commands that allow you to open or create a new application are enabled.

Switch Hardware

Command Function

This command is used to switch from one hardware type to another without closing the software application.

Command Access

The Switch Hardware submenu is found under the Tools menu. You can also click on the Switch Hardware button of the main button bar.

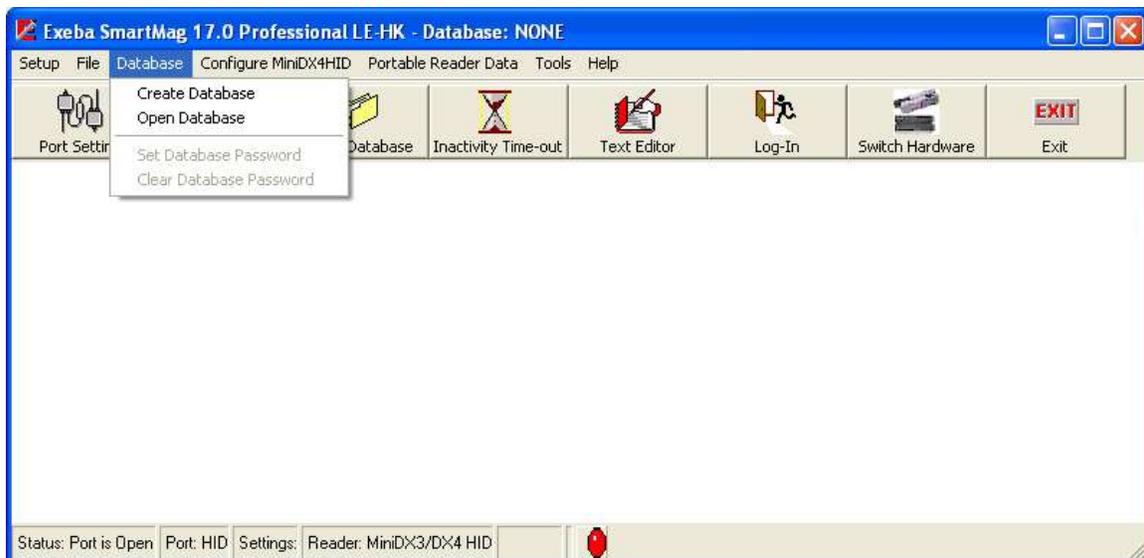
How it works?

When the Switch Hardware command is selected, the Hardware Switch window will appear. Select the new hardware type by clicking on the designated button.

Magnetic Reader/Encoder - Database Menu

Introduction to the Database Menu

The **Database** menu is used to create and open a database. The database Password is also changed from this menu. Once the database is unlocked in the software, this menu becomes available for all types of readers and encoders.



In this book the following topic are explained in details:

- Create a new Database

- Open an Existing Database
- Change Password
- Clear Password
- Card Data
- Reader Data Records

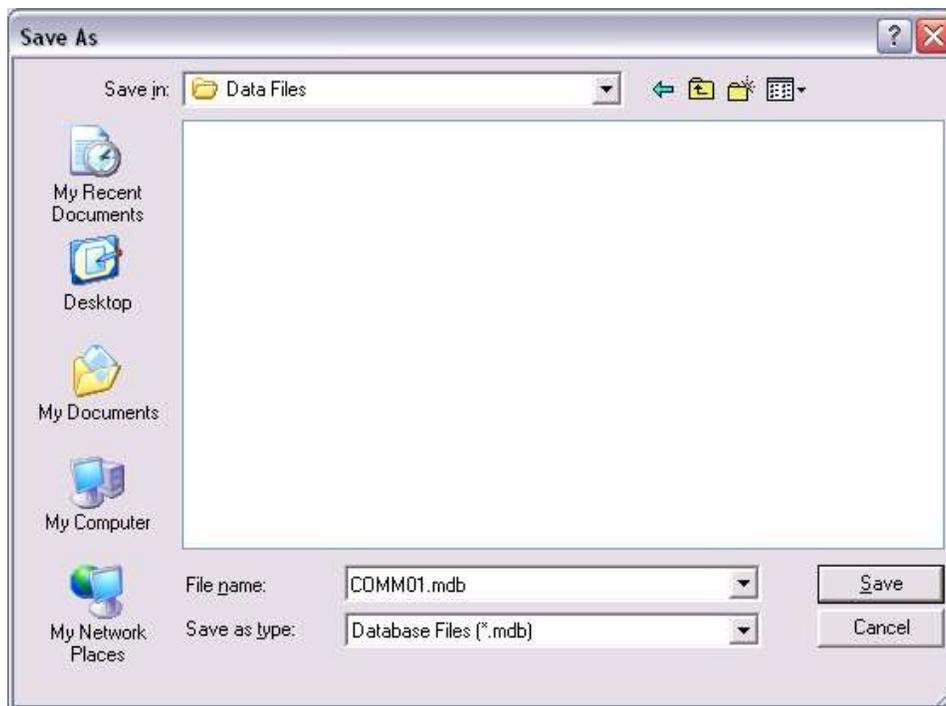
Create Database

Command Function

This command will create a new database and save it in the location that you specify. It will also allow you to set the new database as the default database. When the program is used for the first time, it is recommended to use this command to create the default database.

Menu Access

From the Database menu, select Create Database. The standard **Save As** dialog window will appear as shown below.



How it works?

1. In the Save In box, select the drive and folder where the database file will be saved.

2. In the File Name box enter the name of the new database file. You do not need to enter an extension. All database files will be saved with .mdb (access format) extension. If the file already exists, a warning message will pop up asking you if you want to overwrite it.

3. Click on the Save button to create the database.

4. Once created, you will be asked whether you want to set the new database as the default database. As shown in the figure below.



When set as default, the database file will open automatically every time the program is launched. Click on Yes button to set the database as default. Click on No if you would like to work with the new database until you exit the program.

Once the database is created, all the database functions will be enabled in the software. A new database is not password protected. It is recommended to use the Set Database Password to create a new password.

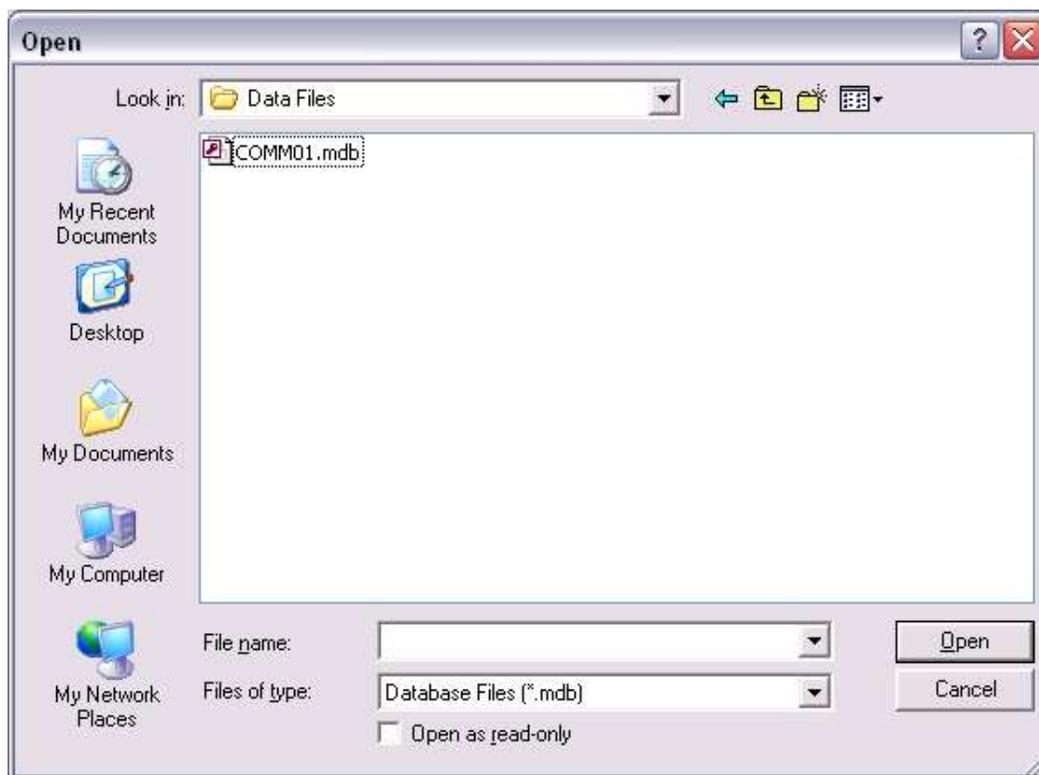
Open Database

Command Function

The Open Database command will allow you to open a previously created database. It also allows you to set an existing database as default.

Menu Access

From the Database menu, select Open Database. Or click on the Open Database button of the button bar. The following window will appear,



How it works?

1. In the Look In box, select the drive and folder where the database file is located.
2. In the File Name box enter or select the name of the database file.
3. Click on the Open button to open the database.

If the database file you selected is password protected, the following window will appear.



Enter the database password. Then click on the Ok button.

The name of the active database file will appear at the top of the main menu.

Set Database Password

Command Function

This command is used to create a new password or change the existing one for the active database.

Menu Access

This command is available only if a database file is open. From the Database main menu, select Set Database Password. The following window will appear,



How it works?

1. In the Current Password box, enter the existing password for the active database, if any. Leave this field blank if you are creating a password for the first time.
2. In the New password box, enter a new password. The password can be up to 14 alphanumeric characters. Passwords are case sensitive. You cannot leave the new password blank.
3. Reenter the new password in the Confirm password box. Make sure you write down the new password. Once lost, you will not be able to open the database file again.

4. Before you click on the Ok button, if you decided not change the existing password click on the Cancel button. The following window will appear and this window will be closed automatically.



4. Click on the Ok button to save the changes made to the password. If any of the Current Password, New Password, or Confirm Password are invalid the following message will appear,



If the changes were successful, the following message will appear and the window will be closed automatically.



Clear Database Password

Command Function

Use this command to clear the existing database password.

Menu Access

From the Database menu select Clear Database Password. The following window will appear,



How it works?

In the Current Password box, enter the existing password. Then click on the Clear button to clear the password. If the password you entered is correct then the following message will appear and the window will be closed automatically.



Otherwise, the following message will appear,



Enter the password and try again. If you do not wish to clear the password then click on the Cancel button. The following message will appear, and the window will be closed automatically.



Database Reader Data

The reader data referred to in the software is the database record with the format explained in this section.

Format

When the data is obtained from the different sources listed below, it will be saved in the following fields in the database.

- Track 1** – this field can contain up to 150 alphanumeric characters. For example, data from track 1 will be automatically saved to this field.
- Track 2** – this field can contain a maximum of 150 alphanumeric characters.
- Track 3** – this field can contain a maximum of 150 alphanumeric characters.
- Date** – whether the source is the reader or computer date, this field will save data in one of the following formats: mm/dd/yyyy or dd/mm/yyyy according to your date selection.
- Time** – this field will save the time as follows hh:mm:ss.

Sources

- Reader** – When data is polled from any of the following readers currently working with the software: Mini 400, Mini400BT, Mini400 2G, Mini 600, Mini123 U-SC, Mini123 EX, and TA32. It is saved in the database in the fields listed above.
- Import Utility** – Using the import utility you can import data from a text file into the database reader data.
- Import Database** – This utility imports merges reader data from another database.

Usage

The reader data is used by the software as follows:

- **Encode** – After the reader data is obtained from the sources listed above, the software will automatically extract the card data using the default card type if the data matches the specification of the card type. This will make the data available for encoding.
- **Report** – When this data is saved in the database, you will be able to generate reports as explained in section X.X
- **Export Utility** – If you need to use this data with different software, this utility will allow you to transfer the data to a text file as explained in section X.X

Database Card Data

Format

When data is obtained from the sources list below it will be saved in the database with the following format:

- Account#** - any alphanumeric characters (maximum 20).
- Title** – up to 5 alphabetic characters.
- Last Name** – any alphabetic characters up to 25.
- First Name** – any alphabetic characters up to 25.
- Record Date** – date format (mm/dd/yyyy).
- Issue Date** – Date format (mm/dd/yyyy).
- Member Since** – Numeric data in the following format (mmyy).
- Expiration Date** – Numeric data in the following format(yymm).
- Extra Info** – this field can contain up to 20 alphanumeric character.

Source

- Encoders** – When you read a card using any of the following encoders that work with the software: MSR605, MSR505, MSR206, MSR905H, MSR905, or MSRX6 and the encoder window.
- Readers** – As described in the previous section, data that comes from the reader is automatically extracted into card data according to a default type you select.
- User Created** - Unlike the Reader Data, the Card Data can be created and manipulated one record at a time manually by the user in the Encoder window.
- Import Utility** – this utility allows you to import data from a text file to the database reader data as explained in section X.X
- Import Database** – data can be imported from an older version of Exeba® SmartMag

Usage

- Export** – card data can be exported into a text comma delimited text file.
- Report** – or you can print the data in the form of a detailed report.
- Encode Data** - most important function is that you can write this data on a card using any of the encoders used in the software.

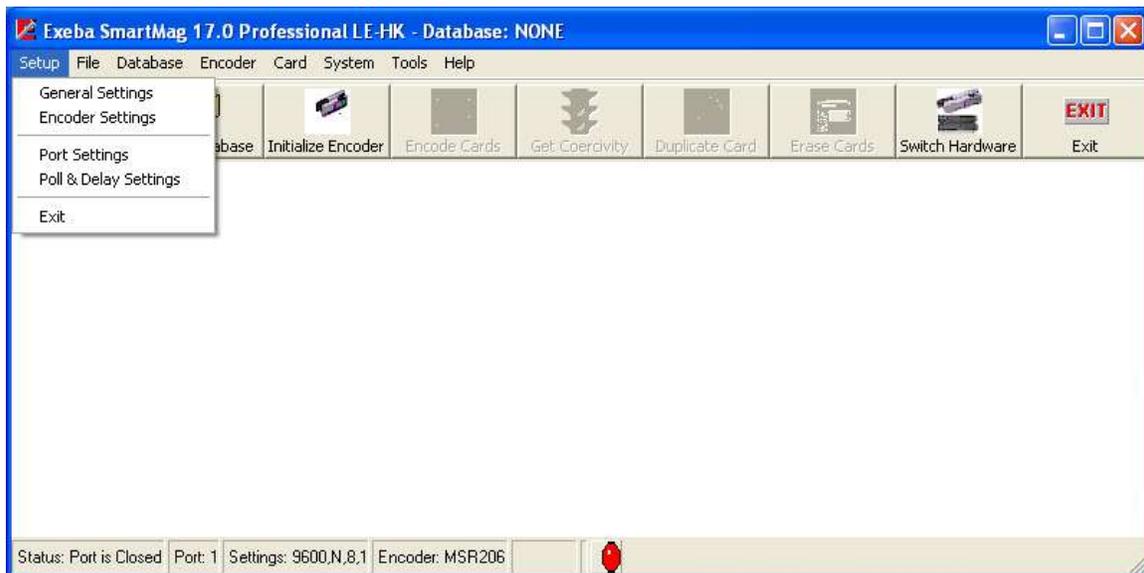
Encoders - Setup Menu

Introduction to the Setup Menu

The Setup menu is available to all types of encoders that work with the software. It allows you to make changes to the following:

- The software general settings.
- The encoders' settings in the software.
- The port number and port settings
- The delay, machine speed and timeout settings

Once you select the encoder from the hardware selection window, click on the Setup menu. The following window will appear.



This chapter explains each submenu as well as the default communication settings for each encoder.

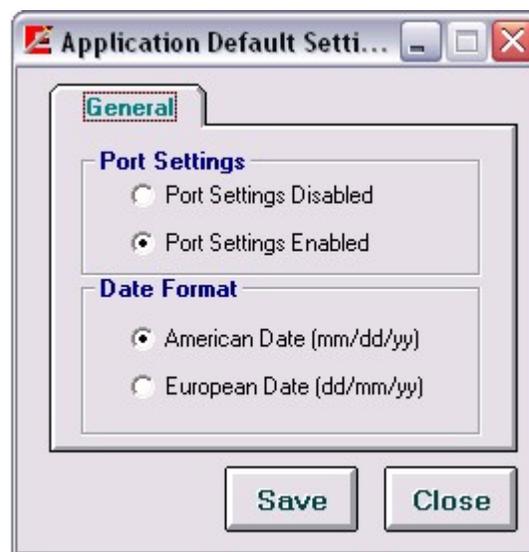
General Settings

Command Function

Using this command you will be able to change settings for the application in general.

Menu Access

From the Setup main menu, select General Settings. The following window will appear.



General Settings Options

Currently there are two settings to change under the general settings.

Port Settings

Port Settings Disabled - When you select the Port Settings Disabled option, you are disabling the selection of the following port parameters: Baud Rate, Data Bits, Parity and Stop Bits.

Port Settings Enabled – Contrary to the above settings, when the Port Settings Enabled option is selected, the user is allowed to make changes to the port settings described later in this chapter.

Date Format

The date field is used extensively throughout the software. It is used when polling data from the reader, setting up a card record, importing and exporting data, reports etc...The date format defines how you would like the date field to appear in the software. Select one of the following date formats according to your requirements and according to your computer date settings.

American Date – This is the default settings, select this option if your computer is set to American date format where the month is followed by the day and year.

European Date – Select this option if your computer is set to European date where the day comes before the month.

Button Function

Click on the Save button to save any changes made.

Click on the Close button to close this window.

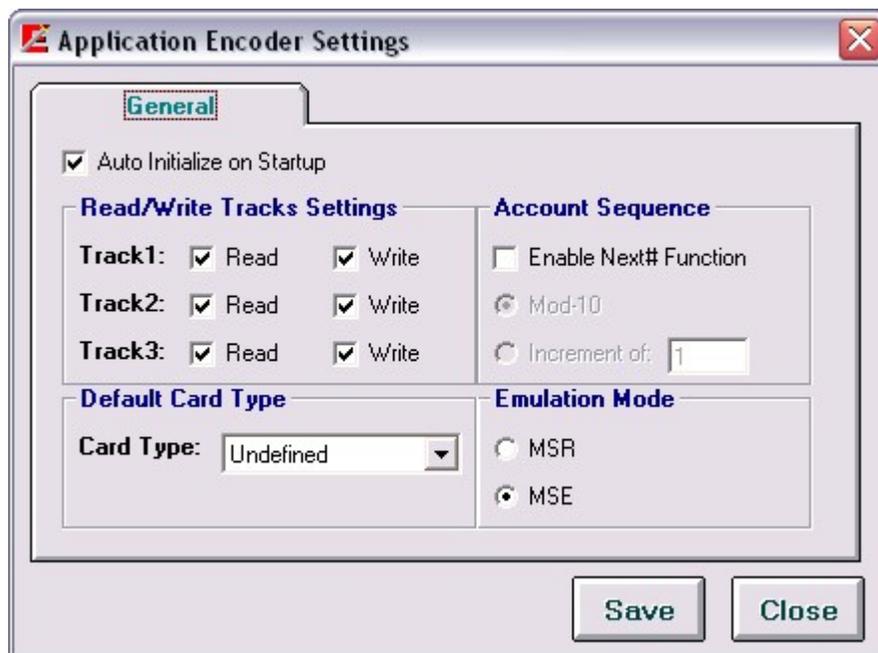
Encoder Settings

Command Function

As the name indicates, this command allows you to change the software encoder settings only. In other words, it allows you to change the default encoder settings in the application.

Menu Access

This command is available for encoders only. From the Setup menu, select Encoder Settings. The following window will appear,



Encoder Settings Options

Auto Initialize on Startup – check this option if you would like the encoder to be initialized automatically once the software is started.

Read/Write Tracks Settings – Enable and disable each track individually according to your requirements. For example, if track 3 is not used, uncheck the Read and Write options for this track. Then track 3 will be disabled throughout the software.

Default Card Type – Select from this list the card type that you mainly work with. For example, if your cards are encoded for Employee Cards, once you setup this type in the Card Type Setup window, you can select it from this list.

Account Sequence – These options are used by the Next# function of the Encode Card window. It will show the next number in sequence based on the option you choose. This function can be enabled and disabled according to the Enable Next# Function option. If enabled, select one of two sequences as following:

Mod-10 – When selected the next account# will be based on modulus 10 or mod 10 algorithm.

Increment of – This option will add the increment number you select to the next account#. For example, if you selected Increment of 5 and your account # is 10000, then the next account# number will be 10005.

Click on the Save button to save any changes made. Click on the Close button to close this window.

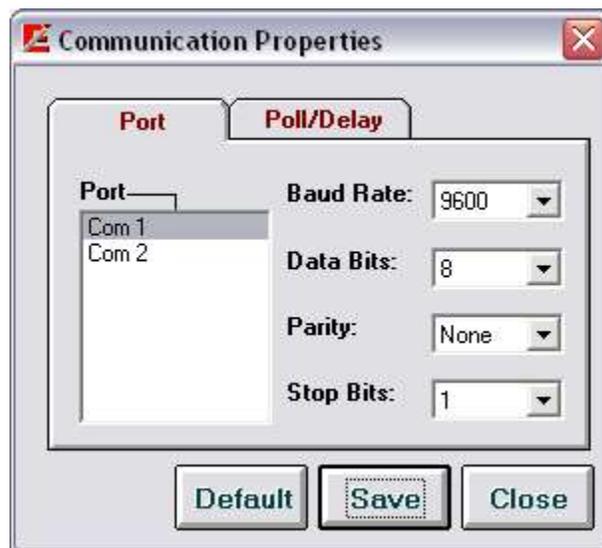
Port Settings

Command Function

This command allows you to select the port the encoder is connected to. If the option Enable Port Settings is selected under the General Settings, then you will be able to change the default port settings as well.

Command Access

After you connect the encoder to your computer, from the Setup main menu, select Port Settings. The following window will appear:



Port and Port Settings

Port - Select the comm port or HID port the encoder is connected to. The software will automatically detect all the available ports on your computer.

Baud Rate - Select the baud rate. The selectable range is 600 to 256000.

Data Bit - Select 7 or 8

Parity - Select Even, Odd, None, Mark, or Space

Stop Bits - Select 1, 1.5, or 2

NOTE

If the communication port was open before you changed these setting, the message "Current port should be closed before making any changes. Close Port?" will appear. Click on the Yes button so that changes will be in effect.

Button Functions

Default - Returns the settings to the recommended port settings for the encoder being used. It also saves the default settings.

Save - Before you close this window, make sure you save any changes made to the port or port settings by clicking on the Save button.

Close - Close this window and return to the main menu.

Exit X - This button closes the window.

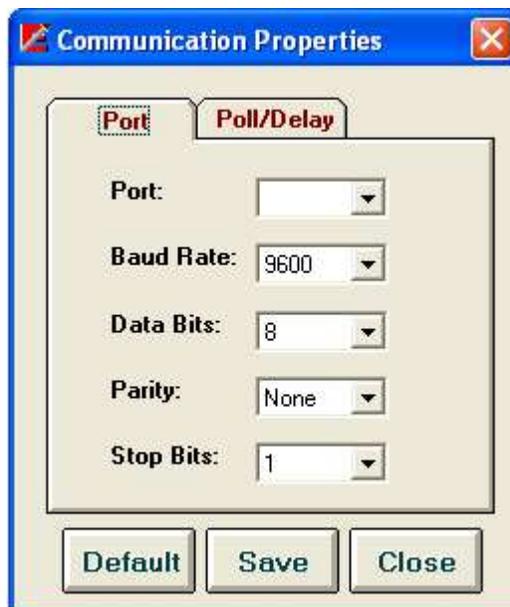
NOTE

If the selected hardware is the MSR905H, this function will be disabled. The software will automatically detect the HID port which the encoder is connected to. The port will also open and close automatically.

Hardware Default Port Settings

Encoder(s): MSR605/606, MSR206, MSR905

The figure below shows the default port settings for the MSR605/606, MSR206, MSR905 Encoders:



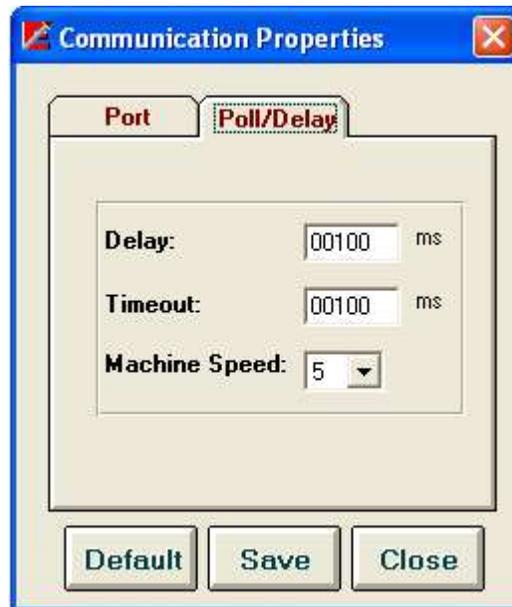
Poll /Delay Settings

Command Function

The settings of the poll and delay parameters affect the commands that send and receive data to and from the encoder. It may be necessary to try different settings until the correct configuration is established for the hardware being used.

Command Access

From the Setup main menu, select Poll / Delay Settings. The following figure will appear. The figure below shows the default Poll / Delay settings for the encoders supported by this software:



Poll/Delay Options

These settings are as follows:

Delay - Used by the polling commands only. The delay is the number of milliseconds (00000-99999) the polling function should wait between polls. The default is 100 milliseconds.

Time Out - The number of milliseconds (00000-99999) the software should wait, after sending a command, for a response from the reader before timing out. The default is 100 milliseconds.

Machine Speed - The amount of time Exeba® SmartMag should wait after sending a command and before receiving data from the encoder. You can select any number from 1 to 50. The number you select is represented as a multiple of 10th of a milliseconds. For example: if you select 1, the wait time will be 10 milliseconds. The larger the number, the slower the data will be transferred. However, a small value may cause polled data to be fragmented.

Button Functions

Default - Sets and saves the poll and delay settings to the recommended settings.

Save - Saves any changes made.

Close - Closes this window and return to the main menu. This button closes the window without any warning of unsaved changes. Make sure the changes are saved before you exit.

Exit X - Use to exit this window.

NOTE

Exeba® SmartMag allows you to save different settings for each type of encoder used. For example, you can select two machine speeds for an MSR and an MSE encoder. These settings will appear when the specific encoder is selected.

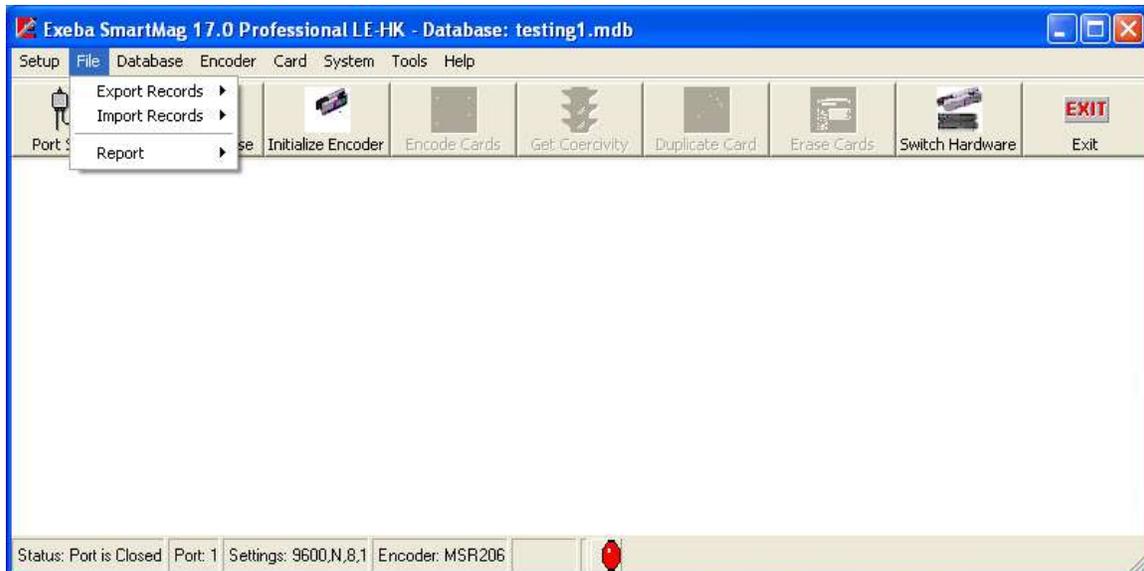
Encoder - File Menu

Introduction to the Encoder File Menu

From the File menu you can access commands to import, export, and print reports, as shown in the figure below. This menu is available for the MSR605/606, MSR206, MSR905, MSR905H, and MSRX6 encoders.

This chapter explains in details the following submenus,

- Import Card Data records
- Export Card Data records
- Print Card Data Reports



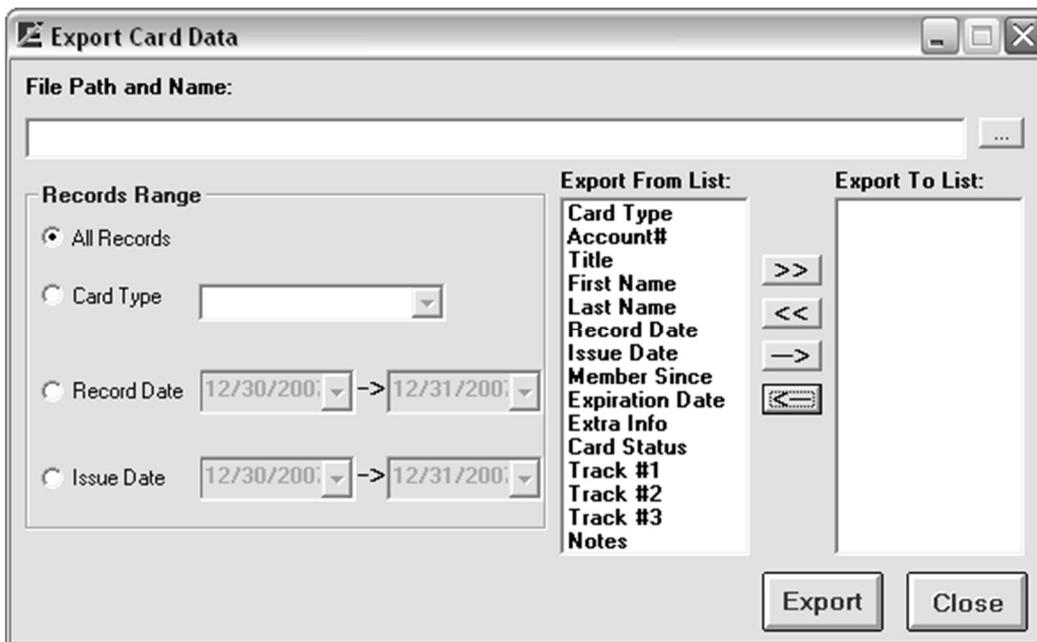
Export Records

Command Function

This command exports data saved in the active Database into a comma text delimited file.

Menu Access

This command is available when any encoder is selected and a database is open. From the File menu select Export Records then select Card Data. The following window will appear.



How it works?

1. Enter the location and name of the file in the File Path and Name box. You can also click on the Browse button to locate or create the file using the **Save as** standard window. When this window appears, select the drive, folder and name of the file to export the data to.

2. Then select the range of data you would like to include in the file. The available options are:

All Records – will basically export all the card data in the current database.

Card Type – if you prefer to export only the data of a specific card type then click on this option and select the card type from the list.

Record Date – if you need to export only the records that were created between specific dates select this option then select the range of dates.

Issue Date – if you only need the records that have an issue date between specific dates, select this option and select the range of date.

3. The next step would be to select the field(s) to export and in the order required.

Export From List - This box lists all the available fields that can be exported.

Export To List - This box shows the fields that you select to export.

Field Selection

To select the fields use the following buttons.

-> - This button will add a single field to the end of the Export To List. Highlight the field in the Export From List then click on this button.

>> - This button will move all the fields in the Export From List to the Export To List. The contents of the Export To List will be replaced by the Export From List.

<- - To remove a field from the export list, highlight the field in the Export To List, and click on this button.

<< - To remove all the fields in the export list, click on this button.

Export - By clicking this button, the fields in the list box Export To List will be written to the specified text file.

Close - Use this button to close the window and return to the main menu.

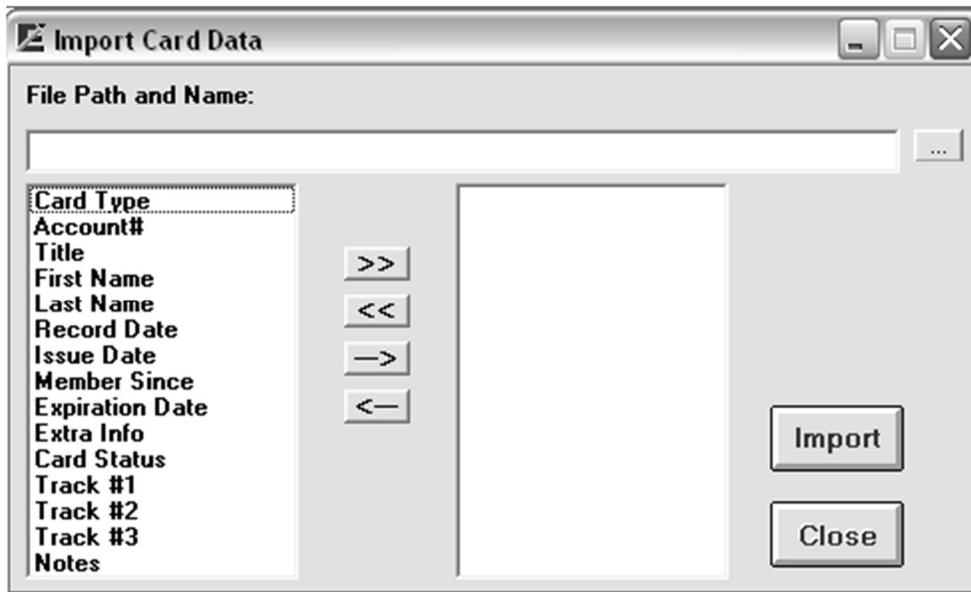
Import Records

Command Function

This command is used to import card data records from a comma delimited text file to the active database card data.

Menu Access

From the File menu, select Import, then select Encoder Data. The following window will appear,



How it works?

1. When creating the text file to import keep the following rules in mind:
 - ✓ Unless the file contains only one field, all fields should be separated with commas.
 - ✓ The records (or lines) must end with a carriage return.
 - ✓ The order of the fields in the file should be the same as the import list fields.
 - ✓ If a record contains a blank field it should be replaced by a comma.

✓ Conform to the format of the fields as described in the topic Database Card Data.

2. In the File Name and Path box, enter the location and name of the file to import. You can also use the browse button (...). When you click on this button the Save As standard window appears. Select the drive, folder and name of the file to be imported.

3. Select the fields list by highlighting the field, then clicking on one of the following buttons to add it to the import list.

→ - adds a single field to the end of the list

← - deletes a single field from the list

>> - adds all the fields to the import list

<< - deletes the import list

4. Click on the Import button to import the file. If successful a message will be displayed and the data can be viewed in the Card Data Setup window, Reports, etc...

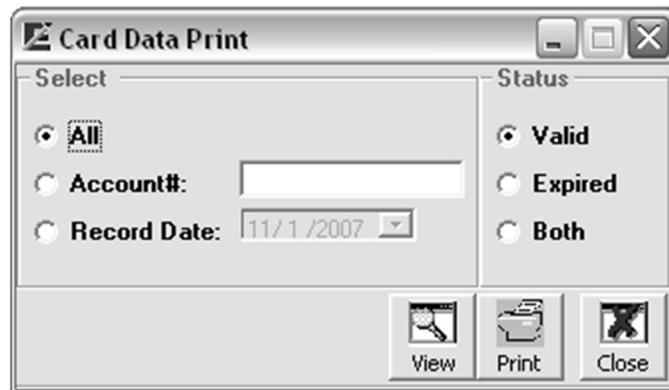
Card Data Report

Command Function

This command allows you to select data to print reports of the card data stored in the active database. It also allows you to select the range of data to print.

Command Access

In order for this command to be available, an encoder should be selected and a database should be open. From the File menu, select Report, then select Card Data. The following window will appear.



How it works?

1. Select the range of data to be included in the report as follows:

All – When you select this option, all the records based on the Status you choose, will be included in the report.

Account# - If you would like to see a report of cards with specific account #, select this option then enter the account# in the designated box.

Record Date – Select this option if you would to see a report of all the records that were created on a specific date. Then select the date from the calendar provided.

2. Select the status of the card data from the following options:

Valid – For a report of only the card with a non-expired date, select this option.

Expired – Contrary to the above option, if you would like to see a report of the expired cards, select this option.

Both – selecting this option will include expired and valid cards in the report.

3. Click on one of the following buttons,

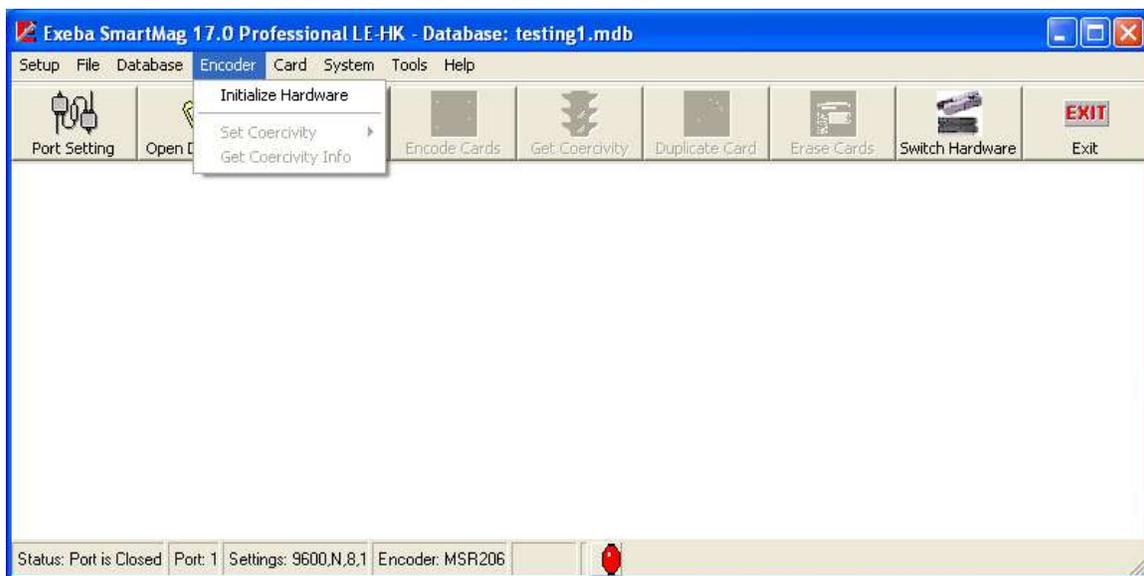
View – this button allows you to preview a report before printing it. Then you can click on the printer icon of this window to print the report.

Print – click on this button to print a report without viewing it.

Encoder Menu

Introduction to the Encoder Menu

In this chapter you will learn how to configure the encoder before encoding any card. All of the commands explained in this chapter are available under the Encoder menu. These commands will differ slightly depending on the type of encoder selected.



This chapter discusses the following topics,

- Initialize Encoder
- Set Coercivity
- Get Coercivity
- Set Encoder Mode

Initialize Hardware

Encoder(s): MSR605/606, MSR206, MSR905, MSR905H

Command Function

You need to run the Initialize Hardware command in order for the encoder menu options to become available. This command warm boots the encoder. Once initialized, you can set the coercivity, and start encoding cards.

Command Access

Once you select the encoder, the specific Configure Encoder menu will appear. Select the Initialize Hardware command. Or click on the [Initialize Encoder](#) button of the main button bar. You can also set the encoder to be initialized automatically as described in the Encoder Settings topic.

If successfully initialized, the message, “Encoder initialized successfully!” will appear.

Set Coercivity

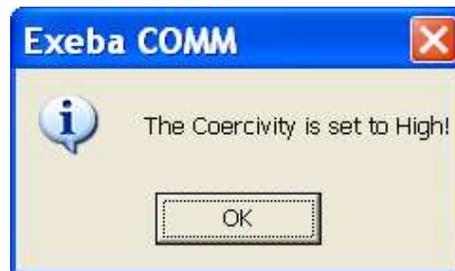
Encoder(s): MSR605/606, MSR206, MSR905, MSR905H

Command Function

Use this command to set the coercivity for the encoder being used. Depending on your requirement, you can set the coercivity to high or low.

Command Access

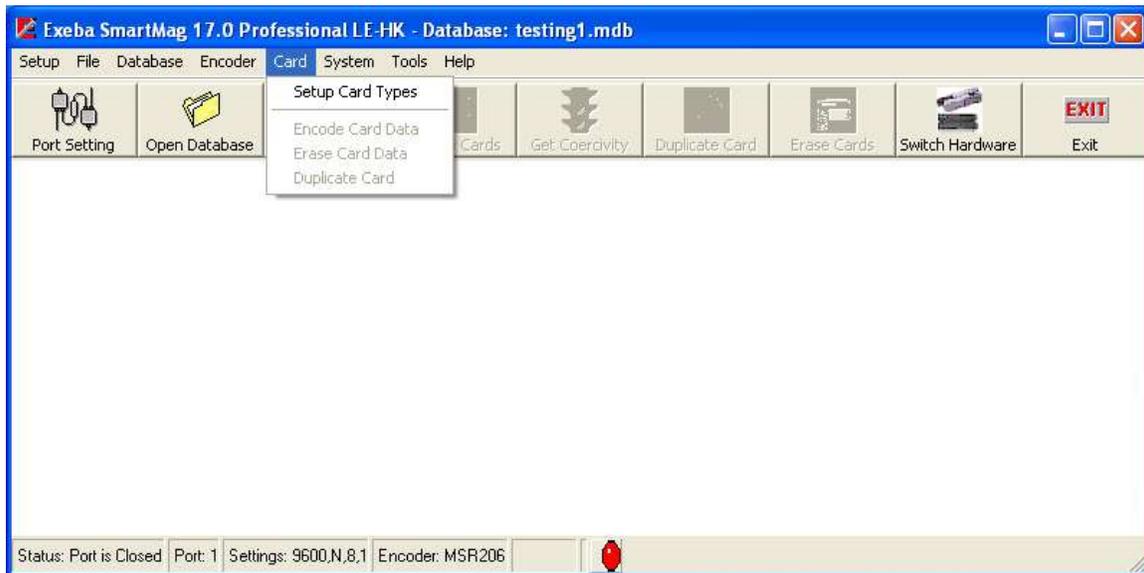
From the Encoder menu select Set Coercivity. Then select Low Coercivity, or High Coercivity. If successful, a message such as the figure below will appear.



Encoding Cards

Introduction to Encoding Cards

Once the encoder is initialized, all the commands that communicate with it, such as Encode Cards, will be enabled in the software. In this chapter you will learn how to create a card template, how to read and write card data, and how to write a batch of card. Also you will learn how to erase the card data, and duplicate a card. The commands described in this chapter are accessible to all encoder types.



Card Type Setup

Card Type Setup Description

Command Function

This command allows you to define your own card type template. The card type is used by the Build Track function and Extract Fields function. By creating a type, you are defining what fields should be on the track.

Command Access

Once an encoder is selected, this command becomes available. Unlike the encoder commands, you do not need to initialize the encoder first. From the Card menu, select Card Type Setup. The following window will appear,

The screenshot shows the 'Card Types Setup' dialog box. At the top, there is a toolbar with icons for 'New', 'Save', 'Delete', 'Previous', 'Next', 'Report...', and 'Close'. Below the toolbar, the 'Name:' field contains 'Visa1' and the 'Description:' field contains 'Test'. A 'Track:' dropdown menu is set to '1', and a list box below it contains 'Account#'. To the right of the list box are buttons for 'Add', 'Insert', 'Update', 'Delete', and up/down arrows. The 'Field Properties' section on the right includes: 'Name:' (Account#), 'Value:' (empty), 'Size:' (Fixed 10), 'Data Type:' (Numeric Only (0-9)), 'Prefix:' (checkbox), 'Delimiter:' (checkboxes for /, ,), and 'Condition:' (Field should exist).

Create New Type

To create a new card template, follow the steps below:

1. Click on the New button. This will clear all the fields and initialize some fields to a

default value.

2. Enter a name for the card type in the Name Box. This name should not exist in the database. It can be up to 15 characters.
3. Enter a description of the card type in the designated box. This field is optional and can be up to 100 characters long.
4. Select the track you want to define from the tracks' list. Then start adding the fields list to the track as follows:
 - Under the Field Properties, select the name of the field from the list provided. The Text field is any fixed text you want to include on the track. If selected, enter the text in the Value box.
 - Select the size of the field. If the field is fixed size, select this option then enter a number for the size. Or if the size varies, select the Range option and enter the minimum and maximum sizes.
 - Select the data type for the field. This can be numeric, alphanumeric, or alphabetic.
 - Enter prefix if any. For example, the Title field in some financial cards should be preceded by a period (.Mr)
 - Enter up to three possible delimiters in the order of importance. For example, the First Name field in a Visa type card can be delimited by a period if a title follows (John.Mr), or by a space (John), or by a carat (John^0901).
 - Select one of the following conditions from the Condition list,
 - *Field should exist* – that is the field should not be left blank in order for the Build Track and Extract Fields functions to work.
 - *Field is optional* – in this case, the field may or may not contain data.
 - *Either field or delimiter exists* – this means when building tracks, if the field data is blank, the delimiter is inserted on the track instead and vice versa. For example, if the expiry date is missing on a Visa type card a delimiter will be in place.
5. Click on the Add button to add the field to the end of the list. Or highlight a field in the list and click on the Insert button to add a field before it.
6. Use the ↑ button to move a field up the list or ↓ button to move a field down the list.
7. When you are done adding the field for all the tracks in the desired order, click on the Save button.

Update card type

To update a card type,

1. Move to the record using the Previous or Next button or enter the name in the Name box.
2. Select the track.
3. To make any changes to the field specification, highlight the field in the list and make the necessary to its properties. Then click on the Update button
4. To add a new field, create the field as described above and then click on the Add or Insert button.
5. To change the order of the list, use the \uparrow button or \downarrow button.
6. To delete a field, highlight it in the list and click on the Delete button.
7. When done with all the updates, click on the Save button.

Card Type Example

Card Type name: Employee ID

Description: Employee Identification Card

Track 1:

Field	Value	Size	Data Type	Prefix	Delimiter	Condition
Text	CS					Field should exist
Account#		Fixed (6)	Numeric		^	Field should exist
First Name		Range(0-15)	Alphabetic		/	Field is optional
Last Name		Range(0-15)	Alphabetic			Field is optional

If your fields contain the following sample data,

Account#:100225

First Name: John

Last Name: Doe

When building tracks the result will be as follows for track1:

CS100225^John/Doe

Encode Card Data

Introduction to Encode Card Data Function

Command Function

When you are ready to read or write the data on magnetic card, use the Encode Card Data. Besides encoding cards, this command allows you to write a batch of cards, duplicate a card, search for card data in a database, and create card data for writing and or storing in the database.

Command Access

You can access this command in two ways, from the Card menu, select Encode Card Data. Or click on the [Encode Cards](#) button of the button bar in the main window.

When this command is selected, the following window appears:

The screenshot shows the 'Card Data Setup' window with a toolbar at the top containing icons for New, Save, Delete, Previous, Next, Move To..., Search..., Report..., and Close. The main area contains the following fields and controls:

- Record#:** NEW
- Record Date:** 08/22/2016 11
- Track Data Format:** ISO Standard (selected), Custom, Non-ISO Standard, Driver License
- Card Type:** Undefined (dropdown)
- Title:** (dropdown)
- First Name:** (text field)
- Last Name:** (text field)
- Account#:** (text field) with **Validate** and **Next#...** buttons
- Prefix Info:** (text field)
- Issue Date:** 8/22/2016 (dropdown)
- Member Since:** (text field) with (YYYY) placeholder
- Expiry Date:** (text field) with YYMM placeholder
- Extra Info:** (text field)
- Notes:** (text area)
- Track 1:** (text field) with 000 on the right
- Track 2:** (text field) with 000 on the right
- Track 3:** (text field) with 000 on the right

On the right side, there is a vertical column of buttons: **Read Card**, **Read & Save**, **Write Card**, **Duplicate Card**, **Swipe Search**, **Build Tracks**, **Write Batch**, and **Extract Fields**.

Fields Description

This section describes the card data fields. Each record can contain one or more of these fields.

Card Type – This field defines the format of the data on the tracks to the Build Tracks function and the Extract Fields function. These types are created in the Card Type Setup window or predefined in the database. Select from the list provided. If not selected, it will be defaulted to the settings of the Default Card Type field of the Encoder Settings.

Record Date – This field is not currently encoded on the track. It is automatically created once a new record is saved in the database. It indicated the date the record was created.

Title – This field is limited to the list provided. If you like to add a title, select from this list.

First Name, Last Name – This is the first and last name of the account holder or the person you are creating the card data record for. Enter up to 25 characters for each of the first or last name or as you define it in the card type.

Account# - This is the account number for the current record. You can enter up to 20 digits or characters.

Expiry Date - This field displays the account's expiration date. The expiry date is entered as YYMM. The first two digits represent the year (00 – 99) and the last two digits represent the month (01 - 12).

Issue Date – This could be the account issue date, the card issue date, or anyway you define it. The data type of this field is date.

Member Since – This could be the year the account holder became a member. It can be stored on the card as a year in the following format YYYY (e.g. 2008)

Extra Info – This field can contain up to 20 characters. You can use it for any purpose to store extra information that the other fields do not provide.

Prefix Info - Based on the account#, this field determines the issuing institution for certain types of credit cards. This information will automatically appear if it is predefined. You will not be able to enter data for this field on this window.

Notes - Use this field for any notes regarding this record.

Track 1, Track 2, Track 3: These fields contain the data that has been read from, or will be written to, the corresponding tracks on the magnetic stripe. When a card is read, the data will appear exactly as it is on each of the three tracks. The data can be replaced or modified simply by pressing the Edit Tracks button.

Creating and Updating Records

There are three way for creating encoder data. You can read a card and then save the data in the database as explained later in this chapter or you can create it manually as explained in this section. Encoder records are also created automatically when polling or importing reader data which will be extracted using a default data type.

To create a new record manually,

1. Click on the New button. This button clears all the fields and displays default values for some fields, to allow you to enter data.
2. Enter information for the card data fields on this window as required. You can use the Build Tracks button to create the tracks.
3. Click on the Save button.

To update data for an existing record,

1. Move to the record using the navigation buttons as explained later in this chapter.
2. Update the fields as required. To update the tracks, you need to click on the Edit

Tracks window.

3. Click on the Save button.

To delete a record from the database,

1. Move to the record using the navigation buttons.
2. Click on the Delete button.

Navigating

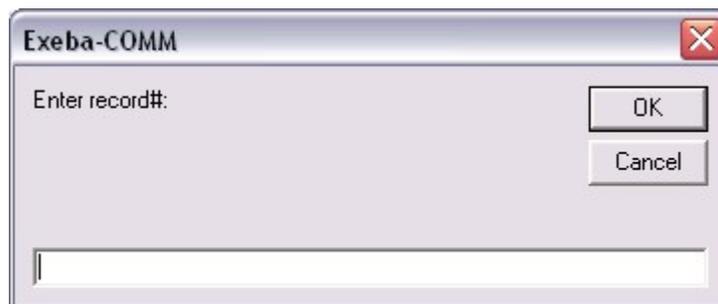
The Record# field displays the number for the current record and the total number of records in the active database. This field cannot be modified. It will only change as you move between the records or if records are added or deleted.

The following buttons let you navigate through the active database:

Previous - Displays the previous database record that follows the current record.

Next - Displays the next database record that follows the current record.

Move To – Instead of moving one record at a time using the above buttons, you can move to any record by entering its number. When you click on this button, the following window will appear,



Enter the number of the record in the box then click on the Ok button.

Search - This command is used to search for a specific record based on criteria. When you click on this button the following window will appear.

Account#	Track1	Track2	Track3

Using this utility you can search for a record based on an account#, First Name, Last Name, Issue Date, or Record Date.

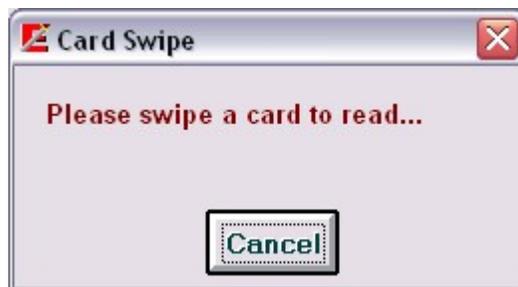
To search for a record,

1. Select the criteria from the Search For list.
2. If your criterion is by Issue Date or by Record Date, then enter the correct date in the Enter Data box. Otherwise, if your criteria is by Account#, First Name or Last Name, then enter the exact data or part of the data and wild cards (* any number of character, ? any single characters). For example, if you know only the first 3 digits of the account enter the 3 digits followed by an asterisk (Such as 123*). The search function will look for all records that have an account# that start with 123.
3. Click on the Search button. If one or more records are found, they will be displayed in the table as shown above. Highlight the record you want and double click on it. This window will disappear and you will go back to the Encoder window.
4. If you need to start over, click on the Clear button to clear the Enter Data box.
5. To cancel the search at anytime, click on the Cancel button.
6. If the search function does not find the account # in the database, the following message will appear:



Swipe Search - Another method for looking for a record in the database is the Swipe Search. This method allows you to find out if a card's data is already stored in the database.

After clicking on this button, the following window will appear:



Swipe a card using the selected encoder. If the track information matches a record in the database, the database record will appear. Otherwise, the data read will appear in the tracks and the following message will appear,



Read/Write Card Functions

This section explains how the encoding functions of the Encoder window work.

Track Data Format

Before you start encoding the card, you might need to select the track data format. Depending on the encoder and version of the software you are using one or both of the following formats will be enabled:

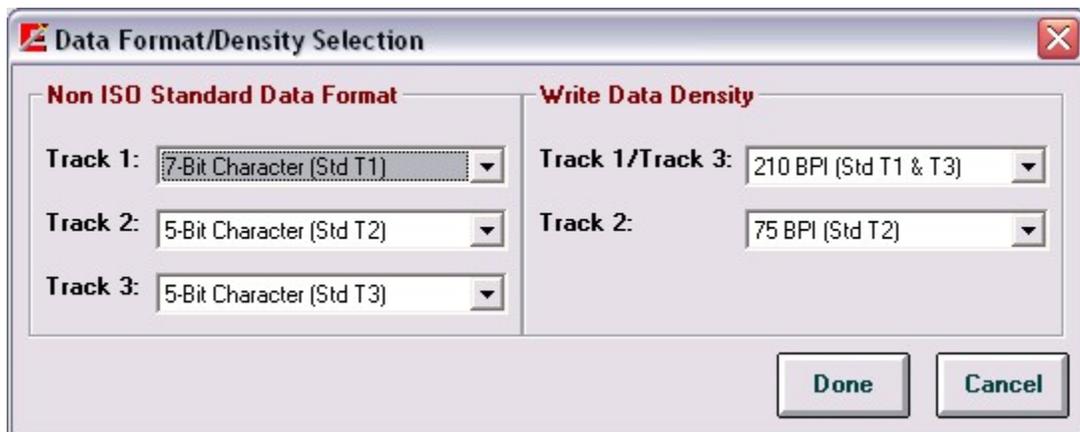
ISO Standard – Select this format if your data conforms to the ISO standard format. The following is a brief explanation of this format.

Track1 - Up to 79 alphanumeric characters can be encoded on this track using the standard format.

Track2 - Up to 40 numeric characters can be encoded on this track.

Track 3 - Up to 107 numeric characters can be encoded on this track.

Non-ISO Standard – If you need to encode alphanumeric characters on track 2 or you need to encode more data than the maximum allowed for the ISO standard, select the Non-ISO standard by clicking on this option before you read or write to a card. Before you read a card in non-standard format, select this option and then click on the Read button. The following window will appear,

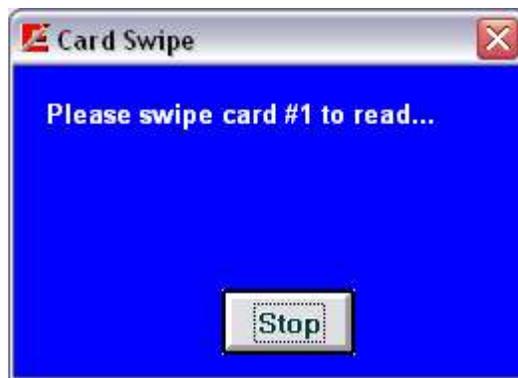


This window is divided into two sections. If you are just reading the card, the Write Data Density section will be disabled. Select the track's character configuration. For example, if Track 2 was written using 7 bits per character, then select this option. When all required selections are made, click on the Done button to start reading the card. If you don't need to read the card, click on the Cancel button.

When writing a non standard card, also select the Non ISO Standard option and click on the Write button. The above window will appear. In this case, you need to select the character configuration as well as the write density. When the selection is made, click on the Done button.

Read Card Data

The Read Card/Read & Save buttons of this window allows you to obtain data read by an encoder in standard and non standard format. When this button is clicked, the following window appears prompting for a card to be swiped.



Swipe the first card to read using the selected encoder. If the read operation was successful, the data will appear in the tracks. If not successful, the read function will return an error message. Then swipe the second card and so on...

If you would like to save the data in the database, select Read & Save button instead. This will store the data if successfully read.

Write Card Data

When this button is clicked, the following window appears prompting for a card to be swiped.



After the card is swiped, a confirmation message appears if the write action was successful or a warning message is displayed if the action failed. In this case, change the coercivity or swipe the card at a slower pace.

Edit Tracks

By default, the data for the tracks fields is locked. The Edit Tracks function unlocks the data so that you are able to make changes to it after reading a card or before writing data to a card. Simply click on this button any time, and make any necessary changes to the tracks.

Build Tracks

This function allows you to create the track data from a card type template. Some templates are predefined in the software such as Visa card type; others can be created using the Card Type Setup window as explained in this chapter.

To build tracks,

Select the required card type for the Card Type field.

Enter the field that should appear on the tracks in the designated boxes.

Click on the [Build Tracks](#) button.

If successful, the data will appear on the tracks according to the card type specifications. If any problem occurs, an error message will appear.

Extract Fields

Contrary to Build Tracks function, this function obtains the fields' data from the tracks. In other words, use this function in order to determine which fields are on the tracks.

To extract fields,

Select the required card type from the Card Type list.

Make sure the tracks contain the data from reading a card, an existing record in the database, etc...

Click on the [Extract Fields](#) button.

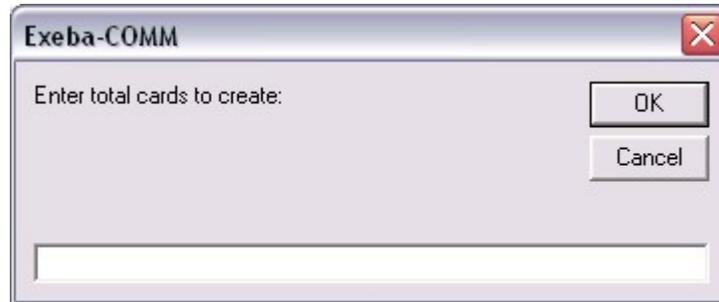
Validate Function

When creating an account#, use this function to check if the number you entered is correct. This function uses Mod-10 algorithm to check the last digit in the account. If correct, a confirmation message will appear. Otherwise, a message with the correct account# will appear. Enter this number manually for the account#.

Next # Function

Based on the current account# and the settings of the Next# function in the Encoder settings, this function will automatically create the next record(s) in sequence in the database.

Click on the Next# button. The following window will appear,



Enter the total number of records to be created in sequence. Click on the OK button.

For example, if your record has an account# of 292810002048 and the sequence is set to an Increment of 3. Then the next record will be created with an account number of 292810002051, then next one is 292810002054 etc..

Write Batch

This command allows you to write multiple cards at the same time. Click on the Write Batch button, the following window will appear,

Record Source

Current Record
Increment Account# By:
Total cards to Write:
 Save record(s) in database

Database Record(s)
From Record:
To Record:

Cards written
No of Cards written :

Start **Clear** **Close**

There are two methods for writing a batch of card,

Current Record – allows you to write a batch of cards based on the account# of the current record. To write a batch of card,

1. Make sure the account# field on the Card Data Setup window is not left blank since this is the field that will be incremented.
2. Make sure a specific type other than the Undefined type is selected for the Card Type.
3. Select Current Record option.
4. Enter the number the account# should be incremented by.
5. Enter total number of records to write.
6. Click on the Start button.

Starting with the current record, this function will increment the account# wherever it appears on the tracks as defined by the card type.

Database Record – writes a sequence of card according to the database record number. To write a batch of card,

1. Select Database Record option.
2. Enter a valid number for the From Record field.
3. Enter a valid number for the To Record field.
4. Click on the Start button.

No matter what option you select, once you click on the Start button, the following window will appear,



Swipe a card for writing. If successful, swipe the next card. If not successful, an error message appears and the process will be stopped.

The number of cards written successfully appears at the bottom of that window.

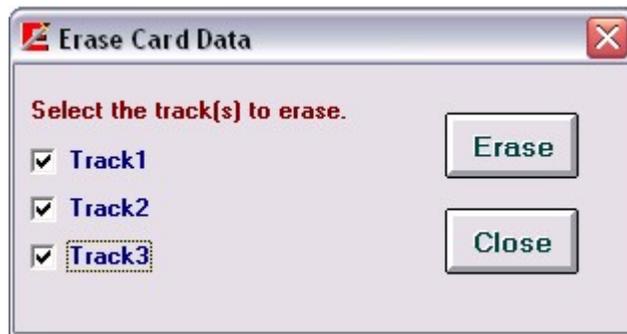
Erase Card Data

Command Function

Use this command to erase the data written to a single or multiple magnetic card.

Command Access

Before you access this command, make sure the encoder is initialized. From the Card menu, select Erase Card Data. The following window will appear:



How it works?

Depending on the track(s) setting of the Encoder Settings, when this window appears, the tracks will be enabled or disabled.

To delete the data,

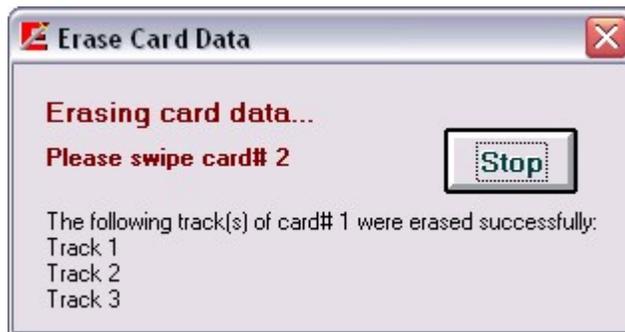
Select the specific track(s) to perform a secure erase of data on a magnetic stripe card.

Click on the Erase button. The following message will appear,



Swipe the card to be erased or click on the Stop button to cancel the process.

The following confirmation message appears when the swipe function is successful.



This message will display the tracks that were erased and the number of cards erased so far.

To erase more cards, swipe the card and wait for a confirmation message. To stop at anytime click on the Stop button.

Duplicate Card

This Command duplicates information from one card to another. The user will be prompted in an alternating cycle for the card from which the data will be read, then the card to which the data will be written. Upon pressing the Cancel button, the process terminates.

From the Card menu, select Duplicate Card. The following window will appear,



Swipe the card to copy the data from. If successfully read, the following message will appear,



Swipe an empty card to copy to. If successful, the following message will appear.



Setup Prefix

Command Function

Exeba® SmartMag comes with a database of prefix. This database includes over 1500 records of known card type prefixes. If you like to add or delete any of these prefix use the Setup Prefix command.

Command Access

From the System main menu, select Setup Prefix. The following window will appear,



How it works?

To add a prefix,

1. Enter the prefix in the Prefix Value box.
2. Enter a description for the prefix in the Organization Name box.
3. Click on the Add button.

To delete a prefix,

1. Enter the prefix in the Prefix Value box
2. Click on the Delete button.

To search for a prefix,

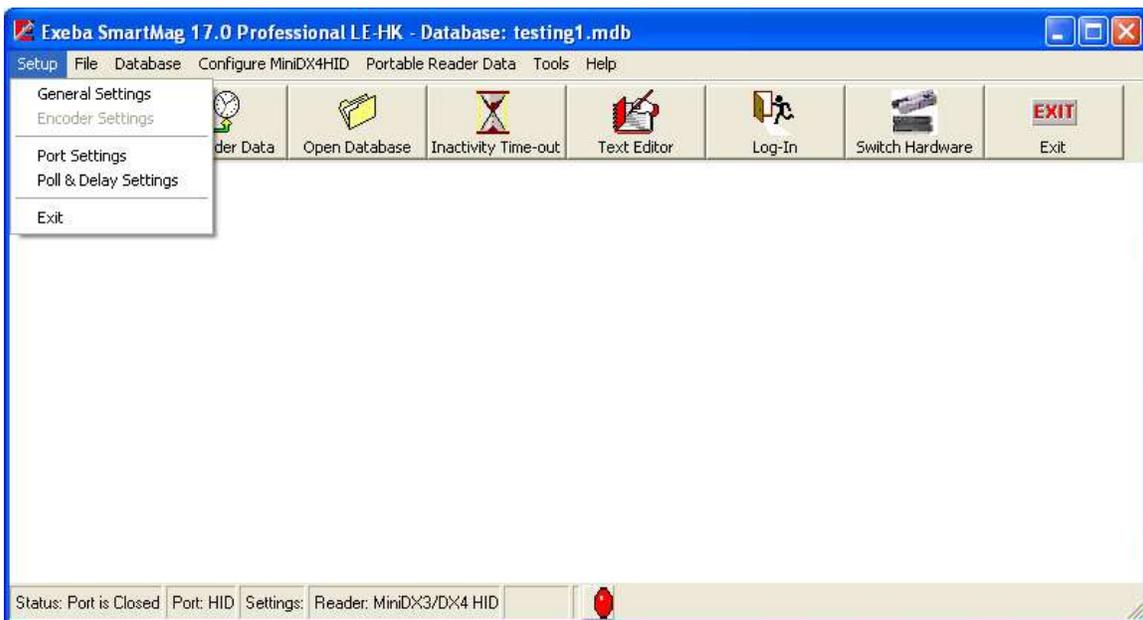
1. Enter the prefix in the Prefix Value box.
2. Click on the Find button. If the prefix exists in the database, the description will appear in the Organization Name box.

To print or preview the existing prefixes in the database, simply click on the [Preview](#) button.

You can also export the existing prefixes in the database in a text file by clicking on the [Export](#) button then entering the path and name of the file.

Magnetic Reader - Setup Menu

The Setup menu is used to change the communication settings in the software by accessing the following commands: This menu works for the Mini123U-SC, Mini400, Mini400BT, Mini400-2G, Mini600, Mini 123EX, and TA32.



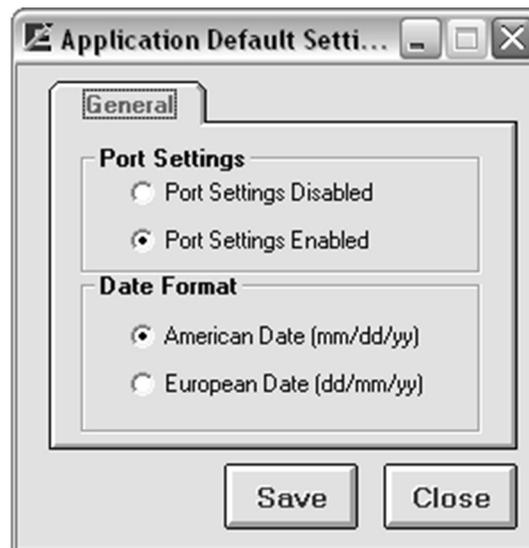
General Settings

Command Function

Using this command you will be able to change settings for the application in general.

Menu Access

From the Setup main menu, select General Settings. The following window will appear.



General Settings Options

Currently there are two settings to change under the general settings.

Port Settings

Port Settings Disabled - When you select the Port Settings Disabled option, you are disabling the selection of the following port parameters: Baud Rate, Data Bits, Parity and Stop Bits.

Port Settings Enabled – Contrary to the above settings, when the Port Settings Enabled option is selected, the user is allowed to make changes to the port settings described later in this chapter.

Date Format

The date field is used extensively throughout the software. It is used when polling data from the reader, importing and exporting data, reports etc...The date format defines how you would like the date field to appear in the software. Select one of the following date formats according to your requirements and according to your computer date settings.

American Date – This is the default settings, select this option if your computer is set to American date format where the month is followed by the day and year.

European Date – Select this option if your computer is set to European date where the day comes before the month.

Button Function

Click on the Save button to save any changes made.

Click on the Close button to close this window.

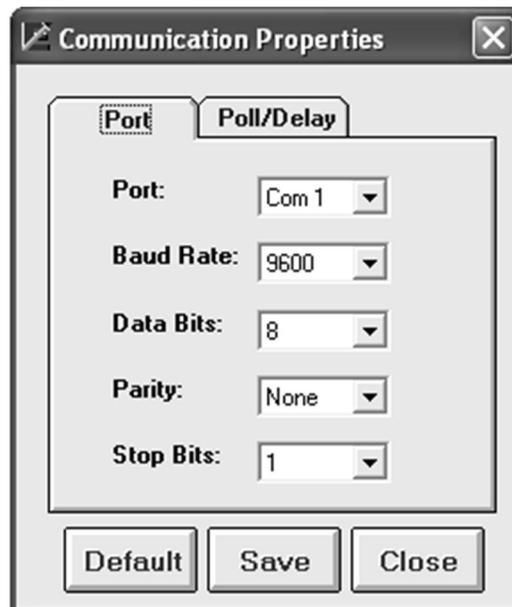
Port Settings

Command Function

This command allows you to select the port the reader is connected to. If the option Enable Port Settings is selected under the General Settings, then you will be able to change the default port settings as well.

Command Access

After you connect the reader to your computer, from the Setup main menu, select Port Settings. The following window will appear:



Port and Port Settings

Port - Select the port the reader is connected to. The software will automatically detect all the available Com ports and HID ports on your computer.

Baud Rate - Select the baud rate. The selectable range is 600 to 256000.

Data Bit - Select 7 or 8

Parity - Select Even, Odd, None, Mark, or Space

Stop Bits - Select 1, 1.5, or 2

NOTE

If the communication port was open before you changed these setting, the message "Current port should be closed before making any changes. Close Port?" will appear. Click on the Yes button so that changes will be in effect.

Button Functions

Default - Returns the settings to the recommended port settings for the encoder being used. It also saves the default settings.

Save - Before you close this window, make sure you save any changes made to the port or port settings by clicking on the Save button.

Close - Close this window and return to the main menu.

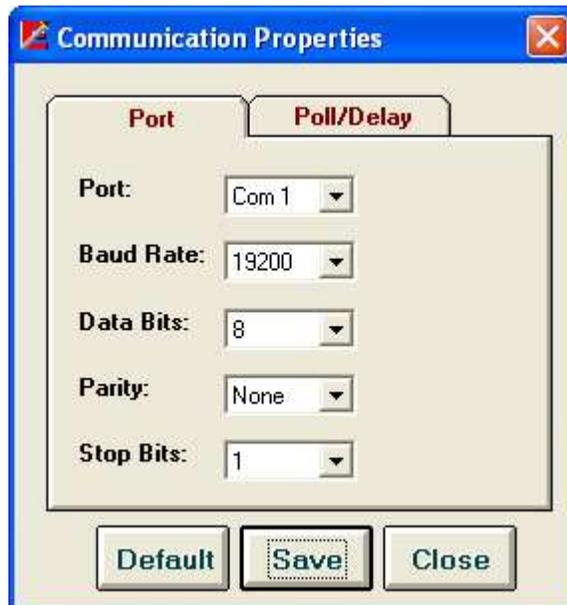
Exit X - This button closes the window.

Reader Port Settings

Reader(s): Mini400, Mini400 2G, Mini123EX, Mini400BT

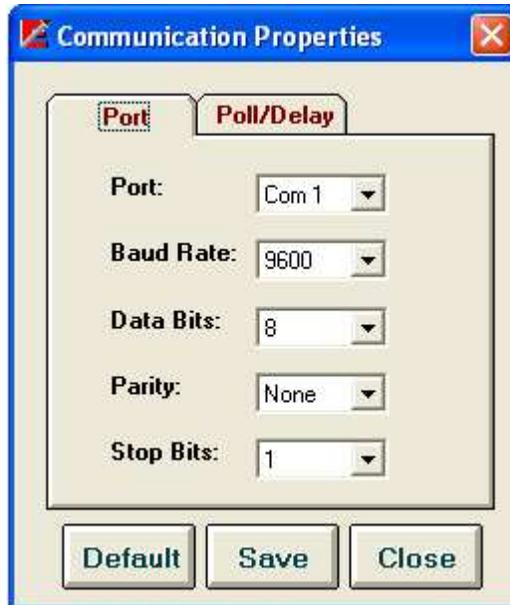
Port Settings – automatically detected when they are selected from the main menu.

The figure below shows the default port settings for the Mini400 2G, Mini123EX, Mini400 and Mini400BT readers:



Reader(s): Mini123U-SC, Mini123EX, Mini600, and TA32,

The figure below shows the default port settings for the Mini123U-SC, Mini123EX, Mini600, and TA32



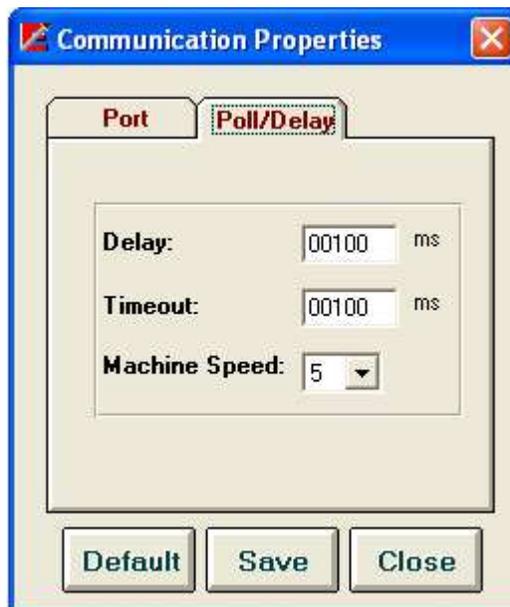
Poll /Delay Settings

Command Function

The settings of the poll and delay parameters affect the commands that send and receive data to and from the reader. It may be necessary to try different settings until the correct configuration is established for the hardware being used.

Command Access

From the Setup main menu, select Poll / Delay Settings. The following figure will appear. The figure below shows the default Poll / Delay settings for the encoders supported by this software:



Poll/Delay Options

These settings are as follows:

Delay - Used by the polling commands only. The delay is the number of milliseconds (00000-99999) the polling function should wait between polls. The default is 100 milliseconds.

Time Out - The number of milliseconds (00000-99999) the software should wait, after sending a command, for a response from the reader before timing out. The default is 100 milliseconds.

Machine Speed - The amount of time Exeba® SmartMag should wait after sending a command and before receiving data from the encoder. You can select any number from 1 to 50. The number you select is represented as a multiple of 10th of a milliseconds. For example: if you select 1, the wait time will be 10 milliseconds. The larger the number, the slower the data will be transferred. However, a small value may cause polled data to be fragmented.

Button Functions

Default - Sets and saves the poll and delay settings to the recommended settings.

Save - Saves any changes made.

Close - Closes this window and return to the main menu. This button closes the window without any warning of unsaved changes. Make sure the changes are saved before you exit.

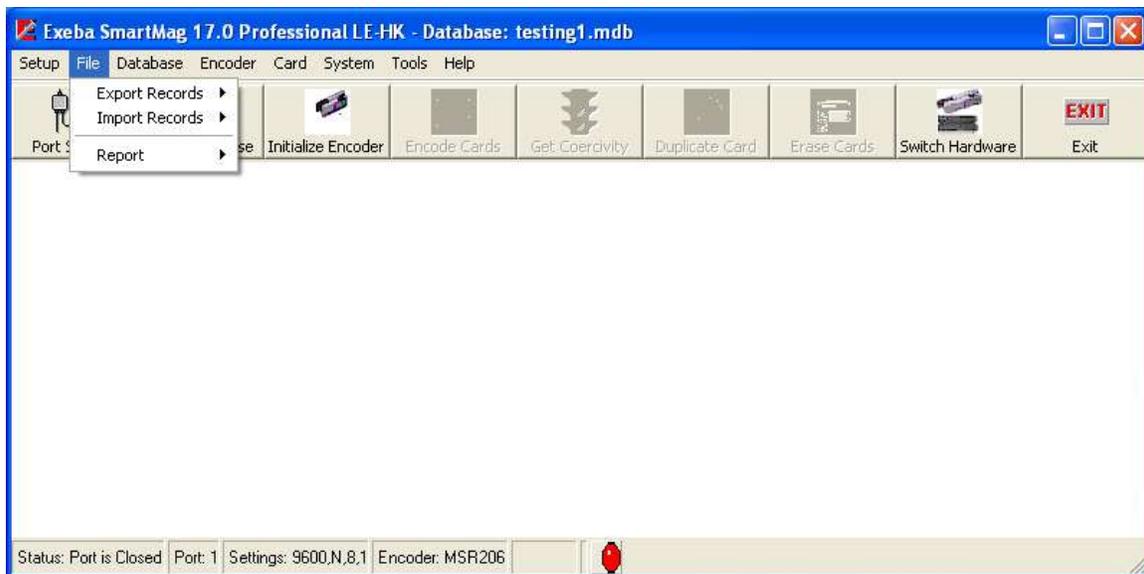
Exit X - Use to exit this window.

NOTE

Exeba® SmartMag allows you to save different settings for each type of reader used. For example, you can select two machine speeds for an Mini 600 and a Mini 400 reader. These settings will appear when the specific reader is selected.

Magnetic Reader File Menu

The File menu allows you to save and change the data polled from the reader in a text file. The importing and exporting of records is also done from this menu. This menu works for the Mini123U-SC, Mini400, Mini400-2G, Mini400BT, Mi123EX, Mini600, and TA32. From this menu you can also print reader data reports.

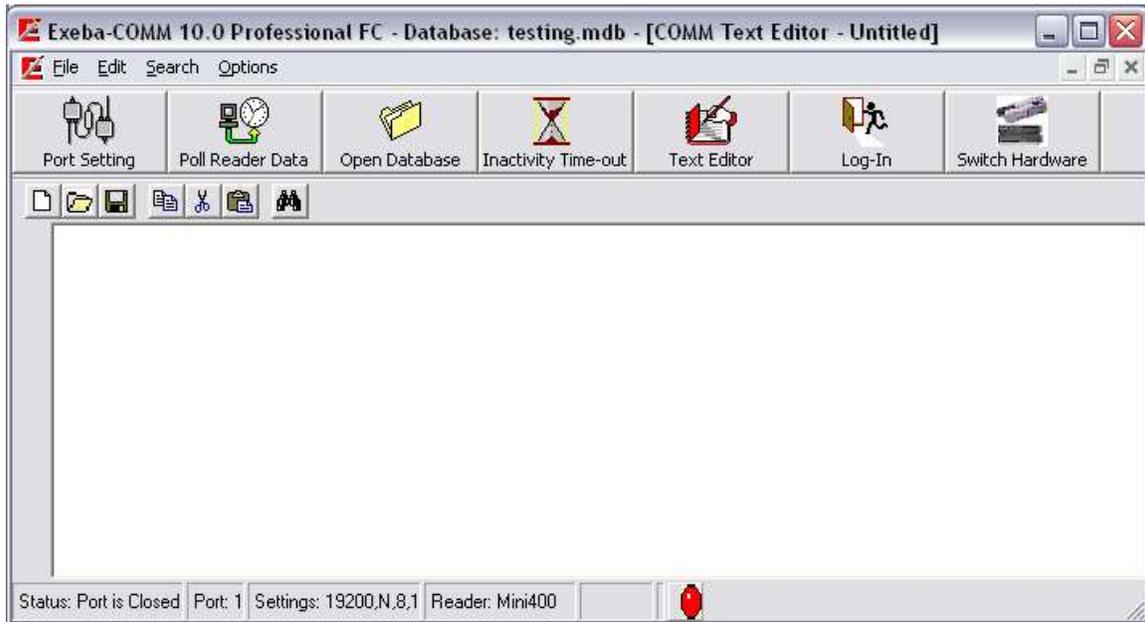


This chapter explains the following submenus:

- Text Editor
- Export Records
- Import Records
- Print Report

Text Editor

This command launches the file editor. When this command is selected, the following window appears:



The Exeba® SmartMag text editor is a basic editor that is used to create and save a text file. It is also used to view the log files or polled data files uploaded from the reader.

Main Menu

File – used to create, open and save a file

Edit – used to edit the text in an open file

Search – used to search for text in an open file

Options – used to show or hide the editor's toolbar

Toolbar

The toolbar has buttons that quickly provide access the editor's features. These buttons are:

New File - used to create a new file

Open File - used to open an existing file

Save File - used to save a new or existing file

Copy - used to copy text

Cut - used to cut text

Paste - used to paste text

Find - used to search for text

Working with Files

Create a New File

To create a new text file, follow the steps below:

1. From the editor's main menu select File
2. Then select New or click on the New File button in the toolbar
3. If changes are made to an open file, Exeba® SmartMag will prompt you to save the changes. Save the file, if necessary, and continue to the next step.
3. Once created the file is created, begin typing

NOTE

When the Exeba® SmartMag text editor is first opened, a new file is automatically created.

Open a File

To open a file in SmartMag text editor, follow these steps:

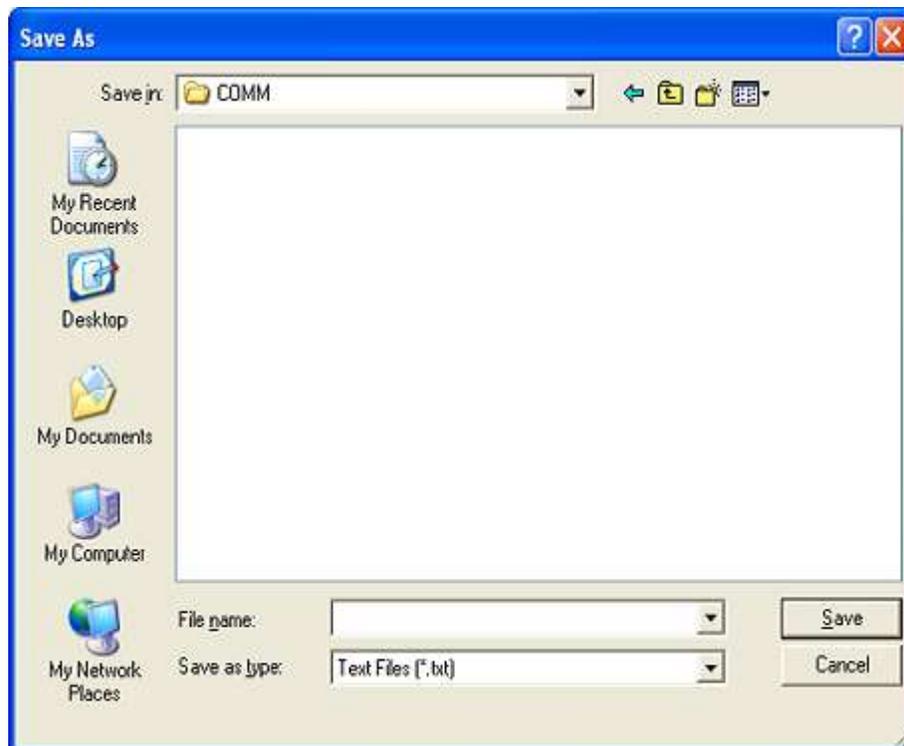
1. From the File menu, select Open or click on the Open File button in the toolbar.
2. From the Look In list box, select the drive and folder where the file is located.
3. Double-click on the file name or highlight it and click on the Open button.

Note

The editor cannot open files that are larger than 65k.

Save a File

After you make changes to a file in the editor window, save it. To save a new file, from the **File** menu, select **Save As**. The **Save As** dialog window will appear.



5. In the **File name** text box, type the file name.
6. In the **Save as type** list box, select the file type.
7. In the **Save In** list box, select the path (drive name and folder) where you want the file to be saved. The default is the application path.
8. Then click on the Save button to save the file. The Cancel button in this dialog box cancels the save operation.

To save the changes to an existing file, follow these steps:

From the **File** menu, select Save. The file will automatically be saved under the path and name that appears in the title bar. If you want to change the name or location of the file, use the **Save as** command as described above.

Close a File

Exeba® SmartMag cannot upload or download to and from a file if it is being used by any application including its text editor. There are two ways to close an open file in the text editor:

By opening another file or by creating a new file

By closing the text editor

Print a File

Exeba® SmartMag text editor allows you to send the contents of the text file to the printer from the **Print** menu command under the **File** main menu.

The printing function is very basic in Exeba® SmartMag. Most of the print settings are fixed in the software. These settings are:

The print job is assigned only to the default printer. If you have not set up a default printer in Windows please do so before printing from Exeba® SmartMag's text editor.

- The paper size is set to 8 1/2 X 11.
- The right and top margins are preset in the software.
- The number of lines printed on a page is set to 30.
- The font is set to Arial and the font size is set to 10.

NOTE: The font type and font size are the only things that can be changed from the editor window.

- The page number will be printed at the beginning of every page.

Working with Text

Exeba® SmartMag's text editor allows you to cut, copy, paste and search for text. All these options are located under its **Edit** menu. But before you use any of them, select the text. Under the **Edit** menu, the **Select All** option allows you to select all the text at once.

Cut Text

Select the text you want to cut

Select **Edit** and then select **Cut**, or click on the **Cut** button of the toolbar

Now you can paste the text you cut anywhere in the document.

Copy Text

To copy text using Exeba® SmartMag's text editor, follow these steps:

1. Select the text you want to copy
2. Select **Edit** and then select **Copy** or click on the Copy button in the SmartMag text editor's toolbar.

The copied text can be pasted in another location in the document using the paste command.

Paste Text

The text should be copied or cut before it can be pasted.

To paste text, follow these steps:

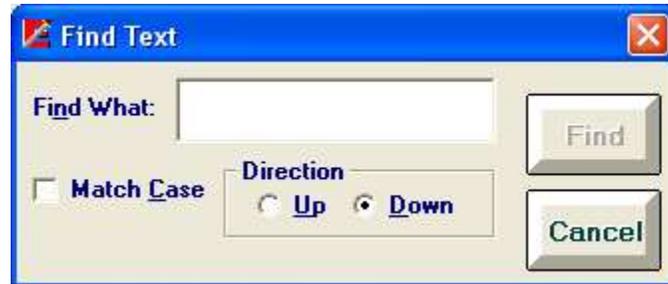
1. Place the insertion point where you want to paste the text.
2. From the **Edit** menu, select **Paste**.

Search for Text

From SmartMag's text editor **Search** menu, you can access commands that help you locate specific words or characters quickly and easily.

To locate text,

1. In the document, click where you want to start searching.
2. From the **Search** menu select **Find**. The **Find Text** window will appear.



3. In the **Find What** text box type the text you want the text editor to look for.
4. Check the **Match Case** box if you want to find the text that matches the upper and lower case of the text you typed.
5. The text editor will start searching the document from the insertion point and in the direction you specify in the **Find** dialog box.
6. Click on the Find button.
7. If you want to find additional instance of the same text, select **Search** and then select **Find Next**.

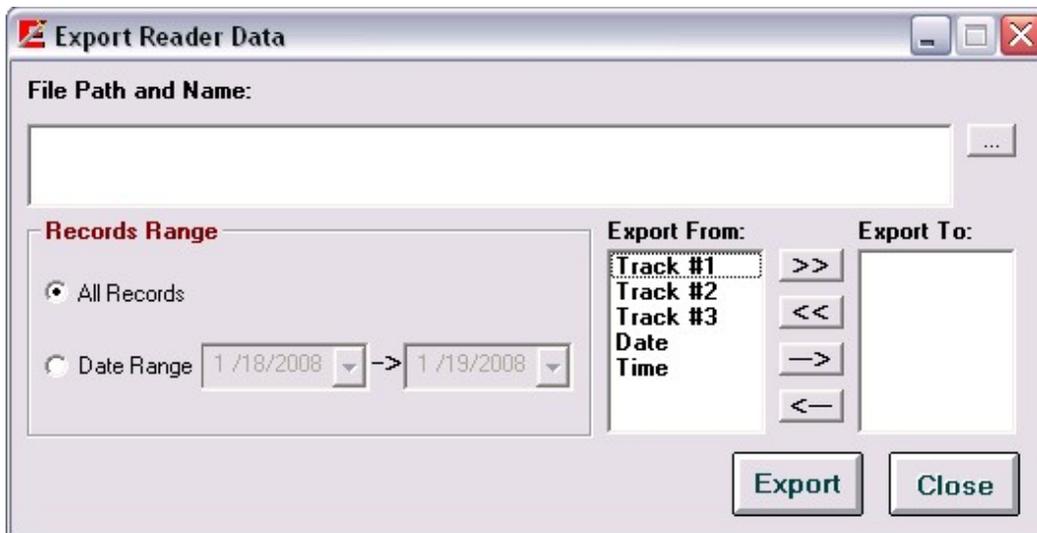
Export Records

Command Function

This command exports reader data records saved in the active database into a comma text delimited file. It allows you to select the fields and fields' order in the export file.

Menu Access

From the File menu, select Export then select Reader Data. The following window will appear.



How it works?

1. Enter the location and name of the file in the File Path and Name box. You can also click on the Browse button to locate or create the file using the Save As standard window. When this window appears, select the drive, folder and name of the file to export data to.

2. Then select the range of data you would like to include in the file. The available options are:

All Records – this option will export all the reader data in the current database

Date Range – this option will export all the records that have a log in date between specific date ranges. Once selected, select the date range from the provided calendars.

3. The next step would be to select the field(s) to export and in the order required. There are mainly two lists.

Export From List - displays all the fields that can be exported.

Export To List - displays the fields you select.

The following four buttons allow you to select the fields in order.

-> - Highlight the field in the Export From list then click on this button to add the highlighted field to the Export To list.

>> - To export all the fields in the list, click on this button.

<- - To remove a field from the Export To List, highlight the field, then click on this button.

<< - To remove all the fields in the list, click on this button.

Export - By clicking this button, the fields in the list box Export To will be written to the specified text file.

Close - Use this button to close the window and return to the main menu.

Example

Database records:

Track 1	Track 2	Track 3	Date	Time
ABD999999000^12	999999000		1/20/200	8:00:0

3			8	0
ABF999999001^37 8	999999001		1/20/200 8	8:13:4 0

If you Export To list looks like the following:

Track1
Track2
Date
Time

The exported file will contain data as follows:

ABD999999000^123, 999999000, 01/20/2008, 8:00:00

ABF999999001^378, 999999001, 01/20/2008, 8:13:40

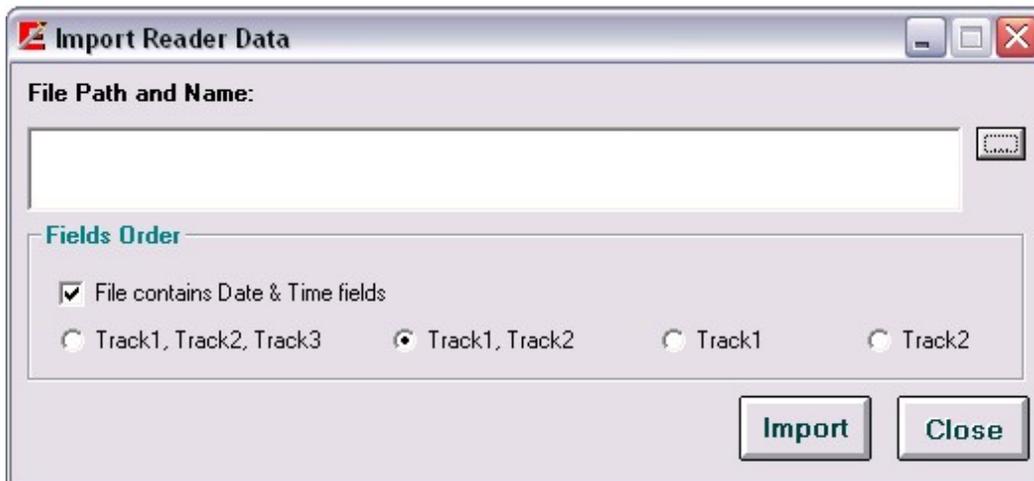
Import Records

Command Function

This command is used to import records from a text delimited file to an active database reader data.

Menu Access

From the File menu, select Import, then select Reader Data. The following window will appear.



How it works?

1. When creating the text file to import keep the following rules in mind:
 - ✓ Unless the file contains only one field, all fields should be separated with commas.
 - ✓ The records (or lines) must end with a carriage return.
 - ✓ The fields in the file should be in one of the following eight formats
 - Track1,Track2,Track3
 - Track1,Track2
 - Track1
 - Track2

- Track1,Track2,Track3,Date,Time
 - Track1,Track2,Date,Time
 - Track1,Date,Time
 - Track2,Date,Time
-
- ✓ Track1, Track2 and Track3 can each be up to 150 alphanumeric characters.
 - ✓ The Date should be in the following format: mm/dd/yyyy.
 - ✓ The Time should be in the following format: hh:mm:ss.
 - ✓ If a record contains a blank field it should be replaced by a comma. For example if the format you specified is as follows: Track1, Track2, Date, Time and your record contains only data for Track1 then it should look as follows: 1234,,01/20/2008,08:00:00 (where 1234 is the data of track1)

2. In the File Name and Path box, enter the location and name of the file to import. You can also use the browse button (...). When you click on this button the Save As standard window appears. Select the drive, folder and name of the file to be imported.

3. Select the file format as follows:

Check the File Contains Date & Time box if you are importing the date and time data. If this field is not checked, the import utility will automatically save the record in the database with the computer date and time. Then select one of the following options according to your file format:

Track1, Track2, Track3

Track1, Track2

Track1

Track2

4. Click on the Import button to import the file. If successful, a message will be displayed and the data can be viewed in the Poll Reader window, Reports, or even in the encoder data.

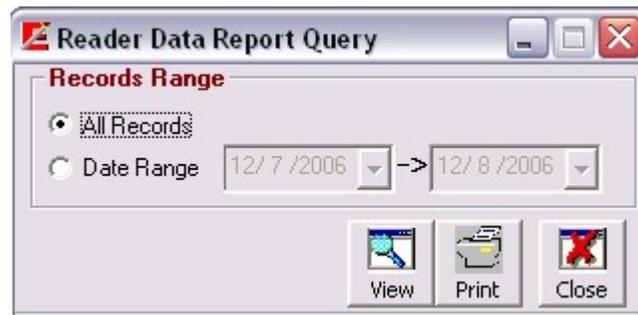
Reader Data Report

Command Function

This command allows you to print reports from the database. Also before printing, this command allows you to select data to print.

Menu Access

From the File menu, select Report, then select Reader Data. The following window will appear,



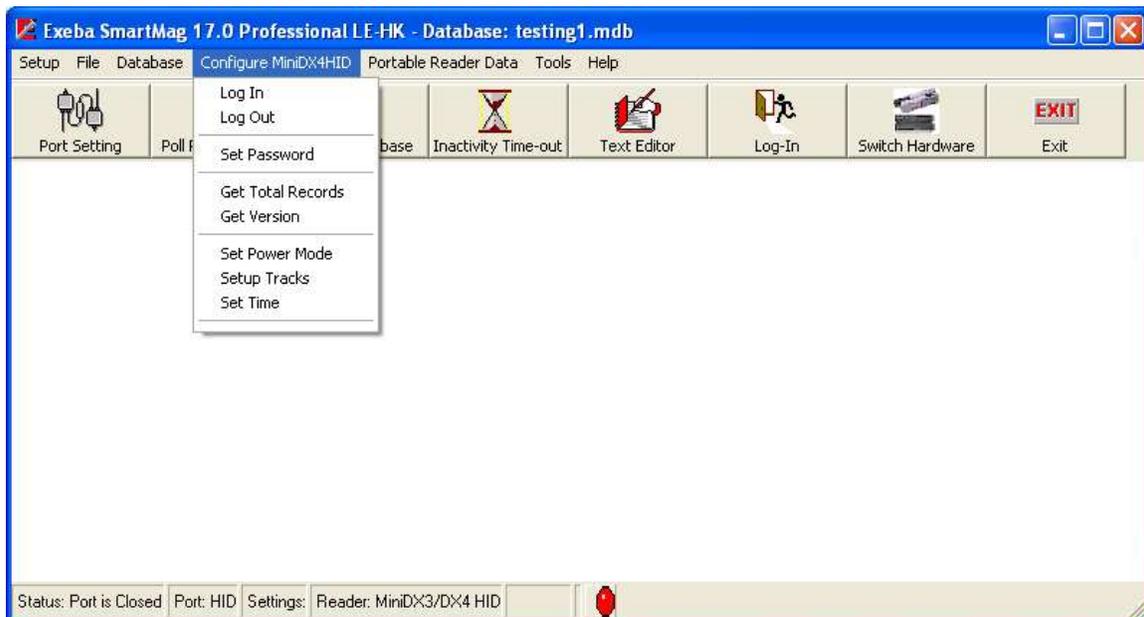
To print a report, select all the records. Or you can narrow it down to the records with a specific date range. Once you make your selection click on the View button to preview a report and print it. Or click on the Print button to print it. When done with the report, click on the Close button to close this window.

Configure Reader

Reader(s): Mini400, Mini400BT, Mini600, Mini123EX, and Mini 123U-SC

When a reader from the group above is selected, a corresponding configuration menu will become accessible. This menu will differ depending on the type of reader selected. This chapter describes the different menus and commands for this group of readers.

The following window shows the configuration menu and the commands for the Mini 400 reader:



Log In

Readers: Mini 400, Mini400-2G, Mini 600, Mini 123U-SC, Mini 123EX

Command Function

Log in to the reader is required in order to start the communication process. Exeba® SmartMag will automatically log in to the reader if no password is set.

Command Access

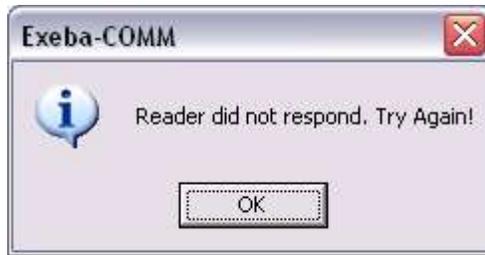
If any of the readers listed above is password protected, then the Log In window will appear automatically when communication with the reader is required. Or you can login manually by accessing the Log In window from the Configure menu. As show in the figure below,



How it works?

Enter the existing password, if any. The default password is 0000. Then click on the OK button. If the log in process was completed successfully, the Log In window will disappear.

If the communication failed, the following message will appear,



Check your communication parameters and try again.

If the password was entered incorrectly, a Wrong Password message will appear as follows.



If the hardware power is "off", the following message will appear on the screen:



Turn the power on the reader and try again.

Set Password

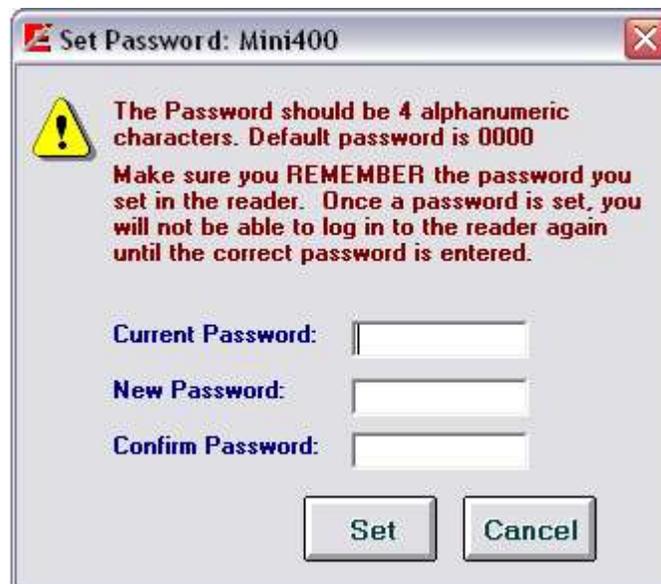
Readers: Mini 400, Mini400 2G, Mini 600, Mini123EX, and Mini 123U-SC

Command Function

Using the Set Password you can change the password protection setting in the reader. In other words, you can create a new password, turn off password protection or change an existing one.

Command Access

Select the Set Password menu command from the Configure menu and the following window will appear:



Set Password: Mini400

! The Password should be 4 alphanumeric characters. Default password is 0000

Make sure you REMEMBER the password you set in the reader. Once a password is set, you will not be able to log in to the reader again until the correct password is entered.

Current Password:

New Password:

Confirm Password:

Set Cancel

How it works?

If you're setting a password for the first time, you should leave the current password box blank. Otherwise, enter the existing password. Then enter the new password in the New Password box. Confirm your new password by entering it again in the Confirm Password box.

If for example, you entered a value of 1111 for the new password and the changes were successful, the following message will appear,



If you click on the Cancel button, no changes will be made to the password.

NOTE

The password can contain digits only. It should be exactly 4 digits. Before you click on the Set button, write down the password. Once it is lost, it can not be retrieved.

Once a password is set, Exeba® SmartMag will not be able to communicate with the reader unless the correct password is entered in the Log In window.

Get Password

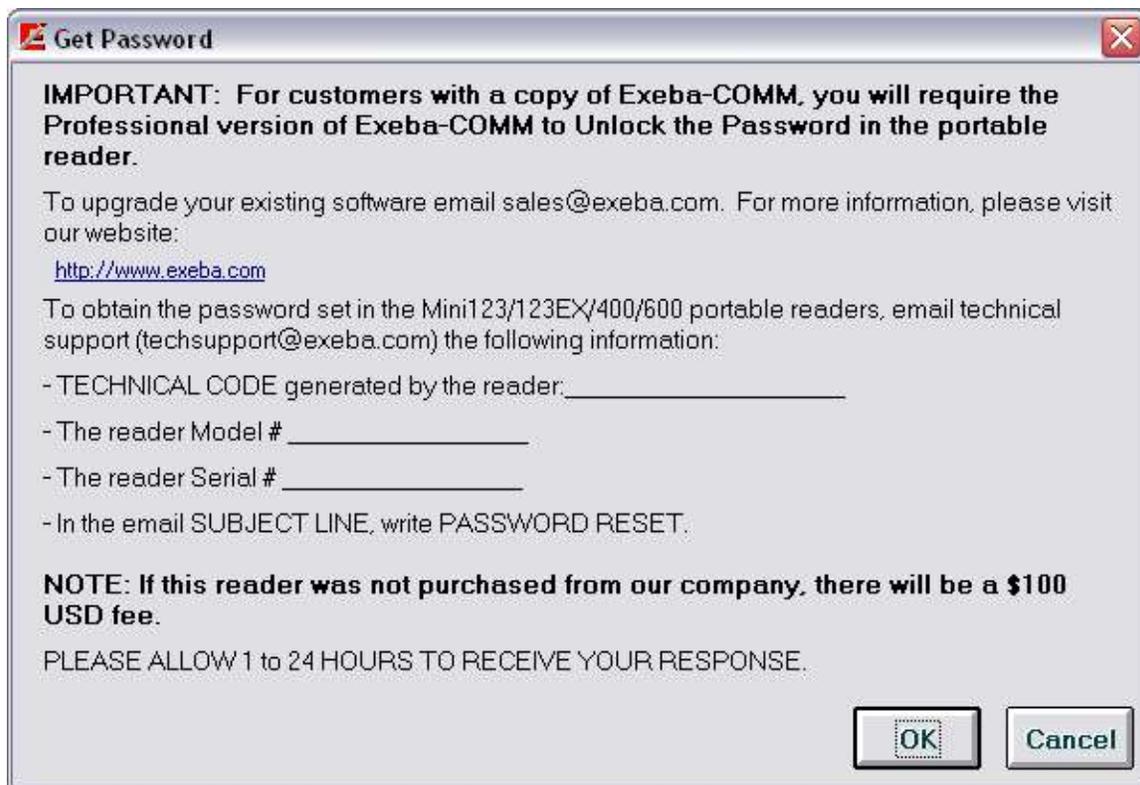
Reader(s): Mini400, Mini 400 2G, Mini400BT, Mini123EX, Mini123U-SC

Command Function

The function of this command is to retrieve the login password from the reader when lost.

Command Access

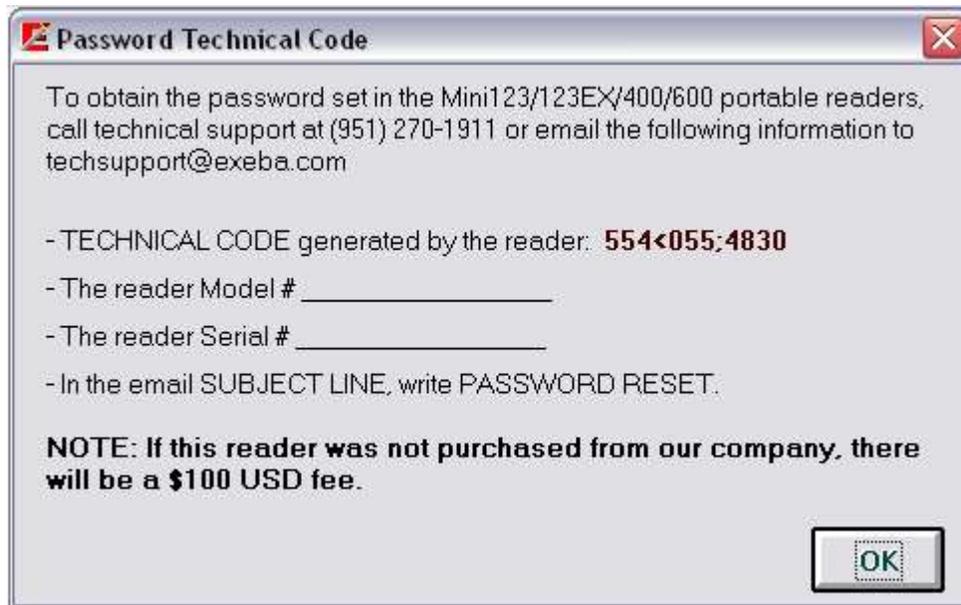
In order to retrieve the password, you need to call the technical support to obtain the password unlocking codes. Then from the reader Configure menu, select Get Password. The following window will appear,



How it works?

You need to provide the technical support representative with a code obtained from the reader. Here's how you obtain this code.

1. Click on the Ok button of the window above. If the code was successfully obtained from the reader, a window as the one shown below will appear.



3. Contact technical support by email or phone to give them the code. For example, the figure above shows that the code is: 554<055;4830. Before you click on the OK button make sure you gave the correct code to technical support. Then they will give you back the correct password set in the reader.

Get Version

Reader(s): Mini 400, **Mini 400-2G**, Mini 600, **Mini 123U-SC**, Mini 123EX

Command Function

The Get Version command is used to obtain the identification string from the reader. This string contains information such as reader model and version number. This command allows you to test the communication between the software and the hardware. Also, by obtaining the version number, the manufacturer will be able to identify the features and updates to the reader.

Command Access

To get the reader identification string, from the Configure main menu, select Get Version.

The reader identification string will appear. An example of the version number obtained from a reader is shown in the figure below:



Get Total Records

Readers: Mini 400, Mini 400-2G, Mini 600, Mini 123U-SC, Mini 123EX

Command Function

This command obtains the total number of records saved in the readers. This information is important in determining the maximum memory capacity in the reader.

Command Access

To get the total records, from the Configure reader menu, select Get Total Records.

If the communication with the reader was successful, a message such as the one appearing in the figure below will be displayed.



If the communication with the reader failed, the message "Reader did not respond!" will appear.

Set Time

Reader(s): Mini 400, Mini 600, Mini 123U-SC, Mini 123EX

Command Function

The time in the reader will be initially set to the manufacturer's settings. Using the Set Time command you will be able to change the time the reader is set to. This is important when Day Savings Time occurs since the reader will not automatically change the time. This command will also allow you to get the time from the following readers only: Mini 400, Mini 600, Mini123U-SC, Mini 123EX.

Command Access

To set the date and time in any of the readers listed above, from the Configure menu, select Set Time. The following window appears.



How it works?

To set the time, first make sure the reader is communicating properly with the software. It is very important that the reader is polled and purged before you change the date and time. Then change the date and time if necessary. Then click on the Set button to change the time in the reader.

If the communication between the software and reader timed out, the Log In window will appear.

If the time and date were set successfully, the message “Time is set!” will appear in the response box.

To make sure the reader is set to the time and date desired, click on the Get button to obtain the current time in the reader.

Set Power Mode

Reader(s): Mini 400, Mini 600, Mini 123U-SC, Mini 123EX

Command Function

Use this command to set the Mini400, Mini400BT, Mini600, Mini123EX , or Mini123U-SC reader to a specific power off time. In order to conserve battery power, the reader will power off after a specific amount of inactivity time. The default power off time is 20 seconds.

Command Access

When the Set Power Mode is selected, from the Configure menu the following window will appear:



How it works?

Select on of the following three options.

Real Time Control



Keep Power On Always

Select this option if you don't need the reader to be shut off automatically. The reader will remain on until the power is manually turned off. Click on the Set button, if successfully set, the following message will appear,



Turn Power Off

Enter the number of minutes and seconds (mm:hh) in the designated box. Then click on the Set button. The figure above shows that the reader is set to be powered off automatically after 30 minutes of inactivity.

If the Auto Power off was set successfully, the following message will appear,



Click on the Close button to exit this window.

Get Power

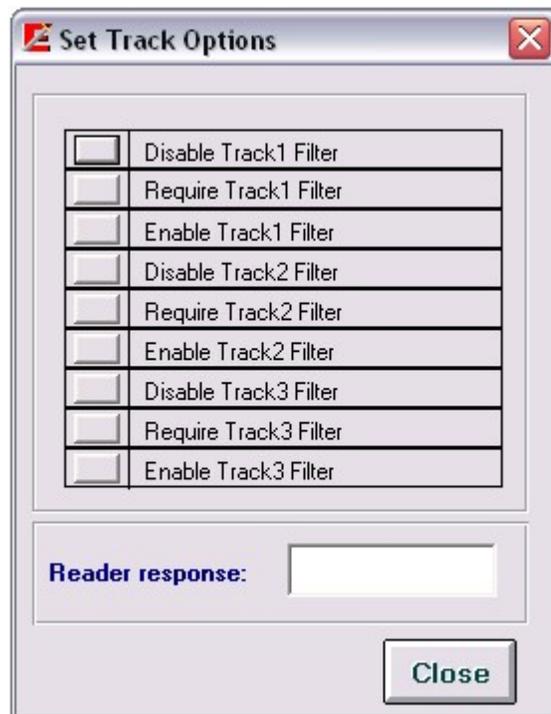
This function allows you to get the auto power setting from the reader. Use it before you set the power to determine if any changes are required or after you set the power to make sure it is set to the correct setting.

Setup Tracks

Reader(s): Mini 600, Mini 123EX, Mini400, Mini400 2G, Mini400 BT, Mini123 SC

Command Function

On any of the readers listed above, you may want to enable or disable the tracks' filter.



Click on the button to the left of the command to program the reader. If successful, a message will appear in the Reader Response box.

When a reader is configured to.

Disable Track Filter – data on the corresponding track will not be read when a card is read.

Enable Track Filter – the data (if any) will be read when a card is scanned.

Require Track Filter – the corresponding track should have data, otherwise the card will not be read.

Click on the Close button to close this window.

Set Buzzer

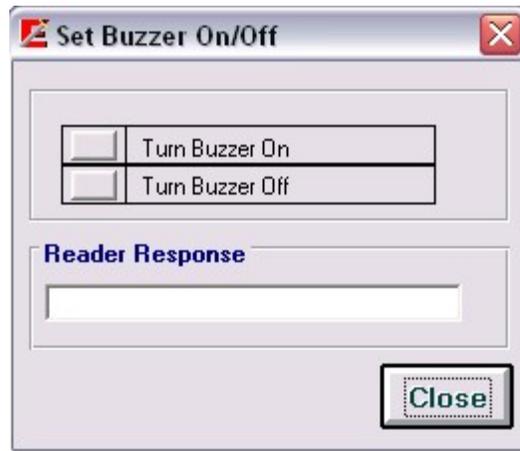
Reader(s): Mini 600

Command Function

When the user scans a card, the buzzer setting will determine if a sound will come on.

Command Access

From the Configure menu, select Set Buzzer. The following window will appear,



If the reader is communicating properly with the software, click on the button to the left of the command to turn the buzzer settings on or off. If successful a confirming message will appear in the Reader Response box.

Set Backlight Duration

Reader (s): Mini 600

Command Function

This programming command is available on the Mini600 reader only. It is used to set the length of time the back light in the reader should stay on.

Command Access

From the Configure menu, select Set Backlight Duration



Enter the number of seconds in the designated box. Then click on the Set button.

You can also get the current setting in the reader by clicking on the Get button.

Send Command

Reader(s): Mini 400, Mini 600, Mini 123, Mini 123EX

Command Function

Most of the reader commands are automated in the software. For example, if you need to get the version#, use the Get Version command. However, this command is provided if you would like to manually send a command to the reader. It is essential, if the command is not already automated in the software or for testing.

Command Access

This command is available to all readers. To send a command to the reader, from the Configure menu, select Send Command. The Send Command window will appear, as shown in the figure below:



How it works?

Then follow the steps below:

1. Type the command in the text box provided.

2. Click on the Send button.

The responses coming back from the reader (if any) are displayed in the Reader's Response box. The responses will appear in the format that they are received. However, the software eliminates the ACK, NAK, ETX and STX characters from the string of data received.

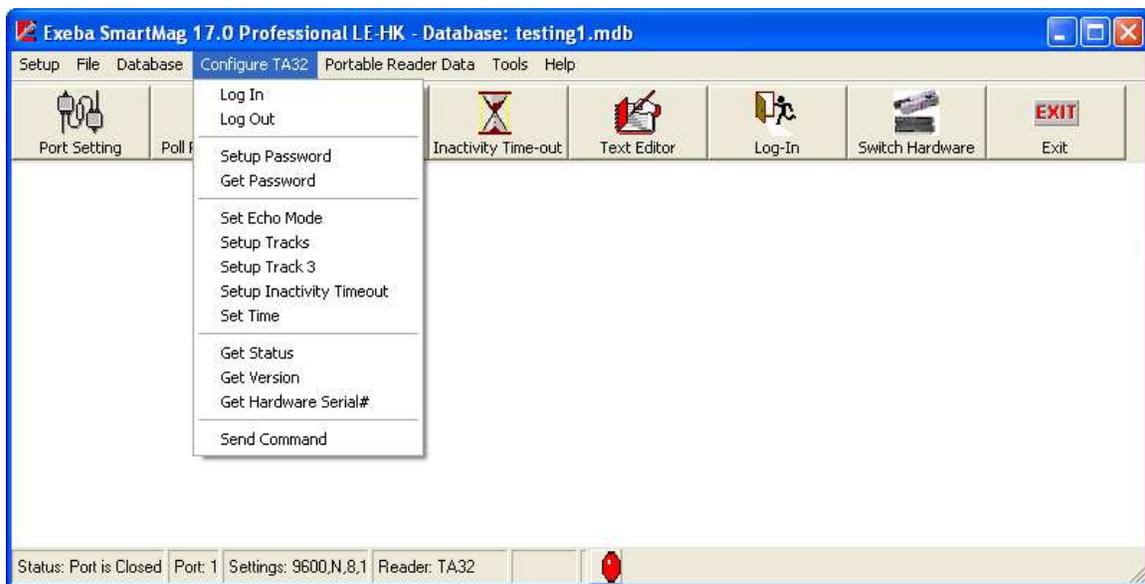
If the reader receives a command, a response of ACK will appear as "Command Acknowledged" and a response of NAK will appear as "Command Not Acknowledged". The response received will depend on the type of reader being used.

To clear the command typed, click on the Clear button.

Configure Reader

Reader(s): TA32

Once the TA32 is selected from the hardware type menu, Configure TA32 menu will appear in main window as follows:



The chapter describes each menu command.

Log In

Command Function

Logging into the reader is required to start the communication process between the software and the reader. Exeba® SmartMag automatically logs in to the reader if no password is set. However, if the reader is password protected then the Log In window will appear automatically when required.

Command Access

To log into the reader manually, Select Configure TA32, and then select Log In. The following screen will appear:

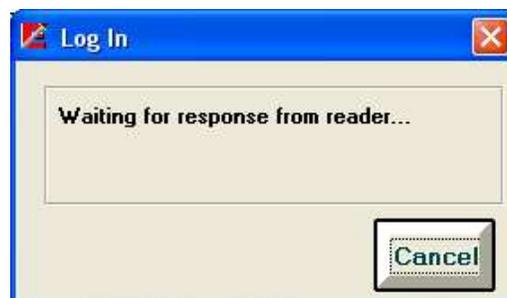


How it works?

Press the power button on the reader. In addition to turning the power on, some readers require a backward swipe of an encoded magstripe card.

To cancel the log in process at any time, press the Cancel button.

If the reader responds, the following screen will appear:



When Exeba® SmartMag displays the message "Waiting for response from reader...", you should release the power button and stop scanning the card.

If a password was detected in the reader, the following screen will appear followed by the initial Log In screen.



Enter the correct password and click on the Send button. If an incorrect password was entered, steps 2 and 3 should be repeated.



When no password is set or when the reader receives the correct password, the message, "Logged In successfully" will appear.



Log Out

Command Function

The Log Out menu command under the Configure TA32 main menu is used to log out from a TA32 connection.

Command Access

Use this command, when the communication with a TA32 should be terminated or when communication needs to be established with a different reader.

Setup Password

Command Function

To set a password on the TA32, use the Set Password window.

Command Access

From the Configure TA32 main menu, select Setup Password. The following window will appear:



How it works?

Enter the existing password in the Current Password box. If no password is set yet in the reader, enter the default password 00000.

Enter the new password in the New Password box and the Confirm Password box. The password can be any of 5 digits.

Then click on the Set button. If successful the following message will appear showing the password you set the reader to.



If the communication between the software and reader timed out, the TA32 Log In window will appear.

Reset Password

Command Function

If you forgot the password set in the reader, you can reset it back to the default password using the Reset Password command. You will not lose any data from the reader. However, this command requires technical support to obtain the password unlocking codes as explained in this topic.

Command Access

Select Get Password from the Configure TA32 menu. Once selected the following window will appear:



The screenshot shows a dialog box titled "Unlock Command". It contains the following fields and buttons:

- User Code 1: 295-906-615
- User Code 2: 655-745-8
- Enter Response 1: [Empty text box]
- Enter Response 2: [Empty text box]
- Buttons: Email, Unlock, Close

How it works?

Get the password by unlocking this command, using one of two following methods:

1) Unlock command by Email:

If your computer is connected to the Internet, click on the Email button. The Email button will open the Unlocking web page. Once all the required information is entered, click on the Submit button. The response codes will be emailed to the email address provided.

NOTE: Please copy and paste your User Code 1 and User Code 2 into the appropriate fields. Then click on the Close button.

2) Unlock command by Phone:

Call Escan's support line at (951) 270-1911 Ext 222. Please provide the customer support representative the following information: User Code 1, User Code 2 and the hardware that was purchased. The representative will provide you with two codes: Response 1 and Response 2. Enter them in the designated boxes, and then click on the Register button.

NOTE: It is necessary for you to be in front of your computer, and have the software running when you call to unlock.

After unlocking, the password will be displayed on the screen.

If logging into the reader is required, the Log In window will appear.

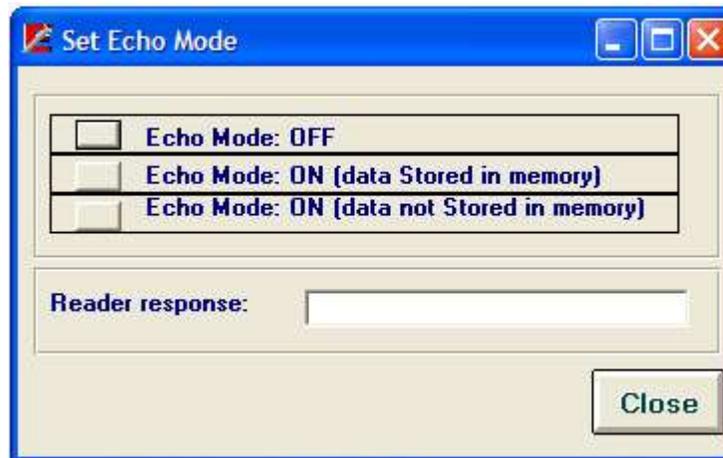
Set Echo Mode

Command Function

This command is used to change the mode in which data is transferred between the reader and the PC.

Command Access

To change the Echo Mode, from the Configure main menu, select Set Echo Mode. The window above will appear.



How it works?

Click on the button to the left of each command to change the echo mode.

The different echo modes are explained below:

Echo Mode: OFF - The data is stored on the reader and must be downloaded to the PC.

Echo Mode: ON (data stored in memory) - The data is transferred directed to the PC and also stored in reader's memory.

Echo Mode: ON (data not stored in memory) - The data is transferred directed to the PC and not stored in reader's memory.

NOTE: The reader must be connected to the PC via a serial or USB cable in order for the data to be transferred to the PC.

If the reader responded, a corresponding message will appear in the Reader response.

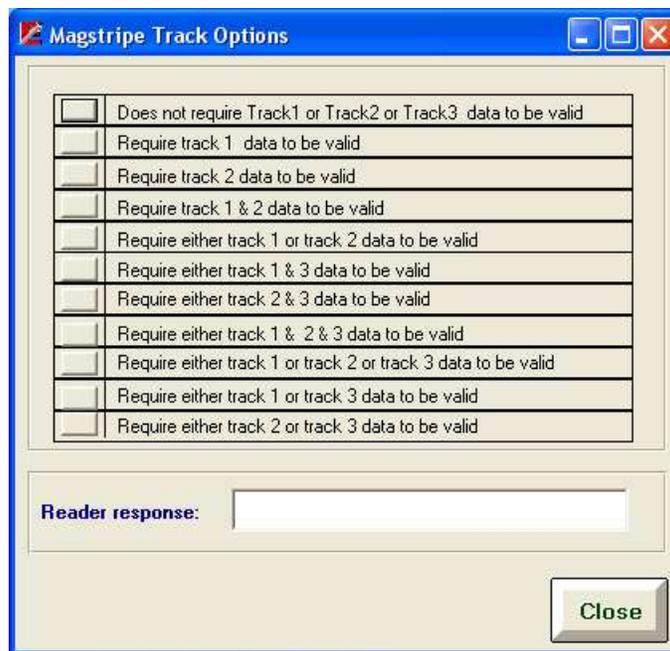
Setup Tracks

Command Function

This command is used to set the magstripe options in the reader.

Command Access

Select Setup Tracks command from the Configure TA32 main menu. The following window will appear:



There are different options available to change track 1, track 2 or track 3. Click on the button that appears to the left, to set the track according to the command.

If a response is returned from the reader, it will be displayed in the Reader Response box.

Set Track 3

Command Function

This command is available for the readers that are equipped with 3 tracks such as TA32. It allows you to change the options specific to track3.

Command Access

When a TA32 is selected, you can select Setup Track 3 submenu from the Configure menu. The following window will appear,



There are 3 different options available to change track 3. Click on the button that appears to the left, to set the track according to the command.

If a response is returned from the reader, it will be displayed in the Reader Response box.

Set Inactivity Timeout

Command Function

The reader can be set to automatically shut down after a specific idle time. To change the inactivity timeout in the TA32 reader, use the Set Inactivity Timeout command.

Command Access

This command can be accessed from the Configure TA32 main menu.



How it works?

To set the inactivity timeout, simply select one of the following options:

Keep Power On Always - This option is not recommended since by keeping the reader on all the time, the battery will drain quickly.

Turn Power Off automatically after X min X sec - This will allow you to set the length of time the reader will stay on after the last scan then shut off. Select the min and sec from the boxes provided.

Then click on the Set button.

The Log In window will appear, when you log into the reader.

Set Time

Command Function

To set the date and time in the TA32 reader, use the Set Time menu command under the Configure TA32 menu.



If necessary, change the date and time that appears in the Set Time window. Then click on the Set button.

If the communication between the software and reader timed out, the TA32 Log In window will appear.

If the time and date were set successfully, the message "Time is set!" will appear in the response box.

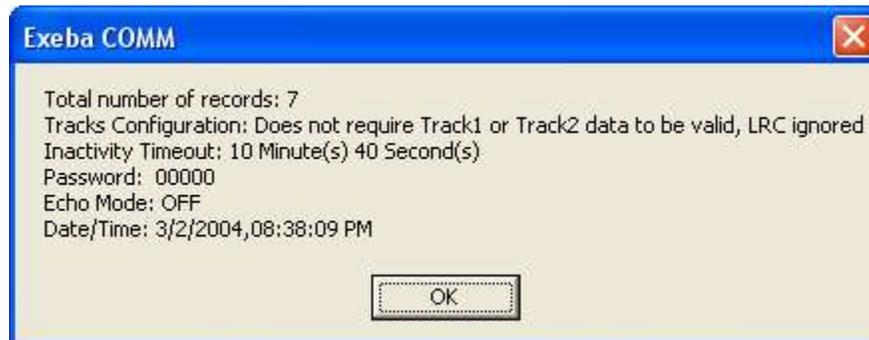
Get Reader Status

Command Function

The Get Status command displays the TA32 reader settings. This information will include the following:

- Total number of records stored in the reader
- Total number of tracks
- Reader password
- Inactivity timeout
- Echo mode
- Reader date and time
- Reader version

To get the above information from the reader, select Get Status command from the Configure TA32 menu. The reader will return the information as shown in the following figure:



Get Version

Command Function

The Get Version command is used to obtain the identification string from the reader. This string contains information such as reader model and version number.

To get the reader identification string, from Configure TA32 menu select Get Version.

The reader identification string will appear. An example of the version number obtained from a reader is shown in the figure below:



Get Hardware Serial

This command is used to retrieve the serial number of the TA32 reader.

When this command is selected, the following window will appear:



After the Log In window appears, you will be prompted to enter the password.

Once the password is entered the following Hardware Serial# window will appear:



Send Command

Command Function

Send Command allows you to program the reader, to get data from it or to test it. To send a command to the reader, follow the steps below:

Command Access

This command is available in all readers. Select Configure TA menu then select Send Command. The Send Command window will appear, as shown in the figure below:



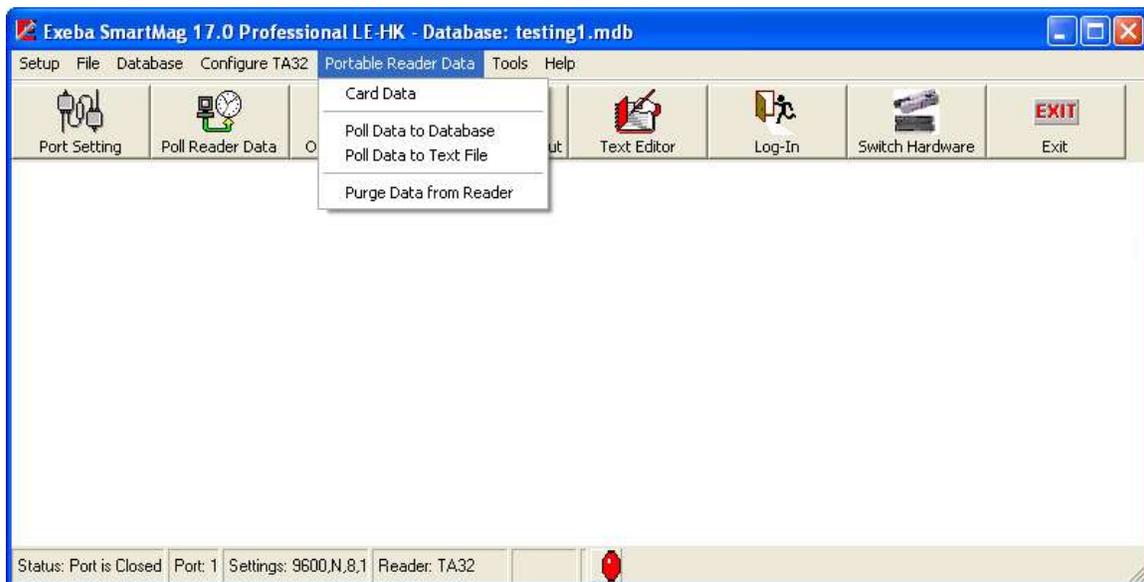
To send a command, type the command in the text box provided. Then click on the Send button.

The responses coming back from the reader (if any) are displayed in the Reader's Response box. The responses will appear in the format that they are received. However, the software eliminates the ACK, NAK, ETX and STX characters from the string of data received.

If the reader receives a command, a response of ACK will appear as "Command Acknowledged" and a response of NAK will appear as "Command Not Acknowledged". The response received will depend on the type of reader being used.

Magnetic Reader Data

The previous chapters explained how to change the port settings and the reader settings as necessary. This chapter explains how to get the data from the reader once it is scanned and saved, how to save the data in the database or in a text file, and finally, how to purge this data in the reader.



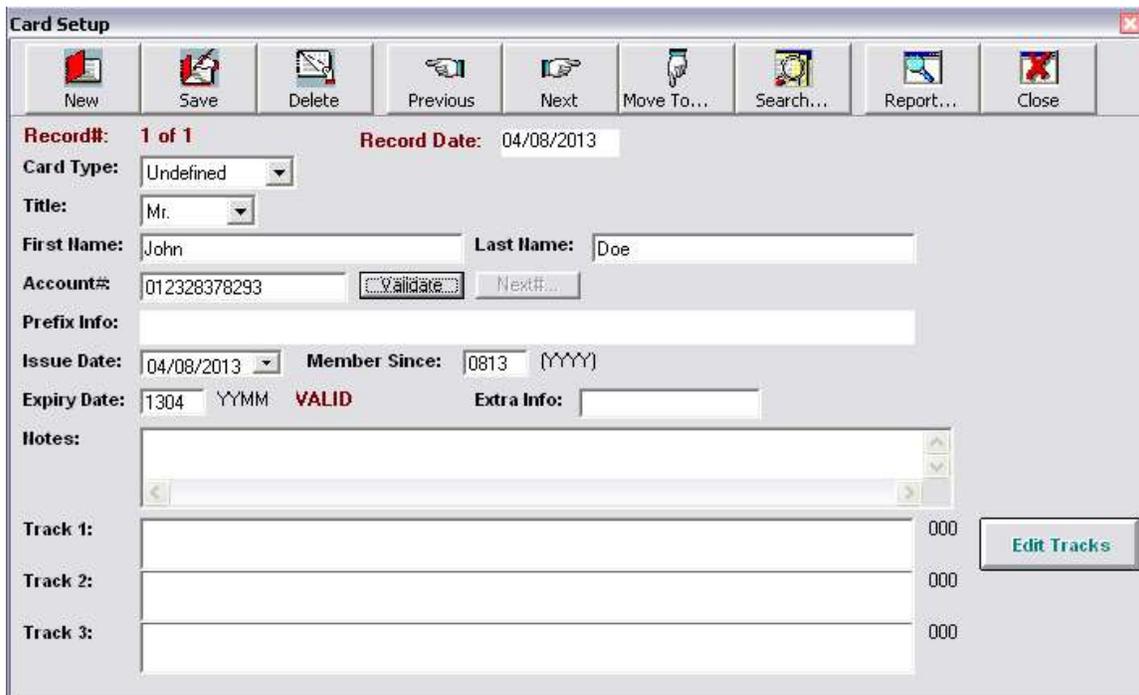
Card Data

Command Function

The data that is polled from the reader, or by an encoder is extracted into a card data format. Select this command to view and manipulate this data.

Command Access

Before you access this command, you should have an active database. To view the card data, select Card Data from the Portable Reader Data menu. The following window will appear,



The screenshot shows a software window titled "Card Setup" with a toolbar at the top containing icons for New, Save, Delete, Previous, Next, Move To..., Search..., Report..., and Close. The main area displays the following information:

- Record#:** 1 of 1
- Record Date:** 04/08/2013
- Card Type:** Undefined (dropdown)
- Title:** Mr. (dropdown)
- First Name:** John
- Last Name:** Doe
- Account#:** 012328378293 (with a Validate button and a Next#... button)
- Prefix Info:** (empty text field)
- Issue Date:** 04/08/2013 (dropdown)
- Member Since:** 0813 (YYYY)
- Expiry Date:** 1304 YYMM, with the status **VALID** in red text.
- Extra Info:** (empty text field)
- Notes:** (empty text area with scrollbars)
- Track 1:** (empty text field) 000
- Track 2:** (empty text field) 000
- Track 3:** (empty text field) 000

An "Edit Tracks" button is located to the right of the track fields.

Fields Description

This section describes the card data fields. Each record can contain one or more of these fields.

Card Type – This field defines the format of the data on the tracks to the Build Tracks function and the Extract Fields function. These types are created in the Card Type Setup window or predefined in the database. Select from the list provided. If not selected, it will be defaulted to the settings of the Default Card Type field of the Encoder Settings.

Record Date – This field is not currently encoded on the track. It is automatically created once a new record is saved in the database. It indicated the date the record was created.

Title – This field is limited to the list provided. If you like to add a title, select from this list.

First Name, Last Name – This is the first and last name of the account holder or the person you are creating the card data record for. Enter up to 25 characters for each of the first or last name or as you define it in the card type.

Account# - This is the account number for the current record. You can enter up to 20 digits or characters.

Expiry Date - This field displays the account's expiration date. The expiry date is entered as YYMM. The first two digits represent the year (00 – 99) and the last two digits represent the month (01 - 12).

Issue Date – This could be the account issue date, the card issue date, or anyway you define it. The data type of this field is date.

Member Since – This could be the year the account holder became a member. It can be stored on the card as a year in the following format YYYY (e.g. 2008)

Extra Info – This field can contain up to 20 characters. You can use it for any purpose to store extra information that the other fields do not provide.

Prefix Info - Based on the account#, this field determines the issuing institution for certain types of credit cards. This information will automatically appear if it is predefined. You will not be able to enter data for this field on this window.

Notes - Use this field for any notes regarding this record.

Track 1, Track 2, Track 3: These fields contain the data that has been read from, or will be written to, the corresponding tracks on the magnetic stripe. When a card is read, the data will appear exactly as it is on each of the three tracks. The data can be replaced or modified simply by pressing the Edit Tracks button.

Creating and Updating Records

Card data records are created automatically when polling or importing reader data which will be extracted using a default data type.

To create a new record manually,

1. Click on the New button. This button clears all the fields and displays default values for some fields, to allow you to enter data.
2. Enter information for the card data fields on this window as required. You can use the Build Tracks button to create the tracks.
3. Click on the Save button.

To update data for an existing record,

1. Move to the record using the navigation buttons as explained later in this chapter.
2. Update the fields as required. To update the tracks, you need to click on the Edit Tracks window.
3. Click on the Save button.

To delete a record from the database,

1. Move to the record using the navigation buttons.
2. Click on the Delete button.

Navigating

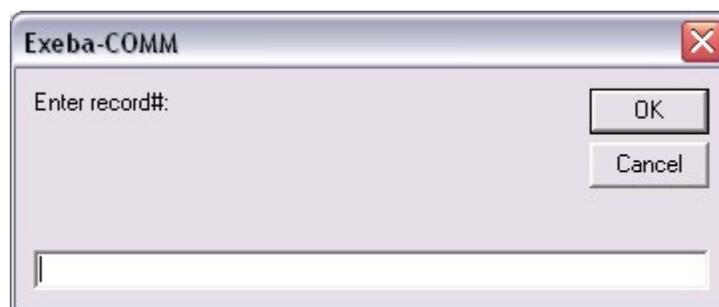
The Record# field displays the number for the current record and the total number of records in the active database. This field cannot be modified. It will only change as you move between the records or if records are added or deleted.

The following buttons let you navigate through the active database:

Previous - Displays the previous database record that follows the current record.

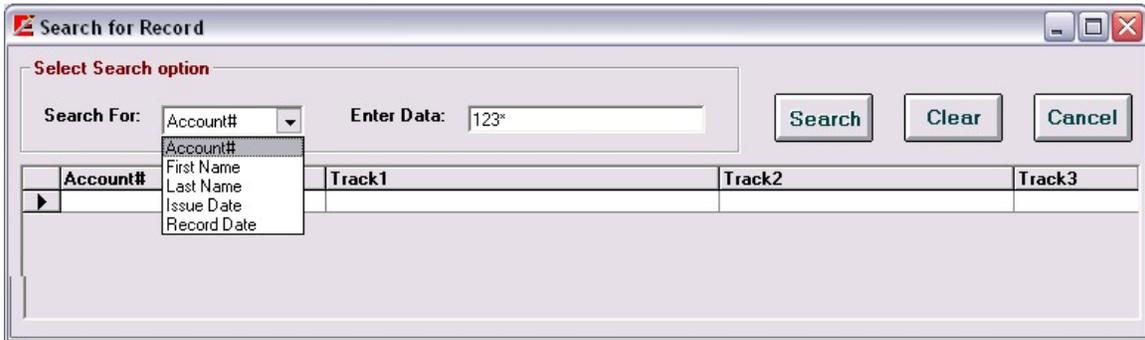
Next - Displays the next database record that follows the current record.

Move To – Instead of moving one record at a time using the above buttons, you can move to any record by entering its number. When you click on this button, the following window will appear,



Enter the number of the record in the box then click on the OK button.

Search - This command is used to search for a specific record based on criteria. When you click on this button the following window will appear.



Using this utility you can search for a record based on an account#, First Name, Last Name, Issue Date, or Record Date.

To search for a record,

8. Select the criteria from the Search For list.
9. If your criterion is by Issue Date or by Record Date, then enter the correct date in the Enter Data box. Otherwise, if your criteria is by Account#, First Name or Last Name, then enter the exact data or part of the data and wild cards (* any number of character, ? any single characters). For example, if you know only the first 3 digits of the account enter the 3 digits followed by an asterisk (Such as 123*). The search function will look for all records that have an account# that start with 123.
10. Click on the Search button. If one or more records are found, they will be displayed in the table as shown above. Highlight the record you want and double click on it. This window will disappear and you will go back to the Encoder window.
11. If you need to start over, click on the Clear button to clear the Enter Data box.
12. To cancel the search at anytime, click on the Cancel button.
13. If the search function does not find the account # in the database, the following message will appear:



Poll Data to a database

Command Function

The data that is stored in the reader after the user scans a card can be obtained by using the Poll command. The Poll Data to Database command polls the data and displays it in a table.

Command Access

Before you access this command, it is recommended to open a database first to save the poll data in it, if it is not already open. To poll the reader, select Portable Reader Data, then select Poll Data to Database command. The following window will appear,

The screenshot shows a window titled "Portable Reader Data" with a blue title bar. It contains several sections:

- Record Transfer:** Two input fields for "Total Records in Reader:" and "Total Records Transferred:".
- Records to View:** Radio buttons for "All Records" (selected) and "Date Range". The "Date Range" section has two dropdown menus showing "5/15/2005" and "5/16/2005" with a right-pointing arrow between them.
- Buttons:** "Load" and "Preview" buttons are located to the right of the "Records to View" section.
- Table:** A table with columns: "Rec", "Track 1", "Track 2", "Track 3", and "Date/Time". It contains three rows of data and a row with an asterisk in the "Rec" column.
- Bottom Bar:** A row of buttons: "Poll Reader Data" (highlighted), "Stop Polling", "Purge Reader Data", "Save (text file)", "Save (Database)", "Delete Record", and "Close".

Rec	Track 1	Track 2	Track 3	Date/Time
1	B498354038494*JOHNSON/SKLER*8888000035910	498354038494-88880000359100		5/2/2005,11:32:06 AM
2	B49014444444*TYLER/JANET*8888000035910000	490144444444-88880000359100		5/2/2005,11:33:13 AM
3	B490146922007*BLAKE/JACK*888800003591000000	490146922007-88880000359100		5/2/2005,11:33:13 AM
*				

View Records

When this window first appears, all the data in the active database, if any, will appear in the table. You can limit the records displayed in this table to a specific range of date as follows:

- 1- Click on the Date Range option.
- 2- Select the range of dates you would like to view from the date tables.
- 3- Click on the Load button.

If you need to view all the records in the database, click on the All Records option, and then click on the Load button.

Poll Data

To poll the reader, make sure the selected reader is connected to the communication port, and then click on the Poll Reader Data button. The total number of records saved in the reader will appear in the Total Records in Reader box. If the polling process succeeds, the data will appear in the rows of the table and the Total Records Transferred box will display the total records polled so far.

Starting from the first record, the poll function will poll every record into a single row in the table, and every track into a single column. The first column will be the record number. The data of tracks 1-3 will appear in next 3 columns and the date and time will appear in the last column. If the reader does not have a real time clock or there was an error in transferring the date and time, the computer's date and time will appear in that column instead.

The polling process will continue until the total number of records is reached.

If the reader operates in real mode, such as the Serial Reader (Non Portable), the records are not saved in the reader. Every record should be polled before another card is scanned. The polling process will run in the same way.

Cancel Polling

To cancel the polling process at any time, click on the Stop Polling button.

Save Data

When polled, a copy of the data remains in the reader. But the data that appears in the table after the polling process terminates, will be lost if not saved. In order to save the data, click on one of the following buttons:

Save (Text File) button - If you want to save the polled data in a text file, click on this button. Then enter a path and name of the file in the *File Name* text box. Then click on the Open button.

Save (Database) button - This button will save the data that appears in the table to the current database. The name of the current database will appear at the header of the Main window.

Delete Data

To delete a record from the database, highlight the record in the table and click on the DEL button of your keyboard or the Delete Record button. If you need to delete more than one record at a time, select the records using the Shift key or the Ctrl key of your keyboard then click on the Delete Record button.

Purging Reader Data

To purge the data in the reader, click on the Purge button. The data does not need to be polled in order to be purged. This button will erase the existing data in the reader and not the data that appears in the table.

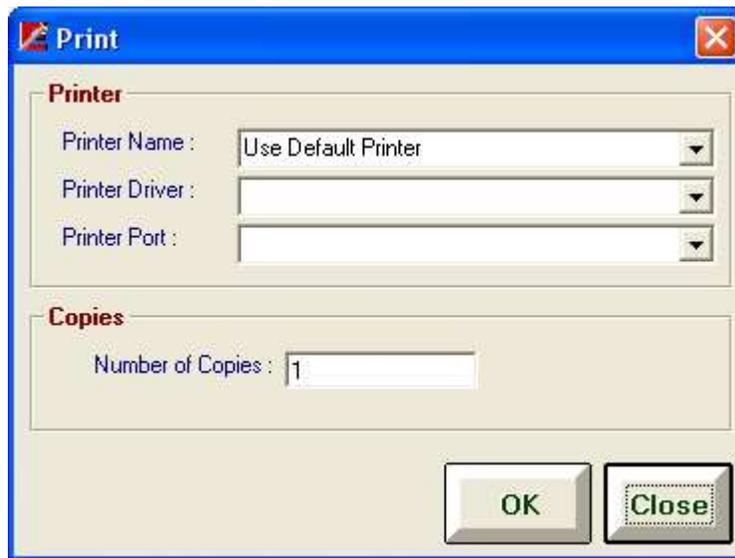
Preview / Print Report

To preview or print the report data,

1- Select the data range. If you select the All Records option, then all the records in the database will be included in the report. If you select the Date Range option, then all the records with dates falling in that range will be included in the report.

2- Click on the Preview button.

Once the Preview window appears, you can print the report by clicking on the Print button shown in the menu at the top of the report page. Then the following window will appear:



From this window select the printer name, printer driver, printer port and the number of copies and then click on the OK button.

To close this window, click on the Close button.

Poll data to a text File

This command polls the saved data from the reader and saves it in a text file only. To access this command, select Poll Data To Text File from the Portable Reader Data menu. The following window will appear:



Poll Data

Poll Data (Raw) – This button transfers the data in the same format in which the reader saves it.

Poll Data (Formatted) – This button transfers the data from the reader and formats it into comma delimited fields. The data will appear in the box shown above. Saving the data formatted, allows you to import it into the database using the Import utility.

Stop Polling

The polling function will continue until all the data is polled from the reader. To cancel the polling process at any time, click on the Stop button.

Save Data

To save the data to a text file, click on the Save button, then enter or select the name and path of the file in the dialog window that appears. The data will be saved in the same format in which it appears in the text box.

Purge

To erase the data in the reader, click on the Purge button.

Purge Reader Data

When the data is polled, a copy of it will remain in the reader. To erase the data, the Purge command should be used. It is recommended to select this operation when the data in the reader is not required or after polling the data using the Poll command.

To purge the data, select Purge Reader Data command from the Portable Reader Data menu.

Encoders/Magnetic Readers Tools Menu

The tools menu is available to all readers and encoders. Under this menu you will find commands to compact, and if necessary repair, the application database, to import an old database and to change the hardware selection.



Compact and Repair Database

As the data is updated, the size of the database file grows over time. The Compact Database utility compacts and repairs the database, thus making it smaller in size. It also allows all of the software functions to run more efficiently.

To compact the database, select the Tools menu, then click on the Compact and Repair Database.

Before you use this function, make sure all the windows in the software are closed and only a single user is running the software.

If the database is corrupted, the Compact Database utility will attempt to repair it. Since this utility cannot fix all the possible forms of database corruption, it is recommended to always back-up the database files to avoid unrecoverable data loss.

The Compact and Repair Database submenu is found in Tools menu. The following menu will appear when you click on the Tools menu.

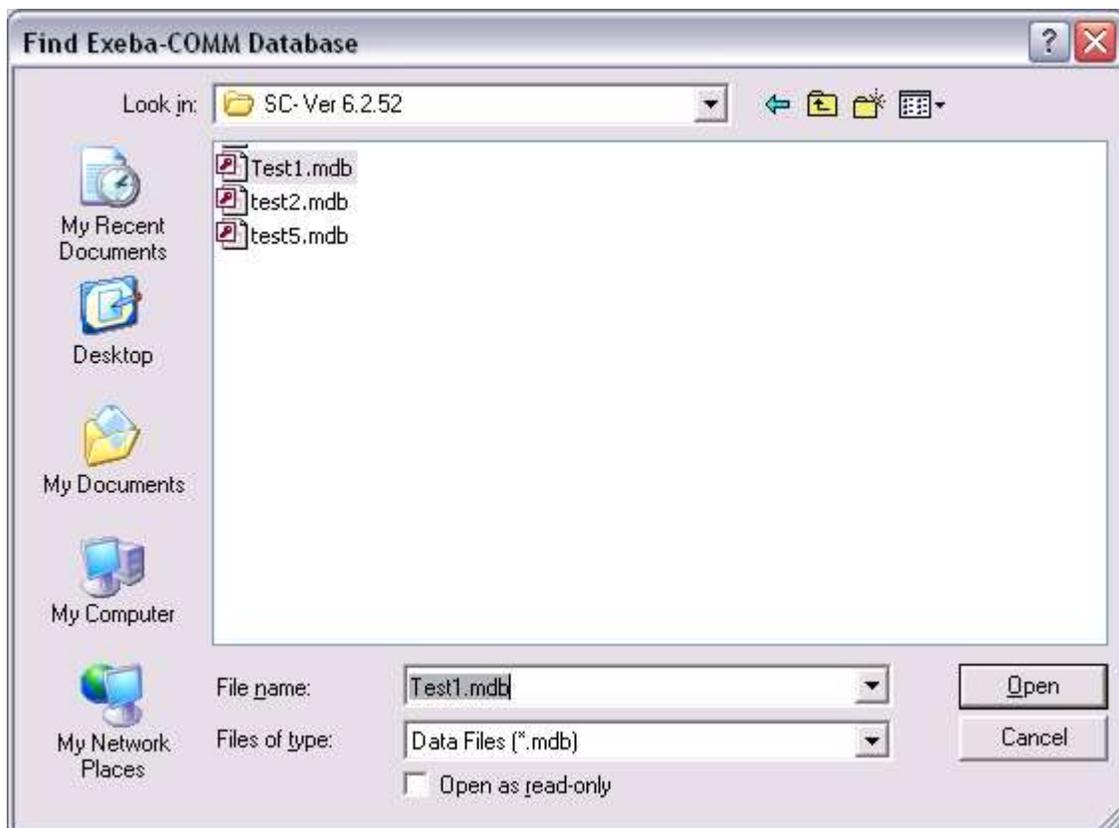
Import Database

Command Function

If you have the older version of Exeba®-COMM 6.2, use this utility to import the database into this new version.

Command Access

From the Tools menu, select Import Database. The following window will appear,



Locate the database and click on the Open button of the above window. If the database is imported successfully, a confirmation message will appear.

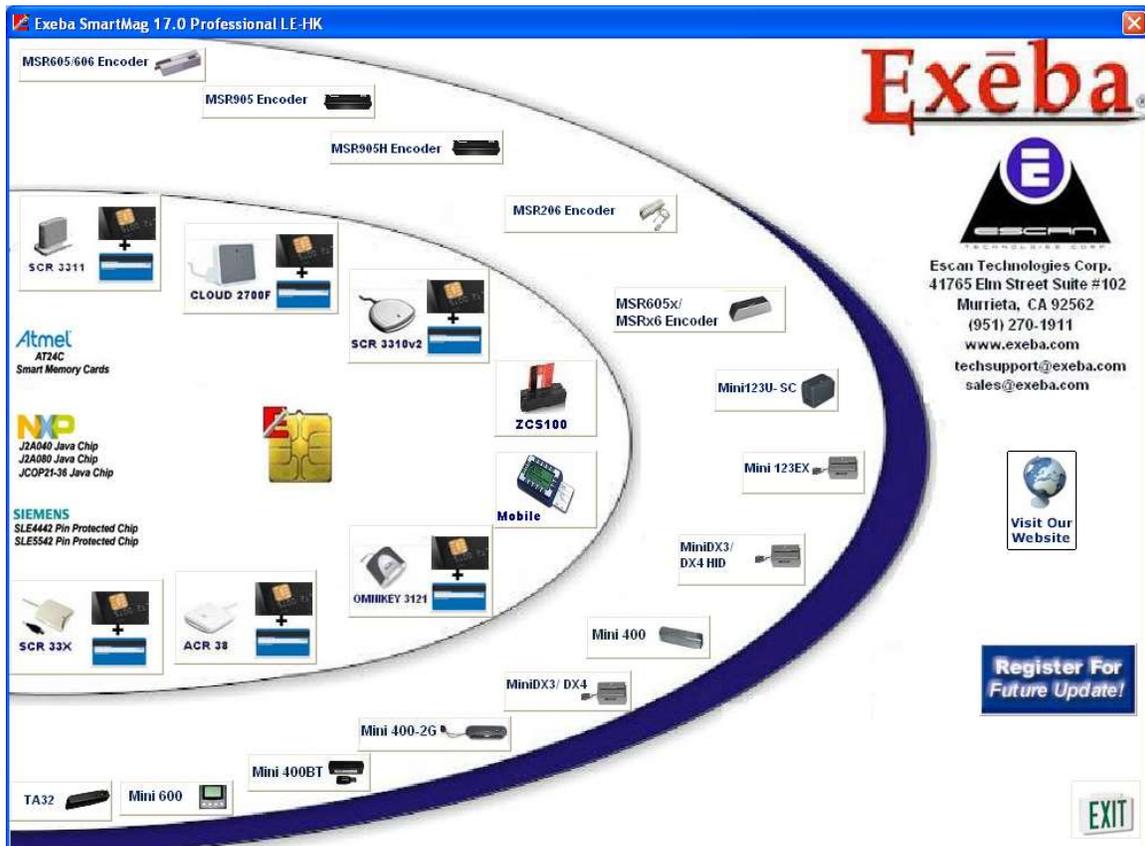
When the data is imported into the database, the reader data will be added as new records. For the encoder data, this utility uses the default card type to extract the fields according to the specification of the new database.

Switch Hardware

This command is used to switch from one hardware type to another.

The **Switch Hardware** submenu is found in the **Tools** menu.

When the Switch Hardware command is selected, the following hardware window will appear:



Product Support

Introduction to Product Support

A variety of resources are available to help you use Exeba® SmartMag. These resources are covered in this appendix and can be divided into the following sections:

- On-line documentation
- User Guides
- On-line technical support
- Escan technical support

On-Line Help

Exeba® SmartMag has a comprehensive on-line help system that allows you to locate information quickly and easily. On-line help can be accessed from the Start menu. You can also access it while working with Exeba® SmartMag, by selecting Help from the main menu.

Customer Support

Escan Technologies Corp. welcomes your questions, suggestions and comments regarding improvements to Exeba® SmartMag and this manual. Your comments can be mailed to Escan Technologies Corp., or sent electronically via e-mail or via our World Wide Web (WWW) site. If you have a bug report that requires immediate attention, please contact us as soon as possible.

If you would like to purchase any of the hardware described in this manual, you may contact us for the current price and availability.

In order to be eligible for technical support, you must register your version of Exeba® SmartMag with Escan Technologies Corp. In addition to technical support, you will receive updates regarding what is new in the upcoming versions of Exeba® SmartMag.

When reporting a problem, please include the following information:

- Company
- Mailing Address
- Phone Number
- Your Name/Contact Person
- E-mail Address (if available)
- Exeba® SmartMag Serial Number
- Date of Purchase
- Operating system (Windows 10, Win 8, Win 7, Vista)

Where to send your registration/correspondence:

Email Address:

techsupport@exeba.com

Telephone / Fax:

Tel: (951) 270-1911 (8:00 am - 4:00 pm PST)

Fax: (951) 304-1267

Standard Mailing Address:

Escan Technologies Corp.
41765 Elm Street, Suite # 102
Murrieta, CA 92562

On-line Support

As an alternative to mailing your registration, you may visit our www site. In addition to on-line registration, comments or suggestions are posted, read about upcoming versions of Exeba® SmartMag, related software, and download up-to-date files. Our WWW site is at the following addresses:

<http://www.e-scan.com>

<http://www.exeba.com>

Notes...