



A X E Z E

KEN Operations MANUAL

NMS Version 4.2

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Disclaimer:

This manual is intended to be used for the Axeze Access Control system only. No reference should be drawn to any other Axeze product or a third party product. Axeze has taken utmost care to provide correct and up to date information about Axeze products and related third party products. However, we suggest you contact our local supplier, Axeze or visits www.axeze.com.au for updated information. It is the responsibility of the customer to test and determine the suitability of this product for specific applications. The customer / installer is responsible to make sure that they have latest updated information on Axeze products.

In no event shall Axeze Pty Ltd be responsible or liable for any damages incurred by the buyer or any third party arising out of the use of inability to use the product.

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Table of Contents

Introduction	5
The Axeze KEN Hardware Capacity	6
System Requirements for the NMS	6
Products and Product Codes	6
Tips before you Start	7
Documentation Required	7
Data Sheets	7
Templates	7
Wiring Diagrams	7
Training.....	7
Gainsborough Trilock	7
KEN-IO	7
Planning the network System.....	8
Getting Started	8
Before going to the site	8
Connecting the Network	9
PC Ports and Converters	9
Network Cable	9
Type	9
Length	9
Wiring	9
Ground connection	9
Terminating resistors	9
Anti-noise Bias	10
Power supply	10
Battery backup	10
Utilising an existing cable structure	10
Testing	11
Configuring the Hardware	11
The KENConfig Software	11
Introduction	11
Connection	11
Installing the KEN CONFIG Software	11
Starting the Software	11
Configuring the Controllers	11
Brief Description of Menu Items	12
Controller Properties	12
Sites with more than 62 access points	13
Axeze Programming Reader	14
NMS Software Suite.....	15
Introduction to NMS software	15
Axeze Programming Reader (APR)	15
Axeze NMS (KENMon and KENConfig) User Licence Agreement	15
Software Product Licence	15
Limited Warranty	16
Setting up KENMon	16
Removing NMS	17
Overview KENMON software and screens.....	18
KENMon Main Screen Overview	18
Show Serial Ports	19
Backup Database	20
Email Database	20
Import Database	20
Menu Items	21
Toolbar	22
Events View	23

Networks View.....	24
Zones View.....	25
Controllers View.....	26
Cards View.....	27
Groups View.....	28
Input / Output Board View.....	28
Status Bar.....	28
Hiding/Showing KENMon.....	29
Exit the KENMon.....	29
Network Operations.....	29
Broadcast time.....	29
Interface Configuration.....	30
Scan Network.....	30
Sending Offline Events.....	31
Broadcast Holidays.....	31
Sending Offline Access Controls.....	31
Force Sending Offline Access Controls.....	32
Database Operations.....	33
Creating a New Database File.....	34
Opening a Database File.....	34
Saving a Database File.....	34
Adding New Networks.....	35
Adding New Zone.....	35
Adding New Controllers (Axeze Controller).....	36
Adding Controller Access.....	37
Adding New Cards.....	37
Adding Card Access.....	38
Adding New Groups.....	38
Adding New I/O Board.....	38
Adding Event Handlers.....	38
Adding Public Holidays.....	39
Finding a Card in the Database.....	40
LOGS AND LOG FILES.....	40
Archiving the Log.....	40
Viewing Old Log Files.....	40
Sort Log Files.....	41
Auto Archive Log File.....	41
Defaults Settings.....	41
Card Defaults.....	41
Controller Defaults.....	42
Access Defaults.....	42
Option Settings.....	42
System Settings.....	42
Logging Settings.....	43
Wiegand Settings.....	44
TCP/IP Settings.....	44
Lifts (NMS-LC only).....	45
Card access:.....	46
Password Protection.....	47
Setting up Passwords.....	47
Logging on as a User.....	48
Logging out a User.....	48
Changing Passwords.....	48
Forgotten Passwords.....	48
Trouble Shooting hints and FAQ.....	48
Other Products.....	49
Time Management Software (TMS).....	49
Graphic User Interface (KEN-GUI).....	50
KES Standalone Systems.....	51

OPTIONS	51
Keyless Entry Management Software (KEMS).....	52
Prox Card Log-on Products.....	52
Glossary	53

Introduction

The Axeze KEN access control system is a multi drop network that enables 32 networks of up to 62 access points each to be seamlessly integrated into one system by the Network Management Suite (NMS). This means the product is easy to expand at a later date.

Axeze uses controllers for each access point. Each controller is able to monitor and store information whilst offline. The micro controllers can handle 1,000 offline events, track 1,000 users and maintain different timed access permissions.

The system is designed and manufactured in South Australia and is assembled using the latest surface mount technology with design features that provide increased reliability and self-diagnosis functions.

This Programming and Installation guide applies to all products in the Axeze access control range.

The NMS Programming guide provides information on the many options available to the installer and step by step instructions on how to setup and use the software.

The Installer menu options and the displays for each option have been listed in the sequence in which we believe will be the order for you during installation.

The pages in the manual have been designed to make it easy to find specific pages and a softcopy is available at www.axeze.com.au under support.

Axeze products are unique in their naming. For instance an Axeze Controller is called a Controller in NMS software. Axeze Antennas are normally known as readers in the Security and Access Control industry.

Note: Axeze bases access on Controllers, rather than areas.

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The Axeze KEN Hardware Capacity

- 32 networks per system (Unlimited with Axeze GUI)
- Up to 62 access points per network (Note: each I/O takes up one access point)
- Up to 496 Inputs per network
- Up to 496 Outputs per network

System Requirements for the NMS

Intel Pentium Pro or Pentium II based personal computer. Microsoft Windows. NMS software has been written to run on:

- Windows(R) 2000
- Windows(R) XP
- Windows Vista Home Premium

CD-ROM drive (for installation)

Disk space required is approximately:

- 5MB plus space for database and log files
- 8-bit graphics adaptor and display (for 256 simultaneous colours)

Other recommended items include

- MS Windows supported sound card.
- A pointing device or mouse is required to operate all functions of the software.
- Microsoft Internet Explorer 4.0 or greater

KENCfg software has been designed to configure Axeze Controllers with an ID. You can purchase the KENCfg software by ordering ACS from Axeze. This product is available for approved Axeze installers only and is not available to the general public.

Products and Product Codes

AXEZE CODE	DETAILS
KEN-OL Range	
KEN-OL2	Ken Offline Controller - proprietary
KEN-OLW2	Ken Offline Controller – for Wiegand Controllers
KEN-I-OL2	Ken Offline Controller – Proprietary, for internal installation only
INTERFACES	
A-CBI	Axeze C-Bus Interface
ACI	Axeze Comfort Interface
	Other interfaces available contact Axeze on +61-8-83408200 or tech@axeze.com.au
AXEZE CONFIGURATION SYSTEM FOR INSTALLERS ONLY	
ACS	Axeze Configuration System for Axeze approved installers only
ACS-IQH	Axeze Configuration System for IQ Homes installers only
LIFT CONTROL	
ALC	Axeze Lift control
NETWORK HARDWARE	
ANC	Axeze (RS-232 to RS-485) Network Converter
APR	Axeze (USB) Programming Reader
AUI	Axeze Universal Interface
KEN-IO	16 Channel digital input/output board (Note: Outputs respond to events both On line and Off line whereas inputs respond to events in On line mode.)
AAA	Axeze Antenna Assembly (generally known as a reader)
WPA	Axeze Waterproof Antenna (generally known as a reader)
AXEZE TAGS	
AT-C	Axeze Transponder Card
AT-KF	Axeze Transponder Keyfob
SOFTWARE	
NMS-AXE	Network Management System

Tips before you Start

Every peripheral connected to a network (with the exception of the Converter) requires an ID that is unique to that network. It is also important to understand that NMS will not change an ID in any hardware on the network. Controllers in the KENMon database must be set to that same ID as the hardware for the two to communicate.

When using a Serial to USB Converter, Axeze recommends Targus Group International, U232-P9 (Taiwan) (other converters operate differently and Axeze cannot guarantee their performance).

Documentation Required

(Available at www.axeze.com.au/support)

- Cable Size Calculator.xls
- Troubleshooting Guide.doc

Data Sheets

(available at www.axeze.com.au/support)

- Datasheet ABC-01.pdf
- Datasheet ANC-02-TB.pdf
- Datasheet AT-C-01.pdf
- Datasheet AT-KF-01.pdf
- Datasheet AUI-01.pdf
- Datasheet WPA/AAA.pdf
- Datasheet KEN-IO.pdf
- Datasheet KEN-OL-DA.pdf
- Datasheet KEN-OL2.pdf
- Datasheet KEN-OLW.pdf
- Datasheet NMS.pdf

Templates

(available at www.axeze.com.au/support)

- Axeze repair request
- Card Inlay location.pdf
- Group Access planning sheet.pdf
- Group members planning sheet.pdf
- Network I/O planning sheet.pdf
- Network Controller Planning Sheet.pdf
- WPA Template Rev C.pdf
- Zone planning sheet.pdf

Wiring Diagrams

(available at www.axeze.com.au/support)

- Axeze KEN Wiring Diagram Rev F.pdf
- KEN with Wiegand Controllers Wiring diagram.pdf
- Lift Control Interface.pdf
- Wiring a fail safe strike to a Clipsal smoke alarm.pdf
- Wiring a fail secure strike to a Clipsal smoke alarm.pdf

Training

Regular and ongoing Training of all products within the Axeze range is carried out in South Australia. There is a fee charged for this course, but you take home the same or equivalent value in product, so technically the course is free. To book a training session contact Axeze on +61-8-83408200.

Gainsborough Trilock

Electric strikes operate with most door latches, however we recommend 15JJ latch - use any handle to suit the 15JJ.

KEN-IO

Note: Outputs respond to events both Online and Offline whereas inputs respond to events in Online mode.

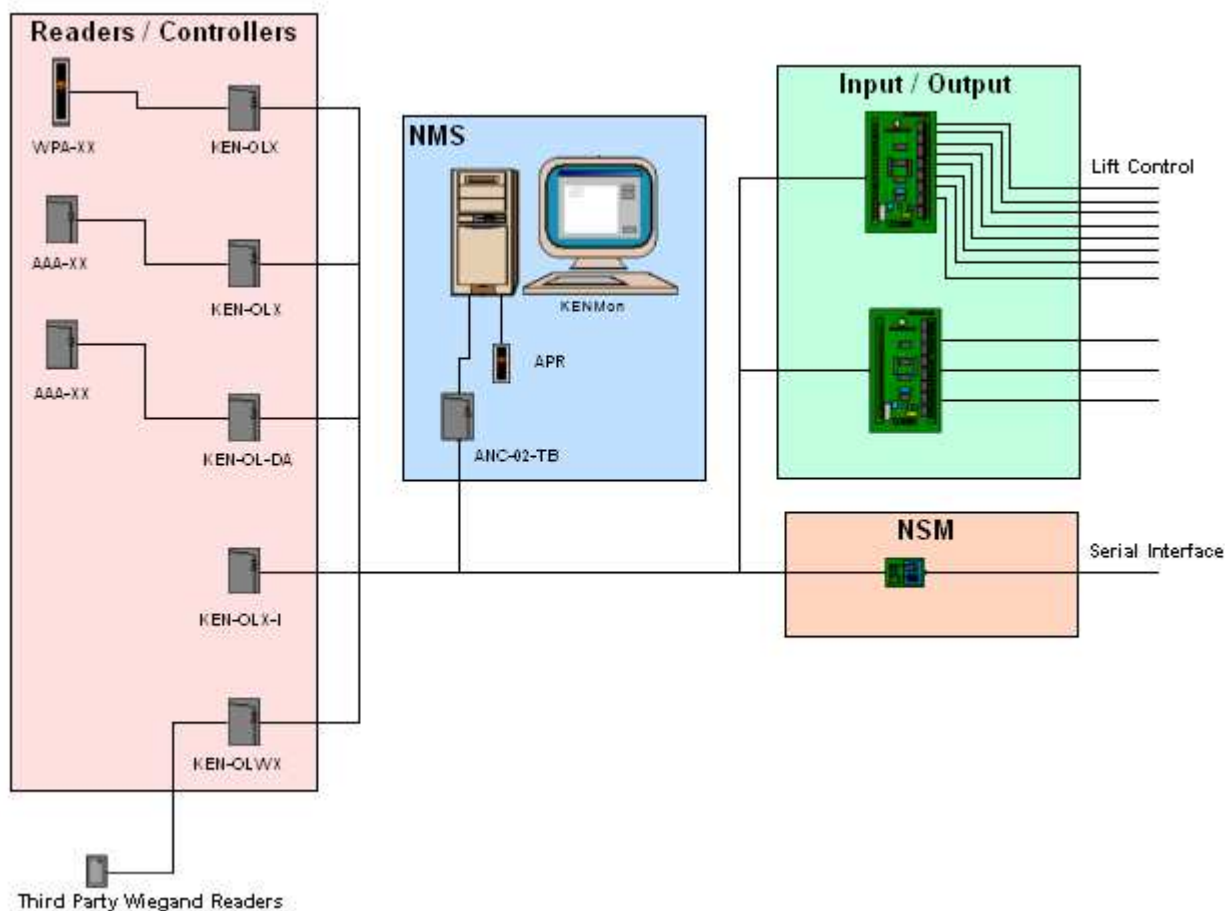
Planning the network System

1. Plan the layout of the network system
2. Provide yourself with a chart showing the controllers, their Ids, access etc. (See Installer's Package for Network Planning and IO Planning templates.)
3. Have a pen and sticky note paper or tape ready to record the ID on the Controller, and record it on your chart
4. Load the KENCfg files from your Installer Pack (See Configuring Controllers).
5. Calculate the number of Axeze controllers you require for the job. If more than 62 access points you will require additional hardware.

Getting Started

Before you start, make sure you have:

1. PC with one Comm. Port and installed NMS software.
2. An Axeze Network Converter (ANC).
3. Hardware that you are going to install and a power supply.



Before going to the site

1. Check that you have a screw driver for the small terminal blocks
2. Check you have the **Network Planning Form** where you planned the Controllers Id's and location (above).
3. Take the **KENCfg** and **Dongle**, which you used to set the Id's of all Controllers (above).
4. Check that you have your **Group Access Planning Sheet** and **Group Members Planning Sheets**
5. Configure all Controllers and peripheral hardware

Connecting the Network

The Axeze KEN network utilises an RS-485 multi drop network on two wires. For it to function correctly we would suggest to use the procedures outlined in this manual, otherwise a great deal of time could be wasted if this is not done.

PC Ports and Converters

If the host PC has a RS-485 network card built in, the Axeze network can be connected directly to it, however most PC's come equipped with at least one RS232 port. To use this port you will require a RS232/485 converter. Should you require more networks than your PC has spare COMM ports, you can purchase additional communication adaptors from any computer accessories supplier. If NMS is to be run on a laptop then special attention needs to be given to choosing a USB – Serial Converter. Contact Axeze support staff for the latest information on USB adaptors.

Network Cable

Type

The units on the network are connected in daisy chain fashion via quality twisted pair cable such as Cat5. The cable should be installed in accordance with standard data cabling practices with the emphasis on keeping a minimum distance of 200mm from 240-volt cabling. Where the data cable must cross 240 volt cables it should do so at right angles. Shielded cable should be used for segments that pass through known hostile RF environments.

Length

The RS485 standard indicates a maximum cable length of 1200mtrs but this can only be achieved at low data rates. As the data rate (baud) increases the useable length decreases. Because the Axeze network transmits data at 9600 baud, for reliable network communications it is recommended that you use an RS-485 repeater if the cumulative cable length of a network exceeds 1000mtrs. If you require an RS-485 repeater contact your Axeze supplier for more information.

Wiring

On an ideal network, the converter would be the first unit on the network and then all the other units are connected in daisy chain style. This is not essential and the converter can be placed in a position other than the first unit. In this case it should not be terminated and the network units at each end of the network should have the terminating resistors fitted. Each unit has pin A (often labelled "+" for non-inverting input and output) connected to pin A on all of the other units including the converter. Each unit has pin B (often labelled "-" for inverting input and output) connected to pin B on all of the other units including the converter. Although not essential, Axeze has adopted the standard of using the blue wire for the "A" connection and the blue/white wire for the "B" connection. Connect the RS232/485 Converter to a serial port on the host computer. Connect the Axeze network to the Converter. Please refer to the correct wiring diagrams at the end of this document.

Ground connection

The ground connection on the Axeze units should not be made without first testing potential difference (PD) between the grounds. Large currents could flow in this connection if there is a potential difference (PD) between the grounds. If a PD of more than 4V exists between the ground connections at different access points then an "Isolating repeater" should be used between the two access points irrespective of the number on access points on the segment or the cable length. The PD between all access points should be checked on any network that is powered from more than one Mains Distribution Box.

Terminating resistors

The first unit, normally the converter (ANC) and the last unit on the network should be terminated with a 120 ohm 0.5 watt resistor across the A and B connections. If a repeater is used a terminating resistor is required on both the input and the output of the repeater unless they are built into the repeater.

Anti-noise Bias

The converter pulls the A line to +5V via a 1k resistor to +5 volts and the B line down to GND also via a 1k resistor. This, in unison with the terminating resistors, places a small bias on the network that prevents small interference signals from changing the state of the receiver inputs. This is known as Anti-noise bias.

Termination resistors must be fitted otherwise the network will not function correctly.

Power supply

Each Controller will require a power supply. Choose a supply that will maintain the input voltage to the Axeze Reader/Controllers between 10VDC and 16VDC at all times. (Note: The reader requires about 50mA average current and the voltage will be at it's lowest when the strike is energised). If more than one Controller shares a common power supply, care should be taken in choosing the gauge of the wire used. Calculations should be based on the number of strikes likely to be energised at the same time. This could be all strikes if fail safe strikes are used.

Some installers recommend putting the strikes and magnetic locks on a separate power supply to the controllers.

Battery backup

Battery backup should be considered for all installations where continued operation during a power outage is required particularly where fail safe strikes are used. An interruption of the power supply will also reset the internal clock and consequently off-line logging will not be correctly date and time stamped. The latest controllers (KEN-OL2) have a supercap backup on their Real Time Clocks (RTCs) and this should keep the time correct for at least 24 hours. Also the AUI is battery backed and will broadcast the time after a power failure.

Utilising an existing cable structure

Due to the cost of running new cables in an existing building it is often desirable to use existing Ethernet cables whenever adding services to a building. To allow controllers to connect to an Ethernet LAN, an Ethernet chip would be needed at each controller and a larger, faster micro-controller would also be needed increasing the cost of the controller significantly. Ethernet to RS-485 converters can be used but can also be very expensive.

However as both Ethernet and Axeze RS-485 recommend the use of CAT5 cable it is possible to re-configure an existing network structure to achieve a structured RS-485 network utilising unused Ethernet cable runs.

First find a spare patch panel with a sockets for each Axeze controller and wire all sockets in parallel using twisted pairs from a piece of CAT5 cable turning the patch panel into a fully connected distribution unit. Try to retain the original twist in the pairs as much as possible for correct operation of the RS-485 network.

Connect the RS-232 port of the Axeze Network Converter to a computer in the server room (which will run the KENMon software) and the RS485 port to an unused RJ45 socket of a patch panel creating an RS-485 distribution point. Then use a patch cable to connect this distribution point to any socket of the newly created hub. This will create an RS-485 star network backbone. Now all that is left to do is patch the cable runs to be used for the Axeze network to this hub and connect Axeze controllers to the other end and you have a star wired RS-485 network.

There are many advantages of wiring even a new building this way.

- It allows for easy expansion of the Axeze network
- The network is easy to fault find as each network stub can be removed easily
- By conforming to the structured cabling guidelines the network will be easy to maintain by any qualified data cable installer.
- Each stub off the hub can run 800m
- Hubs can be cascaded an unlimited number of times
- It makes an ideal solution for rental sites as tenants can add an Axeze network at little cost then remove all Axeze controllers and leave the cable structure as found.

Although this does not adhere to the desired cabling of an RS-485 network, it does work in practice due the data rate employed by the Axeze system. The data rate of 9600 baud is slow enough to guarantee that pulse reflections from the ends of the unterminated stubs dissipate long before the next pulse is due to occur. A network terminating resistor should be fitted at the converter.

Testing

Once you have completed the installation you are ready to start installing the software. We suggest that you first check the controllers are all on line and operating. Note: The LED will flash the Controller's ID and then turn red.

Configuring the Hardware

The KENConfig Software

Introduction

This section of the document describes the configuration of the Controller for Axeze Keyless Entry Network System. This version of the software has been written to run on a standard Windows 2000, Windows XP or Windows Vista based PC.

KENConfig is part of the NMS suite of software and it allows you to configure the ID of all components that require a network ID (or in the case of the interfaces – NetID).

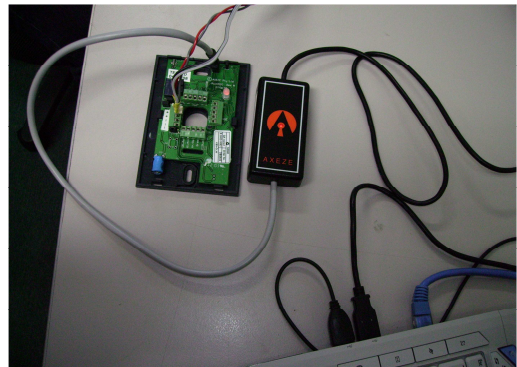
Connection

The Axeze KEN software will not run unless plugged into a working Controller. The Controller is connected to the computer via the RS232 port via the Axeze dongle. It must also be disconnected from any network.

The Controller must be connected to a 12volt DC source.

Installing the KEN CONFIG Software

1. Load your KENCfg files onto your computer using the following steps:
2. Create an "Axeze" folder on your hard drive;
3. Copy KENCfg.exe file from your CD (supplied) to the "Axeze" folder. The file does not need any further installation. Create a shortcut if required.



Starting the Software

Once installed you can create a shortcut on your windows desktop or run the KENCONFig.exe file from the directory where you installed it. (As default it installs in C:\Program Files\Axeze

Configuring the Controllers

1. Connecting the Controller to the computer
2. Remove the cover (enclosure) off the Axeze Controller;
3. Connect Power (12-16v DC) to the Controller;
4. Wait for the LED stop flashing the ID;
5. Connect USB-Serial Cable to the computer (if needed);
6. Connect the Dongle (AHL-PC) to the Controller and Computer or to the USB-Serial Cable (as appropriate);
7. If everything is correct the LED will start to blink.

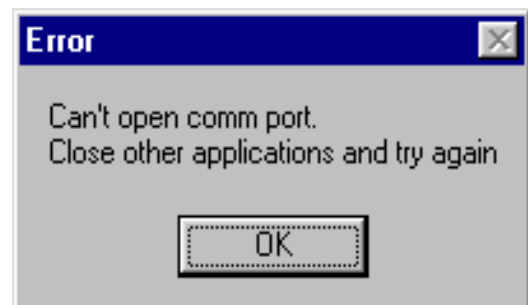
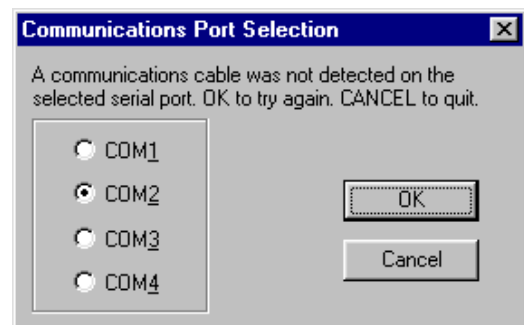
Note: The Dongle must be connected to a powered Controller before the software will proceed past the Communication Port Selection window.

Click in the KENConfig icon to start the program.

The software will attempt to open a serial "COM" port and establish communication with a KEN Controller via the dongle (AHL-PC). If the incorrect port has not been selected or the Controller is not connected properly you will be advised that the Comm port cannot be opened.

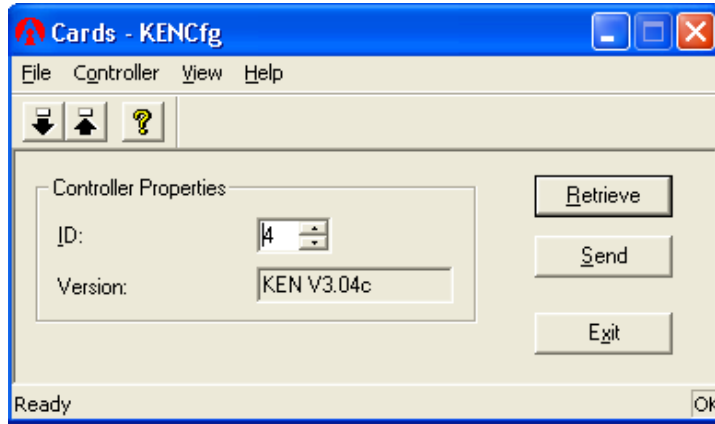
To "Select the Comm Port".

- a) If you do not know which COMM Port is available, Right Click on My Computer,



- b) Select properties
 - c) Select Hardware
 - d) Select Device manager
 - e) Select Ports
 - f) You can now confirm which Port is available on your computer.
- Note: the COMM Port changes from Computer to Computer.

Ensure your program has opened and is displaying the Controller firmware version.



Brief Description of Menu Items

File: Is used to exit the program

Controller: Gives the options to retrieve the configuration from the Controller or to send the configure to the Controller with the information as shown on the window display

View: Allows you the opportunity to turn the tool bar and status bars off

Help: Contains an About Option. The help about box shows the version of the software and the licence details

Controller Properties

ID - unique identity number for each Controller on the network

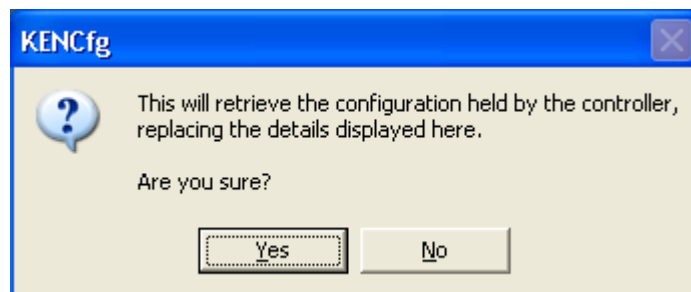
Version - the version of the firmware in the Controller

Status box - indicates communications status

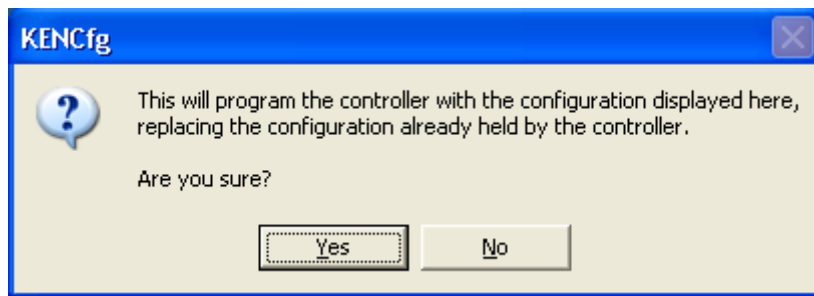
Note: Two Controllers with the same ID must be on different networks for them to communicate with the KENMON program.

Configure the Controller by giving it an ID number as per your plan.

Retrieve – Click this ONLY if you wish to retrieve information from the Controller.



1. Send - You will receive a confirmation dialogue.



2. Click on Yes;
3. You will receive a success message

Error Messages when Configuring Controllers.

If you do receive an error message

1. Check that all cables are connected
2. Check that the power is turned on
3. Check that the LED is flashing
4. Check the AHL-PC or AHL-USB is plugged into the Computer and controller
5. Check the Serial to USB converter is connected (If using AHL-PC) to the USB port

Programming with a USB converter:

When using a USB Converter you will need to remove the jumpers on two of the Links on the Controller.

- Link LK2 (TX)
- Link LK3 (RX)

Note1: **DO NOT LOOSE YOUR JUMPERS**, as they must be replaced once the Controller is configured.

Note2: Does not apply to KEN-OL(W)2 as the links are not used on this controller.

When successful continue programming all Controllers with a different ID.

Example of how you might plan a site

ID Number	Network ID	Location to be Installed	Programmed by	Access times
15	1	CEO Office	Fred 15 th May	7 days a week, all hours
16	1	Upstairs Store Room	Fred 15 th May	9-5 specific tag holders
17	1	This Office		9-5 Mon-Fri (Unlimited access)
18	2	That office		8-4 Mon-Fri
19	2	I/O		etc

Sites with more than 62 access points

If you are planning a site that requires more than one network you will need additional hardware.

32 Networks can be seamlessly integrated into one Axeze system. Every time you use your 63-access point allocation on a single network, and you need more access points you will require an additional network. In order to have an additional network you will require the following:

- ANC - Axeze Network Converter
- AUI - Axeze Universal Interface

When setting up a new network go back to "**Programming the ID**" and configure your second network.

Additional Hardware

If you do require two or more Networks, Plan them out, allocate their IDs and proceed following the above steps.

Note: the AUI requires its NET-ID to be configured to match the COM Port to which it will be connected. Use KENCfg.exe and the AHL-PC to configure the NET-ID.

(Be warned this may change when you are installing at the site and using their equipment).

You are almost ready to go to the site and start the installation, before you go, **please read the Installation Guide.**

Axeze Programming Reader

Do not plug in the APR until the drivers have been loaded as instructed below

Axeze Programming Reader (APR) is a USB device that works as a hardware lock for KENMon. It controls the licence for the KENMon software.

Users need to have an APR plugged in to a USB port of the computer on which KENMon is installed. The software will automatically detect the port that it is plugged into.

If the user doesn't have an APR they will have 21 days unrestricted use of the software. After 21 days, KENMon will still run but will not communicate over the network, so users will not be able to control any hardware.

When upgrading the KENMon to a higher version (4.x, 5.x, 6.x, etc) your APR has to be returned to Axeze for reprogramming.

Should you install upgraded software you will have 21 days to use the new software without the APR, this ensures that the customer has full functionality of the software whilst Axeze reprograms their APR.

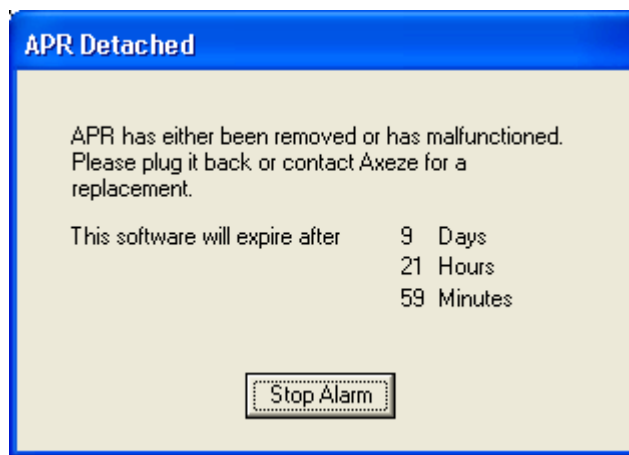
The APR allows clients to easily add cards/fobs to the system from a central location and acts as a registration device.

Every APR is programmed for a specific version of KENMon. APR configuration can be seen in About KENMon dialog from Help Screen.

Note: APR uses a virtual COMM. Port, Drivers for the USB chip are available at <http://www.ftdichip.com>



Note: If the APR is removed/ loose/not working you will receive following warning message:



You will be given 10 days to contact Axeze and get a replacement. After that period, NMS will expire.

NMS Software Suite

The **KENMon** software forms part of the NMS software suite.

Introduction to NMS software

This section of the document describes the manner in which to set up the Controllers and the database for the Axeze Network System. This version of the software has been written to run on a standard Windows 2000, Windows XP or Windows Vista based PC.

KENMon is part of a suite of software that allows you to manage a database and monitor movement throughout the property.

Axeze Programming Reader (APR)

The NMS-Axe is provided with an APR, which is an Axeze Programming Reader. The APR is used in lieu of software registration allowing it to be moved from PC to PC without requiring relicensing. The APR is used to add new cards to the database.

Axeze NMS (KENMon and KENConfig) User Licence Agreement

This Axeze End-User Licence Agreement is a legal agreement between Axeze and you or the corporate entity for the limited use of the Axeze software indicated above. The software includes computer software or firmware, protection 'dongle', printed material or other media including on-line documentation. This agreement includes any subsequent updates to the original but does not cover any third party software or other Axeze software which may be covered by its own licence agreement. If you do not agree with the terms of this licence you may return the entire software package to the place of purchase for a full refund. Do not install or use the software. Retaining, copying, downloading, executing or using the software in any way will be deemed as being agreement by you to comply with all the terms of this licence.

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Setting up KENMon

Note: Before using the database each area must be set up otherwise the system will not work. This could lead you to mistakenly think the network is faulty. Please ensure you take the time to read the following information and complete all the steps to guarantee a successful installation of the system.

The NMS product range has a software component. This software component includes the KENMon software.

Start by installing the NMS software and following these simple steps

1. Ensure the driver for the APR is installed. Then plug in the APR to any available USB port.
2. Install the NMS software on the client computer. When the option to create shortcuts to KENMon appears, un-tick the Desktop and the Quick launch options. You will create a desktop shortcut to the database after it has been created and this is the preferred method of starting KENMon.
3. Run NMS
4. Go to the Networks Tab and check that the APR is registered. If APR is not connected the software will run in trial mode for 21 days with all features available. As soon as the APR is connected for the first time it will change to licensed mode.
5. Double click on the first Network. Change the COMM port to the appropriate available Comm Port. Use the “Port List” tool on KENMon’s tool bar to see what ports are available on the PC.
6. Click OK.
7. Configure the KENMon software setting the Options, Defaults and Passwords.
8. Test all Passwords.
9. Scan the Networks. All the Controllers attached to the Network should appear in the Controller’s page.
10. Using your Network Planning Sheet rename the Controllers to more appropriate names, and check that all the Door options are correct.
11. Enroll a Card give it access to all the Controllers. Select “Send Offline Access Controls” from the Tools menu to send the card to all Controllers.
12. Broadcast the time and validate that the time was read correctly by retrieving the time. (Select Controllers tab, highlight a Controller and click “Up time” button).

13. Check that all Controllers authorise the card and the LED's, beeper and strike work correctly.
14. Check the Request to Exit (REX) (if installed),
15. If a Controller has a door sense switch fitted (and enabled in the Controller Details dialog) open the door manually and check the Forced Door and Door Closed events are displayed correctly.
16. Close the software and check that all Controllers validate the card Offline.
17. Open the software again and Retrieve the events. Verify that all events that occurred whilst Offline are retrieved.
18. Enroll all cards as required by the client and Send Offline Access Controls to each of the Controllers.
19. Set up any events if needed and send them to the AUI if one is installed.
20. Back up the database by selecting the File->Backup Database menu item.
21. Create a shortcut to the database file and save it on the desktop. Make sure there are no shortcuts to KENMon.
22. Note: If you are missing any documentation you can download it from the Axeze Website, www.axeze.com.au under Installers or Support tab.

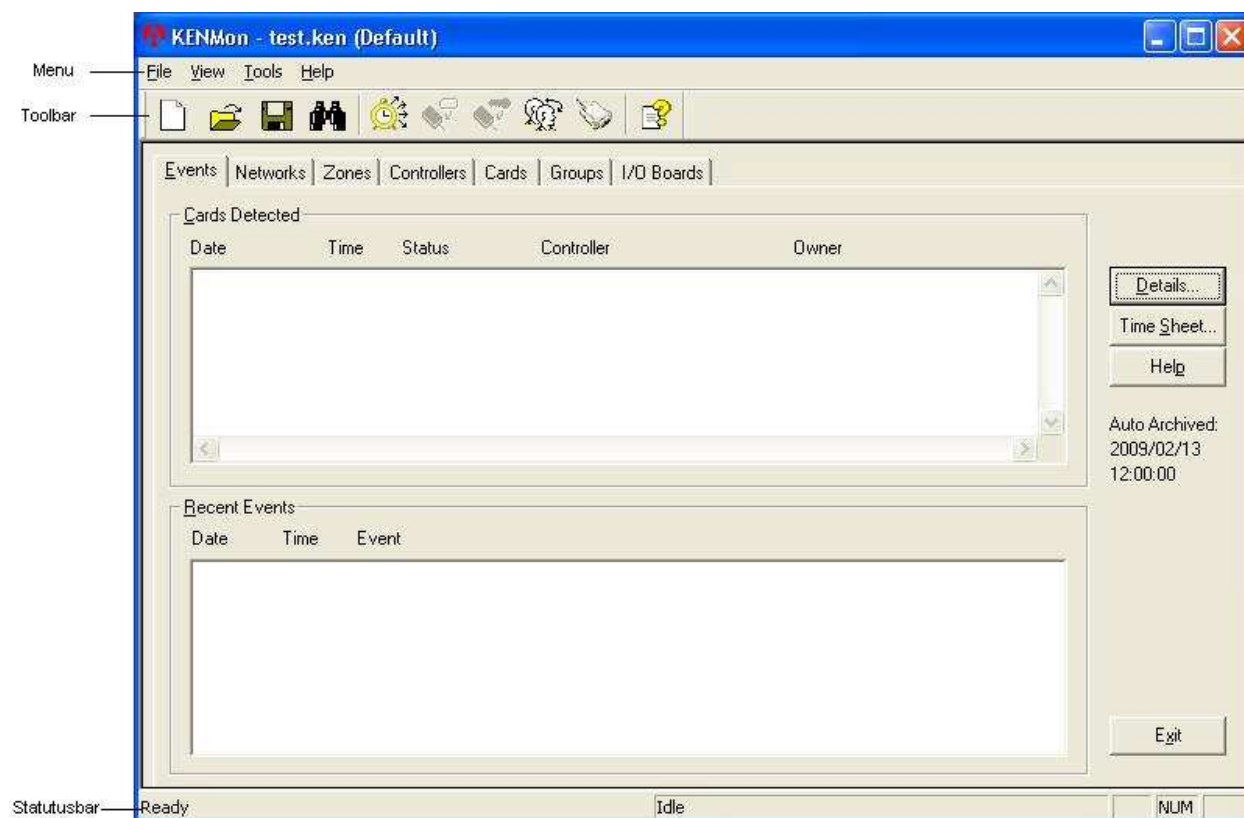
Removing NMS

1. Click the Windows Start button, point to Settings, and then click Control Panel.
2. Double-click the Add/Remove Programs icon.
3. Click NMS on the Install / Uninstall tab, and then click Add/Remove.
4. Follow the instructions on the screen.

Overview KENMON software and screens

KENMon Main Screen Overview

The diagram below illustrates the main window of KENMon:



See also brief description of:

- Menu Items
- Events View
- Networks View
- Zone View
- Controllers View
- Cards View
- Groups View
- I/O Boards View
- Status Bar
- Toolbar

Each of the Tabs has windows with similar Menu functionality. A brief description of these tabs under each window is:

Modify: Shows the details of the selected window and allows the user to modify any existing settings. (Note: this can also be achieved by double clicking on the network)

New: Enables the user to add additional settings to the database.

Delete: Removes the selected setting from the database. (Remember must be at least one Network on the database)

Export Data: Saves the selected data as a tab delimited file "File.dat" which can be viewed and manipulated in Excel.

View Data: Saves the selected data as an HTML file "File.html" which can be viewed in your web browser.

Right Click on the mouse, in any screen will provide access to the same menu tabs.

Show Serial Ports

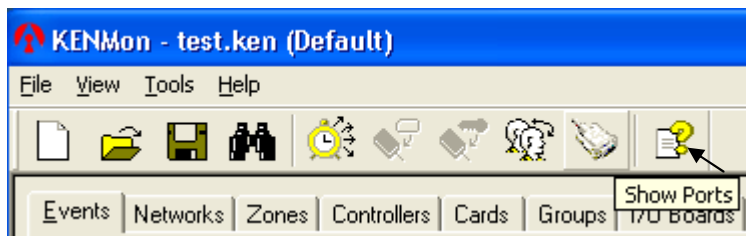
Show Ports dialog shows the serial ports available on the computer running KENMon. This is particularly helpful while using virtual serial ports.

The highlighted entry shows the last found port on the computer. If using an USB-to-Serial converter, plug-in the device to an USB port and click Refresh to see the virtual COMM. Port mapped to that device.

Clicking Device Manager will open Windows Device Manager Console that will give more detailed information about ports and other hardware installed on the computer.



Alternatively, you can click on the “Show Comm. Ports” icon to get a list of all the available comm. Ports.

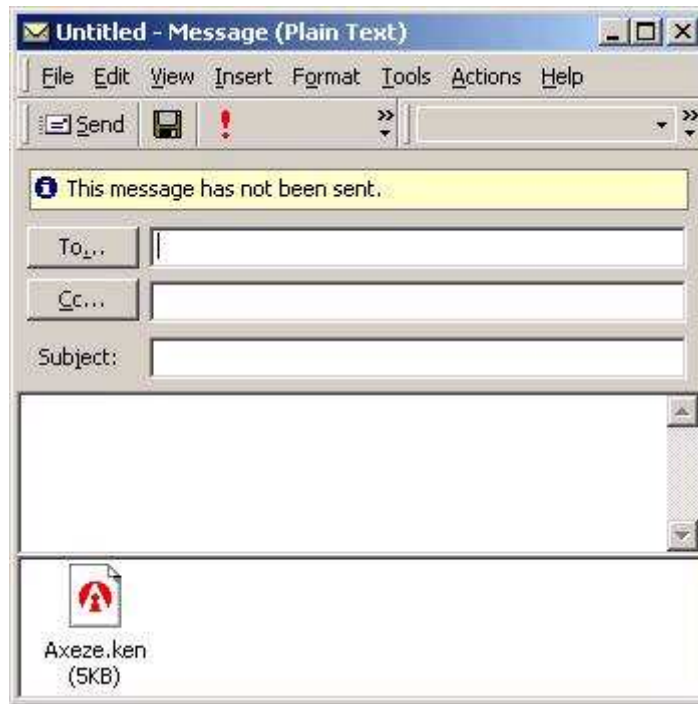


Backup Database

File/ Backup Database will create a backup copy of the current database in the folder specified in System Settings.

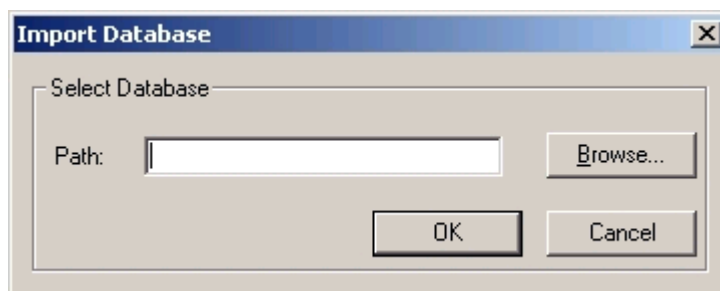
Email Database

File / E-mail Database will create an email and will attach the current database to it. Default email client (Outlook/ Outlook Express) is used to send an email.

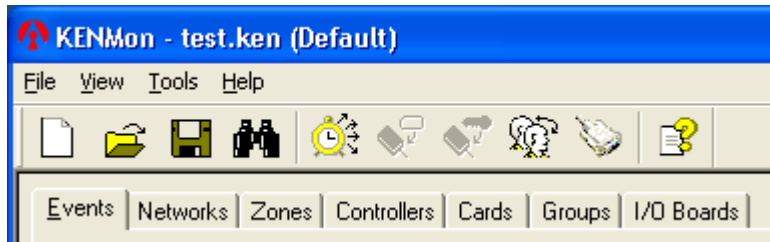


Import Database

File/ Import Database can be used to import KES (Keyless Entry Standalone) database. Imported data will be added into the current database with the Default Card and Controller settings.



Menu Items



File has submenu of:

- New database - Create a new KEN database.
- Open Database - Open existing KEN database.
- Save Database - Save current database.
- Save Database As - Save current database with different name.
- Save Copy As - Save the copy of current database to other location.
- Backup Database - Backup current database.
- E-mail Database - Create an email and attach the current database to it.
- Properties - Display file properties of current database.
- Import Database - Import KES database to current KEN database
- Export Database - Export current KEN database to KES database.
- List of recently used database files.
- Exit.

View has submenu of:

- Toolbar
- Status Bar.

Tools has submenu of:

- **Find** allows the user to find particular items in the program.
- **Archive Log** allows the user to archive the log of events.
- **View Log files** allow the user to load previous log files.
- **Events** allow the user to trap internal or external events and assign an action to take.
- **Public Holidays** allow the user enter public holidays during the year.
- **Broadcast time** allows users to broadcast the time to all Controllers in the system for offline functionality.
- **Broadcast Holidays** allows users to broadcast the holiday dates to all Controllers in the system for offline functionality.
- **Send Offline Access Controls** enables the user to send all the access controls for a selected Controller for offline functionality.
- **Send Offline Events** enables the user to send the Event controls to the Network Support Module (NSM) for offline use.
- **Scan Network** allows the user to scan for all Controllers connected to a network and will automatically add all found Controller to the database.
- **Defaults** contain all the default options for the database.
- **Options** contain all the system options for the program.
- **Show Ports** displays the list of available serial ports on the computer.
- **Login** allows the user to login as a different user when passwords are in use.
- **Logout** logs out to basic user level.
- **Hide KENMon** allows the user to hide the application whilst it is still working in the background. If selected this system can still warn the User of important events or problems. Password protection enables greater security, as "Unhide" will request a password.

Note: To send Offline Access Controls you will need to be in the Controllers tab section.

To send Offline Events you will need to be in the Networks tab section.

Help has submenu of:

- Help Contents Help Contents & Index.
- Tip of the Day shows tips about using KENMon.
- Contact Axeze to give feedback and report bugs.
- About KENMon shows the software version and Axeze Programming Reader configuration.

Toolbar

KENMon toolbar contains a set of buttons that you click to carry out common tasks.



Create a new Database file. This operation can be also started through **File/New DB** menu.



Open a Database file. This operation can be also started through **File/Open DB...** menu.



Save the Database file. This operation can be also started through **File/Save DB** menu.



Find allows the user to find particular items in the program.



Broadcast Time allows users to broadcast the time to all controllers in the system for offline functionality. This operation can also be performed from Tools menu.



Send Offline Events enables the user to send the Event controls to the Axeze Universal Interface (AUI) for offline use. This operation can also be performed from



Send Offline Access Controls enables the user to transmit all the access controls for a selected controller for offline functionality. This operation can also be performed from



Login allows the user to login as a different user when passwords are in use. This operation can also be performed from Tools menu.



Show Ports will display the list of serial ports available on the PC. This operation can also be performed from Tools menu.



Help Contents brings up the help for the program. This operation can also be performed from Help menu.

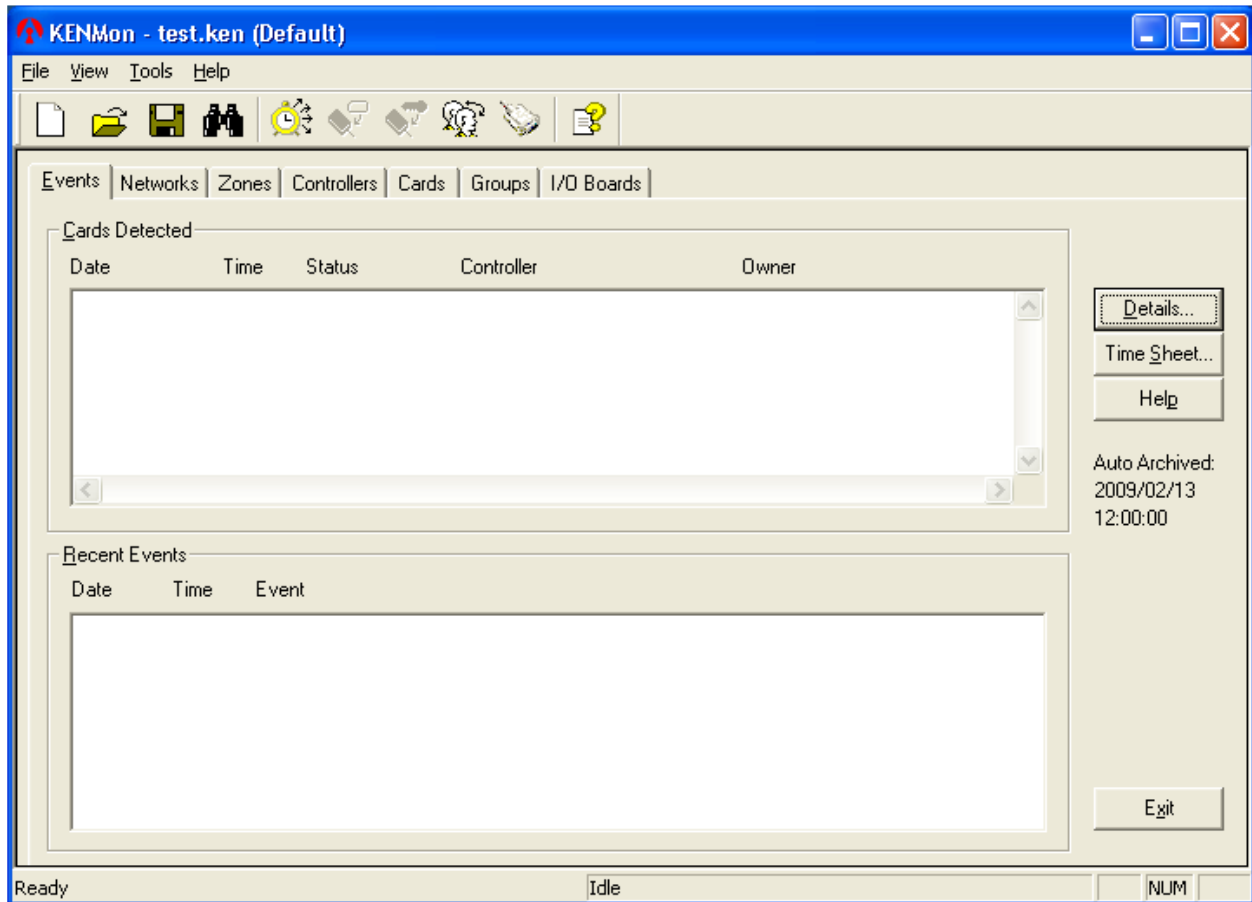
Events View

The Cards Detected window in the Events Tab shows a log of all the activity on the networks. If a response is received from a Controller that is not on the database, the logged entry will identify the Controller by the ID of the Network and the Controller ID.

The Recent Events window shows a log of all uncleared events the user has requested to be trapped. This list can be cleared by double clicking on the text. If the action taken were to set a channel on an I/O device the channel would also be cleared by this action.

The page displays:

- Date,
- Time the user badged their tag
- Status - Authorised or Not.
- Controller attached to the Reader badged
- Owner of the tag



Auto Archive information is on the right hand side of the application below the time sheet button. This shows the date and time that the last auto archive occurred. (The auto archive time can be set by the user in the Tools->Options->Logging options page.)

Brief Description of the extra Buttons on the Events Window

Details: To get details of an Event, either highlight the event and either click details or double click.

Time Sheet: Clicking this button opens an html page showing very similar information as the events window. It displays the date, time, the user badged his/her card and from what Controller it was badged.

Networks View

The Network window displays the details of the networks. On initial start up of KENMon there is a default network "Network 1" with default Comm. Port of 1.

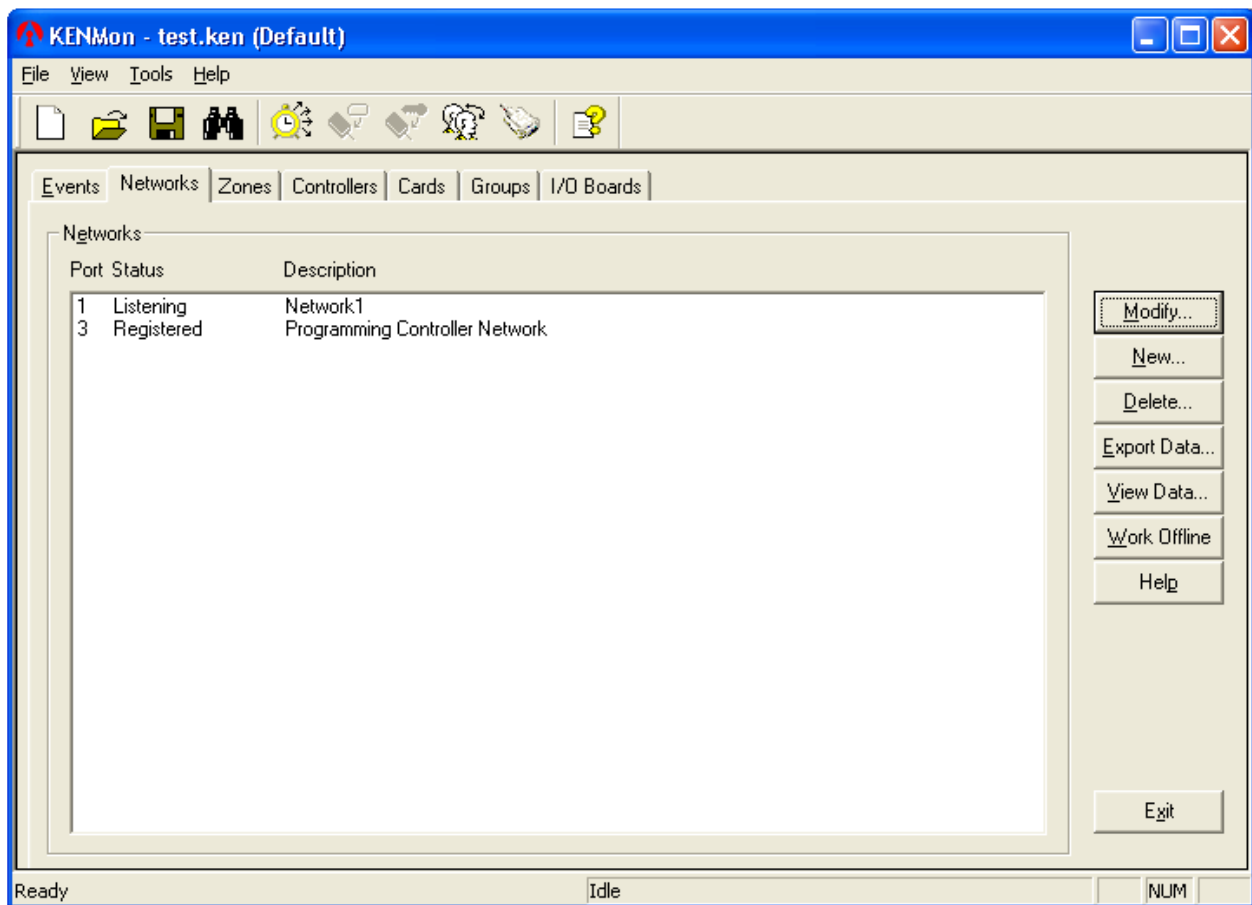
The Port indicates what COMM Port the network is listening on.

The Status shows whether the network is listening. If the network is not a valid network, then an error dialog is displayed and the status shows "Failed to open port."

The description is the title of the network; these can be labelled as the COMM Port numbers as to easily identify which network is on what COMM Port.

Brief Description of the extra Buttons on the Networks Window

Work Offline/Online: Enables Offline/Online working of the system.



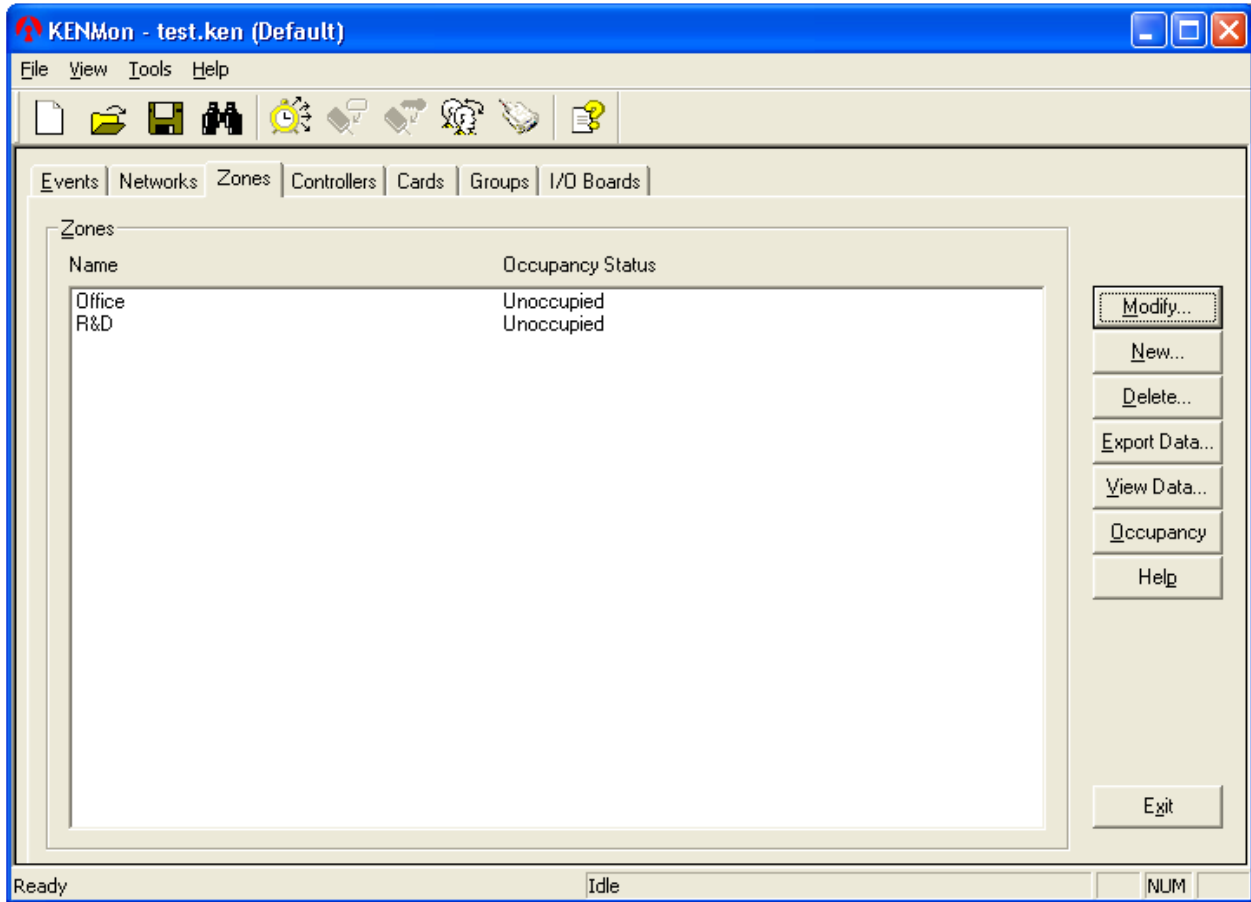
Zones View

The Zones window shows the name of the Zones as well as the occupancy status of that Zone.

Zones allow you to Group Controllers into zones allocating entry and exit Controllers so you can monitor occupancy of areas and create events based on that occupancy.

Brief Description of the extra Buttons on the Zone Window

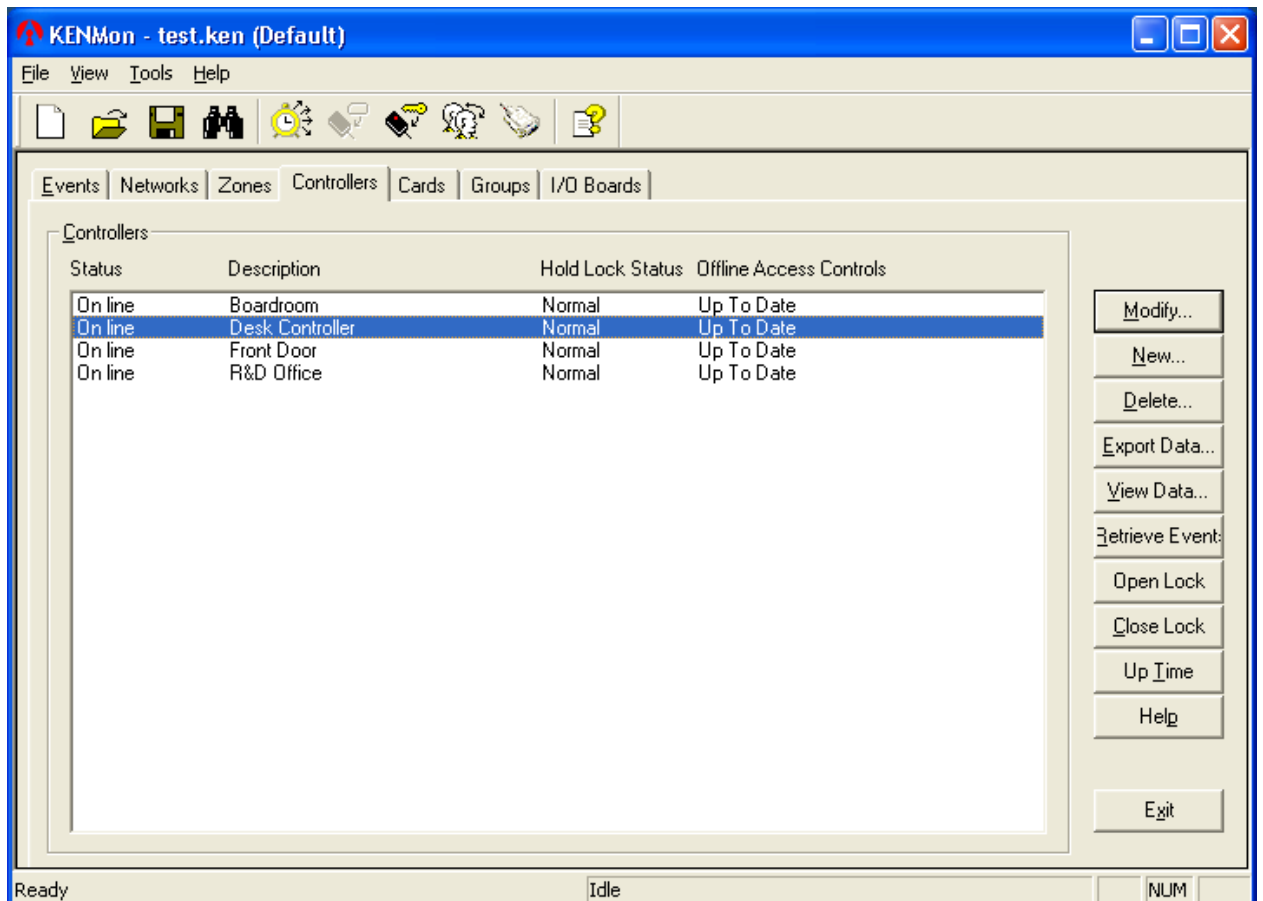
Occupancy: Shows a list of who is currently in the zone. Note in the event of a full evacuation ie fire, the system needs to have all zones cleared.



Controllers View

The Controller window shows which Controller units are online, not responding, and unknown.

- **Online** indicates that the Controller is functioning as desired and the LED on the Antenna should be red.
- **Not Responding** indicates that the Controller is Offline and is not communicating on the Network. The Antenna LED changes to amber when a card is badged. After going amber the controller will look up its Offline database and either validate or deny the card, in which case the LED will either stay amber to turn green.
- **Unknown** is the state of the Controller, when KENMon is first run, prior to being either Online or Not Responding. Depending on the number of Controllers on the Network the software may take some time to interrogate all Controllers. During this time the status may be unknown.



The **Description** field identifies the function of the Controller, which the user is monitoring. The Host console is a default Controller added to the database upon start up. This Controller's default ID is 1. Note: The Axeze system requires at least one Controller on each Network.

Offline Access Controls shows which Controllers are up to date.

The **Hold Lock** Status has three states:

- Normal - the door has no Hold Lock status and functions as it would normally.
- Paused - the Close Lock has been clicked and the latch on the door is now locked. The LED will be red.
- Open - the door is held open for some period i.e. the Controller contains a period of Unlimited Access. The Controllers LED will be off.

Brief Description of the extra Buttons on the Controller Window

Retrieve Events: retrieves all the stored offline events from the selected Controller, logs them and displays them in the events view

Close lock: Clicking the close lock button will lock the door of the particular Controller selected and send it into Hold Lock status paused. The LED on the Controller will then flash red.

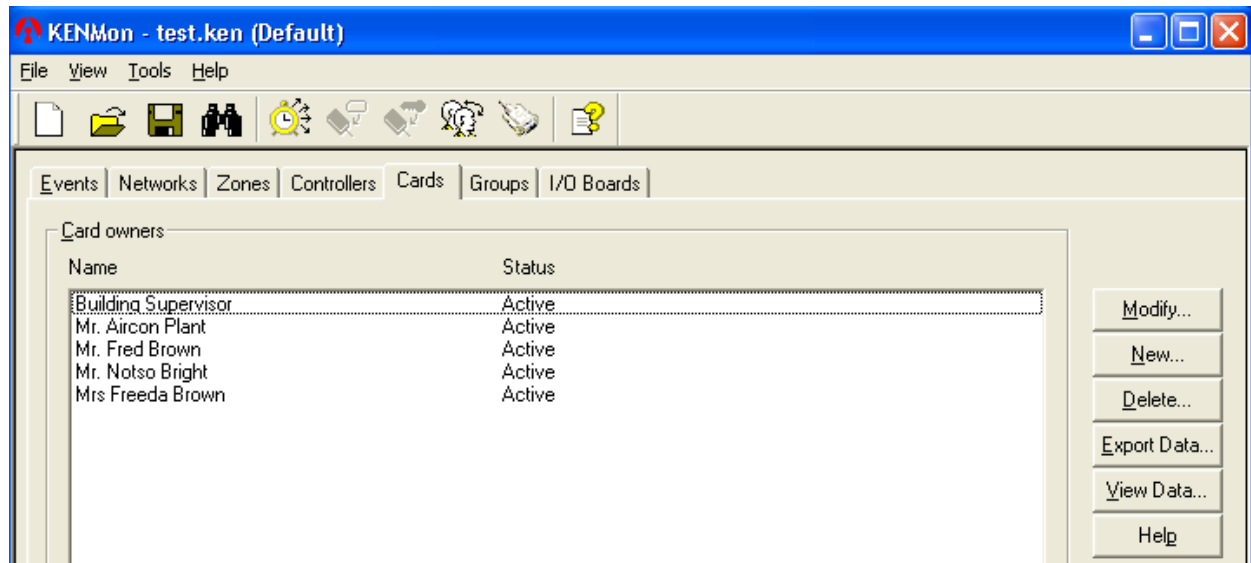
Open lock: Clicking the open lock button will open the door of the Controller selected and send it into Hold Lock status of either Normal or Open if unlimited access is activated. The controller's LED will then turn green indicating that the door is open.

Note: If passwords are activated this button will force you to login before the lock can be opened.

Up Time: Retrieves the time from the selected Controller and displays it.
To send current time to all the Controllers go to Tools, select Broadcast time.

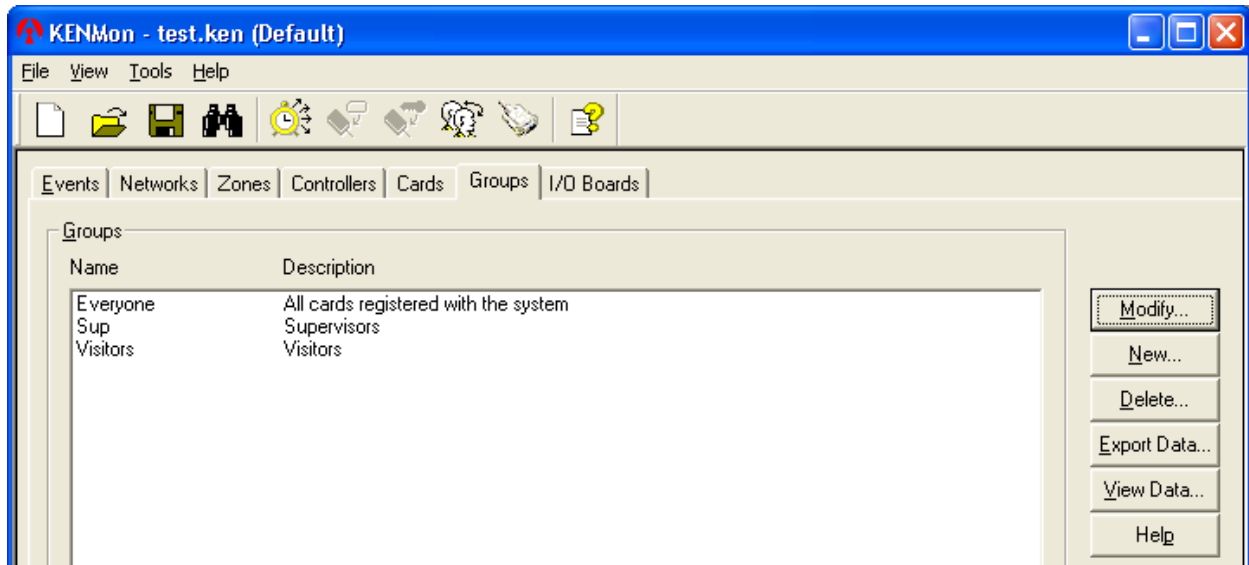
Cards View

The Cards window displays a list of all the card owners and whether they are Active.



Groups View

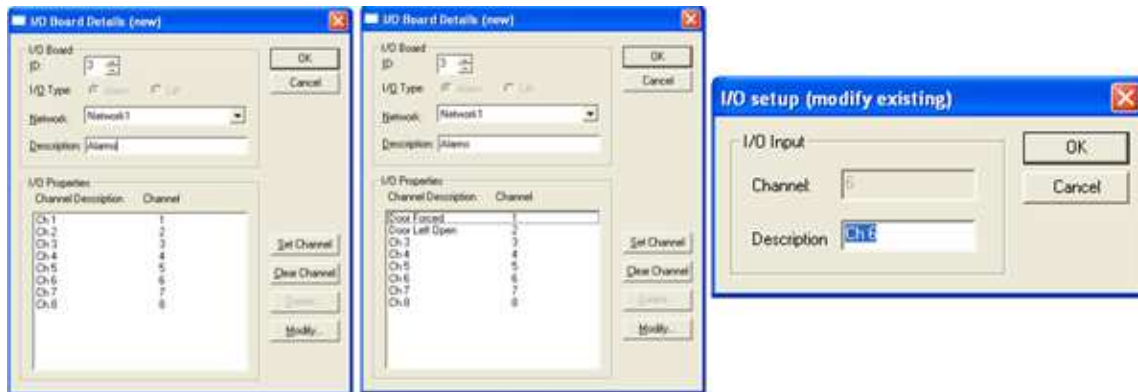
The Groups window shows the name of the Group as well as the description of that group.



The Group “Everyone” is automatically included in the system. New groups such as “Cleaners” can be entered as desired.

Input / Output Board View

The I/O Board window shows the status and Description of I/O boards in the system. The status can be “On line”, “Not responding” and “Unknown”. The Description field uniquely identifies each I/O board. Note: Outputs respond to events both On line and Off line whereas inputs respond to events in On line mode.



Status Bar

Status bar on the bottom of the KENMon is used to display the current status of the software

The status bar in KENMon displays:



- **Idle** upon it's initial state
- **Receiving from 17** This indicates activity at Controller 17
- **Denied** is displayed when a card badged does not have access to that Controller.
- **Authorised** is displayed when the user has access and the card is valid to the Controller
- **KENMon found Front Door left open** indicates that the door labelled Front Door was left open.
- **KENMon found Front Door forced open** indicates that the door labelled Front Door was forced open.
- **KENMon found Front Door closed** indicates that the door labelled Front Door was closed.

Hiding/Showing KENMon

The user can hide the program using either "Hide KENMon" at System Start-up setting or using the **Hide KENMon** from Tools menu. When the application is hidden the user will not be able to see the program windows but all processing will continue in the background.



To indicate that the program is still running an icon is visible in the Windows task bar.
To show the program again

- Right click on the Axeze icon and select Show KENMon from the menu, OR
- Double Click on the Axeze icon

Note: If passwords are enabled the user will have to enter a correct password before the program will be displayed again.

Exit the KENMon

The User will be asked to Send the Offline Access Controls when any Controller is not up to date as the user exits the KENMon system.

Network Operations

This section describes the functions provided by KENMon to transmit data over the network.

- Broadcast Time;
- Scan Network;
- Broadcast Holidays
- Interface Configuration (AUI)
- Send Offline Event
- Send Offline Access Controls

Broadcast time

To update time in al Controllers on the system

- Click on **Tools** in the Menu Bar
- Select **Broadcast Time**

Note: The time is also broadcast every time the software is started, and when a Controller has been detected back Online.

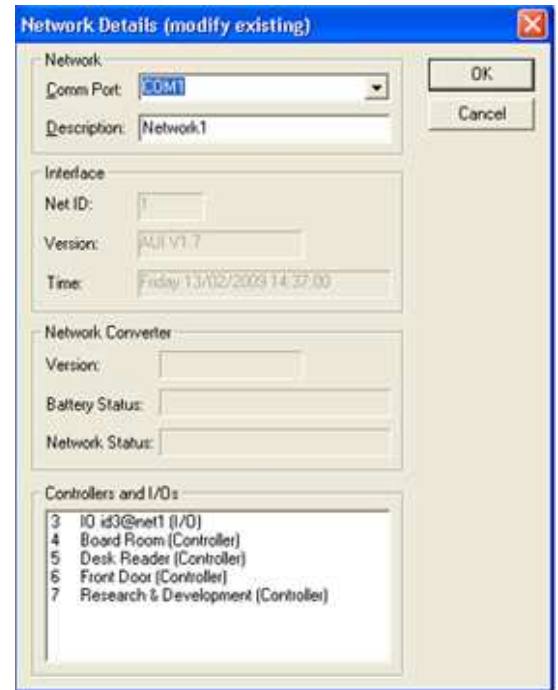
Interface Configuration

NMS Version 4.0 can communicate with Axeze Universal Interface (AUI) with firmware version 1.4 onwards, when connected on any KEN network. To access AUI configuration:

1. Go to Networks Page.
2. Select the Network on which, AUI is connected.
3. Click on Modify button or select Modify from pop-up menu.
4. If an AUI is connected, the following will be shown in Interface window
 - Net ID
 - Firmware version
 - Time

Note: If the AUI does not have the same ID as NETID you will receive an error message.

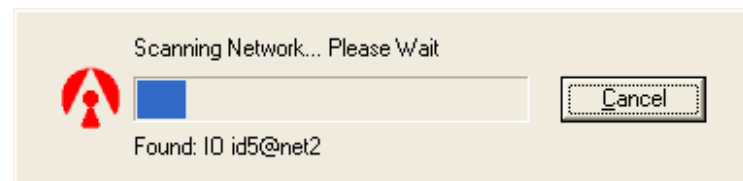
Go back to KENCfg and set the AUI to the correct ID in this case ID "3".



Scan Network

Scan Network has been designed to assist you in finding errors in the installation of the Axeze system. (For Instance if you have two Controllers with the same ID.)

- Click on Networks tab
- Click on **Tools** in the Menu Bar
- Select **Scan Network**



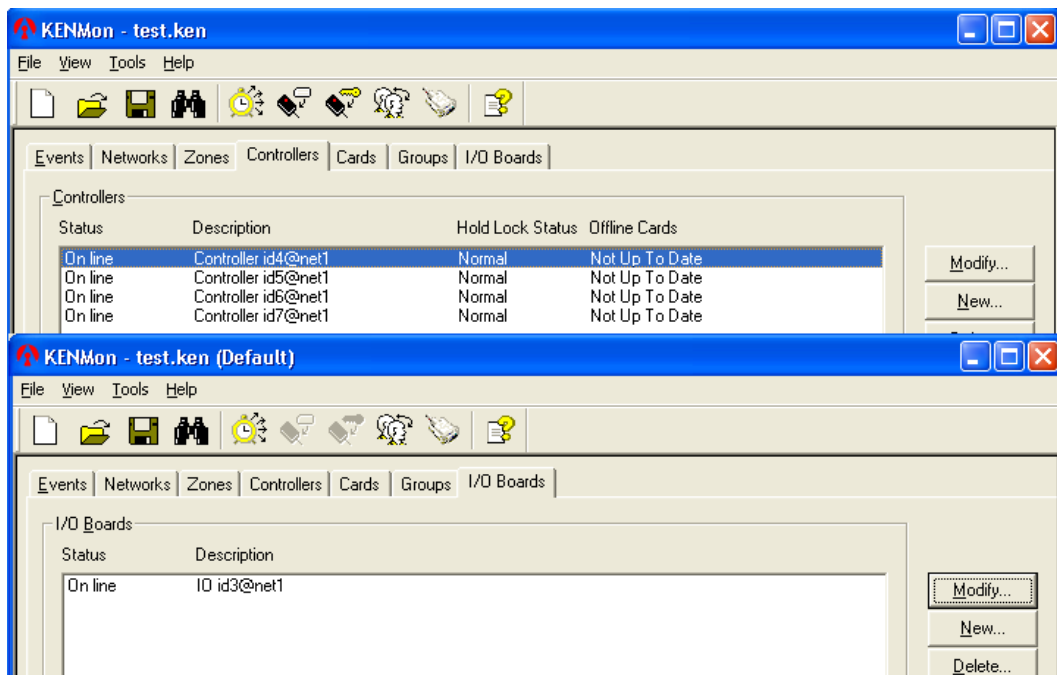
KENMon will update the list of Controllers on a network in the database to what is physically connected to the communication line.

KENMon will update the list of I/Os on a network in the database to what is physically connected to the communication line.

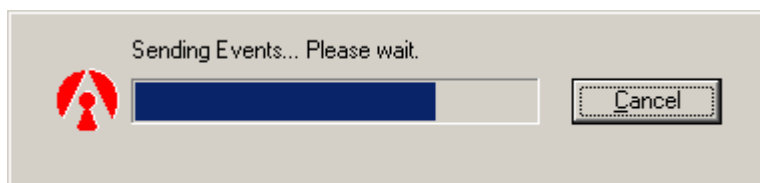
The settings for each Controller added to the database are set to the Defaults in the **Tools->Defaults**

Note 1: To use this feature, Networks tab must be currently selected.

Note 2: Scan will use the defaults to set (or reset) the configuration of each controller found during the scan. This feature makes it easy to set up networks where many Controllers are connected.



Sending Offline Events



Each AUI (Axeze User Interface) is capable of storing 100 event controls for Offline event management and interfacing to other products.

To send Offline events

- Click on the **Tools** button in the Menu Bar
- Select Send Offline Events

Broadcast Holidays

Controllers with firmware version KEN 3.00 or higher can handle Holidays Offline.

Holidays need to be sent into each Controller so the system can restrict or allow access on Public Holidays correctly Offline.

- Click on the **Tools** button in the Menu Bar
- Select Broadcast Holidays.

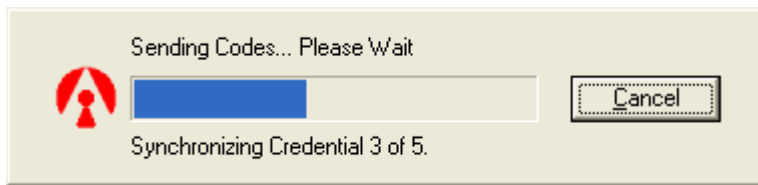
KENMon will send the holidays to the Controller memory.

Note: The Controllers LED's will change to yellow whilst communicating with the host.

Sending Offline Access Controls

The access rights need to be sent into each Controller so the system can operate "Offline" (Firmware KEN 3.00+).

- Click on the **Tools** button in the Menu Bar
- Select **Send Offline Access Control**



Each KEN Controller is capable of storing up to 1000 access rights, which are used in the event that the computer system is down or the system is Offline.

To send the Offline Access Controls to a Controller:

- Go to the Controller view select the desired Controller
- Click on the **Tools** button in the Menu Bar
- Select Send Offline Access Controls.

KENMon will send the first 1000 access controls assigned to that Controller.

- The controllers LED's will change to yellow whilst communicating with the host.
- On completing the sending operation, a summary report will be shown:

View Log shows the send summary for last send. To Retrieve Offline transactions select the desired Controller in the Controller page then click on the Retrieve Events button.

Note: To disallow access Offline on Public Holidays the Public Holidays need to be sent into the Controllers.

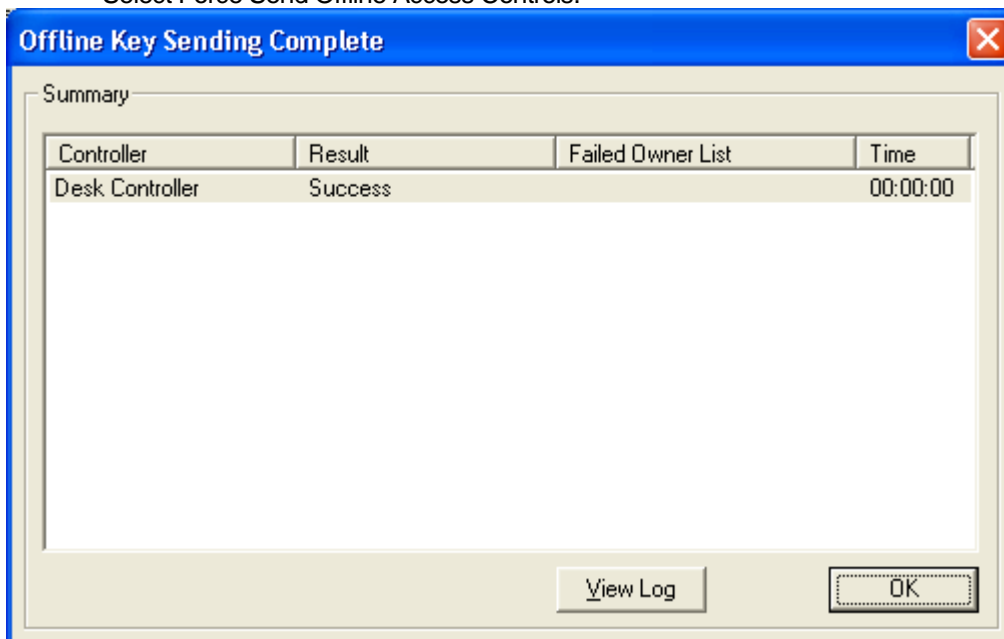
Note: This is an optimized transmission of Access Controls. Only the changes would be sent. If the controller has been replaced, Force Sending Offline Access Controls should be used for the first time.

Force Sending Offline Access Controls

Selecting this option, sends all the Offline Access Controls to the controller, disabling any optimization. It is useful when a controller has been replaced.

To Force Send the Offline Access Controls to a Controller:

- Go to the Controller view select the desired Controller
- Click on the **Tools** button in the Menu Bar
- Select Force Send Offline Access Controls.



Database Operations

The following steps will guide you in setting up the database with all aspects of the Axeze access control system. The whole database can be created prior to installing any hardware with the exception of entering cards.

- Creating a New Database File
- Opening an Existing Database File
- Saving a Database File
- Adding a New Network to the Database
- Adding a New Controller (Axeze Controller) to the Database
- Adding a New Card to the Database
- Adding a New Group to the Database
- Adding a New I/O to the Database
- Adding a New Zone to the Database
- Adding Public Holidays to the Database
- Adding an Event Handle
- Adding a lift control to the Database
- Sending Offline Access Controls
- Sending Holidays
- Sending Offline Event Handlers
- Find Option
- Archive Log
- Auto Archive Log
- Viewing Log Files
- Exit the System

Creating a New Database File

Using the **File/New** menu option or selecting the shortcut icon of the white page in the Tool Menu will open a new database.

It is intended that a new database file be used at each site. A database should consist of all the cards, Groups, Controllers, I/O boards and networks in use for that site.

When the software is started, it will already contain a default database. This default database consists of

- default network **Network 1**
- default Controller **Host Console**
- Default Groups **Everyone**.

The network and Controller default values can be altered to suite the user using the Modify button. However there must be at least a single Controller and network in the database for KENMon to operate correctly.

The default Group "Everyone" contains all cards and cannot be altered.

Opening a Database File

Using the **File/Open** menu option or selecting the recent file from the **File** list will open an existing database. It is also possible to use the shortcut icon of the folder in the tool bar.

To open the database with the program, append the database path and file name to the target entry of the shortcut screen. To do this right click on the shortcut icon and select properties.

Note: If you are using only one database, then there is no need to create a shortcut to open the database at start-up as KENMon will always open the last used file.

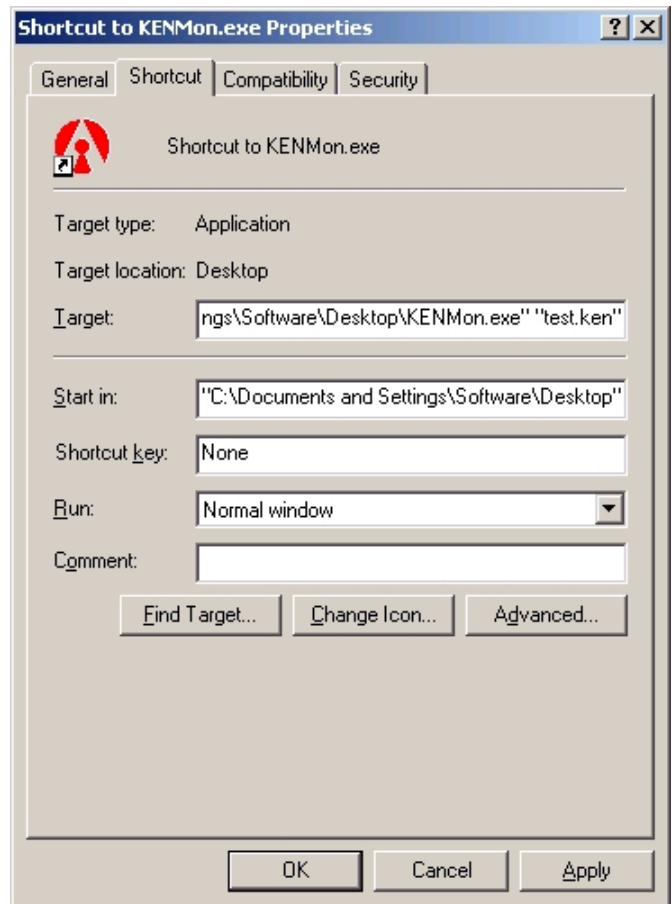
Saving a Database File

Saving can be carried out using the **File/Save**, **File/Save As** or **File/Save Copy As**.

Save can be used at any times to save the current database file.

Save As is used when saving the current database under a new name. KENMon will then begin using the new file.

Save Copy As will create a copy of the current database and save it to the location selected by the user. KENMon will continue to use the original file and not the newly created one.



Adding New Networks

To add a network to the database:

- Select the Networks Tab
- Click on **New**
- Enter the Comm. **Port** that the new Network will use. (If an inappropriate Comm. Port is entered KENMon will display a warning message.)
- Enter the **Description** of the Network
- The Interface section shows the details about the Interface module present on the Network
- Controllers and I/Os section lists all the Controllers attached to that Network.

Network Details (new)

Network:
Comm Port: COM1
Description: Front Door

Interface:
Net ID: 0
Version:
Time:

Network Converter:
Version:
Battery Status:
Network Status:

Controllers and I/Os:

OK
Cancel

Adding New Zone

To add a Zone to the database:

- Select the Zones Tab
- Click on New
- Allocate a description to the Zone eg. Left Wing.
- Add or Remove Entry Controllers using the remove (--->) and add (<---) buttons along side the Entry controllers list.
- Add or Remove Exit Controllers using the remove (--->) and add (<---) buttons along side the Exit controllers list.
- Select the Anti-passback if desired

Zone Detail (new)

Zone details:
Description: Left Wing

Controllers in this Zone:
Entry Controllers:
Exit Controllers:

Controllers not in this zone:
Board Room
Desk Reader
Front Door
Research & Development

Anti-passback:
 None Soft Timed Hard
Passback (hh:mm) 00:00

OK
Cancel

Adding New Controllers (Axeze Controller)

To add a new Controller to the database:

- Select the Controllers Tab
- Click on New

Note: By default every new Controller is enabled. You can disable/enable any Controller at any time. KENMon will ignore disabled Controllers for all the Network activities.

Any changed made in the properties of disabled Controller will be saved in the database but will NOT be downloaded to the Controller.

- The next available ID for the Controller will be presented. (If this is not the ID required you may select the desired ID provided it is not already in use).

Note: The ID for the Controller must be set prior to this using the KENMon

- Select the Network created in Adding New Networks
- Allocate a description to the Controller such as "Front Door"
- Set the desired Lock Open Time
- Check the Sense Door Open check box if the user desires a warning to indicate when the door is Left Open, Forced, Closed.
Note for the Door Sense feature to work a reed switch must be connected to the Controller.
- The Warning Delay Option allows the user to set the period of time required before the warning is issued. This section also enables the user to set a Warning Beep sounded by the controller to indicate an open door.
- When the Passback option is selected a time period is placed on the Controller so that upon badging a card the user cannot badge again until that time period set has elapsed.
- Click the Access button to allocate certain access to the Controller.
- If an error is displayed when OK has been clicked, check the Network of the Controller, and check the Controller is Online.

Alternatively to add all Controllers of a network into a new database you can use the **Scan Network** feature

The **Lock Open Time** refers to the period of time the electric strike is released

The **Sense Door Open** check box is ticked if the user desires to have a warning to indicate whether the door has been left open. This will display a KENMon Front Door Left Open message in the Status Bar.

The **Warning Delay** option allows the user to set the period of time required before warning of an open door. This section also enables the user to set a warning beep sounded by the controller to indicate an open door.

Passback is an option for the user to activate when they require a time period placed on the Controller so that upon badging a card the user cannot badge again until that time period set has elapsed.

Anti Passback is an option for the user to activate when they want to ensure that no one can have access until an area is cleared.

New or **Modify** to define access details

Adding Controller Access

To Add Access to a Controller in the database:

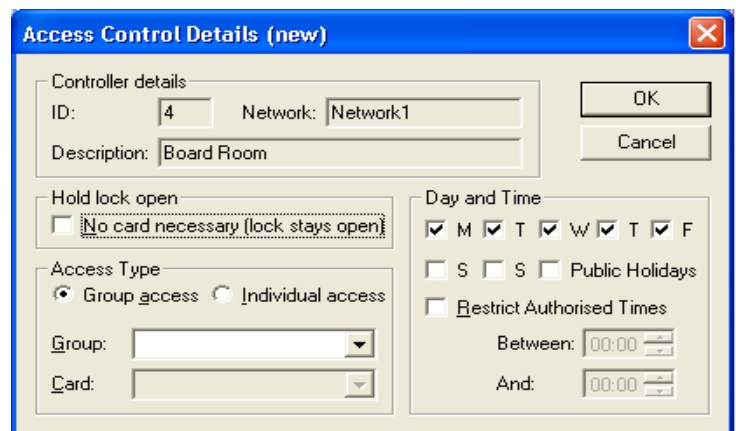
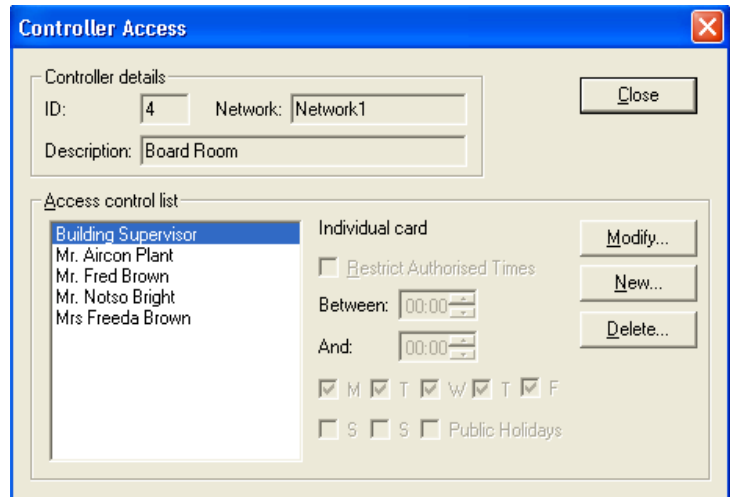
- Open the Controller Access dialog by selecting a Controller in the Controller view
- Click the **Modify** button
- Click the Access button (the Access Control List displays all the Users, Groups or Unlimited Access allocations for this specific Controller "Front Door.")
- Click on the **New** button to add new access to the Controller the Access Control Details dialog box will be displayed.

Should the user require a door to be opened without the use of a card for a set period i.e. from 9 till 5 The **Hold Lock Open** feature is available.

The day and time period the user wants the door to stay open for is set using the calendar and Restricted times.

Any changes to Hold Lock Open will be effective only when Offline Access Controls are sent to the controller.

- **Access** can be given to particular **Groups and Individuals** by selecting Group Access or Individual Access and choosing the Group/Individual required to have access. Select the days and times access permitted.



Adding New Cards

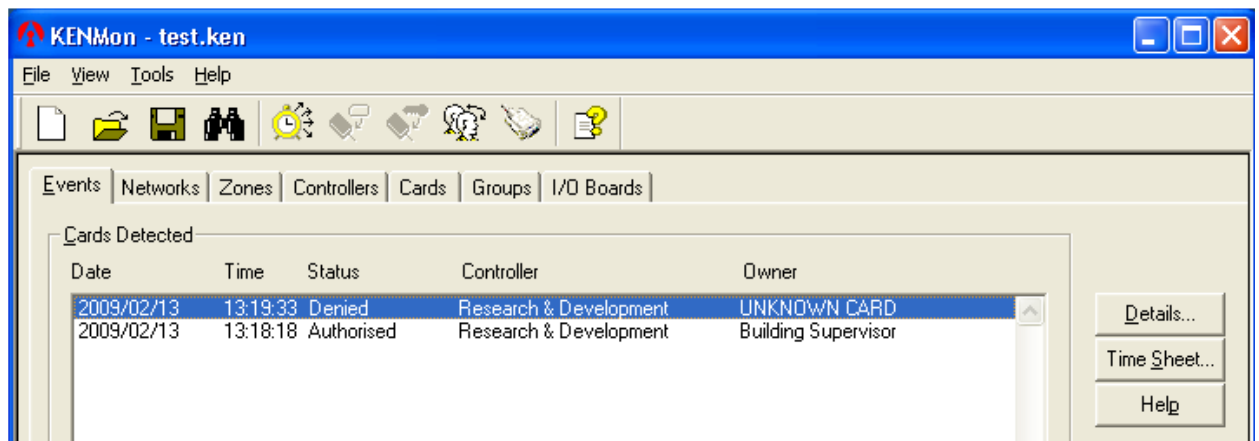
To add a new Card to the database

- Present a card to the APR or any Axeze Antenna on the network (the LED will turn from red to orange).
- Select the Events page in KENMon
Note: The Owner of the card is displayed as UNKNOWN.

Troubleshooting:

If the card entry does not appear in the Events window it means the Network or the controller is not functioning.

- Check all cables are connected and that the power is applied to the controller.
- Check that the Controller in the KENMon Database is set up on the correct Network and has the right ID selected.
- Check that the Controller is Responding on the Network



- Highlight the badged entry “Unknown” and either click on the **Details** button or Double Click
- Assign a name to the card
- Add a picture of the card user by using the **Browse** button to search for and select a picture of the user stored on your computer.
Note: The picture profile of the user needs to be saved as a JPEG or GIF file in order for it to be displayed.
- Allocate an expiry date, Date and time. (Note: You will not be able to set access permissions for an expired card unless you reactivate it).
- Click the **Access** button and add access to the user.
- To add the user to a specific Group, click the Groups button.
- Repeat steps 2 through to 3 for each cardholder you wish to add.

Adding Card Access

- Go to Cards Window
- Select a card user
- Click Modify
- Click Access
- Use the arrow buttons to select either Individual card or Group Access.

Adding New Groups

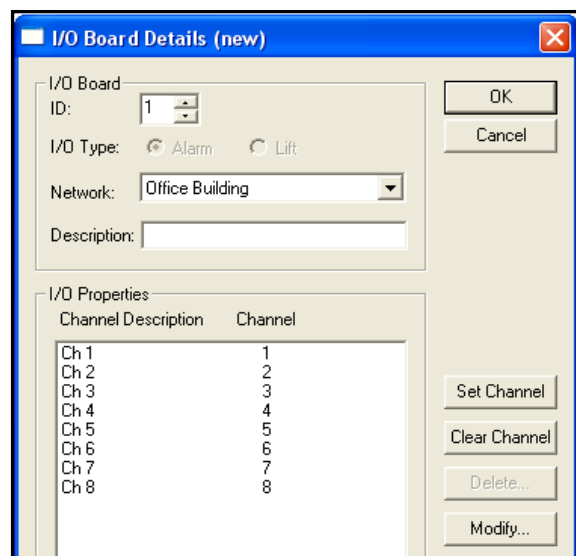
To add a Group to the database

- Go to Groups Window
- Click New
- Enter the name of the Group
- Enter a description for the Group. You may choose to describe the Group as a set of people eg. Cleaners, or a set of doors i.e. Kitchen, first floor etc.
- Click Members
- Allocate members to the group

Adding New I/O Board

To add an Input/Output Board to the database:

- Go to I/O boards Window
- Click New
- Enter ID of the IO (set using KENCfg)
- Assign a Network
- Enter a description of the I/O board eg. Alarms I/O.



Alternatively to add all I/Os of a network into a new database you can use the **Scan Network** feature.

Adding Event Handlers

To add an Event to the database,

- Click on the Tools button in the Menu bar
- Select Events
- Click **New**
- Input Event Type – use drop down arrow
- Input Event – use drop down arrow
- Output Event Type – use drop down arrow
- Output Event – use drop down arrow
- Enter Group Address
- Enter Ramp Level – if desired

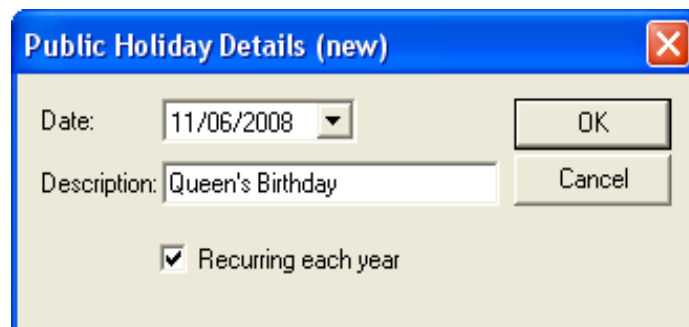
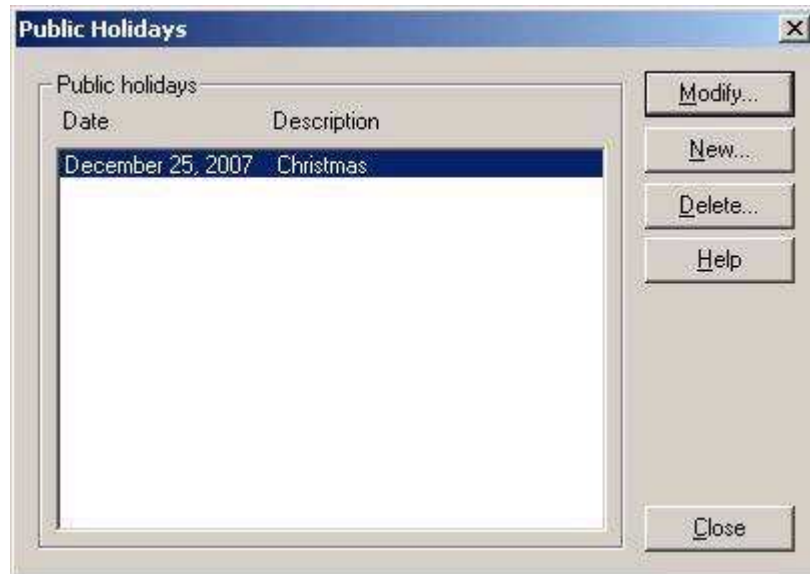
Event Handler Page	
Event Handlers	
Input Event	Output Event
On Zone:Office complex,First In:	Set IO:IO Axeze Demo Unit,ch8
On Zone:Office complex>Last Out:	Clear IO:IO Axeze Demo Unit,ch8
On Zone:Office complex,First In:	Set IO:IO Axeze Demo Unit,ch1
On Zone:Office complex>Last Out:	Clear IO:IO Axeze Demo Unit,ch1
On Zone:Office complex,First In:	Set IO:IO Axeze Demo Unit,ch5
On Zone:Office complex>Last Out:	Clear IO:IO Axeze Demo Unit,ch5
On Reader:All Readers,Denied Card:	Set IO:IO Axeze Demo Unit,ch4
On Reader:Exit (4),On Card:Receptio	Clear IO:IO Axeze Demo Unit,ch4
On IO Set:IO Axeze Demo Unit,Ch 7	Set IO:IO Axeze Demo Unit,ch2
On Reader:Entry (2),Request to exit	Clear IO:IO Axeze Demo Unit,ch2
On Reader:Entry (2),Authorised Card	Clear IO:IO Axeze Demo Unit,ch2
On IO Set:IO Axeze Demo Unit,intrus	Set IO:IO Axeze Demo Unit,ch3
On Reader:All Readers,Door Forced 0	Set IO:IO Axeze Demo Unit,ch3
On Reader:Entry (2),Authorised Card	Clear IO:IO Axeze Demo Unit,ch3

- Click OK

Adding Public Holidays

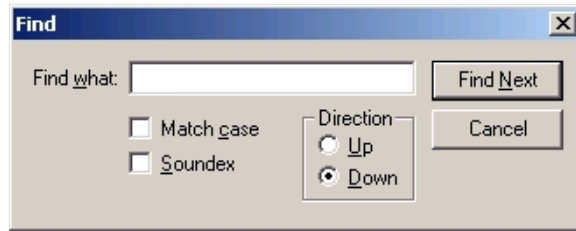
To add a Public Holiday to the database

- Click on the Tools button in the Menu bar
- Select Public Holidays
- Click **New**
- Enter the date of the holiday
- Enter a description for the holiday
- Check if the holiday recurs on the same date each year.
- Click OK



Finding a Card in the Database

To find a **Card Owner** in the Database List,
Click on the Cards Window
Click on the binoculars
Type your search pattern in the Search box.
Note: Search will Match case, Go Up or Down



LOGS AND LOG FILES

Archiving the Log

To Archive the log manually

- Click **Tools** in the Menu Bar
- Select **Archive Log**

Viewing Old Log Files

To View old Log Files

- Click **Tools** in the Menu Bar
- Select **View log files**
- Click Browse
- Select the Log File you wish to view
- Select Open

Date	Time	Status	Controller	Owner
2009/02/13	13:06:14	Card: "Mr. Notso Bright" is modified.	-	-
2009/02/13	13:06:16	Card: "Mrs Freeda Brown" is modified.	-	-
2009/02/13	13:06:18	Card: "Mr. Fred Brown" is modified.	-	-
2009/02/13	13:06:53	Controller: Controller id4@net1 is enabl...	-	-
2009/02/13	13:06:54	Controller: Controller id4@net1 is modifi...	-	-
2009/02/13	13:07:07	Card: "Building Supervisor" is modified.	-	-
2009/02/13	13:07:19	Card: "Mr. Aircon Plant" is modified.	-	-
2009/02/13	13:07:30	Card: "Mr. Fred Brown" is modified.	-	-
2009/02/13	13:07:42	Card: "Mr. Notso Bright" is modified.	-	-
2009/02/13	13:07:53	Card: "Mrs Freeda Brown" is modified.	-	-
2009/02/13	13:09:16	Controller: Board Room is enabled.	-	-
2009/02/13	13:09:16	Controller: Board Room is modified.	-	-
2009/02/13	13:09:40	Controller: Desk Reader is enabled.	-	-
2009/02/13	13:09:40	Controller: Desk Reader is modified.	-	-
2009/02/13	13:09:49	Controller: Front Door is enabled.	-	-
2009/02/13	13:09:49	Controller: Front Door is modified.	-	-
2009/02/13	13:10:26	Controller: Research & Development is ...	-	-
2009/02/13	13:10:26	Controller: Research & Development is ...	-	-
2009/02/13	13:17:24	Controller: Desk Reader is enabled.	-	-
2009/02/13	13:17:24	Controller: Desk Reader is modified.	-	-
2009/02/13	13:17:31	Controller: Front Door is enabled.	-	-
2009/02/13	13:17:31	Controller: Front Door is modified.	-	-
2009/02/13	13:17:38	Controller: Research & Development is ...	-	-
2009/02/13	13:17:38	Controller: Research & Development is ...	-	-
2009/02/13	13:18:18	Authorised	Research & Development	Building Supervisor
2009/02/13	13:19:33	Denied	Research & Development	UNKNOWN CARD

Sort Log Files

The user can sort Log Files in any many they wish by clicking on the heading.

- Date
- Time
- Status
- Controller
- Owner

At any time a user can see the card details of a log entry by either double clicking the log item from the list.

Auto Archive Log File

Log Files can be automatically archived in the Options section of the KENMon software.

- Click **Tools** in the Menu Bar
- Select **Option**
- Select **Logging Options**
- Select Preferences
- Select Folder (to store log files)
- Select Level of logging required

The Archive Preferences can be set for:

- 12 Hours
- 24 Hours
- Daily
- Weekly

A set time can be selected for logging to take place

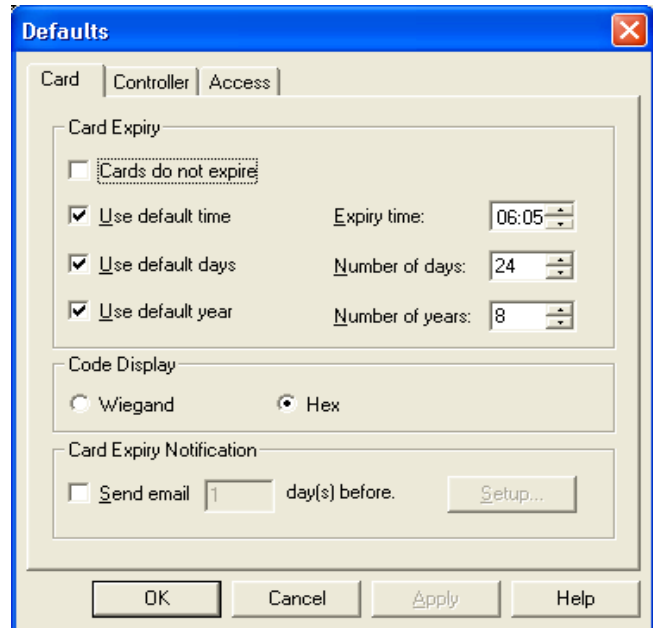
Defaults Settings

- Card Defaults
- Controller Defaults
- Access Defaults

Card Defaults

To set standard Card Defaults

- Click **Tools** in the Menu Bar
- Select **Defaults**
- Select Card
- Set up all the Default Values for the database
 - Cards do no expire
 - Use default time
 - Use default days
 - Use default year
- Select Code Display
 - Wiegand
 - Hex
- Select Card Expiry Notification
 - Send Email
 - Select No of days prior to expiry you wish email to be sent
 - Setup the email address of the person to be notified



Card Expiry Notification warns the Administrator that cards are about to expire.

Email test to ensure all is well

Controller Defaults

To set standard Controller Defaults

- Click **Tools** in the Menu Bar
- Select **Defaults**
- Select Controller
- Set up all the Default Values for the database
 - Use first Available ID
 - Network
- Lock Defaults
 - Lock Open Time
 - Sense Door Open
 - Follow the prompts
- Open Door Monitoring
 - Warning delay (minutes)
 - Warning Beep
- Passback Defaults
 - Prevent Passback
 - Enter Time for prevention
- Lift Property
 - Floor Select Period (NMS-LC is required for Lift Access)

Access Defaults

To setup the standard access defaults in the database

- Click **Tools** in the Menu Bar
- Select **Defaults**
- Select **Access**
- Check Controller access days (including weekends and public holidays if desired)
- Restrict times (if desired)

Option Settings

- System Settings
- Logging Settings
- Password Option
- Lift Settings
- TCP Settings

System Settings

To set System Settings

- Click **Tools** in the Menu Bar
- Select Options
- Select System
- Check automatic save
- Select Maximum No of Entries required in Used Files List
- Check Use RTS for TX/RX Toggle
- Select check box required for Display
 - Hide program at start-up
 - Use Pop up warnings when displayed
 - Use Pop up warnings when hidden
 - Display Card owner image when a card is validated
- Select Folder to store backup
- Select Work Offline
 - Disable work offline feature

Logging Settings

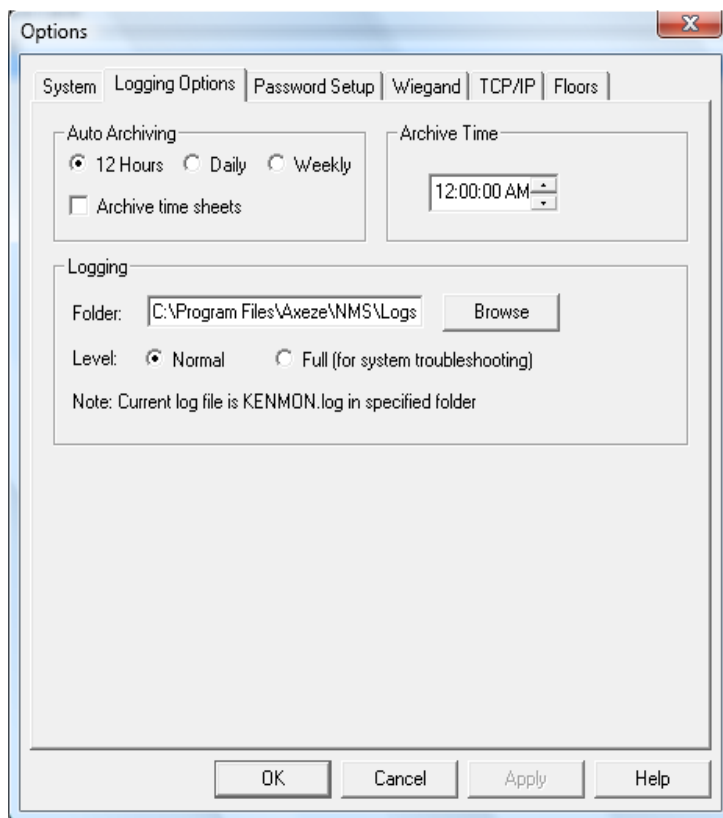
To set Logging Options

- Click **Tools** in the Menu Bar
- Select Logging Options
- Select Auto Archiving Period
- Check if Archive Time Sheets is required
- Set time for Auto Archiving
- Select Folder for Logs to be stored
- Select Level of logging required

Archiving files are saved in the following format eg. 15_March2002(1).log and then next archive would be 15_March2002(2).log. Time Sheets are saved in a similar format eg. TimeSheet15_Mar_2002(1).HTML. These are HTML pages.

There are two options in logging the occurrences of KENMon. These are:

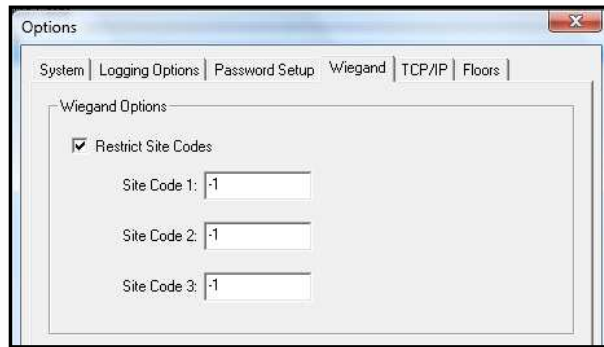
- **Full Logging** - Contains extra logging information if the user requires it.
- **Normal Logging** - Contains the normal loggings of the Monitoring system.



Wiegand Settings

This option allows user to restrict up to 3 Wiegand site codes so that proximity cards/fobs with restricted site codes are denied the access.

- Click **Tools** in the Menu Bar
- Click on Wiegand
- Check Restrict Site Codes



TCP/IP Settings

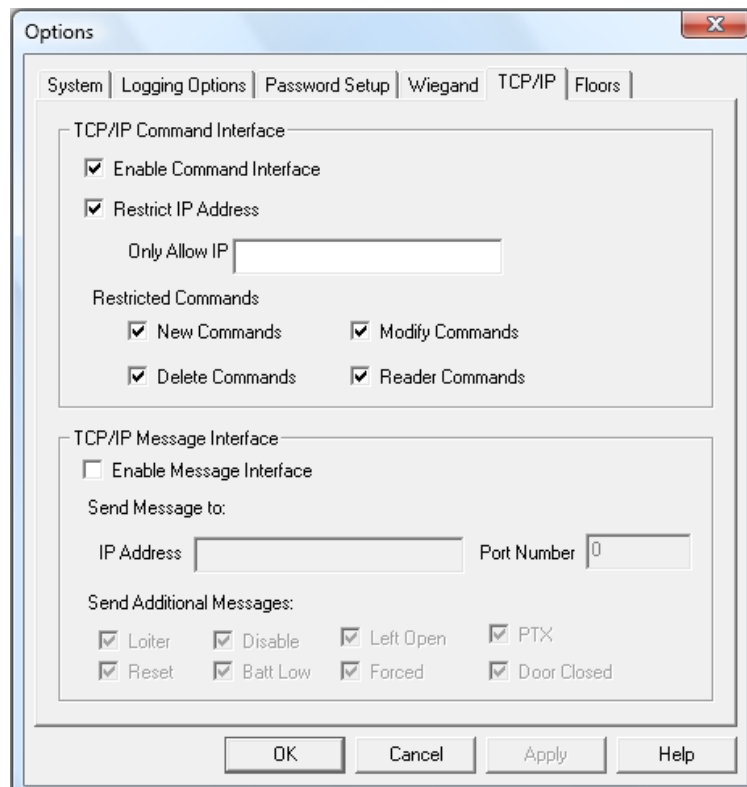
The user can monitor and manipulate the KENMon database remotely using TCP Interface.

Once Enable TCP Interface so that KENMon will open a TCP/IP comport on port 8023 the next time the program is started.

- Click **Tools** in the Menu Bar
- Select TCP/IP
- Tick the Restrict IP – for a particular computer to connect to KENMon
- Type the IP Address
- Tick the commands Groups to restrict the level of commands remote users can send

Note 1: Controller (Controller) commands are open lock and close lock commands

Note 2: You can restrict computers and restrict commands when using TCP/IP



Lifts (NMS-LC only)

The lift feature has been made as automated as possible to simplify setting it up. It is a low level integration and therefore uses the KEN-IO boards (I/Os) for input from the visitor buttons (one input for each floor) and the relay outputs (one relay per floor per lift) to advise the main lift controller what floor buttons to enable.

- First set the number of floors in Tools/Options
- Click on the Generate Floors. At this time you can select a floor and rename it as required by clicking on the "Edit" button.
- Set the "Delay Period" which is the time between pressing the visitor access button (e.g. opening the lift lobby door) and enabling the floor buttons. This delay gives the visitor time to get into the lift.
- Now set the "Set Period" which is the time available for the visitor to press the floor button.

Options

System | Logging Options | Password Setup | Wiegand | TCP/IP | Floors

Floor Setup

Total No. Floors: 6 Generate Floors

Floor No.	Floor Description
1	Car Park
2	Ground
3	First
4	Second
5	Third
6	Fourth

Edit

Lift Call

Delay Period: 10 Set Period: 4

OK Cancel Apply Help

Only the floor button for the floor from which the visitor access button was pressed will be enabled and this period should be kept as short as is practical to help prevent persons without valid rights to access the floor from selecting the floor.

- Next exit the options menu and go to the "Controllers" page. Here you create a new controller (one for each lift) ensuring you select "Lift Controller" each time.
- Ensure the enable box is ticked.
- Ensure the ID is unique and the controller is set to the correct ID

Controller Details (modify existing)

Controller

Enable OK

ID: 4 Version: KEN2000 V3.04c Cancel

Type: Door Lift Access...

Network: Network1

Description: Board Room

Lock

Lock open time: 2

Lift Property

Select Period (Sec.) 2

Open door monitoring

Sense door open

Warning delay (minutes)

1 5 10 15

Warning beep

Passback

Prevent passback

Passback (hh:mm) 00:00

Anti pass back

Select controller: Desk Reader

Zones

Entry: (unassigned)

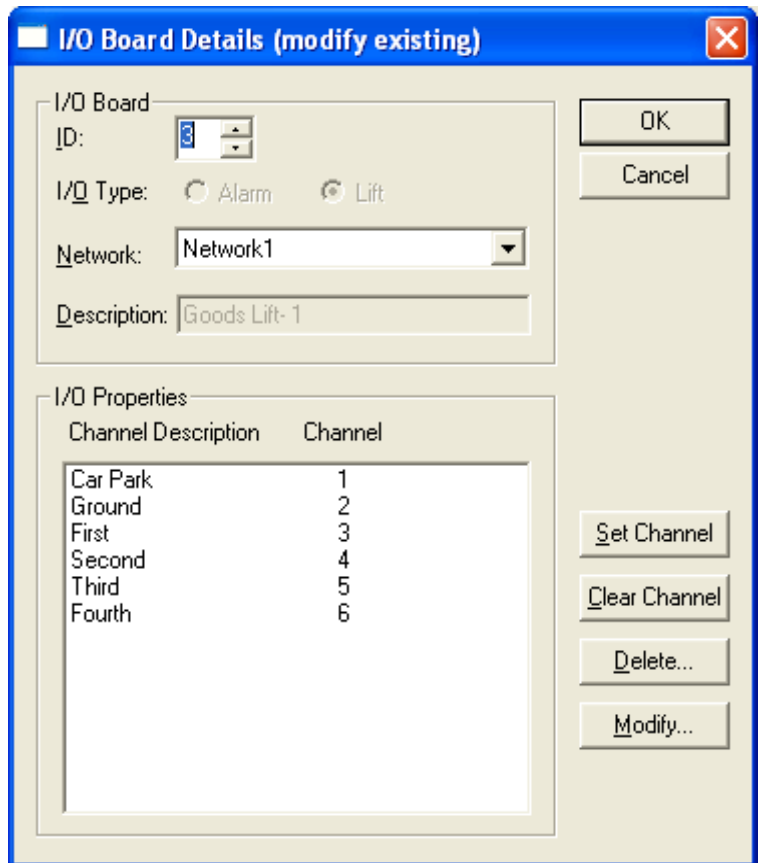
Exit: (unassigned)

Apply

- As each new lift controller is created, new I/Os will be added to the database with descriptions created from the lift controller's description and the I/Os associated with the lift controller.
- If the lift has to service 6 floors for example one I/O would be required and in our example it would be named "Goods Lift- 1".
- The input channel descriptions of the IOs are created from the floor names created earlier.
- The output channels descriptions are created from the I/O Channel number.

In this example only six inputs and six outputs on the I/O will be used.

When less than 8 channels are used on an I/O, the I/O channel assigned to a floor can be changed to an unused channel on the same I/O by clicking on "Modify" in I/O Board Details. This could be useful if an output stopped working for some reason.

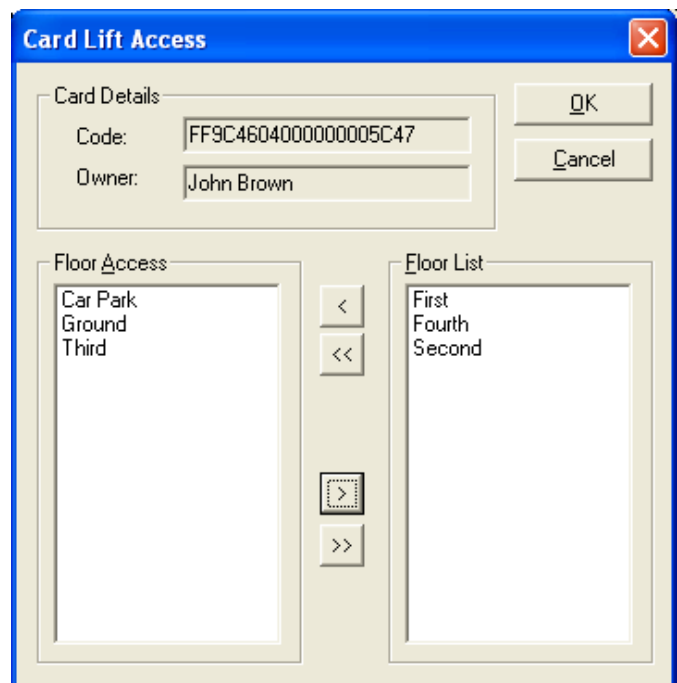


Card access:

When adding cards ensure users have access to the floors they are authorised to enter.

After making a card valid by entering an expiry date in the future or by ticking the "Does not expire" box, click on the "Lift Access" button to display the "Card Lift Access" window and give the card lift access by "moving" the floors from the "Floor List" to the "Floor Access" list using the < or << buttons.

Reverse the process to remove access to a floor.



Password Protection

In order to prevent unauthorised changes to the database, KENMon is password protected. KENMon has three levels of password protection.

Level 1

Administrator and Service Manager:

The administrators have full access to the database. They can add cards remove cards, and manipulate all data. The administrators can also add Public Holidays and access to the Tools Options.

Level 2

Assistant:

The assistant can manipulate all data in the database however they have restricted access to the Tools Options.

Level 3

Monitor:

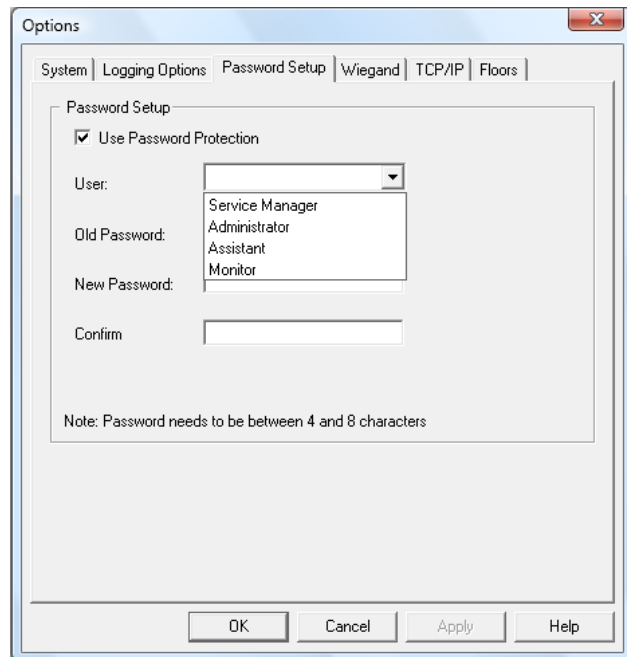
The monitor is the lowest level of Password Protection. The monitor can only monitor the database.

Once a password is set you will be asked for the Password every time you open a database that has password protection. If the database does not have passwords selected then the default user is "Default."

Setting up Passwords

To set up Passwords

- Click on **Tools** in the Menu Bar
- Select **Options**.
- Select Password Setup
- Check "Use Password Protection"
- Select Administrator from the User drop down arrow (Note: You must enter an administrator password first).
- Type a password in **New Password** (Note: Passwords must be between 4 to 8 characters long.)
- **Confirm New Password**
- Click **Apply**
- Continue setting all other levels of password required
You will receive Confirmation password has been saved
- When finished - Click **OK**



You must login as the user you wish to be for your level of password protection to be active.

Also once passwords are active, Opening the lock using the Open Lock button requires a password to be entered.

Logging on as a User

When Passwords are in use and a User wishes to Log on as a Specific User

- Click on **Tools** in the Menu Bar
- Select **Login**.

Note 1: The Log In dialog will appear if Passwords are activated.

Note 2: When a user clicks the **Open Lock** command the Log In dialog will appear.

- Enter your username and password
- Click OK.

Note1: The database title bar will display the title of the database, followed by the username that you are currently logged in as. This will allow you to manipulate the database according to your access.

Note 2: If your **login is incorrect** an error message will be displayed saying incorrect username/password. Clicking cancel will only allow you to view the database as a monitor (unable to make any changes).

Note 3: If Passwords are not in use, a message will appear confirming this.

Logging out a User

If passwords are in use and a user wishes to log out,

- Click on **Tools** in the Menu Bar
- Select **Logout**.

Monitor level access will be enabled,

Changing Passwords

- Click on **Tools** in the Menu Bar
- Select **Options**.
- Click on Passwords
- Select the user you wish to change the password for.
- Type in the current or old password
- Enter the new password in the **New Password**
- **Confirm New Password**
- **Apply**.

If the confirmation of the password is incorrect a dialog will be displayed informing you of this error. You will be returned back to the main screen without the alteration being made.

Forgotten Passwords

Both the Administrator and Service Manager can change any password using their own passwords.

If Administrator forgets their password,

- Contact the Service Manager who can issue the Administrator with a new password using their own password.

If the Service Manager forgets their password (at the same time)

- e-mail your database to software@axeze.com.au
- Axeze will issue you with a new password.

Trouble Shooting hints and FAQ

These can be found at www.axeze.com.au

Other Products

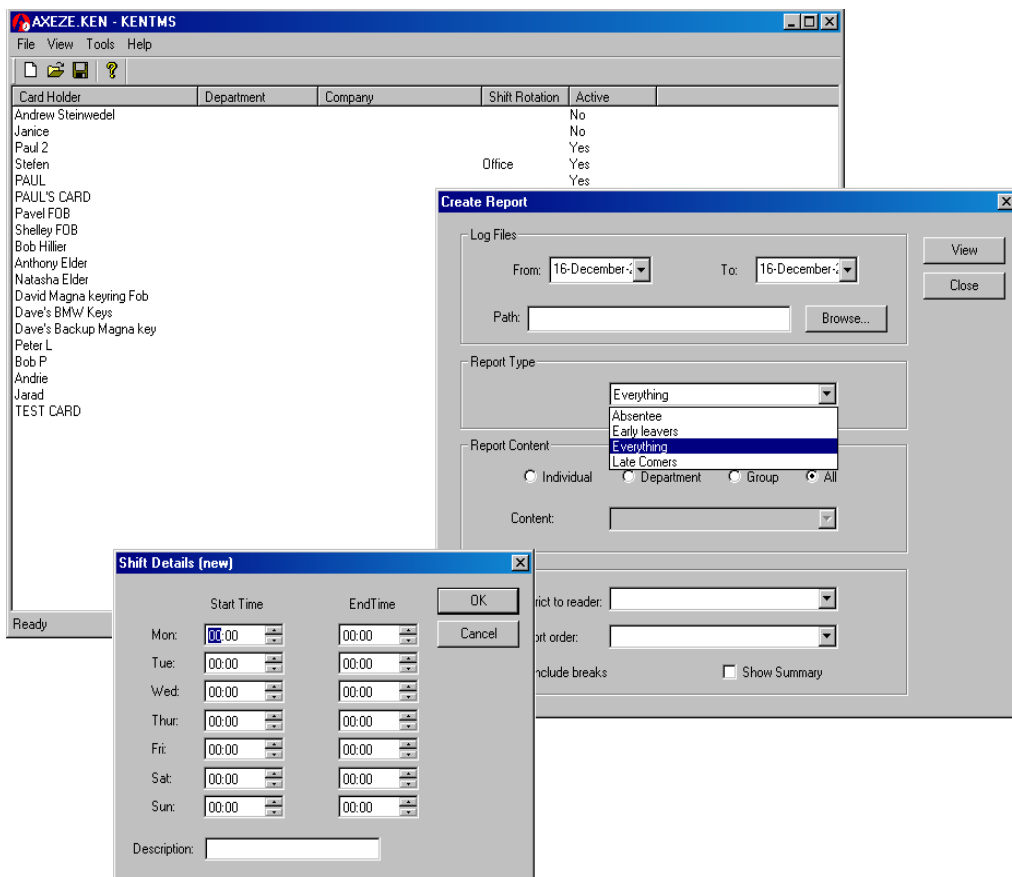
Time Management Software (TMS)

Overview:

Designed to replace the old time clock systems the Keyless Entry Network works in conjunction with the Axeze access control system reducing management of multiple systems and eliminating the problem of employees forgetting to clock on or off and clocking off friends. KEN-TMS works in conjunction with the Network Monitoring Program KENMon so there is no need for a separate clocking station. Employees can clock on or off at any access point monitored by the Axeze Network monitoring program. KEN-TMS gathers the information needed from multiple logs generated by KENMon and collates, calculates and sorts this information it into a readable format to be used as employee time sheets. KEN-TMS allows tracking of arrivals and departures, hours worked, and overtime (OH&S issues). The system reports early and late arrivals and is capable of handling extensive and complex rolling shift structures.

Features:

- Absent days
- Flags early and late starts
- Hours worked overtime
- Shifts and shift rotations (including overnight)
- Selectable reporting periods
- Creates reports for Groups, departments, and individuals
- Networked for central reporting
- Breaks
- Roster print outs

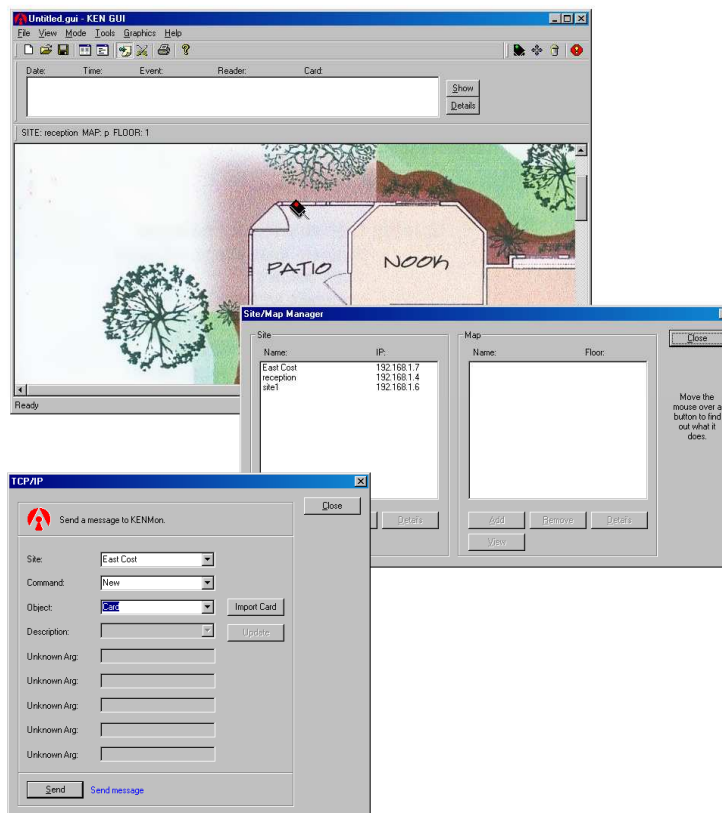


Graphic User Interface (KEN-GUI)

Overview:

A Graphic User Interface is a powerful tool that allows remote management of multiple Axeze Monitoring programs through a TCP/IP Interface to handle more complex sites. Operators use a simple graphical interface to monitor the status of access points and can see any network events which occur at a remote location through a LAN or even the Internet. The KEN-GUI also allows technical or monitoring staff to remotely manipulate an access control database or even remotely unlock doors. This is all done via the security of a 128-bit challenge/response password protection.

With the KEN-GUI system designers can implement complex systems such as nation wide sites or tenant control without compromising the security of each tenant. In tenant systems each tenant of a building could run and manage their own Access Control System using a copy of the Network Monitoring Program KENMon. All these sub systems would be totally independent of each other so there would be no issue of other tenants having access to your section of the building unless you authorise it. In this system if one area is having problems it will not affect anyone else. You could even have an access control system to monitor common areas. Managers or receptionists can connect to the common area system and add cards from their system to the common area, and building managers and maintenance staff can issue visitor cards to any tenant areas for visitors or trade people. Communication between each system can be protected by a challenge response password system, which would be different for each tenant.



Features

- Remote Database management
- Remote System Monitoring
- Remote Opening of doors
- Remote Closing of doors
- Remote Management of multiple remote sites
- Easy to use graphical representation of sites
- Graphical maps of sites and where controllers are located
- 128bit encrypted password protection
- Inter-connectivity of large sites (over 1984 access points)

KES Standalone Systems

Overview:

Axeze's Keyless Entry Stand-alone system is quite simply the most convenient and secure way to unlock anything. Just hold a special, uniquely coded transponder close to the reader and if the transponder is enrolled in the system the lock unlocks automatically.

Each Unit can provide access to up to 1000 people and operates completely stand-alone. The Axeze Keyless Entry System is suitable for use on doors cabinets, cars, draws, fridges, anywhere where an electric lock can be fitted and ideal for the elderly or people with a disability.

Security will never be a concern again as every transponder has its own unique identification code that can not be copied or reproduced. Lost or stolen cards can easily be removed out of the system and new transponders can be added using either a Master Programming Card or optional computer software. You will never have to change any locks or reissue keys again.

Features:

- Master Programming Card to add and delate tags
- Software available to manage a database
- Powerful 1000 users per system
- One tag all sites
- DIY or professional installation
- Interface to other products (i.e. fire alarm, security alarm, home automation)

OPTIONS

KES-I-Cash Drawer

This is a standard KES-I reader/controller with cables designed to connect to a standard 12v cash drawer. Lock open time is set to 0, and a Master Programming card is supplied.

KES-IB I Button Controller

The KES-IB is a variation of the KES-I Reader/Controller that outputs a 1-wire (I Button) compatible data stream allowing systems designed for an I-Button input to be upgraded to proximity.

Keyless Entry Management Software (KEMS)

Overview:

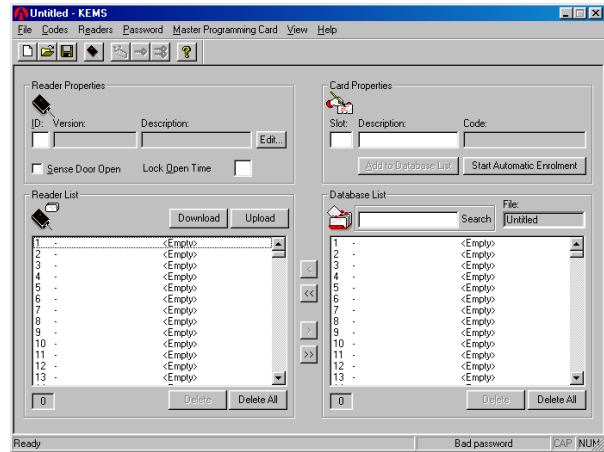
The KEMS software package was designed for easy adding of the Master Programming Card (MPC) and so clients with large databases can manage those databases.

Clients can program the length of time a door remains open, and set passwords to protect their information.

The KEMS consists of the KEMS software and Axeze hardware lock (AHL-PC) known as a dongle, with software manuals on the CD.

Features:

- Automatic tag enrolment
- Enable Sense Door Open
- View or send version number
- View total number of tags issued
- Extensive help screens for using the software or installing the product.



Prox Card Log-on Products



Overview

Axeze produce a range of Prox Card readers that can be used for a variety of tasks including fast log-on to Point of Sales machines. Their use in this role enables tighter stock control and engenders greater staff responsibilities. In many cases these systems pay for themselves in weeks and in some cases days. KEP readers replace older technologies such as Magnetic Stripe readers and Bar Code readers. They operate in conjunction with Axeze tags and have no moving parts resulting in extremely long lifetimes. On the other hand magnetic stripe readers and cards both have a relatively short life span. The KEP reader achieves its functionality by being able to identify a transponder (tag) presented to it, and sending the tag's unique code to another device/host. The host then takes appropriate action such as validating the user, based on the rights granted to the holder of that tag. These rights could be access to a cash register, recording data, time or any other task where controls are required.

Available formats

There is a variety of hardware and firmware formats available for the KEP.

The output stream can be provided in ASCII or binary format, TTL, RS232, USB or Keyboard Scan Codes (PS2).

The "MiniKEP" has an 80 x 40mm case. The "-M" suffix in the product codes indicates it is a member of the MiniKEP family. The MiniKEP has been designed to mount on the side of terminal equipment using the strip of high performance mounting tape bundled the reader. The communication interfaces available include PS2, USB, Inverted TTL and RS232.

Glossary

Access The condition of an area or building when it is occupied and when the access control system has been set so that normal activity does not set off an alarm.

Access Control The control of entry to, or exit from a specific area.

Access point Combination of 1 Axeze reader and controller used to operate a door / gate / lift?

Access Rights Access Rights are access permissions provided to the holder of a credential to proceed through an access point. If they are time based then the controller will only grant access if the current time is encompassed in the time restriction on the credential. The Controllers can handle 1000 time based access rights offline.

Antenna This is a coil of wire used to create the RF field that energises the transponders placed in the field and also used to pick up the signals from the transponders feeding them back to the receiver circuits in the reader. It can be internal to the reader assembly or external to the reader assembly. External antenna assemblies have a Tri-colour LED-indicating device and may have a sounder.

Area A section of a building, which has a specific access control requirement. Axeze does not provide this functionality. (Other systems allow a building to be divided into as many areas of differing access control requirements as needed. Each area is identified by a name.)

AUI Axeze Universal Interface - A network support module that has a real-time clock on it with a battery backup system to maintain correct time on KEN Controller while the system is offline.

Card A card refers to the card form of transponder.

Controllers Axeze controllers are referred to as Controllers in the NMS software.

Cursor A flashing character on a display monitor that indicates where the next character entered on the keyboard will appear.

Dongle Axeze Hardware Lock (AHL-PC) that is used by the installer to program a KEN controller using KENCfg software.

Event an Event is a condition for which a handler has been created in the NMS system. The Event handler instructs NMS (on-line) and AUI (off-line) what to do in the case of the event occurring.

Fob A fob refers to the key fob form of transponder. It has a hole to facilitate placing on a key ring.

Group A Group is created when a number of users require the same access rights and grouping them can make the process more efficient. Access rights can then be based on the Group instead of all the individual users in the group.

Input A (5-60v) DC signal from any device (Input Device) to the Axeze system. The name of the I/O board (up to 29 characters) and the name of the channel (up to 15 characters) identify each Input. If the Input is generated by installing a lift Controller the channel name is automatically created utilising the floor number.

Jumper Shorting header which closes the circuit between the two header pins to make a link.

Output An output is a relay closure – normally open and normally closed contacts (30V 1Amp max). The output is identified by the name of the I/O Board (up to 29 characters) and the Channel Number (1-8).

LED Light Emitting Diode. There are two types used in the Axeze systems. A Red LED is used to indicate power and a Tricolour LED that can be red, yellow or green, is used to indicate status.

Reader Antenna portion of the Axeze Controller.

Network A number of KEN Controllers connected to a particular COMM Port is said to be on the same network. Every network has a network converter (ANC) and may have an Axeze Universal Interface (AUI).

NMS Network Management Software used to configure, manage and monitor KEN network.

Occupancy Shows whether a zone is occupied or not and provides a list of people present in the zone.

Offline Access Controls Offline Access Controls are user access rights that are copied to the KEN Controller enabling the Controller to work offline.

Poll an Inquiry message continually sent within the Axeze system ensuring Controllers are communicating with the NMS.

Timesheet A PDF report comprising of the tag names, time in, time out, authorised or unauthorised, and the Controller name.

Tag another name for a credential eg. card, fob, disk etc.

Transponder Another name for Tag.

Retrieve Events Transfers events stored offline in the Controller to NMS

Up time Clicking this button will retrieve the current time set in the selected Controller. If the RTC has been reset due to a prolonged power failure an invalid Hour, Minute, Day and Month will be displayed. The year will not be reset.

Version Number

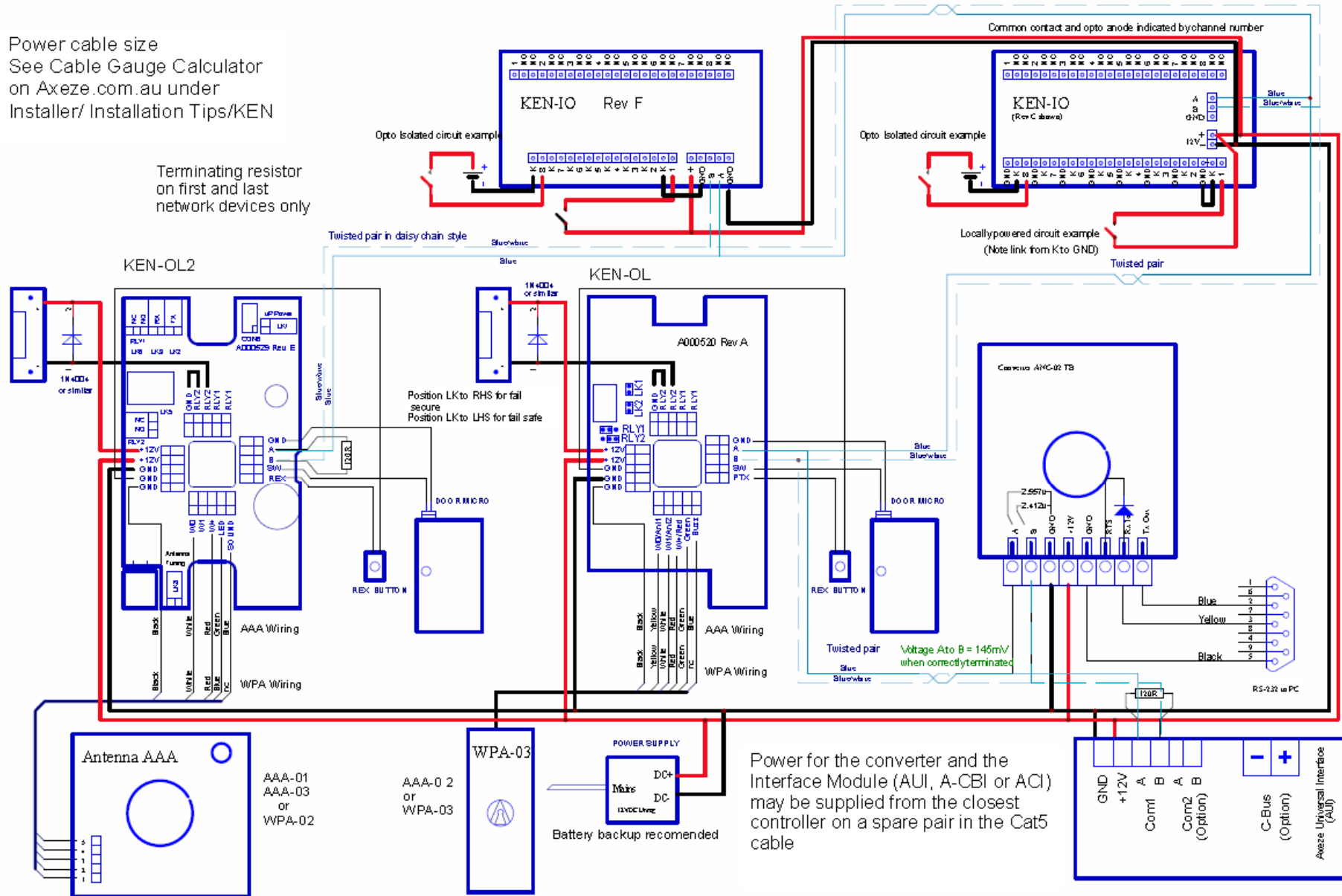
A version number is the number that identifies the specific release and revision of Axeze software products. The version number is composed of 3 parts separated by periods and may include alpha characters.

- The alpha characters define the family name.
- The first number is the major version number.
- The next two numbers (after the period) are the minor version number.
- The alpha character is the patch level

Zones Area restricted by entry and exit KEN Controllers.

Power cable size
See Cable Gauge Calculator
on Axeze.com.au under
Installer/ Installation Tips/KEN

Terminating resistor
on first and last
network devices only



Note allowable reader combinations

Axeze KEN Wiring Diagram