SECURITY NEWS

The installed base of Security Alarm Systems offers a great replacement market opportunity

Current alarm systems are based on a 20-year old design

The installed base of Residential and Commercial Security Alarm Systems are based on an obsolete design interface that is over 2 decades old. All these systems are based on a conventional control panel/ keypad that has little intelligence.

Installation and servicing is problematic

This is a major problem for the installation and service crew as today's alarm systems are difficult to commission and service. Every model, sometimes within the same vendor's product line, has its own proprietary programming. The service crew has to be trained to install and service a variety of models, increasing the cost of operation significantly.

Feedback is inadequate

Furthermore, the keypad offers very little feedback to the homeowner. This means that most end-users are typically "trained" to perform very basic alarm functions such as arming and disarming of the system. This is perceived to be adequate when the end-users do not experienced any problems with the alarm system. When the end-users are faced with alarms problems later, they discover that:

- it is difficult to diagnose alarm and trouble conditions
- they do not know or remember the actual alarm configuration
- they are unable to view the event history log
- it is difficult to add or change the access code.

Smart chip in new panel simplifies installation and servicing

A new control panel/keypad is available that can be used to replace any of the existing control panel/keypads in the field. This is based on a smart chip with built-in wireless communications that is programmed with a Pocket PC. It will work with the existing wiring and so it can be installed with a minimum of fuss. The actual programming of the control panel can be accomplished in less than 5 minutes compared to 45 minutes to an hour with the old system. The control panel works with all brands of sensors, so it extends the service territory with a smaller crew.

Programming alarm systems is tedious and error-prone

Learning how to program a new control panel has always been a daunting task for the alarm installer. There is currently no standard in the security industry for alarm programming. Alarm manufacturers have designed programming worksheets that typically incorporate very low-level data inputs using a conventional LED or LCD keypad connected to the control panel. This on-site alarm programming is a tedious process and can be error-prone even for an experienced installer.

A typical programming worksheet may consist of easily 100 or more programming steps. Each programming step is identified by a 3-digit or 4-digit memory address or location to be followed by some input data. Some entries may be decimal while others may require Hexadecimal values. Another type of data is a feature selection type where the data is used to turn features on or off. Feature selection data will display the current setting (on or off) of normally eight features associated with the programming location selected. Pressing a numeric key (1 –8) on the keypad will enable or disable the feature that will correspond to turning on/off the Zone (1-8) LED lights. A programming manual is usually required to guide the installer during the programming.

Such programming techniques are very primitive and were probably designed some twenty years ago on very low-end micro-controllers with limited processing and memory capacity.

Training of the installation/service crew is expensive

Training of new installers for alarm programming can take between several weeks to months before they can become proficient. Such training investments are costly to many security service organizations especially when the companies are supporting many different brands of alarm systems. A more advanced, easy to use high-level programming is required to reduce the complexity of current alarm programming.

Smart chip in the Hawk 8 simplifies installation and offers many advantages to the homeowner

HAWK 8 security alarm system institutes a radical departure from the conventional alarm programming using the keypad. HAWK 8 uses the latest and more powerful mobile device such as the Pocket PC to replace the primitive alarm programming using the keypad. The Pocket PC programming interface provides a quantum leap in terms of installer productivity, performance and field support. Alarm programming can be executed at any time and the parameters can be stored in a template on the Pocket PC and later beamed to the control panel using wireless communications that comes with the HAWK 8. The programming software allows the installer to create and store up to five alarm configuration templates.

A typical home or office configuration should not take more than five (5) minutes to program using the Pocket PC as compared to 15-45 minutes on conventional keypad programming.

Programming is now at a high-level using drop-down lists, check boxes and buttons and entering data using the Pocket PC. No programming manual is required. Installer or any novice can learn to program within a few hours of training. The installer is no longer required to remember any of the memory addresses or locations to perform alarm programming or to make changes to any part of the programming worksheet. All the programming functions are simple to use and require very little prior knowledge of alarm terminology.

Improved field support through best practice processes

Currently field support staff has to rely on accurate feedback from the end-users to solve alarm problems. The performance of support staff really depends on the experience and knowledge of the individual. With the HAWK 8, the support staff will be well equipped with all the relevant

information required to solve field problems very quickly. The Pocket PC will allow him to perform the following on-site that were not possible in the past such as :-

a) View existing alarm configuration
b) View the details of the event history log
c) View the alarm and trouble history log
d) View the alarm parameter settings

Upload/Download of alarm information or parameters takes less than 10 seconds on the Pocket PC. With all these information available, the installer will be able to provide prompt and improved customer service instead of trying to troubleshoot alarm problems in an ad hoc fashion.

Integrate security with information technology

HAWK 8 uses the Pocket PC to integrate security with information technology and provides the end-users with better management and control of their security alarm system. The end-users can now easily diagnose system alarm and trouble, check their alarm panel configuration and view the event history log to verify the sequence of the alarm transactions. In this way, the end-users will become more knowledgeable about the working of the alarm system and eventually become more independent to handle most of the alarm problems in the future. This will also help to reduce the frequency of false alarms that have been a big problem for the security industry and the law enforcement authority.

HAWK 8 - The New Innovative Solution

Standard User Interface

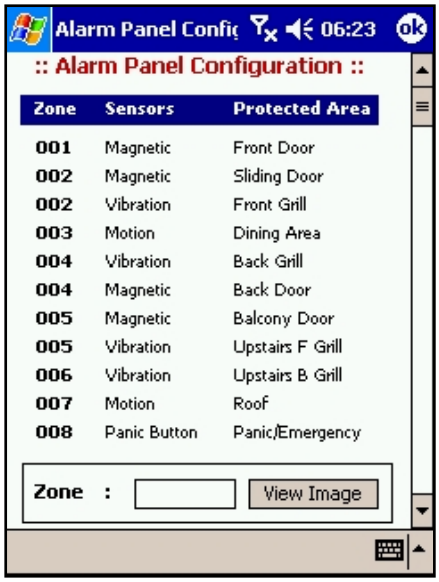
The LED/LCD keypad is the standard user interface in a security alarm system. The more affordable LED keypad has several function keys, LED lights and numerical keyboard for the installer to program the control panel as well as for end-users to operate the system. The more expensive LCD keypad typically has 2 lines of screen to display some text messages. Examples of a LCD text message maybe Line 1- ALARM 06, Line 2 – MASTER BEDROOM. This means that there was an alarm at Zone 6 that represents the Master Bedroom. On the LED keypad, Zone 6 will be blinking in an alarm condition.

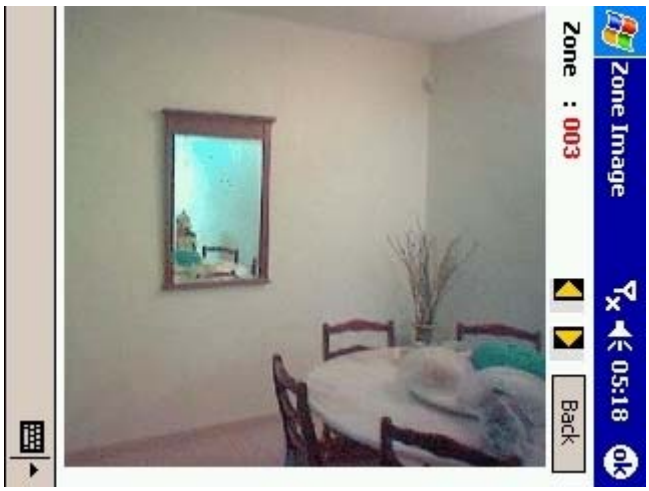
Alarm Panel Configuration

When an alarm system is installed in the premises, there is likely to be several sensors/detectors connected to a single zone, and each of these sensors is configured to protect a particular area. Therefore to have a single description for a zone will be misleading as there may be three different sensors connecting to the zone. To try to remember all the zones, sensors and their protected areas will be very challenging.

The new Approach

One screen on the Pocket PC says them all. Images of protected area can also be displayed.





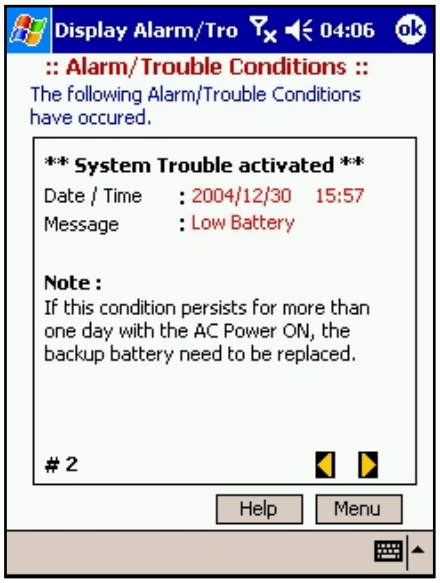
Alarm / Trouble Diagnostics

All alarm and trouble events that occurred in the alarm system will be recorded and the system can display the date and time of the event in addition to the zones, sensors and protected areas. To-date no alarm system has been designed to provide such information as the conventional keypads do not have any or adequate screen display capability.

The new Approach

Alarm Event

Trouble Event

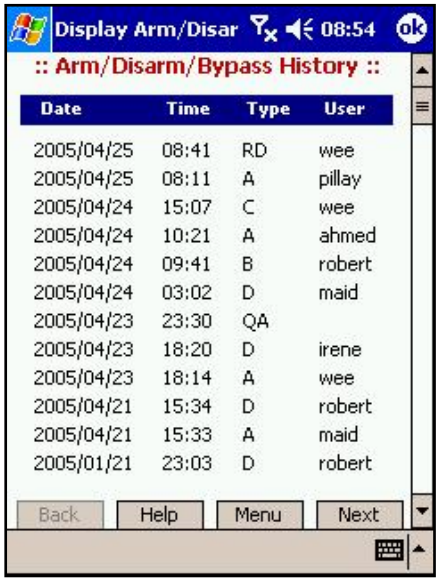


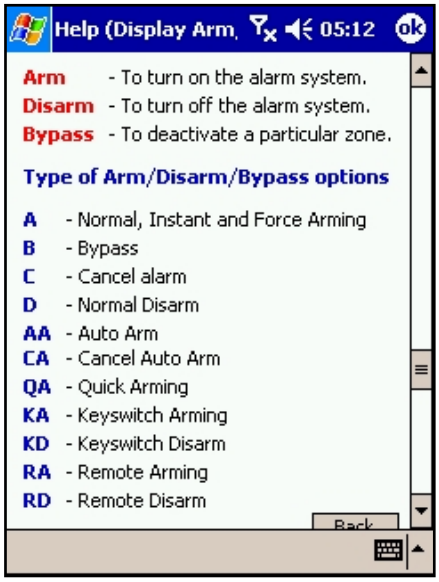
The Pocket PC is also capable of displaying five previous alarm/trouble event memory to assist the end-users in the system diagnostic. Image of the protected area can be displayed by selecting the View Image button.

Event History Log

The event history log was created so that there will be an audit trail of all end-user transactions as well as to log all alarm and trouble events. These information are sent to the Central Monitoring Station (CMS) who provides third party monitoring and response services to their customers. Why should end-users be deprived of such important information?

The New Approach



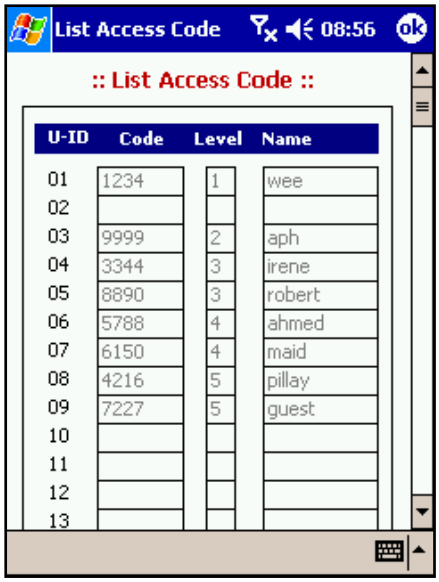


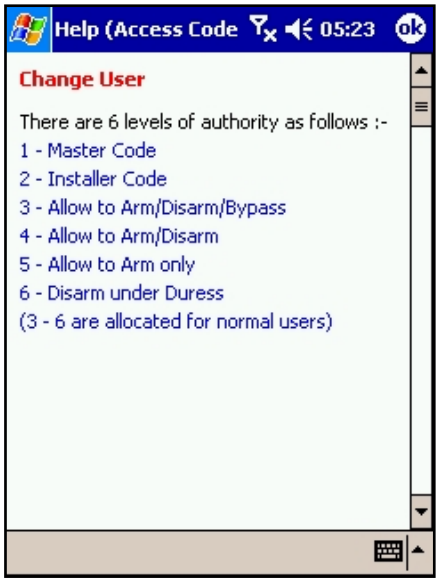
The Pocket PC can be used to download the event history log from the control panel and display them in a meaning way. The names of the authorized users are also displayed instead of their access code as well as the type and the date/time of the transactions. Only the Master User can access this event log.

Listing / Updating Access Codes

It is inconceivable to imagine that the alarm system is only programmed with a single access code (typically the master code) and that all users operate the system with the same code. Although this is not true in many instances, however there are many cases where such situation does happen. The answer is quite obvious. It is difficult for most end-users to add, change or delete access codes using conventional LED keypad.

The New Approach





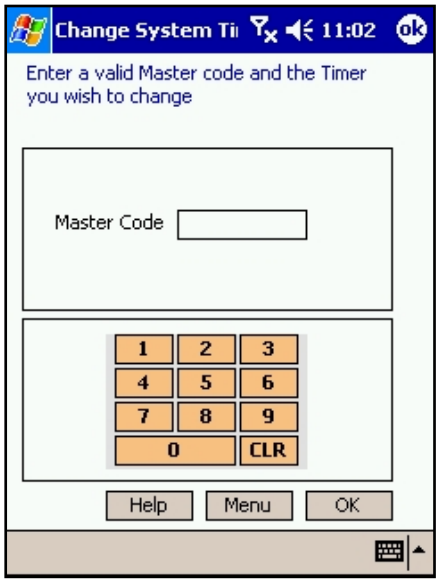
The Master User can now easily download all the authorized access codes with their names and authority levels. Updating of the access codes, authority levels and names can be easily done using the system keyboard on the Pocket PC.

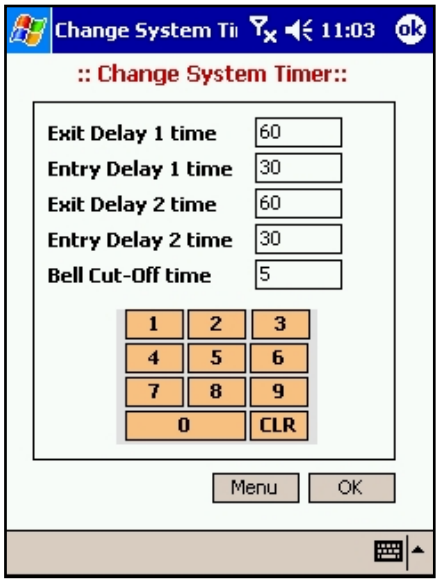
Changing entry/exit timers and cellular phone numbers

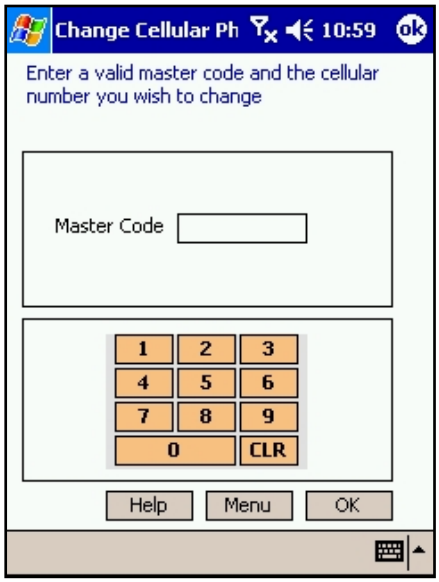
All setting of alarm parameters are normally programmed by the installer during commissioning of the system. It is not uncommon that the end-users may want to change these parameters due to various circumstances. One example is when the user purchased a new cellular phone or travels overseas regularly and need to change the cellular phone number in the system. Another example may be that the user wants to have a longer exit delay time. Typically changes to these parameters will require the assistance of the installer.

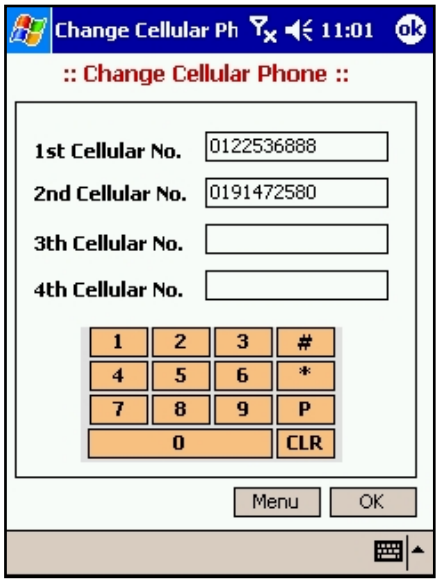
The New Approach

The Master User can now easily performed the above tasks using a Pocket PC.



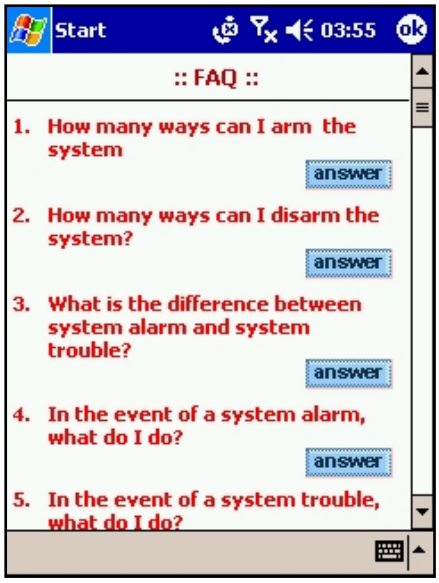


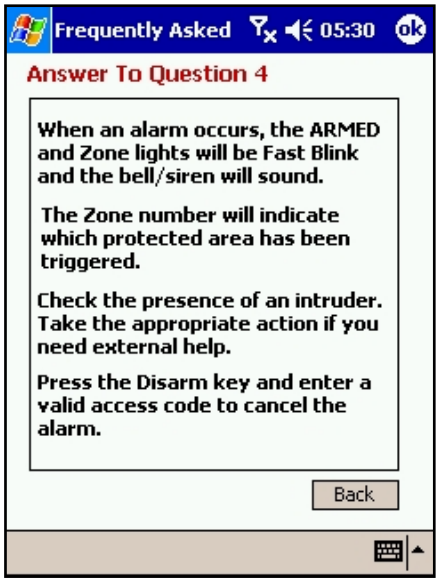




Frequently Asked Questions (FAQs)

To assist the end-users to more knowledgeable on the operations and diagnostic of their security alarm system, a FAQ database has been developed. This database contains simple Questions and Answers text messages.





Emergency Contact Information

A contact information database is also created to allow the end-users to store useful information in case of emergencies.