PROXIMITY
Encoding System

Paxton Access

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Setting up the system

Introduction

The PROXIMITY encoding system allows users of Paxton Access PROXIMITY systems to generate user cards quickly and easily. Records for all users are held at a PC in a database and are managed by the PROXIMITY encoding system software. The system is ideal for sites of 50 people or greater where it is more practical and economical than pre-encoded packs of cards.

In the event that a user's PROXIMITY token needs to be made invalid at the door(s) in the building that are fitted with PROXIMITY readers, the PROXIMITY encoding system software has the facility to find the user's record and to easily produce a shadow token for that user. That shadow token must then be taken to the door(s) and be presented to the reader(s) to make sure that the lost or stolen user card is made invalid.

As well as shadow cards and user cards, the PROXIMITY encoding system software can program a variety of other function cards (for example to set the door open time period) that can then be used at the reader.

What's in the box

A 412-500 PROXIMITY encoding system includes:

A PROXIMITY USB encoder

Contains the electronics required to program the tokens. The sequence for the USB reader on power up is Red and Green LEDs on. Open up the PROXIMITY encoder software and Red stays on but now Green and Amber flashes. Bring a token in range and the Amber LED comes on solid.

A USB communications cable

Connects the PROXIMITY encoder to the computer. The system requires a spare USB port to be available at the PC.

A CD Rom

Contains the PROXIMITY encoder software. This can be installed on any PC running Windows 2000 or Windows XP. Insert the CD ROM into the tray.

An Enrolment card +

This is used to initialise a site. This card must also be presented to readers on all doors to initialise them. An Enrolment card + is required for each individual site.

Two programming cards

These are provided for use as spare cards for programming readers. They can be reprogrammed an unlimited number of times. Typically, they would be programmed as shadow cards to void lost user tokens at the door. Spare user cards may also be used for programming.

Installing the system

1. The USB encoder must first be connected to the PC using the USB lead provided.

2. Insert the CDROM into the CD tray of the PC and close it. If the machine has been set not to autorun, double-click setup.exe in the root drive of the CDROM.

3. When the set-up process is complete, you will find a new program group in the start menu called "Proximity encoding system". You can start the program by selecting the "Proximity encoding system" icon in this program group.

Initialising the program

Once the desktop encoder and program are installed, the system must be initialised the first time it is used. Start the program by selecting the Proximity encoding system icon in the Proximity encoding system program group in the start menu.

On startup the program will display the site creation window. A site must be created before any cards can be encoded. Simply enter the name of the site and click **Add**.

If the red icon and "No encoder is present" appears in the bottom left hand corner of the window, there is a problem with the communications to the USB desktop encoder.
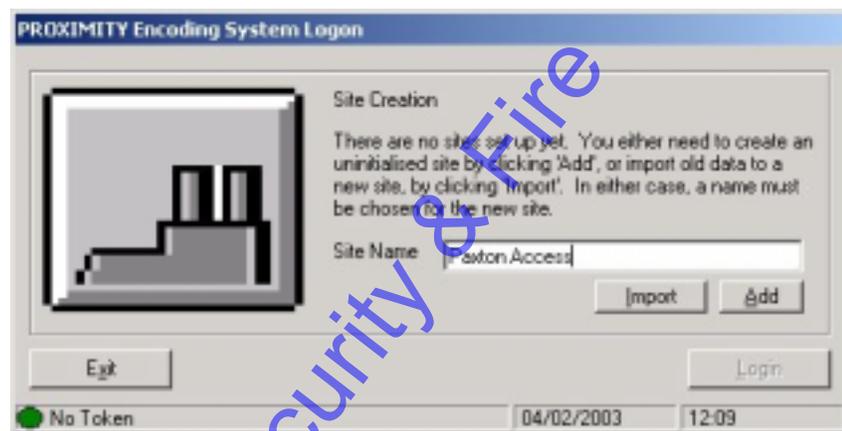
All new sites require an enrolment card+, which creates the unique number sequence to be used on the site. Each new site requires its own separate enrolment card+.

Once a valid enrolment card+ is presented to the USB desktop encoder, its number will appear in the bottom left hand corner of the window. Click the **Login** button, which will have become active.
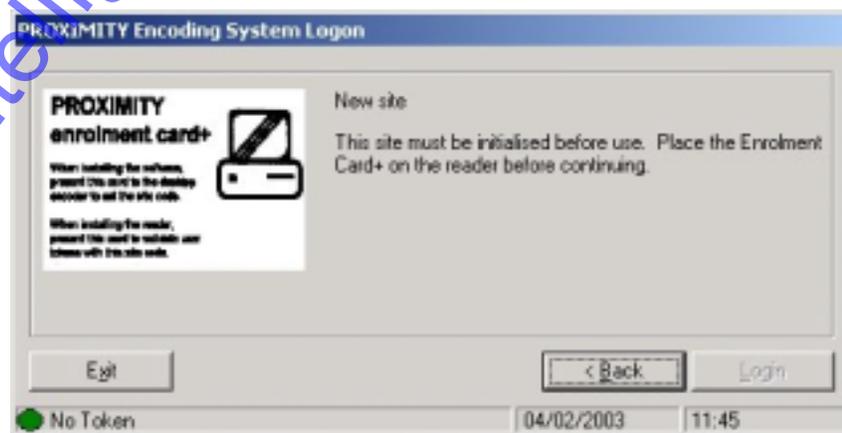
The PROXIMITY encoding system is now ready to use.

Initialising the door locks

The Enrolment card + provided with the Desktop encoder must be presented to the door readers when they are first installed. This process 'enrols' the PROXIMITY system at the door, allowing the encoder and the PROXIMITY encoding system to work with the same unique set of codes. If an existing card pack is being used on the site, the original Enrolment card should be presented to the reader, followed by the Enrolment card + to make the additional site valid. Two beeps from the reader at the door indicate that the enrolment process was successful. (If the readers have LED's, these will stop flashing). Test the success of enrolling the reader by checking the door opens when a user card is presented.

When the door locks (PROXIMITY compact readers or Switch2 systems with PROXIMITY readers) are 'enrolled', they are ready to use. All of the user cards that are produced by the Desktop encoder system will be automatically valid – there is no need to introduce each new card to the door when it is first used. (If this is not desirable, the door readers can be programmed to default to, not valid, by using the Bar all users function card). Please note that the Enrolment card + is an important part of the system. It should be kept in a safe place and should not be given to unauthorised people. If it is lost or stolen, the security of the site will have been compromised. To recover from this situation, see the Security section of this document.
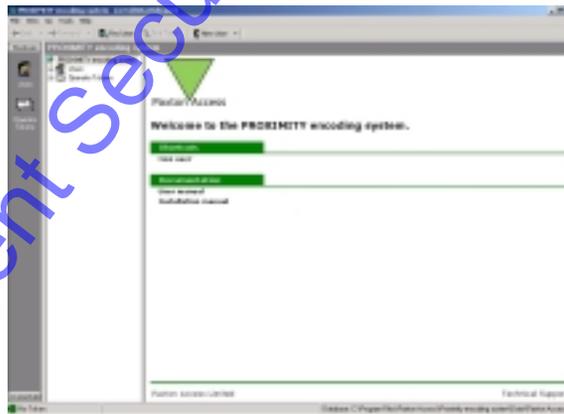
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Adding a user

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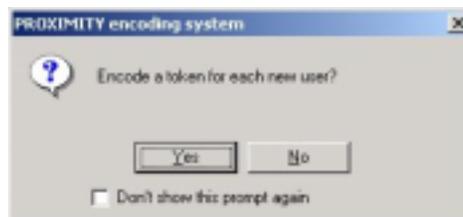
Security

Multi site operation

Adding a user

When the system is installed and the first site is initialised, it is ready to use.

To add a user:

1. Click the **Users** icon from the shortcut menu.
2. Double click on **New user**.

3. Select **Yes** if you wish to encode a token as you enter each set of user details (In this mode the software will not allow a user to be entered unless a blank card is presented to the desktop encoder). Select **No** if you wish to enter users details and encode their tokens later.

4. Fill in the details of the user, present a token to the desktop encoder (if this option was selected) and click **Add user**. The window will remain open to allow further users to be added. If you are programming a card, select its zone colour (see the explanation of zones in the function card section, or just choose green if you are not sure).

5. To return to the main screen click **Close**.
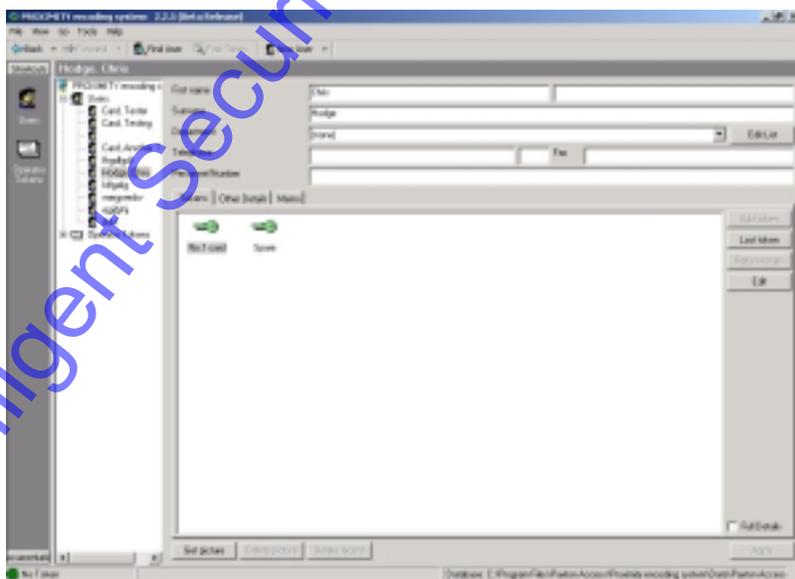
It is possible to issue more than one card to a user – that's particularly useful where individuals require spares in case they forget their normal card.

If some users are given more than one card, it is important to make a note which will identify each, so that when a card needs to be barred, it can be identified in its absence. Do this on the Note text box in the **Add user** window, or click **Edit** after highlighting the token in the user record.

When a user is no longer to be shown in the database, his or her name and details may be removed. Firstly, all cards belonging to that user must be erased or barred. Then click on **Delete record**, and answer **Yes** to the question: "Delete this user: are you sure?"

Voiding a card

If a card is lost or stolen, it must be made invalid at the doors on the site in order that it should not be misused. If the proper steps are taken, a stolen card when presented at the door will not be granted access, and will cause a red LED to flash on the reader.

1. Find the user record containing the token to be voided.
2. Click on the Tokens tab if it is not already being displayed.
3. Click once on the lost token to highlight the token to be voided.
4. Click on the **Lost token** button, the following window will appear.

5. Present a spare card (one that is not a valid user card) to the desktop encoder. The **OK** button will become active; click **OK** and the shadow card for the lost token will be encoded.
6. The token within the user record will now appear as invalid.

7. Present the encoded shadow card to each reader on the system.
8. Now, if the lost user card were to be presented to a reader a red LED will be displayed and the door will not open.

If a card is handed back, for example by an employee who is leaving, it is wise to erase it. To do this, present the card to the desktop encoder. Click **Find Token** to locate the card in the database. Click on **Return token**. Click **OK** to remove the token from the user record. To delete the information from the token go to **Tools\Erase token.**

The data previously contained in the card has been erased and it can be stored ready for re-use.

**The cards may be programmed, erased and re-programmed indefinitely.**

Function cards

As has been discussed already the PROXIMITY encoding system can program cards for users. These user cards open doors. It can also program shadow cards for making these user cards invalid at the door.

Function cards can be produced by the encoding system for changing settings at any door. The PROXIMITY encoding system is capable of programming any of the function cards that can be used on the PROXIMITY compact systems. The full list of the function cards alongside the description and compatibility information with Paxton products appears below.

To encode a function card, use the following procedure:

1. Start the program and select **Tools\Create Function Token**.
2. Select the type of function token required from the list, present an un-encoded token to the desktop encoder and press **OK**.
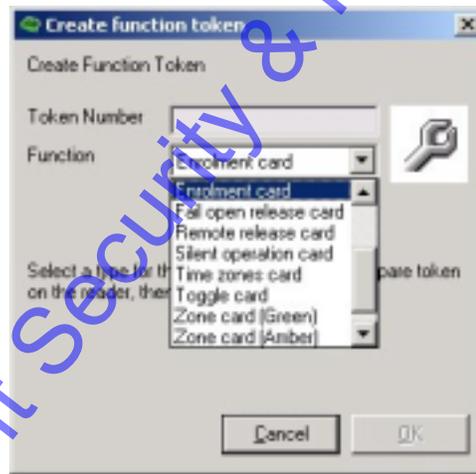
3. Take the encoded function card to the door where its functionality is required and follow the instructions detailed in the table below.

Enrolment card	An enrolment card + is provided with the desktop encoder. It initialises the encoder software and otherwise it is the same as an enrolment card but cannot be erased once the initialisation of the software has taken place. Use the enrolment card to set the site code of the PROXIMITY system at the door. A user card that is invalid at the door (red light flashes, and the door will not open) can be made valid. Present the Enrolment card followed by the invalid user card. After two beeps from the reader, present the enrolment card again, and the door will now open. Note - if a set of cards is already operating on a site and there is a requirement to add the cards produced by the Desktop programming system as a separate group - present the enrolment card from the existing set and follow it with the enrolment card +. Both sets of cards will now operate together.
Door open time card	Used to set the time that the door remains unlocked, following a valid user card being presented, or a press to exit. Present the Door open time card; wait for the required interval (the reader will beep every second); and present the door open time card again. The interval has been set.
Remote release card	Enables the press to exit function. (This is enabled by default). The Card plus PIN and the Time zone functions become disabled.
Card plus PIN	Disables the press to exit function and the time zones function and enables the card plus PIN function. If a separate keypad is connected correctly, a correct PIN will flash the amber light. The green light will flash and access will be granted if a valid card is presented to the reader.
Time zones card	Disables card plus PIN function and the press to exit function and enables the time zones function. If a simple time clock is connected to exit button pair of wires, there will be one zone setting effective with the time clock on and another with the time clock off. This is useful for timed access for groups of users.
Silent operation card	Present this card to silence the beep sound that comes from the reader. Present the card again to re-enable the beep.
Bar all users card	By default, all users are valid at the door. (Even before their cards have been encoded!) There are some situations where this is not desirable, for example, an office door where only one or two out of a hundred cards must be allowed access. Present the Bar all users card and then no users will be valid at the door. (Use this card with care! Its use cannot be undone by Showing the card again. A system reset by an installer would be required.) The enrolment card may then be used to individually validate each user that is to be granted access to the door.
Zone card	Green, amber and red user cards may be encoded. The selection of colour is made each time a user's card is programmed. The readers all have a row of three LED's, one red, one amber and one green. Normally, all will be alight. If the colour of user card matches the colour of an LED alight on the front of the reader, then that user card is granted access to the door. (So by default, all three zones are active.) The zone card can be encoded to switch on and to switch off the zone LED concerned. For example, if a green zone card is encoded, presenting this once to a reader will switch of a green LED, and green users will be barred from that door. Presenting the green card again will switch the LED on again and allow green users. Note that the zone setting has no effect on individual access permissions already programmed.
Fail open release card	Used to choose which type of lock is connected. A fail open release requires power to keep it locked and removes power from the lock for the door open time to unlock the door. This is a useful feature to ensure that the door is safe in the event of a power cut when free access is then possible. A fail-closed release is more common, where power is only applied to keep the door unlocked for the door open time. The fail open release card is used at installation to choose between the two types of operation. Note: this card only functions with PROXIMITY compact systems. The default is fail closed, and the reader will toggle between fail closed and fail on each presentation of the fail open release card.
Other function cards	Check with our technical helpline for availability and operation of other function cards.

Operator tokens

Instead of password protecting the software, the Proximity encoding system uses operator tokens to identify authorised users.

To register an operator token:

1. Click **Operator tokens** on the shortcut menu.
2. Double click **New Operator Token**.
3. Enter a description for the card and click **OK**.
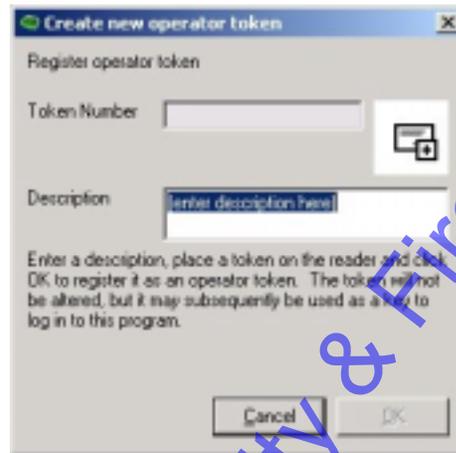
4. The next time this site is started a valid operator token will need to be presented before the software will allow access.

Operator tokens are defined on a per site basis so different operators can be assigned to different sites.

Important Note: Without a valid operator token a site cannot be accessed once an operator token has been assigned. Therefore if an operator token is lost, and is the only one encoded, the software database for that site cannot be opened at all.

Security

There are some precautions that must be taken in order to maintain the security of the PROXIMITY encoder system:

The Enrolment card + must be kept in a safe place. If this card is missing, even temporarily, the security of the site may be compromised.

The directory in which the data files are stored must be private. Either the PC must be kept in a place unavailable to unauthorised users, or it must run the Proximity encoding system under Windows 2000 or Windows XP with access to the database directory restricted to authorised users.

Only trusted users must be given access to the PROXIMITY encoder software.

If any of these security requirements are not met, a new Enrolment card + is required for the site. All of the readers installed at the doors must be re-initialised, and the existing user cards that have been issued will be invalid, and will need to be re-programmed with new data. Whilst this process is not expensive (replacing mechanical door locks and keys is much worse!), it is time consuming and inconvenient for those that look after the system, as all user details have to be re-entered and all cards must be re-programmed.
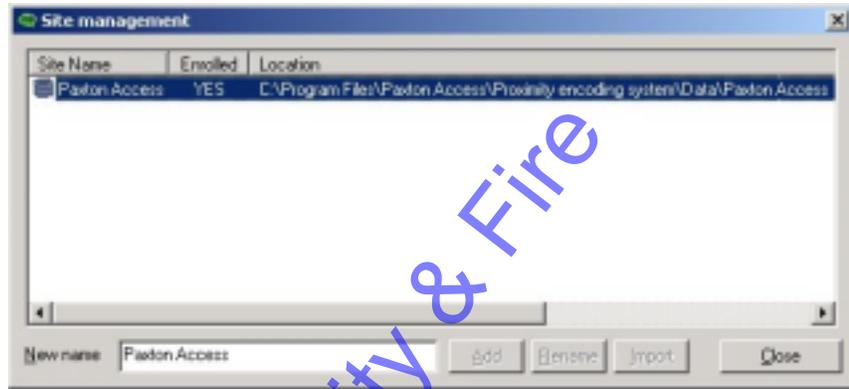
Multi site operation

The Desktop programming system may be set up to program and organise cards for more than one site. **Note that an Enrolment card + (part number 542-990) must be purchased for each new site**.

To set up a new site:

1. Go to **Tools\sites** and the following window will appear.

2. Type the name of the new site in the **New name** box and click **Add**. The new site will appear in the list un-enrolled.
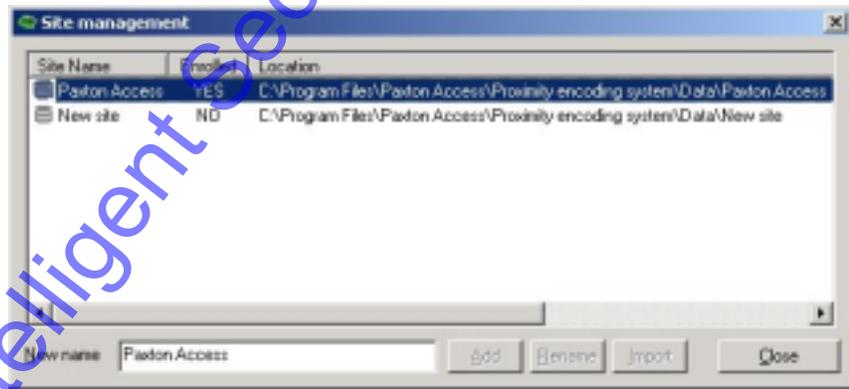
3. To enrol the site restart the software, select the new site from the drop down list and follow the instructions for initialising the system (the process is the same as for the first site).

Technical support

If you require any help with this product, Paxton technical support is available between 8:30 and 17:30 Mon-Fri.

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