# Configuring readers and keypads

Data formats

If the Net2 application is running when a token is presented to a reader or a button pressed on a keypad for the first time, the unit will configure itself in the software automatically.

Some individual settings may need to be set manually. Readers and keypads are configured in the Door settings of each control unit.

The display below shows the settings corresponding to Reader 1 and Keypad 1 connected to that control unit.
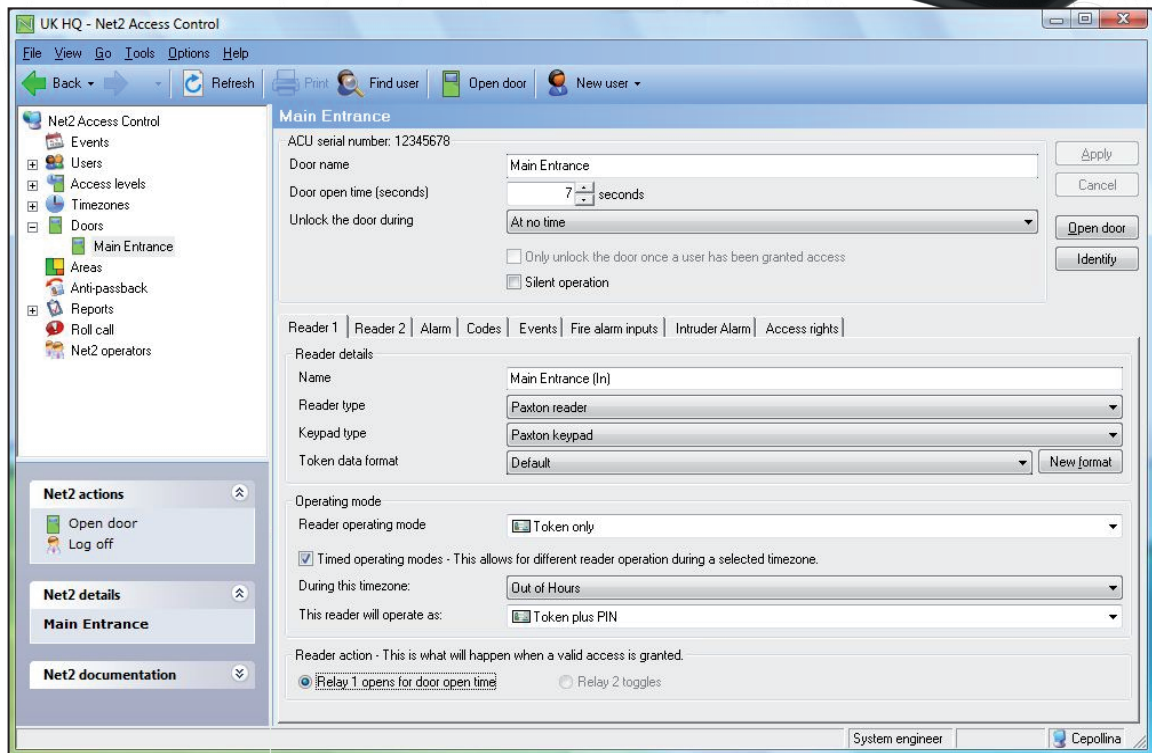
Name

The default name for reader 1 is [Door name] (IN). The default name for reader 2 is [Door name] (OUT). The reader names set here will appear in reports and be used to set access levels and areas.

Reader type

This should be set to the relevant type of reader.

Setting	Description
None	If no reader is connected
Paxton reader	If a CARDLOCK or PROXIMITY reader is connected
Clock and data	If a non-Paxton clock and data reader is connected (Paxton readers are clock and data readers)
Wiegand reader	If a Wiegand reader is connected
ANPR - Clock and data reader	If a Paxton ANPR clock and data reader is connected
ANPR - 26 bit Wiegand reader	If a Paxton ANPR Wiegand reader is connected

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Keypad

This should be set to the relevant type of keypad. Many third party keypads are compatible with Net2 running v4.18 or later software.
Refer to: AN1112 - How to configure a Wiegand keypad < http://paxton.info/1650 >

Setting	Description
None	If no keypad is connected
Paxton keypad	If a keypad is connected

Token data format

Every card enrolled on a Net2 system must have a unique number. The token data format option allows Net2 to read a variety of encoding formats. The default setting is for the Net2 encoded cards and tokens (random 8 digit number). For details on how to set up a new token data format refer to: AN1045 - Using ABA format 3rd party cards with Net2. < http://paxton.info/1052 >
AN1125 - Configuring Wiegand 26 bits with a site code. < http://paxton.info/1753 >

Setting	Description
Default	This is for Net2 encoded cards and tokens (random 8 digit number
Paxton token	This is for CARDLOCK and PROXIMITY cards and tokens (encrypted number)
Bank cards	This allows Net2 to use bank cards
First 8 digits	This allows Net2 to use the first 8 digits encoded on the magstripe
26 bit Wiegand	If a Wiegand reader is connected, Net2 is configured to read 26 bit Wiegand tokens
26 bit Wiegand with site code	If a Wiegand reader is connected, Net2 is configured to read 26 bit Wiegand tokens and check the site code.
Custom Wiegand	If a Wiegand reader is connected other than a 26 bit Wiegand reader. A Custom Wiegand format must be first set up in the Net2 Configuration Utility

Reader operating mode

The correct operating mode should be selected from the drop down menu.

Setting	Description
Inactive	There is no reader or keypad connected (or they are inactive for some other reason)
Token only	Access is granted by presenting a valid user token
Token plus PIN	Access is granted by presenting a valid user token AND entering the relevant PIN
Token plus code	Access is granted by presenting a valid user token AND entering a valid code
Desktop reader	A desktop reader is connected. This reader is to be used to add users to the system
PIN only	Access is granted by entering a valid PIN
Code only	Access is granted by entering a valid code
Token or PIN	Access is granted by presenting a valid token OR entering a valid PIN
Token or code	Access is granted by presenting a valid token OR entering a valid code
Token, PIN or code	Access is granted by swiping a valid card OR entering a valid PIN OR entering a valid code
Clocking in reader	For use with Timesheet software. Events from this reader will be sent to the Timesheet software
Clocking out reader	For use with Timesheet software. Events from this reader will be sent to the Timesheet software

The list of operating modes displayed in the drop down menu is dependent on the reader type and keypad type settings.

For example, if a keypad is configured without a reader, the drop down menu will only allow: Inactive, Code only and PIN only.

Difference between Code and PIN

Code
Codes are low security as they are not included in user access levels.

They are set in the individual Door's screen. A control unit can have up to 50 codes between 4 and 8 digits long. When using 'Code Only', Net2 will not be able to track who has entered through that door as no user is specified, only that a valid code has been entered.

Codes are very quick to set up and change. This can be handy for casual visitors entering a non-public area but should be changed on a regular basis as they can easily be disclosed.

PIN
PIN stands for Personal Identification Number. They are 4 digits long and are set up in a user record. PIN's allow the users access rights to be controlled and changed without affecting other users. It also allows them to be identified by the system for reporting purposes.

For added security, both Codes and PIN's can be used in conjunction with a user Token. A user token which has been lost or stolen still requires the specific PIN or Code to be known.

Timed operating modes

This feature allows a different operating mode to be used depending on a timezone. For example, during the day, the door may be set to 'Token only' but out-of-hours this can be upgraded to require 'Token plus PIN'.

To configure this, tick the box, select the required timezone from the drop down menu and the required operating mode from the other drop down menu.

Reader action

This is the action that will happen when access is granted.

Setting	Description
Relay 1 - door open time	Access granted will energise relay 1 for the door open time.
Relay 1 & 2 - door open time	Access granted will energise relays 1 and 2 for the door open time. This is used when fitting two locks on one door.
Relay 1 - toggles	Access granted will toggle relay 1. - The relay will stay energised until a second access granted is made.
Relay 2 - toggles	As above but for Relay 2.

Further information: AN1124 - Two locks on one door < http://paxton.info/1780 >

Doors\[Door name]\Reader 2

The Reader 2 tab shows the settings corresponding to Reader 2 and Keypad 2 connected to that control unit.

The default name for Reader 2 is [Door name] (OUT). This can be changed.

Readers 1 and 2 are configured separately and can have completely different settings.