How to configure a Wiegand keypad

Net2 software configuration

Net2 systems running v4.18 or later software are compatible with a range of 3rd party Wiegand keypads. Auto detection by Net2 is not available for Wiegand keypads and so the software and keypad need to be configured manually to operate correctly.

To configure a Wiegand keypad in Net2, double click on the door in the tree view. Set the Reader type to 'Wiegand reader' and Keypad type to 'Paxton keypad'. Set the Reader operating mode to the required setting. These are discussed later in this document.
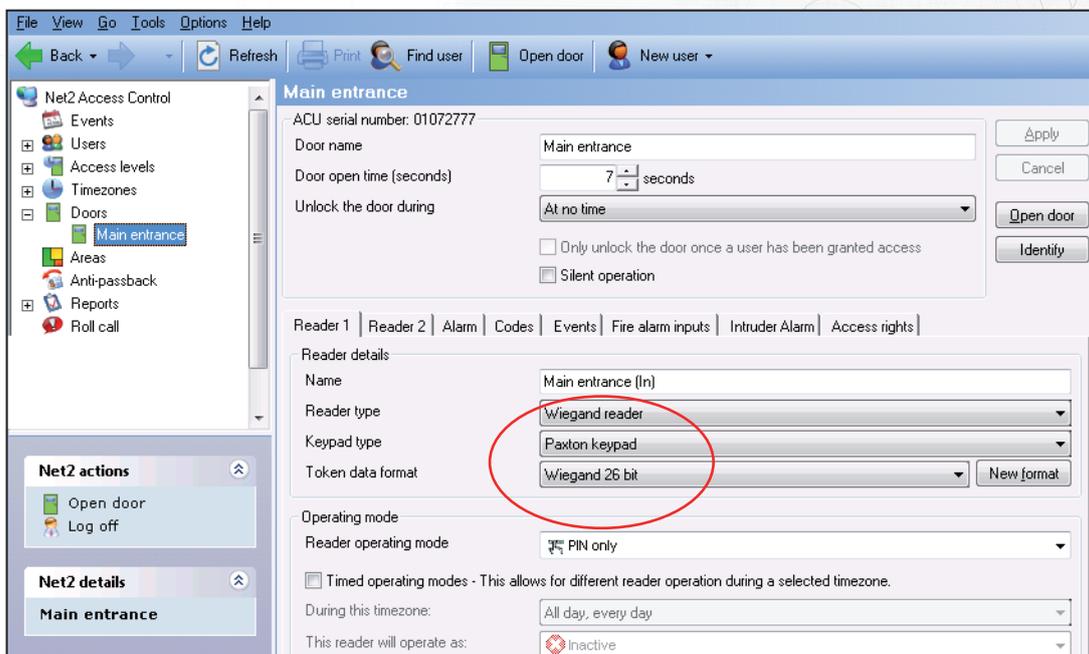
By using Timezones, the security level for a door can be changed automatically during specific periods. (e.g. 'Token plus PIN' as the default but 'Token only' during working hours)

In the following screen we see 'Token plus PIN' mode as the default but with the 'Timed operating mode' checked we can select the 'Working Hours' timezone with an operating mode of 'Token only'.

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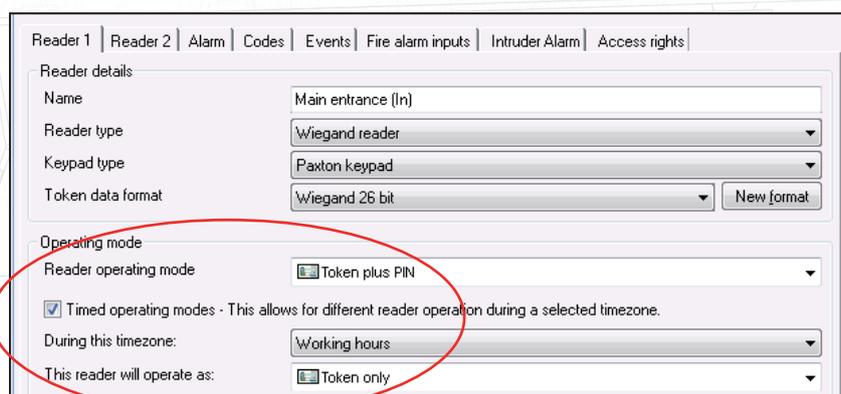
Wiegand keypads are wired to the Net2 Reader port as per a standard Wiegand reader.

If the keypad is combined with a reader, the port should be set up to match the tokens used. If not 26 bits, then a custom format must be entered into the Net2 Server Configuration utility.
See AN1010 - Configuring custom Wiegand formats < http://paxton.info/990 > for more information.

Keypad formats

The Net2 software will accept 4, 6 or 8 bit keypad code formats. The keypad should be configured by means of programming cards or keystrokes depending on the manufactures instructions, to use one of these formats.

Each key press should output a 4 bit character modified to one of the following format:

4 bit code - <0001> This is the simplest format but has no data checks available to Net2. This can therefore being susceptible to data errors.

8 bit code - <1110 0001> This format takes the 4 bit output and preceeds it with the compliment to produce 8 bits. This is more robust than the simple 4 bit code.

6 bit code - <0 00 01 0> This format is recommended by Paxton. It has 4 bits of data and 2 parity bits as a check. This format has an Even parity bit at the start which relates to the fist 3 bits and an Odd parity bit at the end that relates to the last three bits. Set the '0' key to output a '0' code.

Combined Token and Keypad modes

Net2 can take user input from a token, keypad or a combination of both. The following reader modes are available.

Token only, PIN only, Code only,
Token plus PIN, Token plus Code,
Token or PIN, Token or Code,
Token, PIN or Code.

A PIN number is assigned to an individual user through a user record. Its use can therefore be traced through the Events log.

A Code number is assigned to an individual door through the Doors screen. It has no user relationship and is therefore less secure than a PIN number. Its main use is for public areas where it can be changed easily on a regular basis.

For further details see: AN1046 - Configuring a reader or keypad. < http://paxton.info/930 >