Control iD

Wiegand Settings Quick Overview

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Quick Overview

1. Wiegand Settings

With the release of firmware 6.20.10, Control iD has launched a new feature that allows users to have further control over the Wiegand settings on the iDFace. Now, users can configure the bits format as well as visualize the last information sent/received by a unit.

2. "Configure bits" Screen

Let us go over the different options and talk about what changes can be made in the Wiegand formats.

Wiegand Setting	gs	\times
Mode Configure bits	Diagnostics	
Automatic	Wiegand size:	
× 1	37 (H10304) 🗸	
Facility code		
Start:	Size:	
2	16	
Card number		
Start:	Size:	
18	19	
Even parity		
Bit position:	Bits to sum:	
1	2,3,4,5,6,7,8,9,10,11,12,13,14,15,1	
Odd parity		
Bit position:	Bits to sum:	
37	19,20,21,22,23,24,25,26,27,28,29,	
Parity calculation or	der	
1, 37		
Bit visualization		
1 2 3 4 5	6 7 8 9 10 11 12 13 14 15	
16 17 18 19 20	5 6 7 8 9 10 11 12 13 14 21 22 23 24 25 26 27 28 29 30	
15 16 1 2 3	4 5 6 7 8 9 10 11 12 13	
31 32 33 34 35 14 15 16 17 18	36 37 19 37	
	Cancel Sav	e

Quick Overview

2.1 Wiegand size:

In the "Automatic" format, iDFace will display a list of pre-configured Wiegand formats, each with its own unique Facility code, Card number and Parity bits formats. After selecting a desired pre-configured format, a breakdown of the bits will be shown according to the bit order, meaning, which bits will be used for the Facility code, which will be for Card number, and how the Parity bits will be calculated.

Wiegand size:
37 (H10304) ~
26 (H10301)
CSN mifare (32 bits)
34
C1K(35 bits)
37 (H10302)
37 (H10304)
40
42
C1K(48 bits)
56
64
66

2.2 Manual formats

After disabling the "Automatic" formats, you will now have the option to configure the Wiegand format to a desired format, granted it follows certain rules:

- Wiegand size: from 26 to 64 bits
- Parity bits: up to 2 Even parity bits and up to 2 Odd parity bits, choosing which bits will be added for each parity bit. And they must always be at the beginning or end of the Wiegand format, never in the middle.
- Facility code must always be in front of the Card number.
- The sum of Parity bits + Facility code + Card number must not be greater than the total Wiegand size.

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Wiegand Settings

Quick Overview

Viega	and s	Sett	ing	ζS									
Mode	Confi	gure t	oits	Dia	gnost	ics							
Autom	natic						Wie	gano	d size	2:			
	×						26	_					
Facility	/ code												
Start:				Siz	e:	_			In	wert	bit or	der	
2				3								ĸ	
Card r	numbe	er											
Start:	1			Siz	e:				In	wert	bit or	der	
5				2								×	
Even p	parity l	oits				C	dd p	parit	y bit	5			
1					~		1					`	/
1				2,	3,4,5,6	5,7,8,	11,12,	13,91	0				
Odd p	arity												
Bit posi	tion:			Bits	s to s	um:	0 10	20					
20				14	,12,10	5,17,	10, 15,	20					
Parity	calcul	ation	ord	er									
Defau	lt				~		1,26						
Upda	të bits												
Bit visu	alizatio	n											
1	2 3	4	5	6	7	8	9	10	11	12	13	14	15
16 1	7 18	19	20	21	22	23	24	25	26				
12 1	3 14	15	16	17	18	19	20	21	26				
											Car	acal	5

2.2.1 Parity bits calculation

The Even parity bit is calculated by adding the number of bits with value "1" in the configured range. If the sum value is even, the Even parity value will be 0, otherwise the value will be 1.

The Odd parity bit is calculated by adding the number of bits with value "1" in the configured range. If the sum value is odd, the Odd parity value will be 0, otherwise the value will be 1.

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3. "Diagnostics" Screen

The "Diagnostics" screen is an easy way to check how the device is interpreting and formatting the data that is receiving/sending.

After a card reading is received over the Wiegand-IN signals at EAM, iDFace will show a detailed description of what bits were read (e.g. what Facility code, Card number and Parity bits were interpreted). It has a similar structure as the "Bit visualization" on the "Configure bits" screen.

ne	gar	nd S	Set	ting	gs									
Mod	e (Config	gure l	bits	Dia	ignos	tics							
Las	st c	arc	l re	ad										
lota	l bits	read:					Number of bits expected:							
37								37						
								-						
-acil	ity co	ae re	ad:					Card	nun c	nber	read	0		
235								249	9109					
Day	and t	ime c	oflas	t read	d:			Pari	ties:					
Day 08/	and t 05/25	ime c	of lasi :52:3	t read	d:			Pari Chi	ties: eck					
Day 08/	and t 05/25	ime c ~ 14	of las :52:3!	t read	d:			Pari Ch	ties: eck					
Oay 08/ Bits	and t 05/25 read:	ime c ~ 14	of lasi :52:3	t read	d:			Pari Chi	ties: eck					
Day 08/0 Bits	and t 05/25 read: 2	ime c ~ 14	of last :52:3	t read 5	d: 6	7	8	Pari Chi	ties: eck 10	11	12	13	14	15
Day 08/0 Bits 1 1	and t 05/25 read: 2 0	ime c ~ 14 3	of lasi :52:3! 4	t read 5 5 0	d: 6 0	70	8	Pari Chi 9	ties: eck 10	11	12	13 0	14	15
Day 08/ 3its 1 1 16	and t 05/25 read: 2 0 17	ime o ~ 14 3 0 18	of last :52:3: 4 0 19	t read 5 5 0 20	d: 6 0 21	7 0 22	8 0 23	Pari Chi 9 0 24	ties: eck 10 1 25	11 1 26	12 1 27	13 0 28	14 1 29	15 0 30
Day 08/4 1 1 16 1	and t 05/25 read: 2 0 17 1	ime o ~ 14 3 0 18 0	of last :52:3 4 19 1	t read 5 5 0 20 1	d: 6 0 21 1	7 0 22 1	8 0 23 0	Pari Chi 9 0 24 0	ties: eck 10 1 25 1	11 1 26 1	12 1 27 0	13 0 28 1	14 1 29 0	15 0 30 0
Day 08/4 1 1 16 1 31	and t 05/25 read: 2 0 17 1 32	ime o ~ 14 3 0 18 0 33	of last :52:3 4 0 19 1 34	t read 5 5 0 20 1 35	6 0 21 1 36	7 0 22 1 37	8 0 23 0	Pari Ch 9 0 24 0	ties: eck 10 1 25 1	11 1 26 1	12 1 27 0	13 0 28 1	14 1 29 0	15 0 30 0

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4. Important

This Wiegand settings will apply to both inbound and outbound information from the iDFace. Meaning that Wiegand IN and Wiegand OUT will behave equally and format the information it receives/sends into the previously configured Wiegand format.