Configure Card Format

Overview

The Rock operates with any type of badge reader and badge.

When a company distributes badges to its employees, these badges will have a specific card "format". Card formats define how data is encoded in the card. Many cards have a facility code and a card number but is possible that the format only contains a card number Cards will vary in sizes such as 26, 33, 37, 48 bits although the bits do not indicate the format. The facility code and card number can be displayed if the size and location of the bits within the bit length are known.

Companies may also have more than one card format. The Alcatraz AI Admin Portal is able to display the correct badge number and facility code as long the card formats are configured for the account. The portal supports configuring multiple card formats.

This guide walks through how to configure the card format(s) using the card format editor. Card formats are configured once for the Account. The card format must be known prior to using this guide. This information can be obtained from your Access Control System (ACS) administrator. At the end of this guide are some examples.
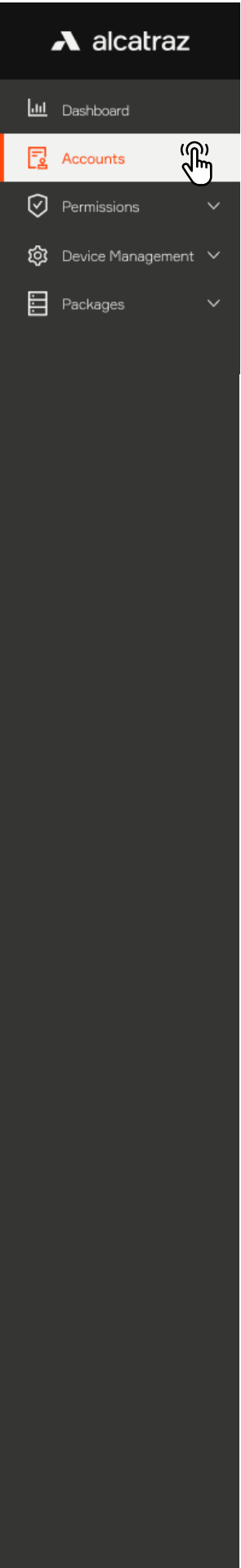
Configure a Pre-defined Card Format

For convenience, some of the popular card formats have been pre-defined and can be selected for use.

1. Go to Accounts and click on **View Account**

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- Dashboard
- Accounts
- Permissions ⌄
- Device Management ⌄
- Packages ⌄

Active Devices

Home / Accounts

Accounts

Search dealers...

+ Create an Account

	Name	Account Number	Registered Devices Count	
☐	Micro Squared	286	1	🔗 View Account ⋯

①

2. Select **Create a Card Format**
3. Select a **Card Type** (**Pre-defined**)

Home / Accounts / Micro Squared

Accounts ✉

Account Information

Account ID:

Account Name: Micro Squared

Sites
⬠ 1
View all

Active Devices
🖧 1
View all

Billing Contact Information

E-mail: office@microsquared.com

City: Redwood City

Billing Address:

Country: United States

Zip: 94063

Billing Phone Number:

Card Information

+ Create a Card Format

②

Define a custom Wiegand format ✕

Card Type: ● Pre-defined ○ Custom

Pre-defined Format: 26-Bit (Standard) ⌄

Cancel   Save

③

4. Select pre-configured formats from the drop-down **Pre-defined** Card Formats list
5. Click **Save** and the selected card format will be displayed in the list

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- Dashboard
- Accounts
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- Packages

Home / Accounts / Micro Squared

Accounts ✉

Delete   Modify Account

Account Information

Account ID:

Account Name: Micro Squared

Sites

🏅 1

View all

Define a custom Wiegand format   ✕

Card Type: ● Pre-defined   ○ Custom

Pre-defined Format: 26-Bit ▾   ←④

| 26-Bit (Standard) |
| 34-Bit (Honeywell Qudrakey) |
| 35-Bit (Corporate 1000) |
| 37-Bit (HID H10302) |
| 37-Bit (HID H10304) |

Save

View all

Billing Contact Information

E-mail: office@microsquared.com   Country: United States

City: Redwood City   Zip: 94063

Billing Address: Billing Phone Number:

Card Information

+ Create a Card Format

Name	Custom	Number of Bits

⑤

Card Information

+ Create a Card Format

Name	Custom	Number of Bits	
26-Bit	No	26	🗑 Delete
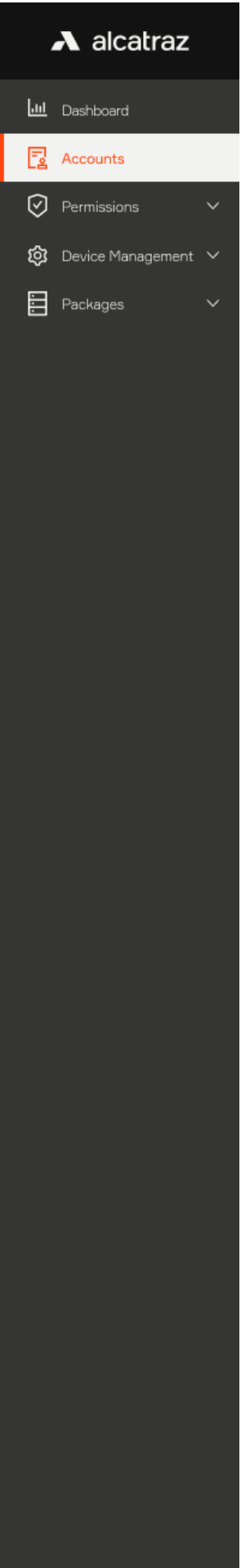
Configure a Custom Card Type

To configure a custom card format, before proceeding, retrieve the information from your Access Control System (ACS) Administrator.

Information that may be part of your card format and needed as part of the configuration include:

- The start position and the number of bits for card number
- The start position and number of bits for the facility code
- Parity bits info

1. Go to Accounts and click on **View Account**

2. Select **Create a Card Format**
3. "**Define a custom Wiegand format**" pop-up window appears

4. Select **Custom** to open up the window to format. Give the card format a name.
5. Follow the information retrieved from the ACS Administrator and toggle bits as required
6. Click **Save** when finished

Define a custom Wiegand format ✕

Card Type: ○ Pre-defined ◉ Custom ◀————— ④

* Format Name: [✎]

* Number of Bits: [✎ 26]

Facility and Card Number (Left click to toogle Card Number bit, right click to toggle Facility bit)

□□□□□□□□□□□□□□□□□□□□□□□□□□
1   8   16   24   26

Parity Set 1 (Right click to set bit position, left click to toggle bits)

☐ Parity Enabled ◉ Even ○ Odd

□□□□□□□□□□□□□□□□□□□□□□□□□□
1   8   16   24   26

Parity Set 2 (Right click to set bit position, left click to toggle bits) ————— ⑤

☐ Parity Enabled ◉ Even ○ Odd

□□□□□□□□□□□□□□□□□□□□□□□□□□
1   8   16   24   26

Parity Set 3 (Right click to set bit position, left click to toggle bits)

☐ Parity Enabled ◉ Even ○ Odd

□□□□□□□□□□□□□□□□□□□□□□□□□□
1   8   16   24   26

Legend

☐ Bit is not defined   ■ Card Number bit or Parity area (or set)   ■ Facility or Parity bit

Cancel   **Save** ◀————— ⑥

Dashboard
Accounts
Permissions
Device Management
Packages

Example of Card Format with No Parity Bits

Name:* **Sample Format**
(or *add clone rename*)

Enabled: ☑

Description:

Data Format:* Wiegand

Length:* 37

Facility Code:* 2376

Facility Code Start:* 1

Facility Code Length:* 17   ☐ Reverse bit order

Encoded # Start:* 18

Encoded # Length:* 19   ☐ Reverse bit order

Bit definitions in card format (F=facility code, N=card number, P=parity bit)**
ALL BITS MUST BE F, N OR P FOR ASSA, MERCURY AND ENGAGE READERS; LEAVING UNSPECIFIED '?' BITS MAY RESULT IN UNMATCHABLE CARDS.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	N	N	N

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37			
N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	?			

Define a custom card format   X

Card Type: ○ Pre-defined   ◉ Custom

* Format Name: ✎ Corp Format 37 bit

* Number of Bits: ✎ 37

— Facility and Card Number (Left click to toggle Card Number bit, right click to toggle Facility bit) —

1   8   16   24   32   37

— Parity Set 1 (Right click to set bit position, left click to toggle bits) —

☐ Parity Enabled ◉ Even ○ Odd

1   8   16   24   32   37

— Parity Set 2 (Right click to set bit position, left click to toggle bits) —

☐ Parity Enabled ◉ Even ○ Odd

1   8   16   24   32   37

— Parity Set 3 (Right click to set bit position, left click to toggle bits) —

☐ Parity Enabled ◉ Even ○ Odd

1   8   16   24   32   37

— Legend —

☐ Bit is not defined   ■ Card Number bit or Parity area (or set)   ■ Facility or Parity bit

Cancel   Save

Example of Card Format Using Parity Bits

Card Type:	Wiegand
Number of Bits:	37
Number of bits to sum for even parity:	19
Address to start from:	0
Number of bits to sum for odd parity:	19
Address to start from:	18
Number of Facility Code bits:	4
Address to start from:	3
Number of Cardholder ID bits:	29
Address to start from:	7
Number of Issue Level bits:	0
Address to start from:	0

Define a custom card format

* Format Name: ✎ Demo 37 bit

* Number of Bits: ✎ 37

Facility and Card Number (Left click to toggle Card Number bit, right click to toggle Facility bit)

Parity Set 1 (Right click to set bit position, left click to toggle bits)

☑ Parity Enabled ◉ Even ○ Odd

Parity Set 2 (Right click to set bit position, left click to toggle bits)

☑ Parity Enabled ○ Even ◉ Odd

Parity Set 3 (Right click to set bit position, left click to toggle bits)

☐ Parity Enabled ◉ Even ○ Odd

Legend

☐ Bit is not defined ■ Card Number bit or Parity area (or set) ■ Facility or Parity bit

Cancel Save