



Ingeniería Electrónica

USER MANUAL OF KEYBOARDEMULATOR

Version	Date	Created by	Reviewed by
V1.0	2020	XF	GC

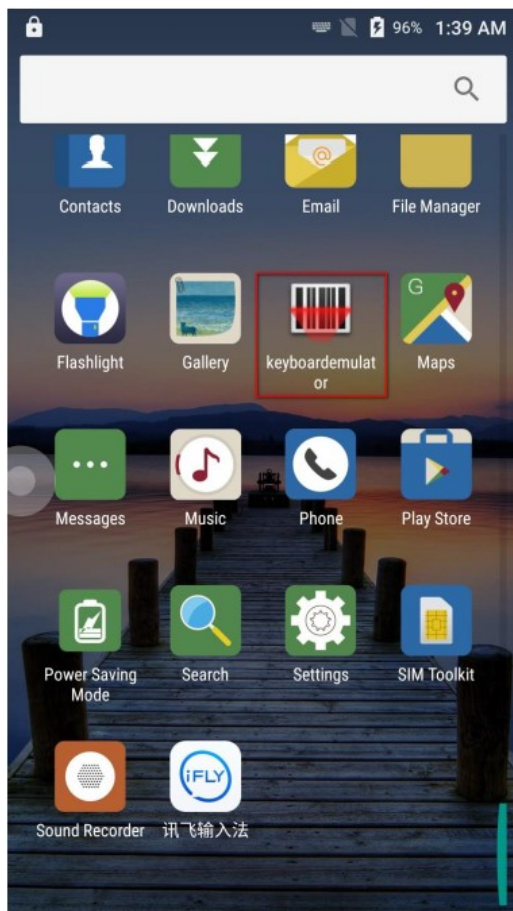
Introduction

This document aims to guide customers on how to use KeyboardEmulator.

KeyboardEmulator is Chainway internal software application to test barcode-scanning and RFID-reading function. Meanwhile, it can be used in some basic business scenarios depending on customer's choice.

In KeyboardEmulator, there're four main sections and one addition function part.

Following we will introduce one by one. Please review this document for more information and details.

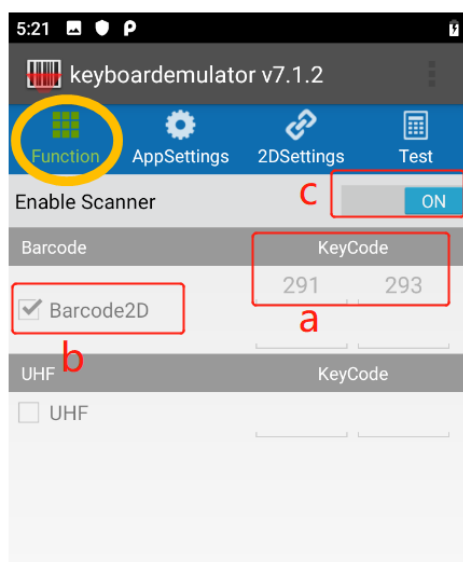


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Function

There're 2 main parts under this section, one is for Barcode, the other one is for UHF. By following, we show you how to trigger side-button/pistol to trigger barcode-scanning or RFID-reading.



1.1 Barcode

If customers would like to use side button/pistol to trigger Barcode-reading, please follow below steps:

- a. – put the cursor on the input box, then press side button/pistol, its key-code will appear automatically
- b. – tick the checkbox of barcode
- c. – toggle Off to On

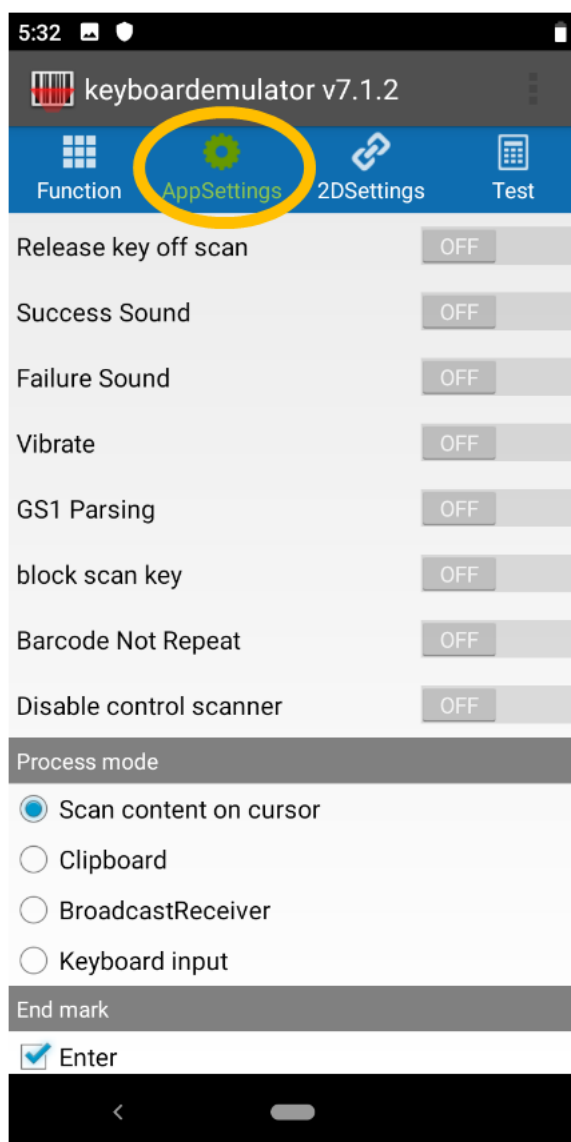
After finish above steps, then can use side button/pistol to trigger barcode-scanning.

1.2 UHF

If customers would like to use side button/pistol to trigger UHF-reading, please follow below steps:

- a. – put the cursor on the input box, then press side button/pistol, its key-code will appear automatically
- b. – tick the checkbox of UHF
- c. – toggle Off to On

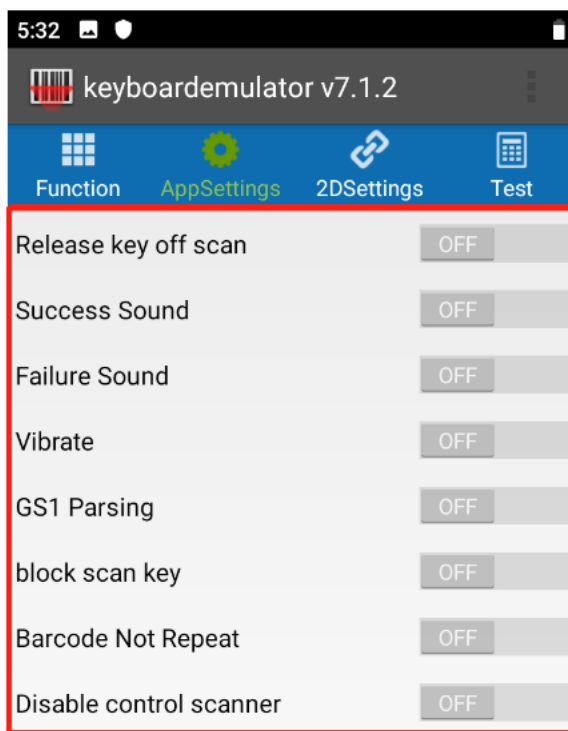
AppSetting



This section is basically for some specific setting from KeyboardEmulator level
Under this section, it will cover below 8 parts:

- 2.1– basic function***
- 2.2– Process mode***
- 2.3– End mark***
- 2.4– Data format***
- 2.5– Continuous scan***
- 2.6– Virtual scan button***
- 2.7– Factory scan button***
- 2.8– Debug***

2.1– Basic Function



Release key off scan – if you release scan key, then scanning would stop

Success Sound – if scan successfully, there will be sound as reminder

Failure sound – if failed to scan, there will be sound as reminder

Vibrate – if scan successfully, there will be vibration as reminder (the premise is device is with vibration sensor)

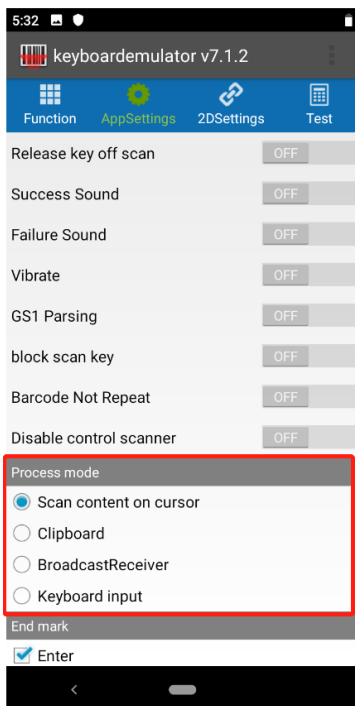
GS1 Parsing – in this mode, when scan GS1 barcodes, all characters of GS1 barcode will be read

Block scan key – this is to block scan key value, can leave it if it's not necessary

Barcode Not Repeat – on this mode, repeated barcodes will not show when scanning

Disable control of scanner – this is to stop other apps from controlling KeyboardEmulator

2.2 Process mode



Scan content on cursor – the data will show up in the place with cursor simultaneously

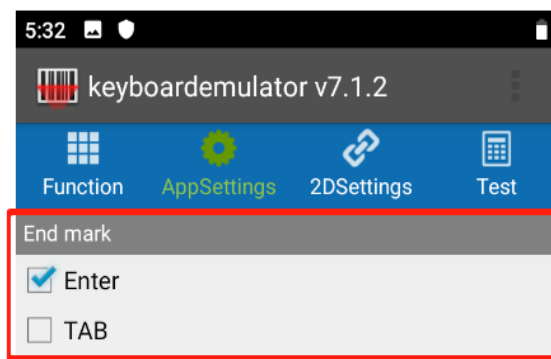
Clipboard – read-out data will be saved in clipboard, and can paste directly to anywhere with cursor

BroadcastReceiver – it is the method that using the broadcast mechanism of Android to transfer data to customer’s program.

Keyboard input – the data will show up together in the input box with cursor

2.3 End mark

The end mark means add specific mark at the end of read-out data.

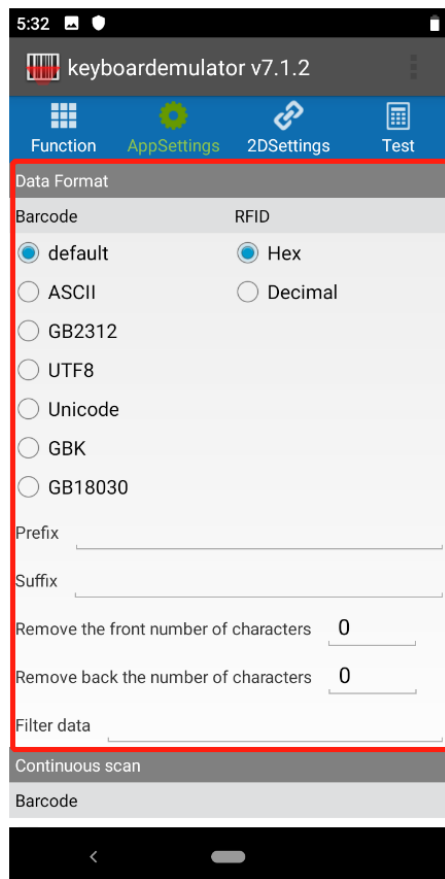


Enter – tick this checkbox, the output will be word-wrapping automatically.

TAB – the read-out data will be added with the tab character-“\t” suffix. when data is acquired in Excel, cursor will move to next cell automatically.

2.4 Data Format

Under this section, you can choose different data formats listed in below picture for Barcode and RFID accordingly based on specific requirement.



And to meet further demand, there're 5 more features that might be applied in some basic scenarios.

Prefix: the prefixing numbers or letters will be added to the output

e.g if you input 'ABC', and the original barcode is '12345', then the final output will be as 'ABC12345'

Suffix: the suffixing numbers or letters will be added to the output

e.g if you input 'ABC', and the original barcode is '12345', then the final output will be as '12345ABC'

Remove the number of characters from the front:

input 1, the first digit will be trimmed

input 2, the first two digits will be trimmed, and so on.

Remove the number of characters from the back:

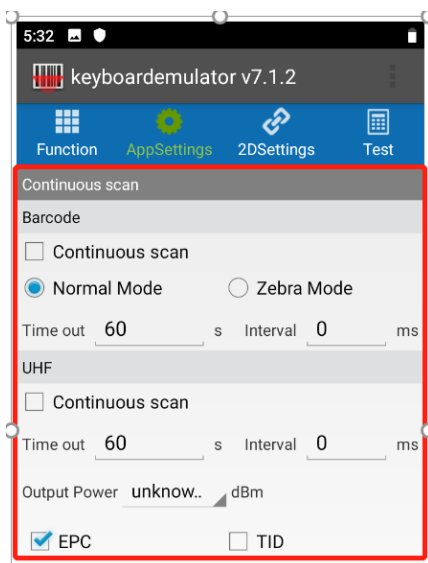
input 1, the last digit will be trimmed

input 2, the last two digits will be trimmed, and so on.

Filter data: Literally, if input 'a', then the character 'a' will be filtered out.

2.5 Continuous scan

There're two main parts under this section, one is for Barcode, and the other is for UHF.



Barcode

Just like literal meaning, it will enter into continuous scan mode when tick the continuous checkbox. And under continuous mode, you can choose [Normal Mode] or [Zebra Mode]:

[Normal Mode] – there will interval between each scanning

[Zebra Mode] – there is no interval between each scanning

Meanwhile, there're 2 parameters available to be adjusted:

Time out – if input 10s, and scanning light is moved away from tags and can't focus on tags again within 10s, then scanning light will be off.

Interval – if input 10 ms, then the interval of the continuous scan will be 10 ms

To stop continuous scan, just uncheck the box of continuous scan.

UHF

check the box of continuous scan, then it will enter continuous scan mode.

Before enter continuous mode, there're 3 parameters (*timeout, interval, output power*) available for you to adjust under this mode.

Timeout

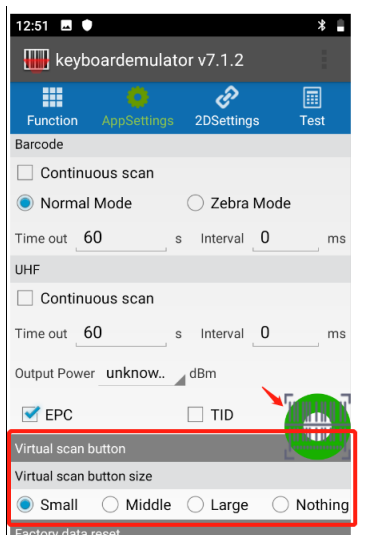
Interval

Output power – can choose from 1 to 30 dbm, the reading performance is in proportion to the output power, which means, the higher you set output power, the better reading performance you will get.

Plus, you can also choose to read the EPC or TID of the RFID tags by select EPC or TID checkbox.

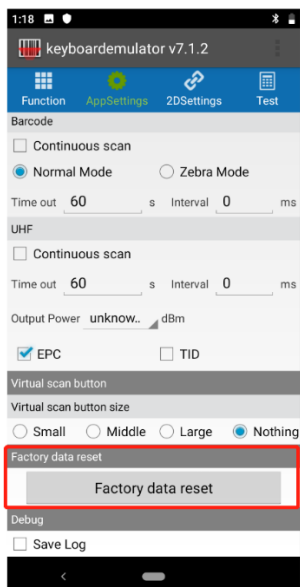
2.6 Virtual Scan button

Under this section, you can choose to use virtual button to trigger barcode-reading or UHF-reading.



2.7 Factory data reset

By click 'factory reset', the setting you made previously in keyboardEmulator will be removed and back to the original status.

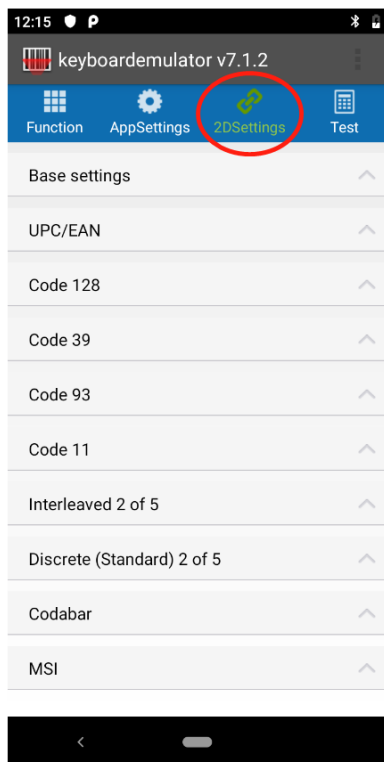


2.8 Save log

After tick the checkbox, all your action in KeyboardEmulator will be saved in below path:
File Manager > scanner > data

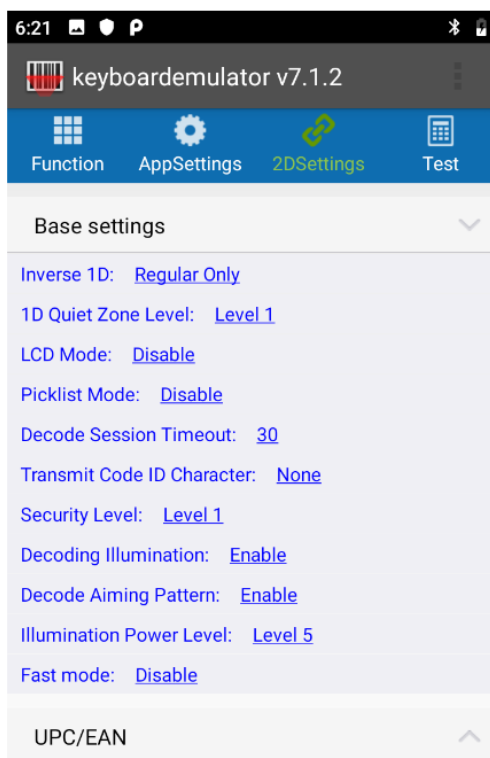
2DSettings

This section is basically for setting from scanner level. we've integrated some common setting here. Under this section, you will find 'base setting' and some common barcodes of 1D and 2D.



3.1 Base setting

Under this section, customers can do setting according to their specific requirements. We will only introduce **【picklist mode】** and **【security level】** here due to limite. For further and more details, please refer to the technical documents for the scanner accordingly.



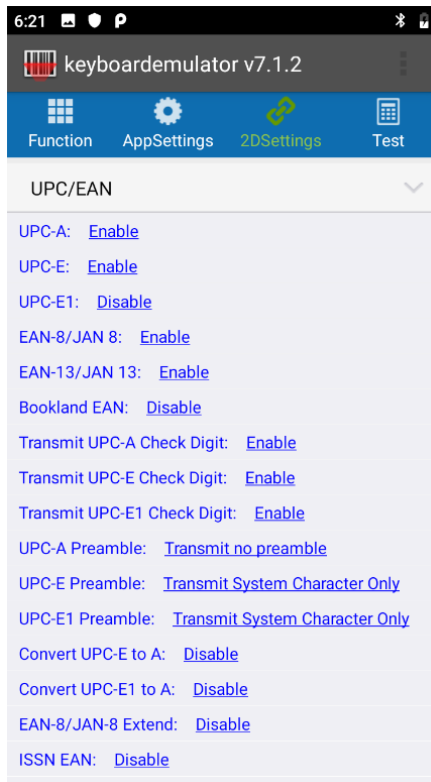
【Picklist mode】 - enables the decoder to decode only barcodes aligned under the center of the laser aiming pattern.

【Security Level】 - There is an inverse relationship between security and decoder aggressiveness. Increasing the level of security can reduce scanning aggressiveness, so select only the level of security necessary.

3.2 Common Barcodes

We've integrated some common barcodes into KeyboardEmulator, like UPC/EAN, EAN-8, EAN-13 and etc. They're visible under this section, and customer can easily set accordingly.

The right side is the live example-1 for reference.



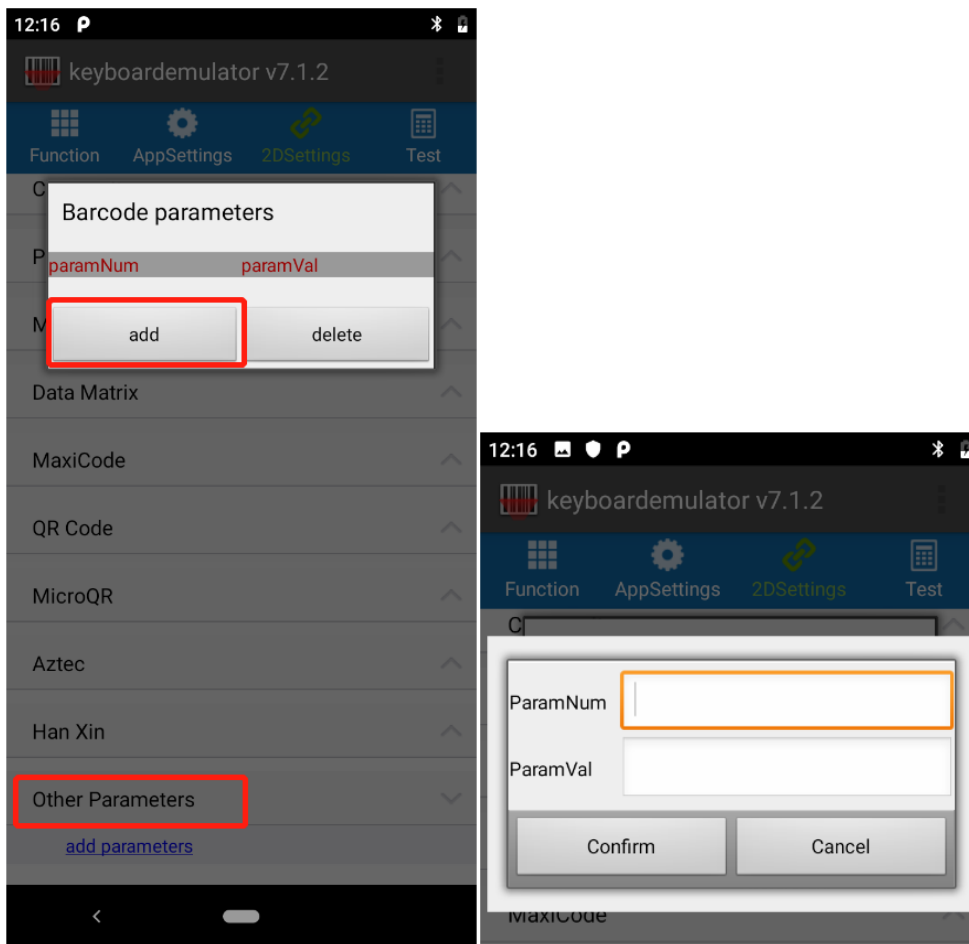
Live Example-1

1. Barcode type: UPC-E(as below pic.)
2. Requirement: customer would like to cut the last digit of below barcode number.
3. Action: below setting shall be followed:
 - a: UPC-E: Enable
 - b: Transmit UPC-E Check Digit: Disable



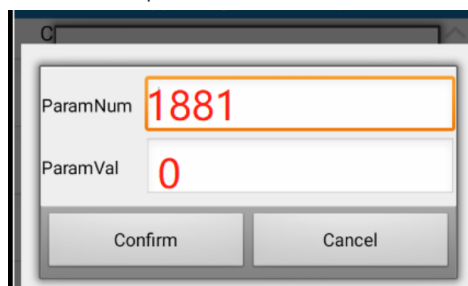
3.3 Adding parameters

For those scanner functions that're invisible under 2D setting, we can add the specific function via below way (referring to below pic.). And About what parameters shall be used, pls refer to technical documents of scanners for details.



Live example-2

1. Barcode type: EAN-8
2. Requirement: customer would like to cut the last digit of below barcode number
3. Action: below setting shall be followed:
 - a. Eable EAN-8
 - b. Add below parameters



Test

This section is just for test.

Addition Functions

Under this section, there're 7 functions.

5.1 QR code-WIFI

5.2 QR code-ScannerConfig

5.3 Black white list

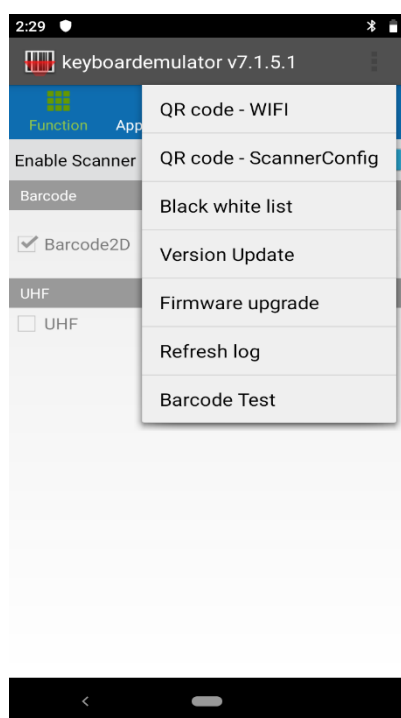
5.4 Version Update

5.5 Firmware upgrade

5.6 Refresh log

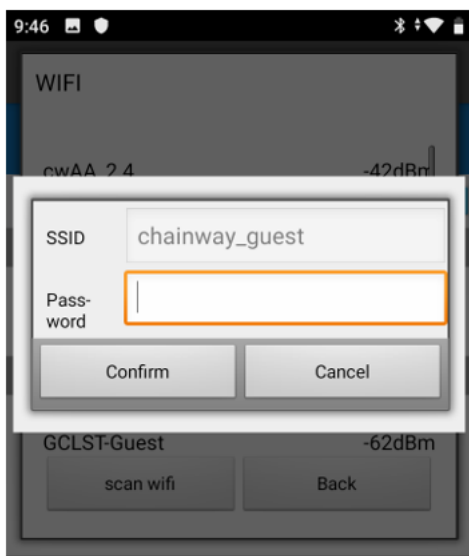
5.7 Barcode Test

By following, we will introduce one by one.

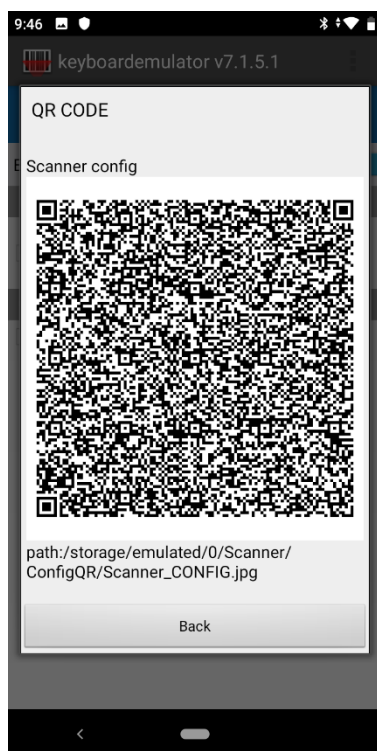


5.1 QR code-WIFI

This function is for customer to connect wifi by scanning the QR code via using KeyboardEmulator. After input wifi password, a QR CODE for wifi will be generated.

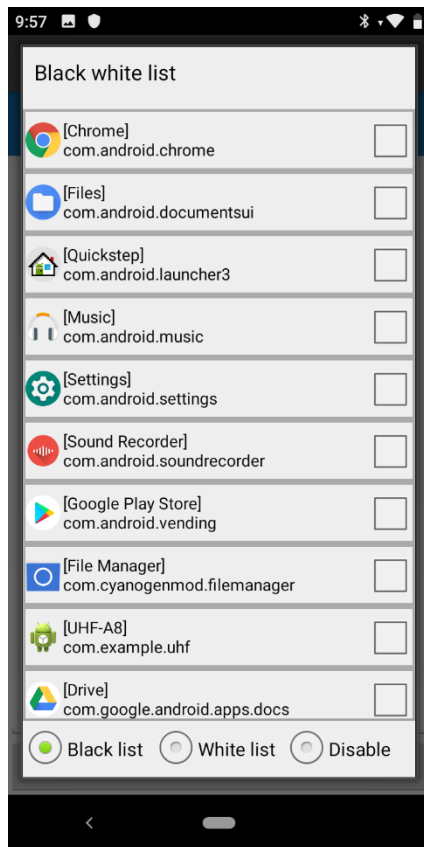


5.2 QR code-ScannerConfig



After you've done the setting based on specific requirement in KeyboardEmulator, then can click this to generate QR Code. If there're other devices needing to do the same configuration in KeyboardEmulator, then just need to use KE to scan this QR Code.

5.3 Black white list



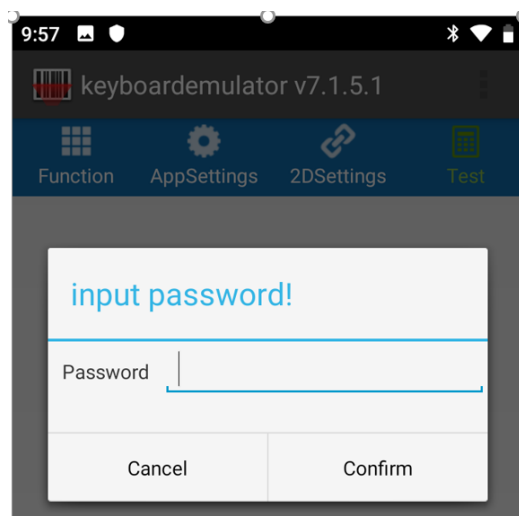
BlackList – if include into blacklist, then means can't use KeyboardEmulator. For example, if you tick [Chrome] and choose Blacklist Mode, then KeyboardEmulator will not work in Chrome

WhiteList – opposite to Blacklist, if include into whitelist, then means KE can be applied freely.

Disable – function of black white list is disabled.

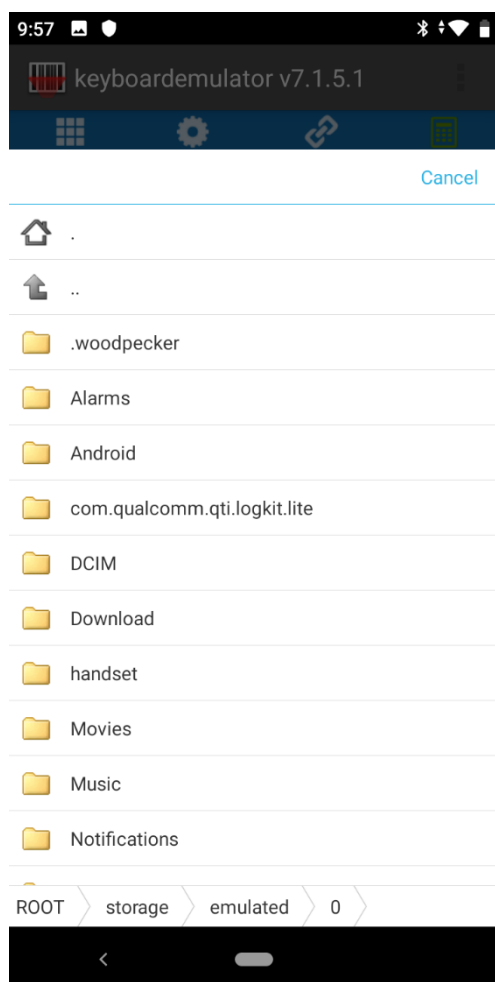
5.4 Version Update

This function is not available yet.



5.5 Firmware upgrade

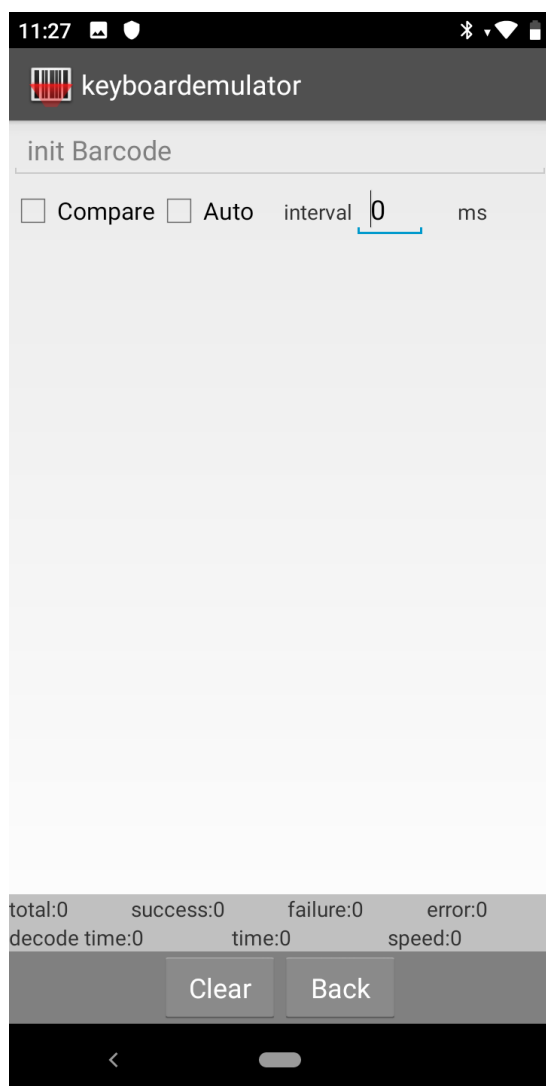
This function is not available yet (only available for zebra scanner).



5.6 Refresh log

Click to update log.

5.7 Barcode Test



Select 'Barcode Test', you will enter the left page. Here you can select 'compare' or 'Auto'.

Compare –

The 1st read-out barcode will be the sample, and the following read-out barcodes will compare with the sample barcode. If same then will count as success, if different then count as error.

Auto – this equals to continuous scan mode, and you can adjust interval accordingly.