Data Wedge

User manual

Version information

Version number	Time	State	Brief description	Department
V1.0	2023/07/21	N	Create a new document	Product Management Department
V1.1	2024/06/06	A	New Batch Configuration Function Description	Product Management Department

Note: The status can be N-New, A-Add, M-Modify, D-Delete.

Contents

1 Software Introduction

Seuic Data Wedge can quickly and easily integrate data such as scanning in PDA devices into users' business software.

2 Software description

2.1 Target users

Enterprise managers, software developers, IT information personnel, direct operators, etc.

2.2 Application scenarios

Main application points	Scenario description
Parameters are quickly integrated into the specified app	It can quickly integrate and obtain scanning and other related data as needed, support the configuration of different scanning parameter schemes to different apps, and automatically take effect when users use business programs, without or a small amount of changes to business software
Individual parameter configuration	The new scan parameter configuration can replace the scan tool, and the scan mode, decoder, scan engine parameters, data format, etc. can be configured as needed
Data format conversion	After the scanned data is captured, it can be converted to the desired data format via Data Wedge and sent to the specified app
Advanced data formatting	Supports advanced data formatting to meet diverse scenarios, such as configuring and deleting specified characters, character substitution, barcode interception, and multiple ending characters
In line with customer operating habits	Meet the operating habits of users who have used other similar apps before
Support TCP sending	Support sending barcode information to other applications or devices through TCP protocol (need to be used in conjunction with network debugging tools)

2.3 Compatible devices

Seuic device Android 8.0 or above (due to different models, some functions or parameters in some device applications may be different).

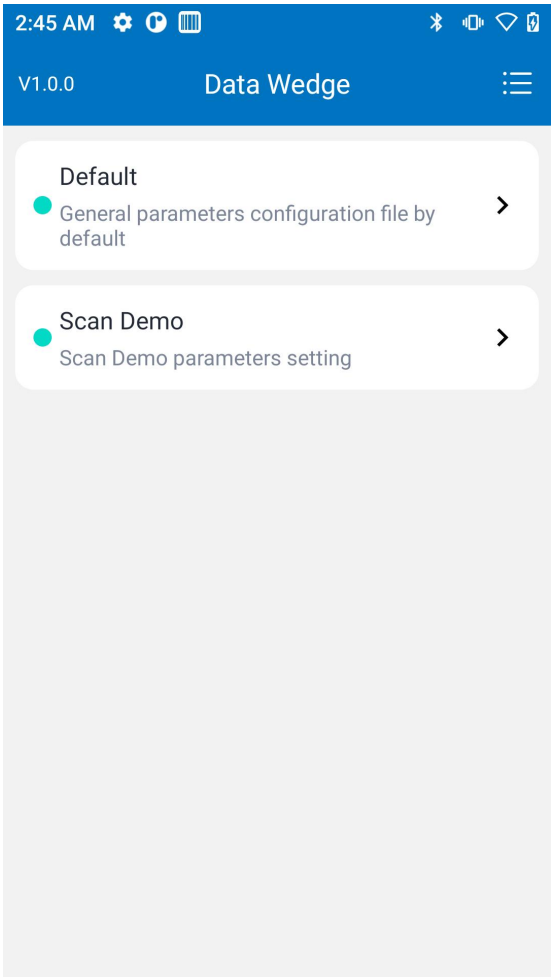
Note: If the scan tool APP already exists on the device, it may conflict with the scan tool, after installing Data Wedge, you need to open the Data Wedge once after installation, and then restart the device to automatically close the background service of the scan tool.

3 Operation use

3.1 Main interface of the app

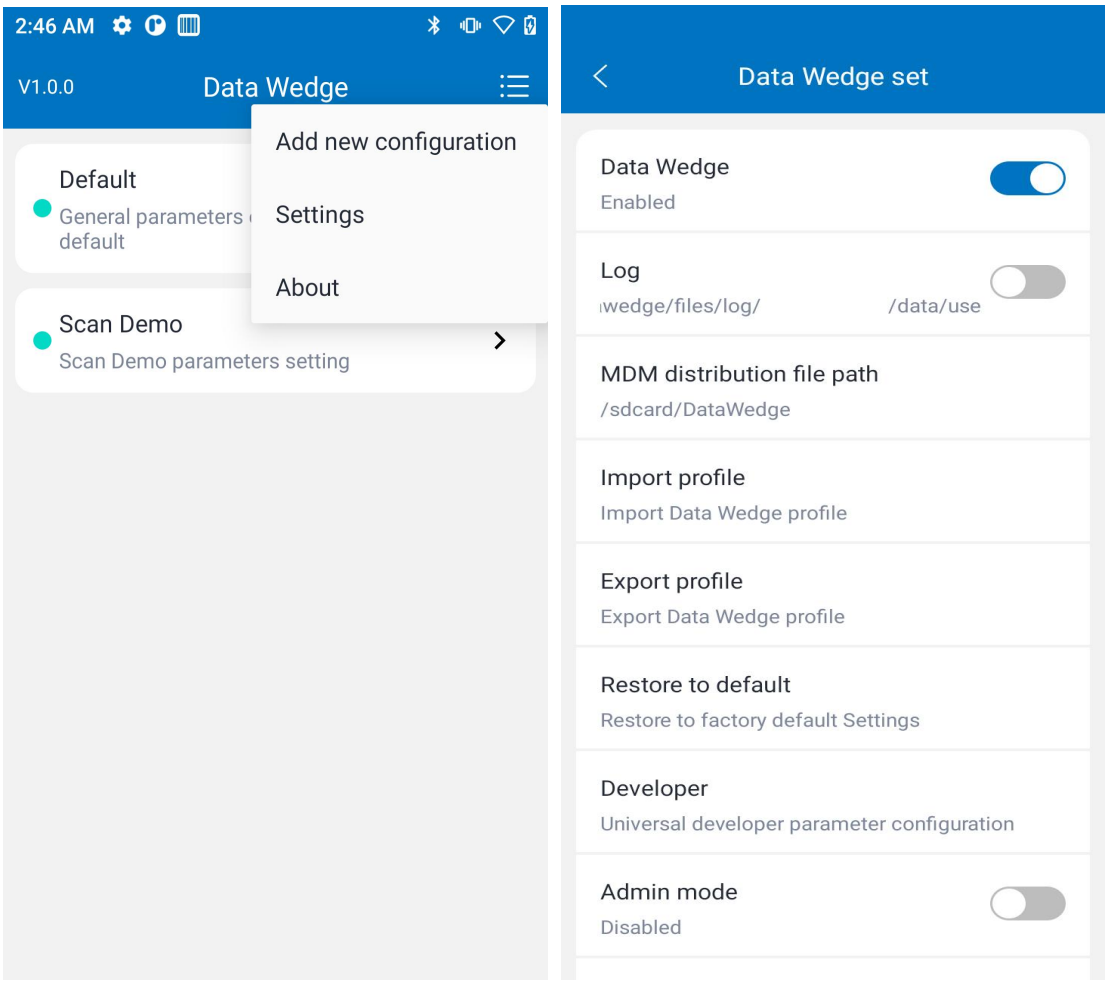
3.1.1 Default profile

Open Data Wedge to enter the main interface of the application, and display the default Default and Scan Demo configuration files. Among them, Default is the default configuration, which applies to all other apps in the device that do not have a separate profile set, and does not use the Default configuration if an application has a specific profile. The default configuration does not allow deletion. Among them, the Scan Demo configuration file is a specific and proprietary configuration file for the Scan Demo app and cannot be deleted.



3.1.2 Data Wedge Settings and About

Click the button in the upper right corner of the main interface and select "Settings" to configure the Data Wedge application itself, and select "About" to query the current version number and scanning frame number of the data Wedge application.

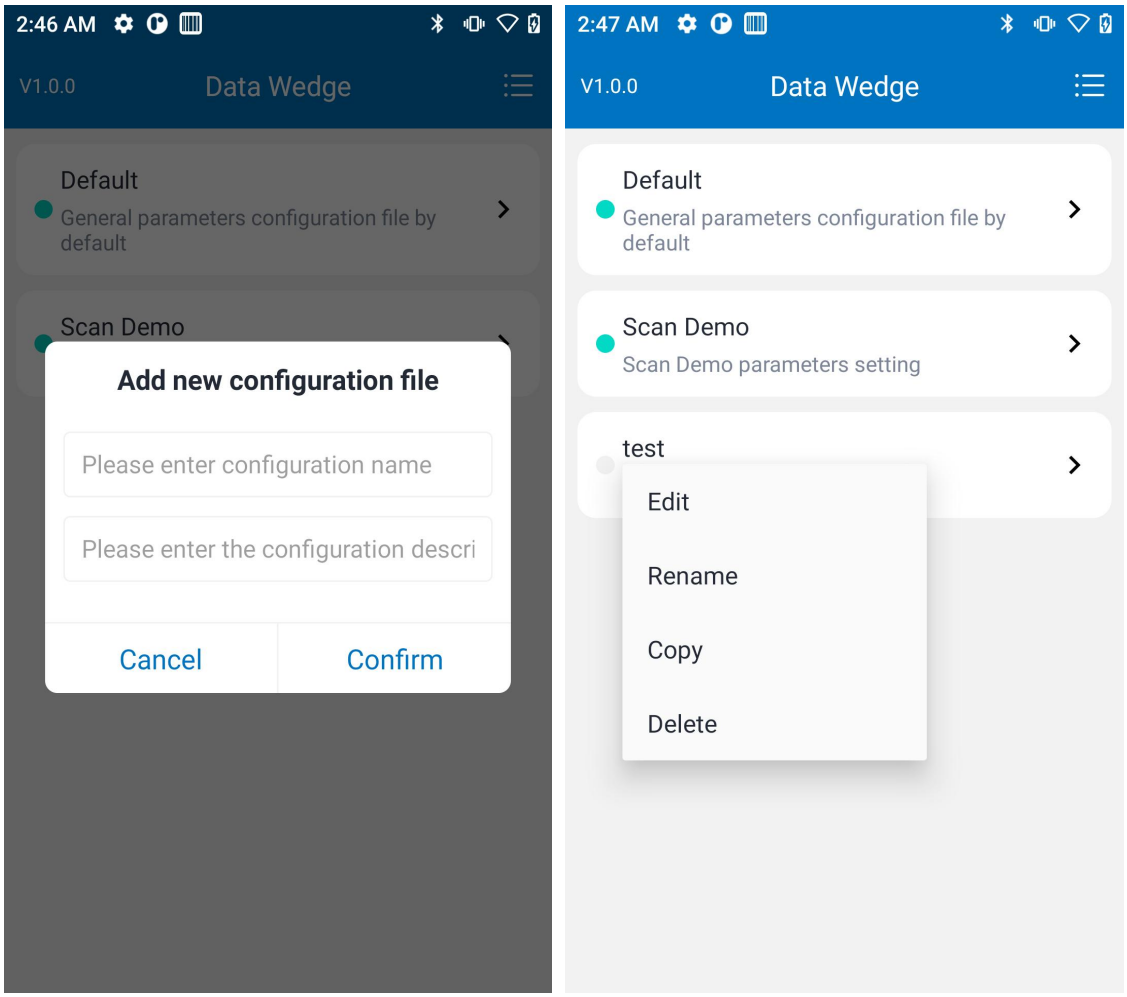


Enter the application settings interface and configure some management configurations for the Data Wedge application.

- Data Wedge enabled and disabled: It is enabled by default, and the application will stop the service after closing, and all configuration files will be invalidated;
- Enable logging: After enabled, log will be recorded in the local path of the device, the default path is: /storage/emulated/0/Android/data/com.seuic.datawedge/files/log/
- MDM distribution file path: show the path of the folder that is pushed to the device locally by MDM, and the configuration file under this path supports auto-installation;
- Import configuration file: select the path containing the configuration file and select the corresponding configuration file for import;
- Export configuration file: Select the configured file in the local Data Wedge application to export, and the export path is as follows: /storage/emulated/0/Documents/DW to send the configuration file to other devices in a certain way for parameter copying;
- Restore to default: restore the factory default configuration and delete all configured parameters;
- Administrator Mode: Enter the administrator password to enable administrator mode, if no password is set, you need to set the administrator password. After enabling administrator mode, you need to enter the administrator password to create, edit, delete configuration files, etc.;
- Modify the administrator password: Enter and verify the existing administrator password, and then modify the administrator password.

3.1.3 Add new configuration fileprofile

Create a new configuration file based on your actual business needs, and click the button in the upper-right corner of the main interface to select New Profile.



➢ Create a new profile: Enter a profile name and configuration description, and display them in the profile list;

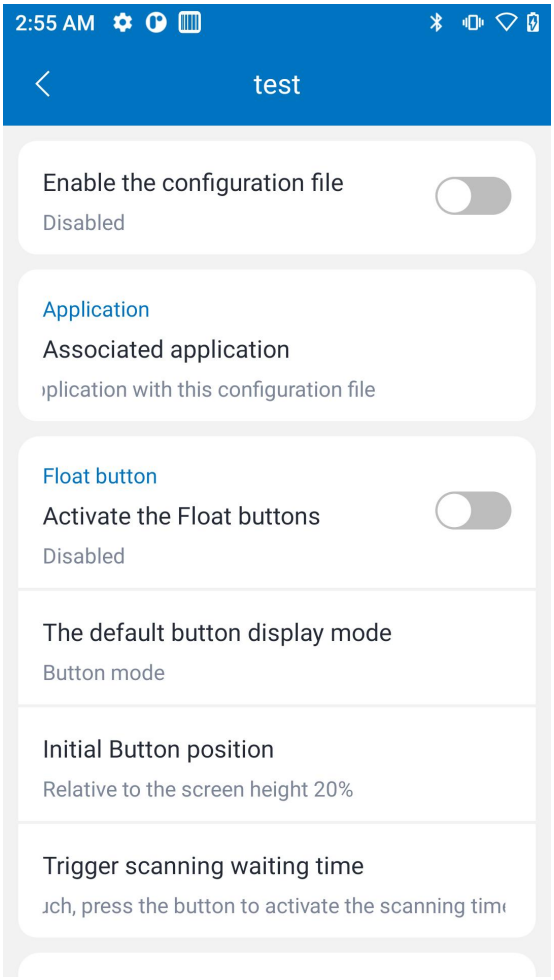
1. Profile List Operation: Click the corresponding profile to enter the configuration details page to configure specific parameters. Long press the corresponding profile in the profile list to edit, rename, copy, or delete the profile;

3.2 Associate apps

3.2.1 Enable the profile

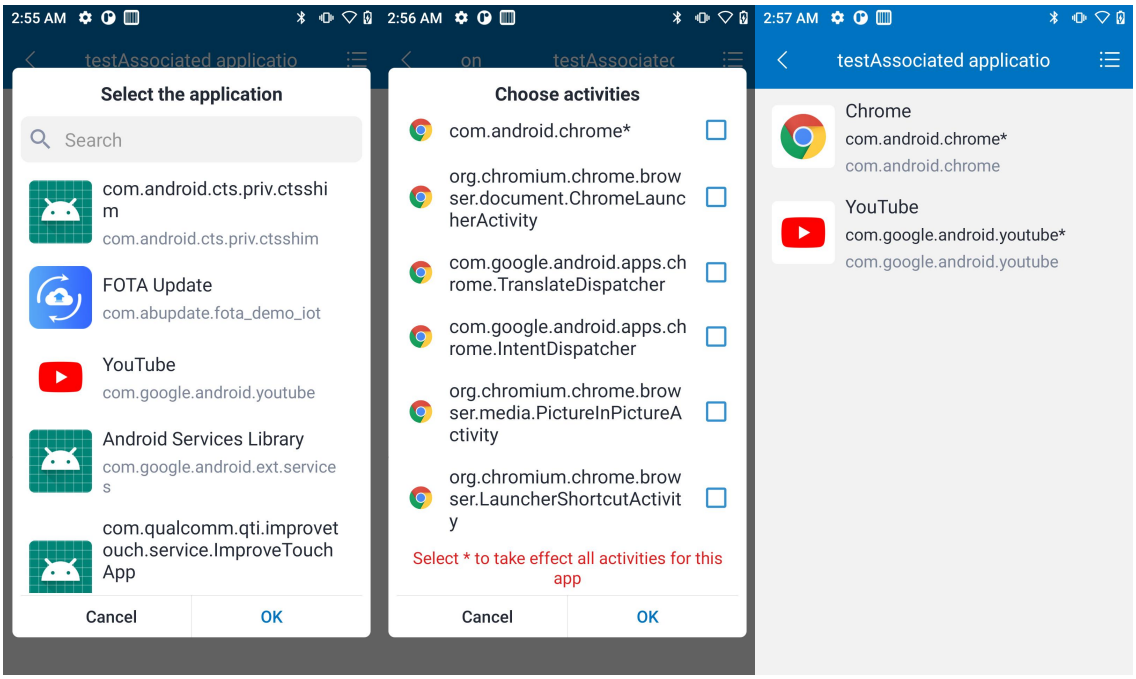
Enter the profile details page to configure a series of parameters, and turn on the

Enable Profile button to enable this profile. If turned off, all configurations in this configuration file do not take effect.



3.2.2 Associate app

Click "Associate app" to set the application to be associated, and send the configured parameters to the selected business program in a certain way. Only one profile can be associated with the same app/activity. If the specified configuration file is not configured for an application, the default configuration is used by default.



- Select app: Select the corresponding application, you can enter the application name in the search box to search;
- Select activities: After selecting the corresponding application, you need to select all the activities under this application again (the components of the user interface, which can be simply understood as a page corresponding to one activity), if you select the first one, all activities are selected by default, and multiple selections are supported;
- Test associated app： After selecting the application and activity, it will be displayed in the list, click the button in the upper right corner to add a new application and activity again, and long press the application or activity in the list to delete;

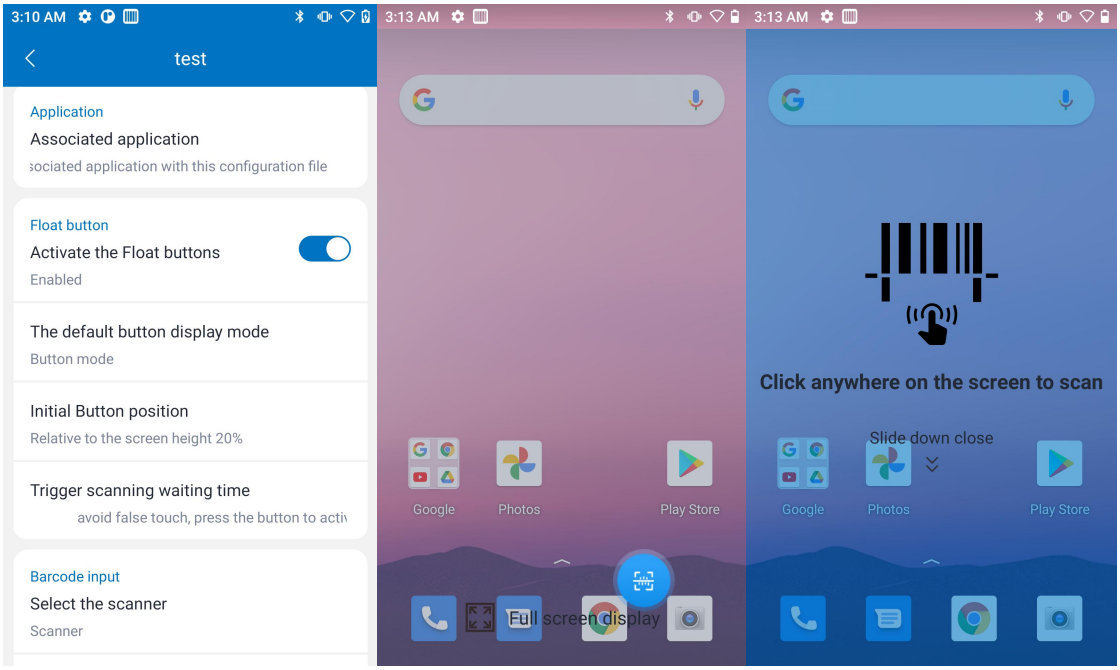
3.3 Suspension button

3.3.1 Enable the suspension button

Enter the suspension button setting item, turn on the suspension button switch, and open the associated application interface to display the suspension button.

3.3.2 Suspension button settings

You can set the display mode, initial position, trigger scan waiting time of the suspension button, and more.



➢ Default button display mode: Three modes can be set separately:

① Button Mode: By default, the scan floating button is displayed on the desktop, click to scan, long press to drag the hover button to any position, at this time the interface displays a full-screen display prompt, or drag the hover button to the full-screen display prompt area to switch to the full-screen floating display mode;

② Button mode only: This mode can only use the suspension button, and cannot be switched to full screen mode;

③Full screen mode: the default display is full-screen floating mask, click any area of the mask to trigger scanning, swipe down to turn off the full-screen display mode to switch to button mode;

➢ Initial button position: Set the default height of the hovering button, which is 20% of the height of the right side from the bottom of the screen;

➢ Trigger scanning waiting time: The default time between pressing the button and activating the scan is 150m milliseconds to activate the scan, and the maximum is 1000 milliseconds. For example, if it is set to 1000 milliseconds (1 second), if you press and hold until the hover button is released for less than 1 second, the scan will not be triggered to prevent accidental touch.

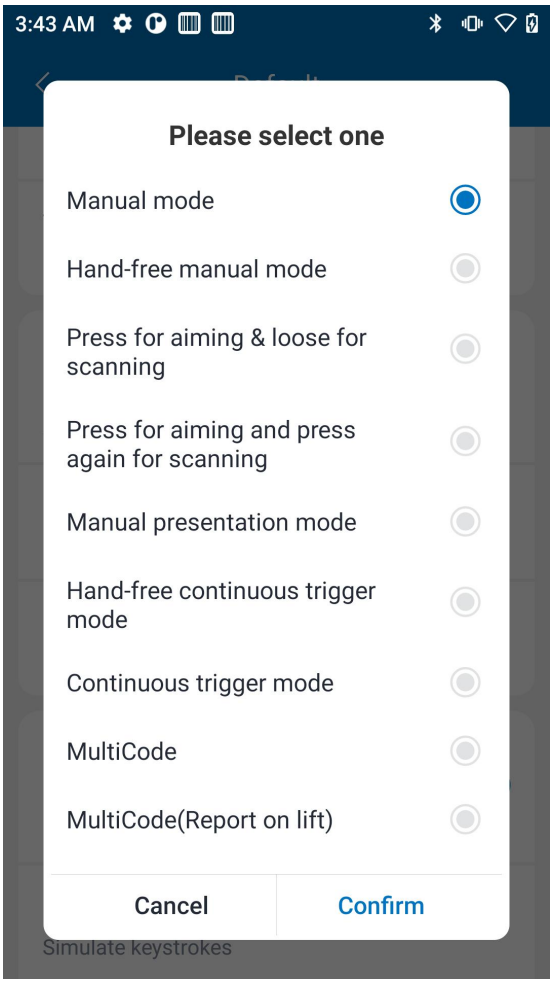
3.4 Barcode input

3.4.1 Select the scan engine

Select the method of acquiring data, currently only supports data acquisition through the scan engine.

3.4.2 Trigger scan mode

Select the Scan trigger mode as needed, set Manual mode, Hand-free manual mode, Press for aiming & loose for scanning and other scanning methods, the setting items displayed by different models may be different, and the default is " Manual mode ".

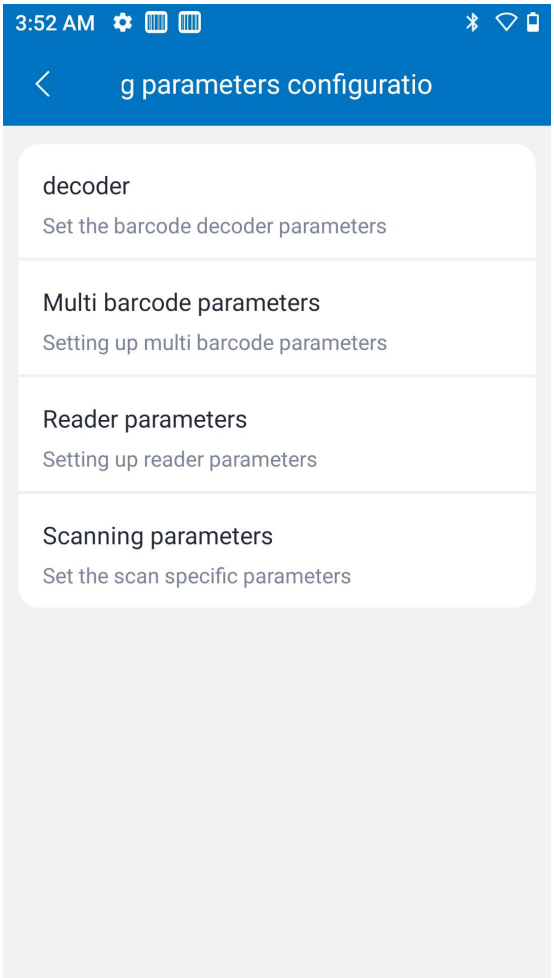


- Manual mode: Press the scan button to start scanning, release the scan button to stop;
- Hand-free manual mode: Press the lift scan button to scan once, scan to the barcode or time out automatically stop;
- Press for aiming & loose for scanning: when the scan button is pressed, the laser is out of the scanning head, and the scan button is released to fill the light to scan;
- Press for aiming and press again for scanning: press the lift scan button for the first time to scan the head out of the laser, and press the lift scan button for the second time to fill the light for a scan;
- Manual presentation mode: press the lift scan button the first time to perform cyclic scanning, press the lift scan button the second time to stop cyclic scanning;
- Hand-free continuous trigger mode: the first time press the lift scan button for cyclic scanning, but the light does not go out after scanning the barcode, and the second press the lift scan button stops cyclic scanning;
- Continuous trigger mode: press the scan key to scan cyclically, but the light does not go out after scanning the barcode, and the scanning stop when the scan button is raised;

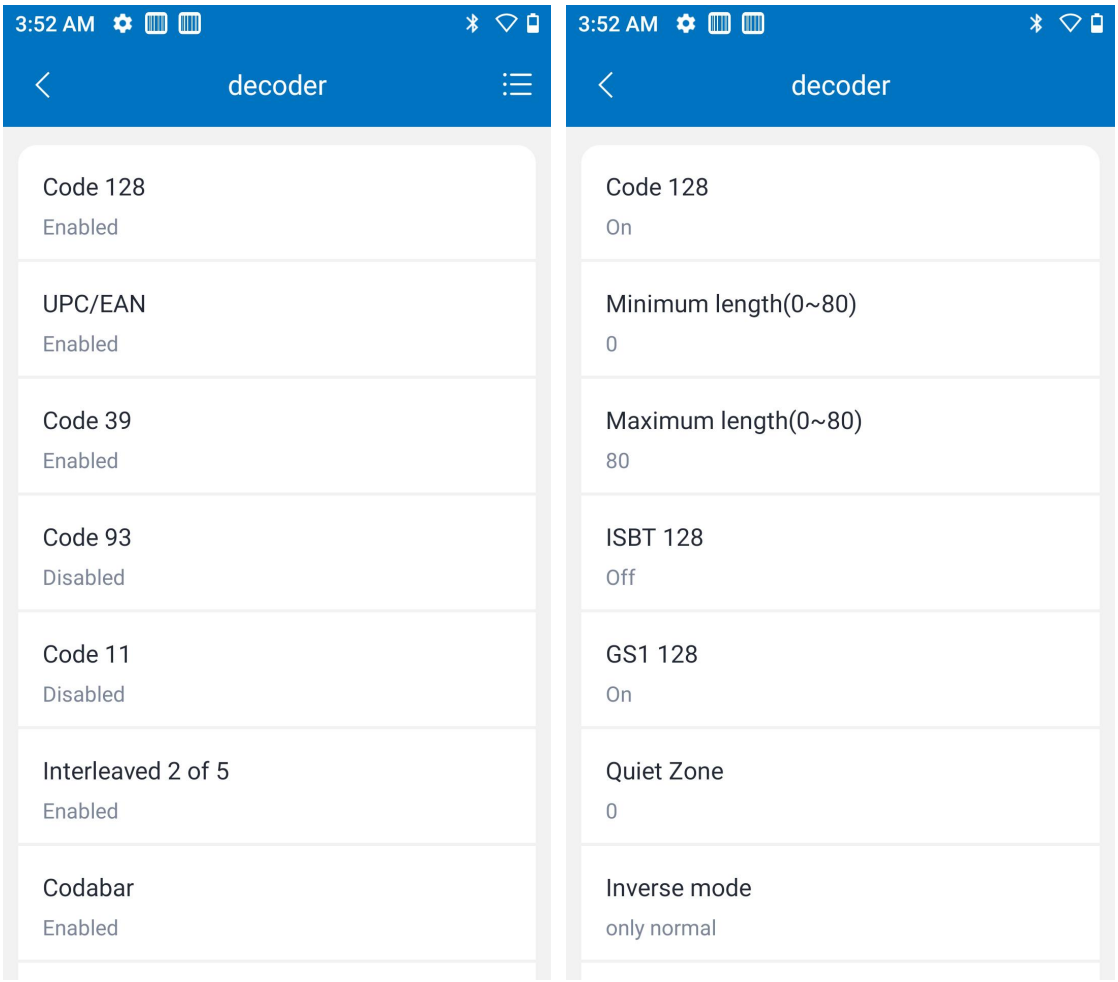
- MultiCode: Some models are configured to support multiple barcodes at one time, which requires slow mobile scanning;
- MultiCode scanning (Report on lift): Some models are configured to stop scanning and output results when the number of multiple barcodes obtained reaches a specified number, the scanning timeout time is reached, or the scan key is actively raised. (The number of barcodes scanned each time of multiple barcodes, the duration of timeout and other parameters can be configured in Scan Parameter Configuration - Multiple Barcode Parameters);

3.4.3 Scan params config

Scan params config items can configure parameters such as Decoder, Multi barcode parameter, Reader, and Scanning parameter.



3.4.3.1 Decoder

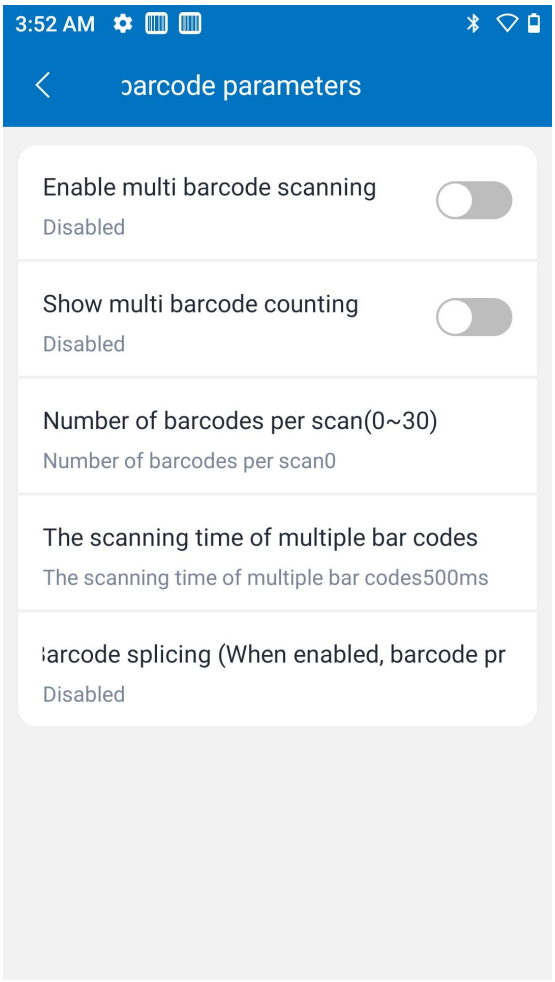


- Decoder list: display the supported barcode decoders according to the model and configuration; among them, the commonly used barcode decoders are enabled by default, some infrequently used barcode decoders are turned off by default, if you scan some infrequently used barcodes, you need to find out and set the decoder list to enable;
- Decoder details: Select and click the corresponding decoder to set the corresponding decoder parameters;
- Other additional settings: Click the Settings button in the upper right corner to set some additional parameters:

①Aim prefix: Set to enable or disable the Aim prefix, you can choose to enable all or only GS1-128 codes. After opening, the Imm prefix is added in front of the barcode to identify the barcode type, which is turned off by default;

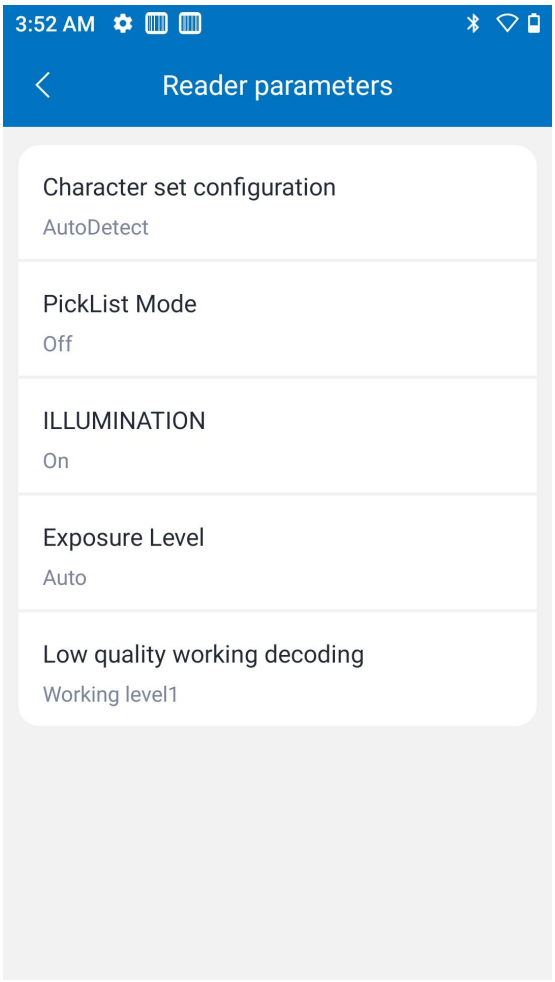
②GS1 application identification separator: Set whether the separator in the GS1 barcode is marked and turned off by default. The AIM prefix and the GS1 application identification separator are mutually exclusive, that is, only one can be valid at a time;

3.4.3.2 Multi barcode params



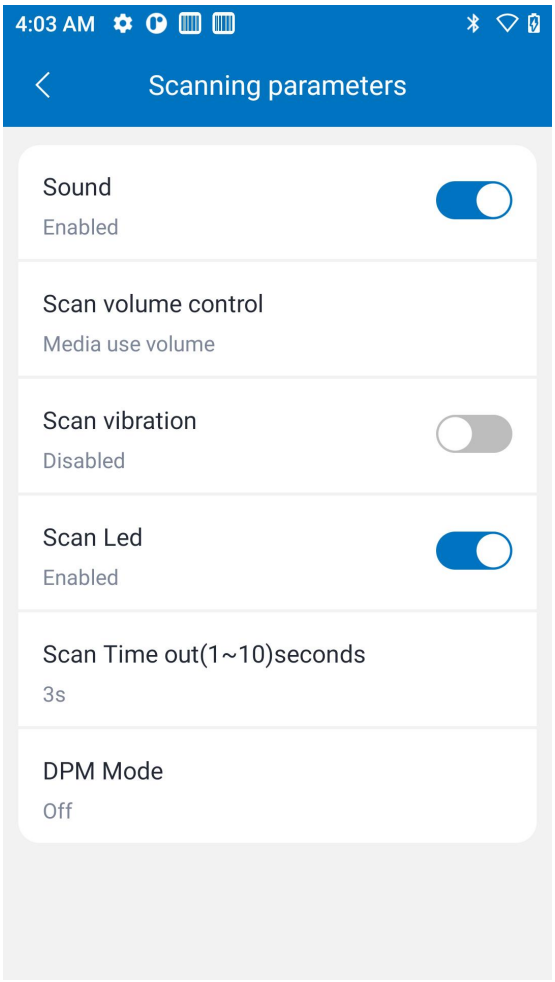
- Multi barcode scanning: After turning on here, it will link barcode input - trigger scanning mode - switch to multi-barcode scanning mode. When turned off, switch the scanning mode to single scan (raise hand to stop);
- Show multi barcode counting: After it is enabled, the barcode counting information is prompted on the page after scanning the barcode;
- Number of barcodes per scan (0~30): Set the maximum number of barcodes that can be scanned each time. Fill in the barcode quantity range 0~30, where 0 is an unlimited quantity in the range;
- Multi barcode reading time (500~30000): Set the timeout time for multi-barcode reading, the default is 500 milliseconds, and the filling range is set to 500~30000 milliseconds;
- Multi barcode splicing: Used to set the connector between multiple barcodes, such as spaces, semicolons, line breaks, etc. Off by default. **After enabled, the splicing will be a barcode processing data, for example, if the prefix of the barcode is set, only the prefix will be added before the entire barcode after the splicing, and no prefix will be added before multiple barcodes;**

3.4.3.3 Reader params



- Char set config: the default is automatic selection, after selecting the corresponding character set, the barcode will output data according to the selected character set format;
- Picklist mode: After the Aim mode is turned on, the scanning laser aim needs to be aligned with the barcode area to read the barcode, which is turned off by default;
- Fill light : turned on by default;
- Exposure Intensity: Adjusts the exposure intensity of the scan head sensor. It is divided into four levels: automatic, low, medium and high, and the default is automatic;
- Low quality decoding work: For some defaced or blurry barcodes, you can set the low-quality barcode decoding work level. Divided into three levels, the default is level 1, and low-quality barcode recognition is faster; The higher the level of work, the more difficult it is to identify the defaced barcode, reducing false identification. Increasing the level of work may result in a decrease in scanning speed;

3.4.3.4 Scan params



- Sound: Set scan sound, enabled by default;
- Scan volume control: You can set the volume type associated with the system class (such as media volume, call volume, ringtone and notification volume, alarm volume) as the scan volume, and use "Media Volume" by default;
- Scan vibration: Set a vibration reminder for successful scanning, which is turned off by default;

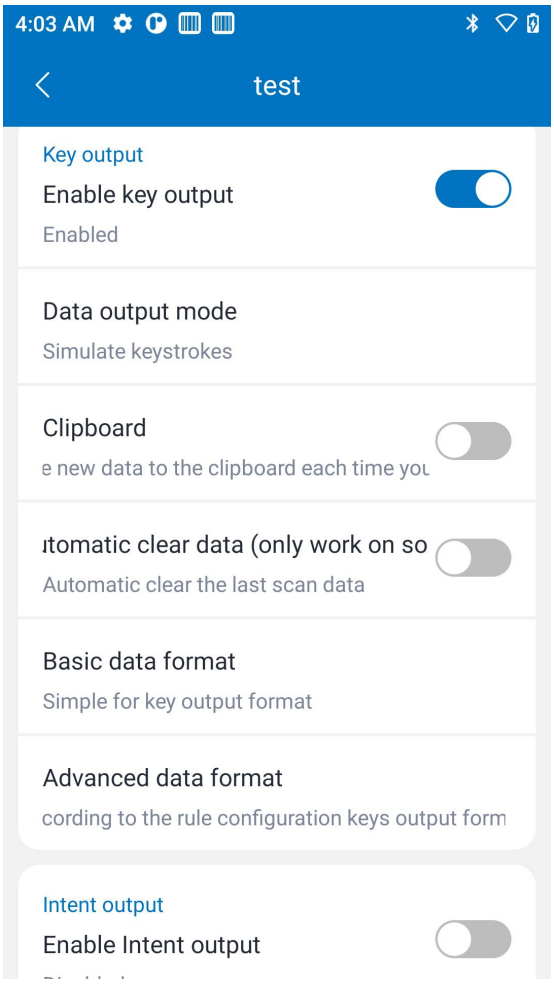
Scan Prompt Light: Set whether the indicator light on the main panel of the scanning device is turned on, which is turned on by default.

- Scan timeout seconds: Set the scan timeout period, the default is 3 seconds, that is, each time more than 3 seconds of data is not scanned will stop scanning, set the range of 1~10 seconds;
- DPM mode: Enable scanning DPM type barcodes, which is disabled by default. Note: DPM, which is the abbreviation of Direct Part Mark, indicates a printing technology that can be directly marked on an object without going through an intermediate carrier such as labeling. Mainly used for mechanical and electronic industry parts marked with laser spotting, etching and other means, mostly two-dimensional codes;

3.5 Keystroke output

The obtained data can be configured and processed to a certain extent, and the data output can be associated with the corresponding business software in a certain way. Data can be output in three ways: keystroke (Emukey), Intent, and IP, and keystroke output is enabled by default. The keystroke (Emukey) output sends data to other applications through the underlying processing of the system.

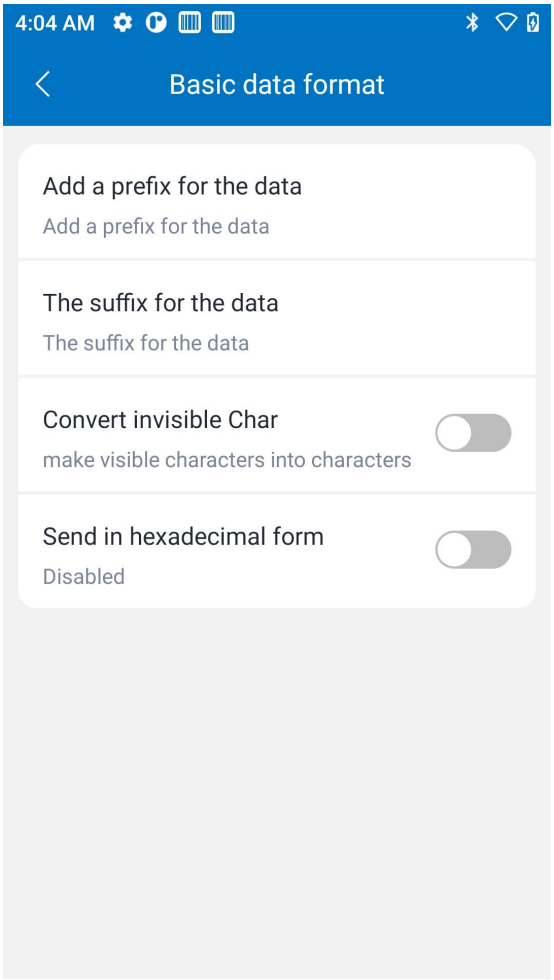
3.5.1 Keystroke output basic settings



- Data output mode: you can choose analog button or fast focus, the default is analog button; Analog button mode outputs each character one after another, for example, some simulation software needs to obtain data in this way; Quick focus outputs the entire data at once;
- Clipboard: After opening, each newly obtained data will be temporarily stored in the clipboard, and you can manually press and hold it in the input box to paste. The default is off;
- Automatically data clearing: only takes effect for some new models, and the new data scanned after turning on will automatically overwrite the previous scan data, which is disabled by default;

3.5.2 Basic data format

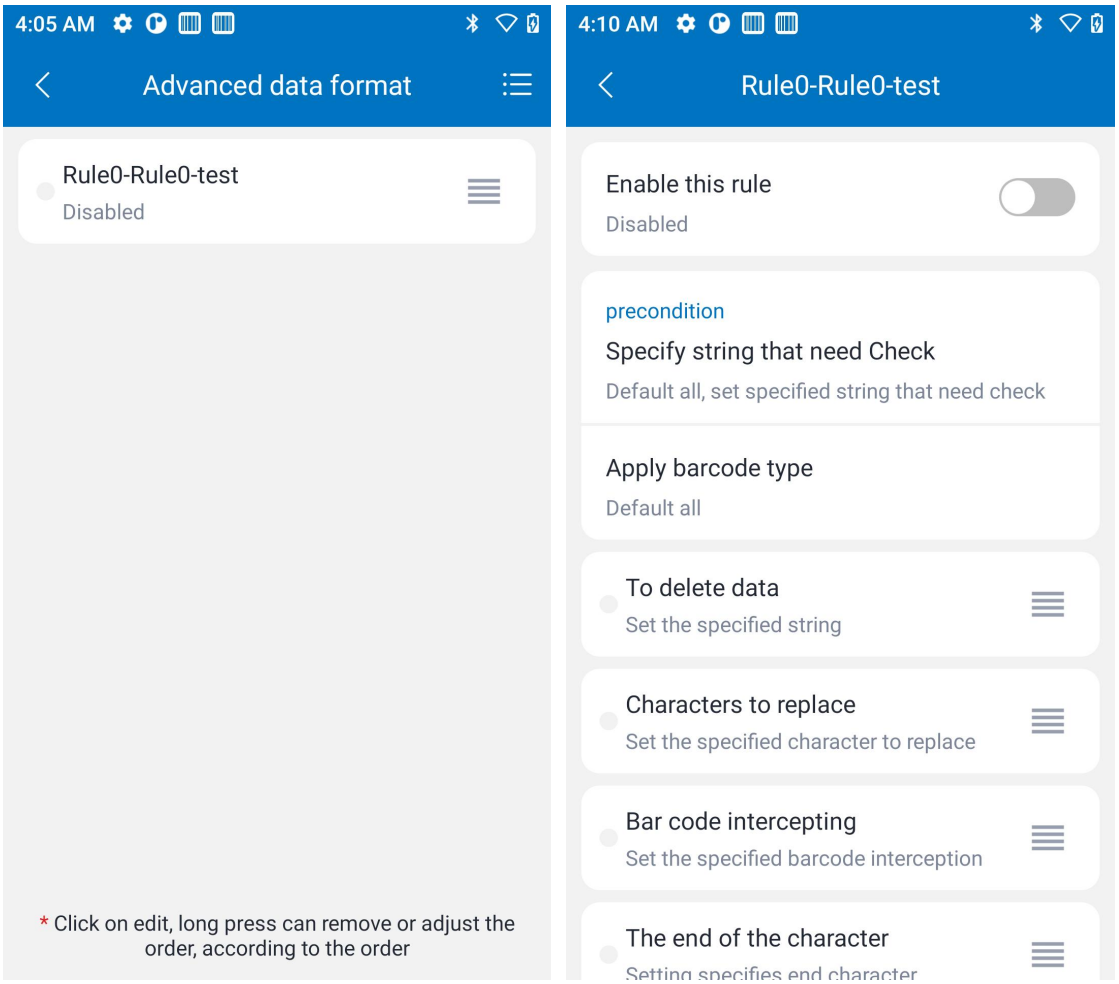
You can perform basic formatting of the obtained data, such as adding suffixes and suflies, converting invisible characters, sending in hexadecimal form, and so on.



- Add prefix for data: You can add a prefix to the barcode of the scanned output, such as numbers, letters, special characters, etc.;
- Add suffix for data: You can add suffixes to the barcodes that are scanned out, such as numbers, letters, special characters, etc.;
- Convert invisible char: convert invisible characters in the barcode to the corresponding ASCII code value after it is enabled;
- Send as hex: converts scanned data to hexadecimal output;

3.5.3 Advanced data formatting

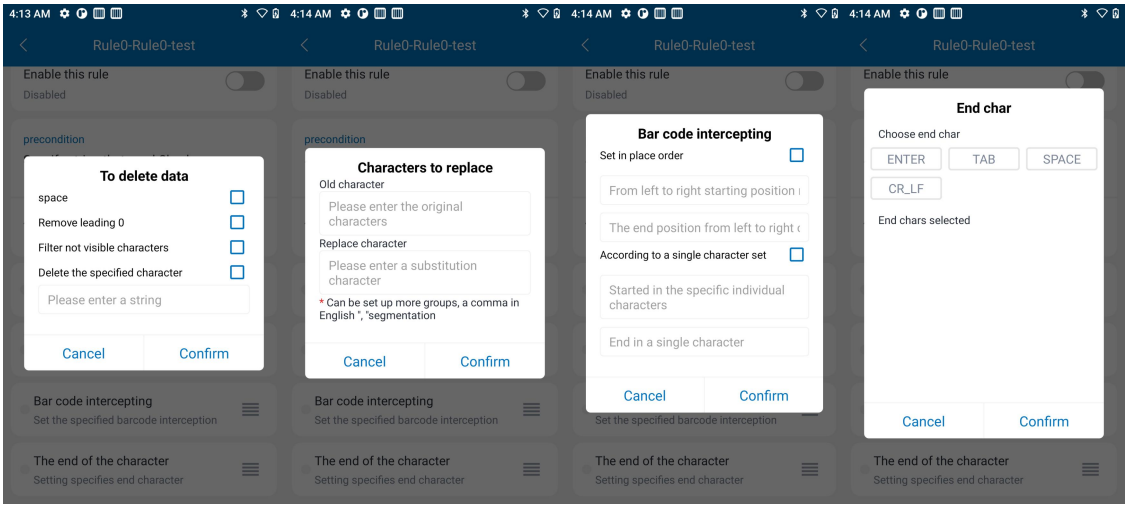
Advanced formatting of the obtained data according to specific conditions, such as configuration deletion of specified characters, character substitution, barcode interception, multiple ending characters, etc.



- Advanced data format: Click the Advanced data format item, and click the button in the upper right corner to fill in the rule name to add it;
- Advanced data format operation: you can create multiple rules, click the corresponding rule to enter the detailed configuration page, long press the corresponding rule to delete, long press the right button to adjust the order, and the data output is executed in the order of the rule list;
- Enable this rule: Set Enable to disable this advanced data formatting rule;
- Set char to be checked: Set the rule if the data obtained contains the specified string, if there is no set string, the barcode data obtained this time will not execute this rule, and all are checked by default;
- Applicable barcode type: Set that only the enabled barcode type will execute the rule, and all are defaulted;

3.5.3.1 Advanced data format

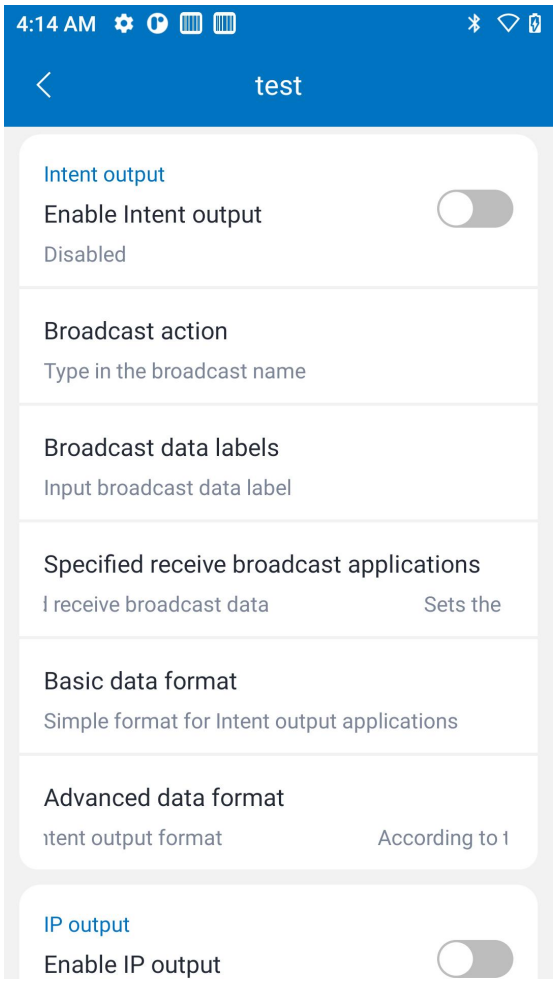
Advanced data format can set data deletion, character replacement, barcode interception, end char, etc., and long press the right button to adjust the order and execute advanced rules in order.



Type	Operation	Illustration
Data Deletion	SPACE	Remove spaces between characters and all spaces at the beginning and end of data
	Delete leading 0	Remove all 0 at the beginning of the data
	Filter invisible char	Remove invisible characters from the data
	Delete specific char	Delete specific character (check to delete the specified character to take effect)
Char replacement	Fill in the original chars and the replaced characters	You can set the specified original character to replace the specified new character with the specified new character, and you can set multiple groups separated by commas
Barcode interception	Intercept in order of position	Set the number of sequential numbers from left to right (starting at 1), start position and end position, and output data in the range of start and end bits (take effect after checking Set in position order).
	Truncated by a single character	Set the data interception between the specified two single characters, set the specific start single character and the specific single end character, and output the data containing these two characters and between these two characters (you need to check the set by single character to take effect).
End char	Select the end char	Select the end char that is incremented after the data, and you can select more

3.6 Intent output

Programmatically send data to an associated app or activity through the Android broadcast mechanism.

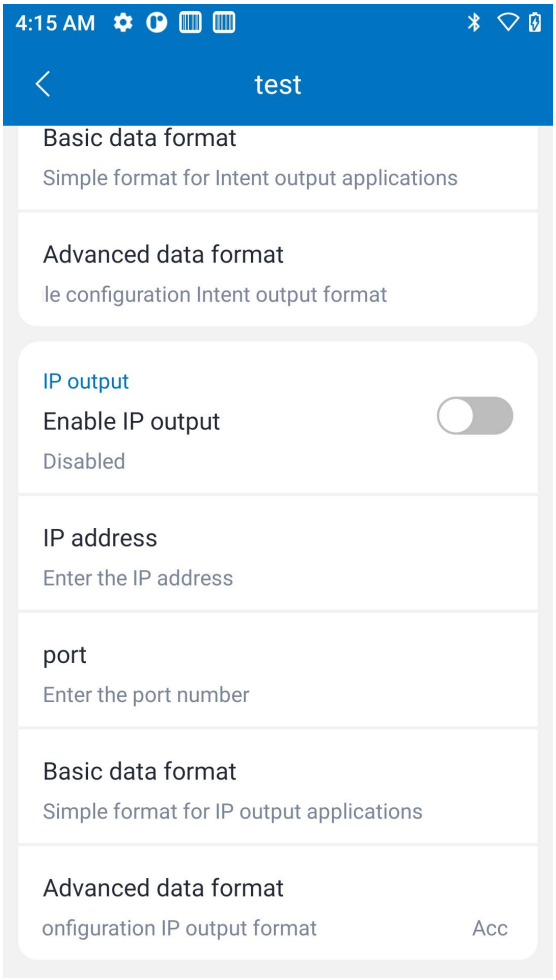


- Broadcast action: set the broadcast name;
- Broadcast data labels: set the broadcast key value name;
- Apps for receiving broadcast: Set the associated apps to specify applications to receive broadcast data;
- Basic data format: refer to 5.2;
- Advanced data format: refer to 5.3;

3.7 IP output

Using the TCP protocol to set the specified IP address and port number, the obtained data is sent to the host through the same LAN, and the data can be conveniently sent to the PC. The receiving PC and other devices need to install network debugging tools (most of the

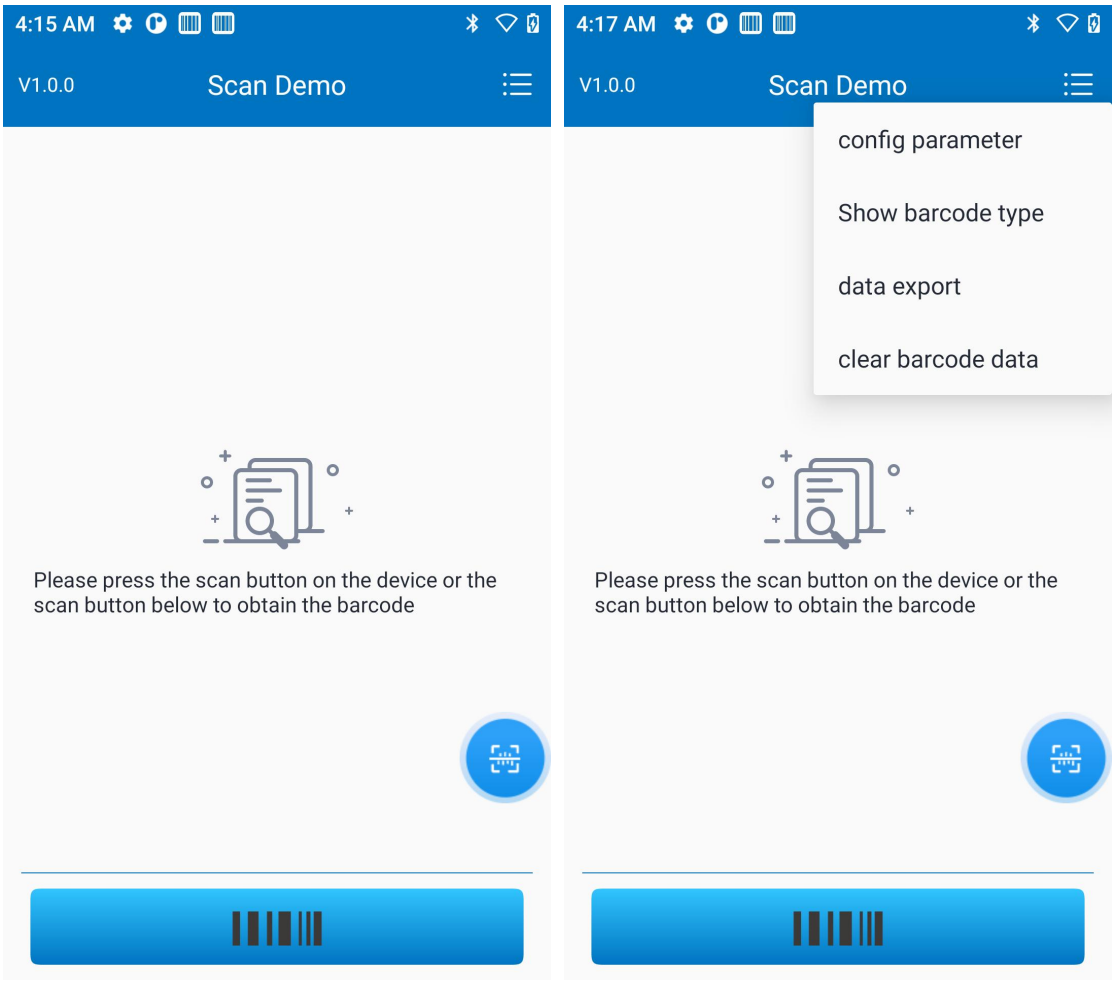
tool software is open source applications), and receive data through network debugging tools.



- IP address: set the IP address;
- Port: Set the port number;
- Basic data format: refer to 5.2;
- Advanced data format: refer to 5.3;

3.8 Scan Demo

In order to facilitate users to perform data acquisition tests, etc., Scan Demo, a scanning test tool, was developed in conjunction with Data Wedge.

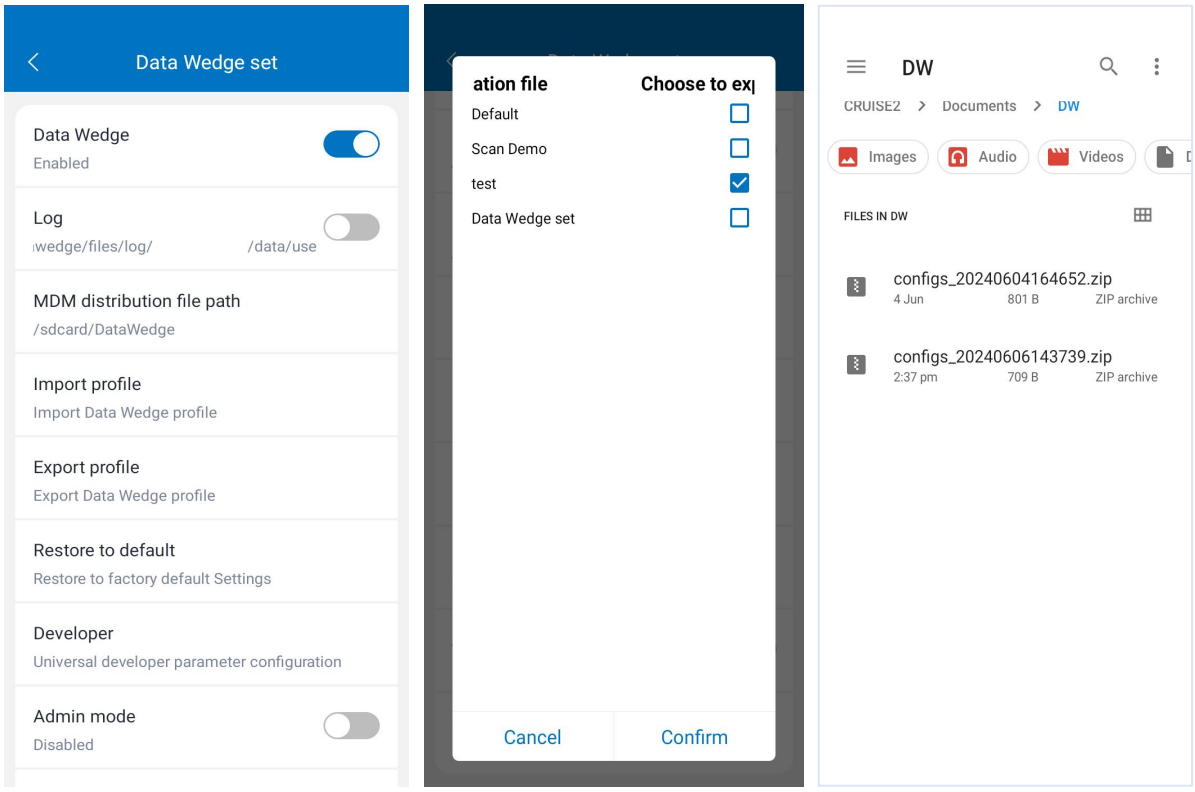


- Scan data: Click the interface scan button or the scan button on the device to scan;
- Scan Demo parameter settings: Click the setting button in the upper right corner, select the configuration parameters to enter the Scan Demo parameter configuration page corresponding to Data Wedge;
- Show/hide barcode type: barcode scanned in Scan Demo after enabling will display barcode type;
- Data export: Export the scanned data to a local folder, the default path is: /storage/emulated/0/Documents/ScanDemo
- Clear barcode data: clear the currently scanned data;

3.9 Batch Release Configuration

3.9.1 Bulk Downloading of Data Wedge Profiles via MDM

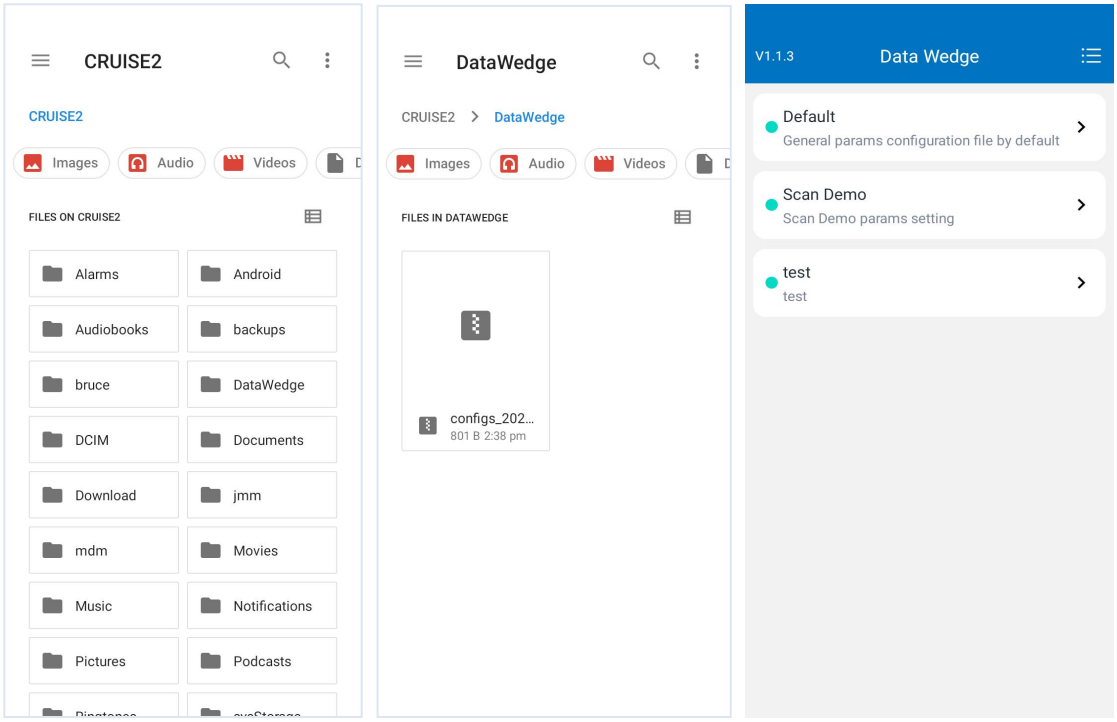
If the equipment is deployed with the MDM system, it supports the batch distribution of Data Wedge profiles (profiles exported from Data Wedge settings) to the corresponding equipment through MDM on demand and can be automatically installed and take effect.



- Select a device to set up the scanning parameters that need to be copied in bulk and click on Settings, then click on "Export Profile" in Settings;
- Select the profile to be exported;
- The exported configuration file will be stored in the Documengts>DW path;

3.9.1.1 Configuration Push and Installation

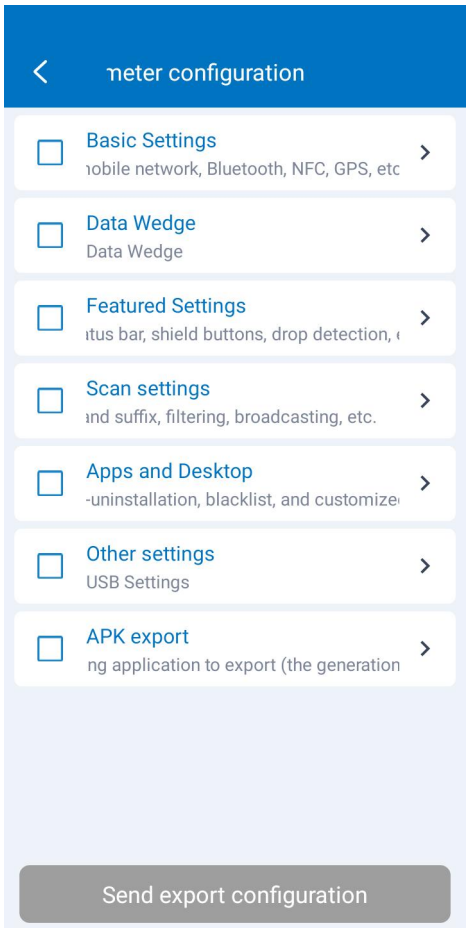
After generating the configuration, use MDM to push the configuration to the devices in batch. To use SEUIC MDM, you need to enter the "Group File" menu, upload the previously exported configuration file, select the Data Wedge directory for the file type, select the device group you want to push, and click Add Now to push the configuration file to the specified storage path of the device;



- To use SEUIC MDM: You need to enter the "Group File" menu, upload the previously exported configuration file, select the Data Wedge directory for the file type, select the device group you want to push, and click "Add Now" to push the configuration file to the specified storage path of the device;
- Using other MDM: You need to push the previously exported configuration file to the specified path /sdcard/DataWedge in the device, the path should be ensured to be accurate;
- The files will be pushed to /sdcard/DataWedg path, the new version of Data Wedge will automatically scan the files under this path and automatically install and import them into Data Wedge, and the files under this path will be automatically deleted after successful installation;

3.9.2 Quick Configuration with Stage Now Generated Configuration Codes

Support the use of Stage Now (SEUIC Stage Now is some commonly used parameters such as display, Wi-Fi, network, scanning, applications, etc. on-demand generation of QR codes, etc., the device through the scanning of the code and other ways to quickly copy the parameters, without the need for the network, break through the distance limitations, fast and practical) to generate the QR code of the Data Wedge related configurations to quickly configure the need to download the "Mobile Device Manager" in the device's application store, enter the local parameters of the configuration to select the parameters of the Data Wedge setup parameters by the way of the QR code and other ways of exporting the parameters exported.



In addition, Stage Now supports WEB configuration of Data Wedge related parameters and generates a QR code after configuration, which can be imported into Data Wedge by scanning the configuration code using the Mobile Device Manager APP in the device.

Configure the site on the WEB as: https://cdn.iot.seuic.com/QuickConfig/mainPage/DataWedge

*The content described in this document may differ from the actual functions and interface, and the final interpretation right belongs to Seuic.