

# SM15 App. MANUAL















**Applications for M3 Mobile SM15** 

**Manual Version: 1.2.1** 

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# **Version Information**

Ver 1.2.1 (20190121)

MODULE	VERSION
ScanEmul	Ver 2.3.0
UHFEmul	Ver.1.1.4
StartUp	Ver.2.0.3
AppCenter	Ver.1.2.0
KeyTool	Ver.1.0.0
HotSwap	Ver.1.2.0

• This manual is valid for os version 1.2.0

# Chapter 1. ScanEmul

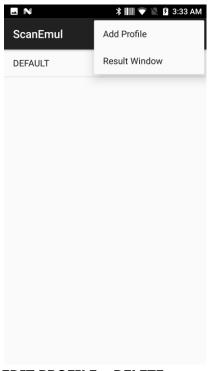
#### 1. EDIT PROFILE



#### **■** Edit Profile

- ✓ Here user can edit setting profiles.
- ✓ DEFAULT profile is created by default.
- ✓ In DEFAULT profile every apps are included except apps which are set for other profiles.
- ✓ Profile is managed as a database. You can copy the scanemul.db file from the following path to another device to use the settings.
  - '/Android/data/net.m3mobile.app.scanemul/scanemul.db'

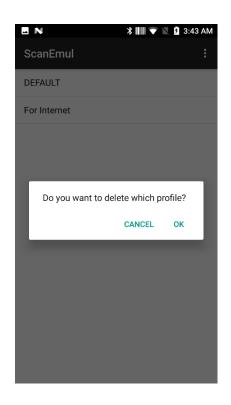
#### 2. EDIT PROFILE - MENU



#### ■ Profile Menu

- ✓ Add Profile: Profiles can be added.
- Result Window: Barcode type and data will be shown based on as DEFAULT set profile.

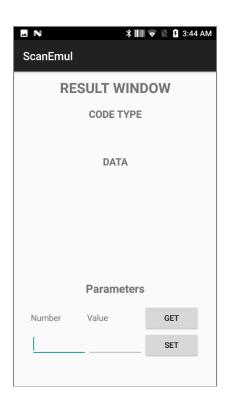
#### 3. EDIT PROFILE – DELETE



#### ■ Delete Profile

- ✓ Pressing a profile long shows Delete menu.
- ✓ Pressing "OK" deletes a selected Profile.

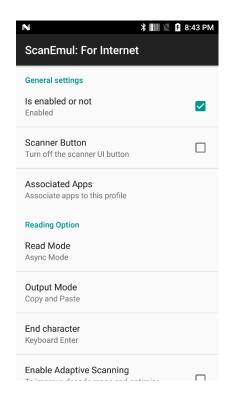
#### **4. RESULT WINDOW**



#### ■ Result Window

- ✓ Here user can test simple barcode reading.
- ✓ The result is given based on DEFAULT Profile 'Intent enable' has to be active.
- ✓ Parameters

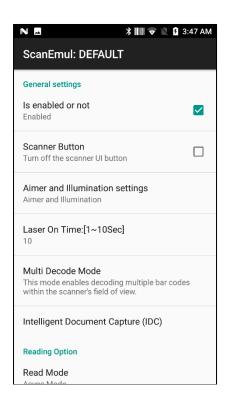
#### 5-1. General Settings - 1D



- Is enabled or not: Scanner Activate or Deactivate.
- Scanner Button: Scanner beam button's appeared on screen.
- Associated Apps: Certain apps can be addressed to profile.

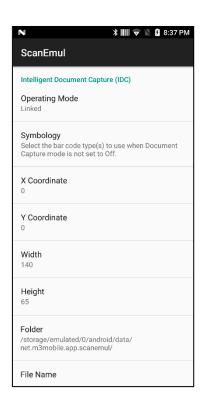
(NOTE: 'Associated Apps' cannot be addressed in Default Profile.)

#### 5-2. General Settings - Zebra 2D



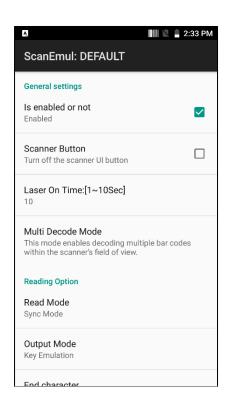
- Is enabled or not: Scanner Activate or Deactivate.
- Scanner Button: Scanner beam button's appeared on screen.
- Aimer and Illumination settings :
  - ✓ Aimer and Illumination
  - ✓ Aimer only
  - ✓ Illumination only
- Laser On Time: Timeout period of emit beam. (1~10 Seconds)
- Multi Decode Mode: Enable decoding multiple bar codes
- Intelligent Document Capture (IDC) : advanced image processing firmware for select imager based decoders.

#### 5-3. General Settings - Zebra 2D - IDC



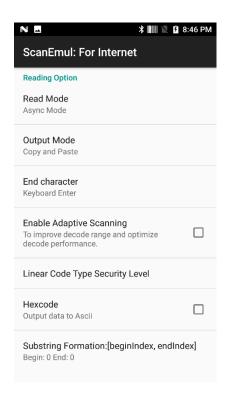
- Operating Mode : Select the operating mode of the Intelligent Document Capture firmware
  - ✓ Off : Disables the IDC feature.
  - ✓ Anchored : Requires a bar code decode. The image capture region is based off this bar code.
  - Linked: A printed border or page edge defines the image capture region. A bar code is required.
- Symbology: Select the bar code type(s) to use when Document Capture mode is not set to Off.
- X, Y Coordinate: Specify the horizontal offset to the top left corner of the region to capture relative to the center of the bar code. This parameter only applies when IDC Operating Mode is set to Anchored.
- Width, Height: Specify the width, height of the region to capture. This parameter only applies when IDC Operating Mode is set to Anchored.
- Folder: Specifies the path where the image will be saved.
- File Name : Specifies the name of the file
- Border Type: . Select the style of border used to determine the outline of the capture region in Free-Form and Linked modes
  - ✓ None : capture the largest rectangular region within the field-of-view.
  - ✓ Black: indicate that the border must be black (such as a printed rectangular border).
  - ✓ Select White to indicate that the border must be white (e.g., paper edge on a dark background).
  - Select Advanced Edge Detection (AED) to capture a region defined by edges of any color and potentially broken.

#### 5-4. General Settings – Honeywell 2D



- Is enabled or not: Scanner Activate or Deactivate.
- Scanner Button: Scanner beam button's appeared on screen.
- Laser On Time: Timeout period of emit beam. (1~10 Seconds)
- Multi Decode Mode: Enable decoding multiple bar codes

#### 6-1. READING OPTION - 1D



#### ■ Read Mode

- ✓ Async: Emits beam while the scan button is pressed.
- ✓ Sync : Emits beam for 3 sec.
- ✓ Continue : Beam keeps emitting after a successful scan.
- OutPutMode : Output method after reading.
  - ✓ Copy and Paste : Outputs the result to clipboard and paste.
  - ✓ Key Emulation : Outputs the result as keyboard type.
  - None(Clipboard): Outputs the result to clipboard.
- End character: End command at the end of barcode data.

#### Example)

- ✓ Enter : Enter command after reading.
- ✓ Keyboard Enter : Keyboard Enter command after reading.
- Enable Adaptive Scanning : decode performance based on distance to the barcode and ambient light conditions. At times this feature can nearly double working range.
- Linear Code Type Security Level :

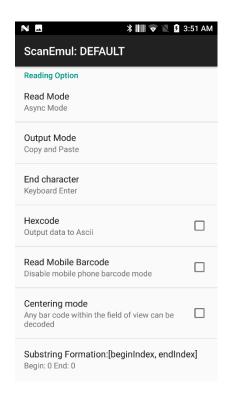
  Determines how many successful read(s)

  confirm the result. Ex) 2 means it needs to

  successfully read the barcode twice to

  output the result.
- Hexcode : Output data result can be Hexcode.

#### 6-2. READING OPTION – Zebra, Honeywell 2D

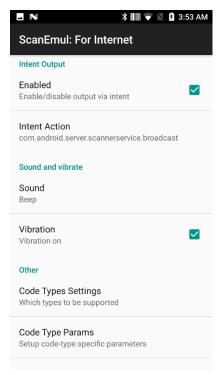


- Read Mode
  - Async : Emits beam while the scan button is pressed.
  - ✓ Sync : Emits beam for 3 sec.
  - ✓ Continue: Beam keeps emitting after a successful scan.
- OutPutMode : Output method after reading.
  - ✓ Copy and Paste : Outputs the result to clipboard and paste.
  - ✓ Key Emulation : Outputs the result as keyboard type.
  - None(Clipboard): Outputs the result to clipboard.
- End character: End command at the end of barcode data.

#### Example)

- ✓ Enter: Enter command after reading.
- ✓ Keyboard Enter : Keyboard Enter command after reading.
- Hexcode : Output data result can be Hexcode.
- Read Mobile Barcode : Enhanced reading performance for LCD screen such as mobile phone barcode.
- Centering mode : Only the bar code in the center of the image is decoded

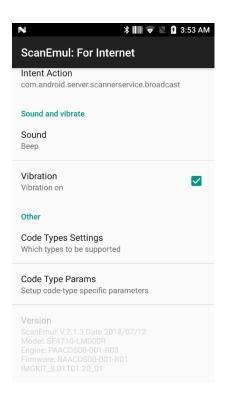
#### 7. Intent Output



#### ■ Intent

- Enabled: User can enable to get output via intent.
- ✓ Intent Action: Selects Actions that should receive Barcode Data.

#### **8. ETC**



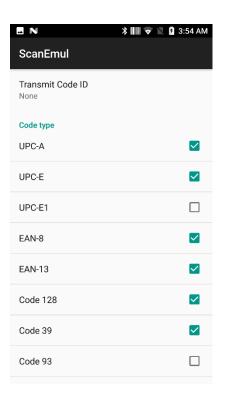
#### Prefix and PostFix

- Prefix and Postfix as Ascii Hex: Prefix or Postfix can be used for general control command as Ascii Code (/w Hexcode input) such as escape code.
  - ◆ Ex) 0A31 0A: line feed, 31:'1'
  - ◆ Ascii code reference (https://en.wikipedia.org/wiki/ASCII)
- ✓ Prefix and Postfix : Enter character at the front or end of barcode data.

#### ■ Sound and Vibrate

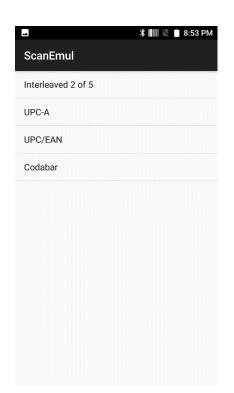
- ✓ Sound : Reading sound after reading.
  - ◆ Ex) None, Beep, DingDong.
- Vibration : Vibration after reading.

#### 9. Code Type Settings



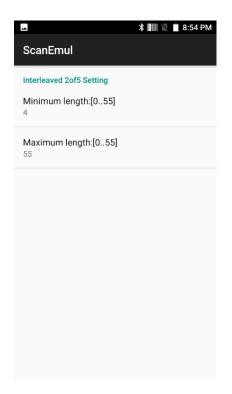
■ Code Type : Wanted Code Type can be Enable/Disable.

#### 10. Code Type Params (1D)



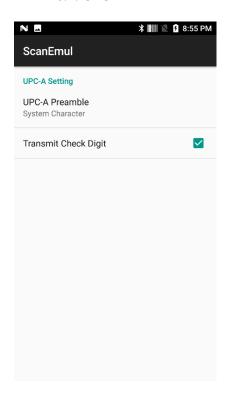
■ Code Type Params can be set each code types parameters.

#### 10.1. Interleaved 2 of 5 Setting



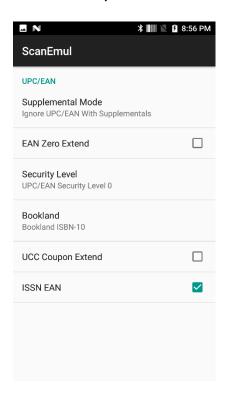
■ Interleaved 2 of 5 has additional option (Min/Max length : 0-55) when it's activated.

#### 10.2. UPC-A



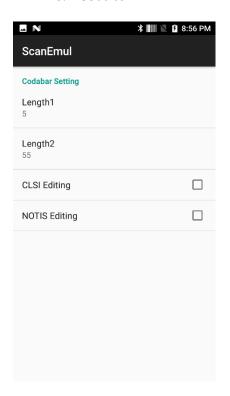
- UPC-A Preamble : Preamble characters include Country Code and System Character.
  - ✓ No Preamble
  - ✓ System Character
  - ✓ System Character Country Code
- Transmit Check Digit: The check digit is the last character of the symbol used to verify the integrity of the data. Scan the appropriate bar code below to transmit the bar code data with or without the UPC-A check digit. It is always verified to guarantee the integrity of the data.

#### 10.3 UPC/EAN



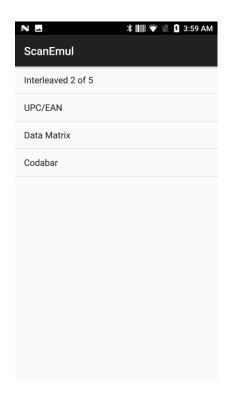
- Supplemental Mode: Supplementals are bar codes appended according to specific format conventions (e.g., UPC A+2, UPC E+2, EAN 13+2).
- EAN Zero Extend : When enabled, this parameter adds five leading zeros to decoded EAN-8 symbols to make them compatible in format to EAN-13 symbols.
- Security Level : four levels of decode security for UPC/EAN bar codes. Increasing levels of security are provided for decreasing levels of bar code quality.

#### 10.4 Codabar



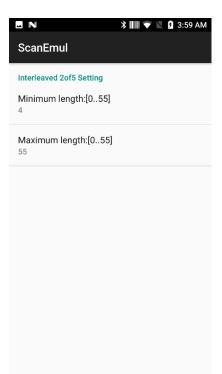
- Set Length: The length of a code refers to the number of characters, including check digit(s) the code contains.
- CLSI Editing: When enabled, this parameter strips the start and stop characters and inserts a space after the first, fifth, and tenth characters of a 14-character Codabar symbol.
- NOTIS Editing: When enabled, this parameter strips the start and stop characters from decoded Codabar symbol.

#### 11. Code Type Params (Zebra 2D)



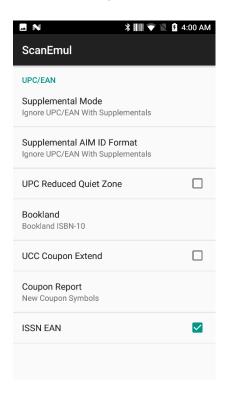
■ Code Type Params can be set each code types parameters.

#### 11.1. Interleaved 2 of 5 Setting



■ Interleaved 2 of 5 has additional option (Min/Max length: 0-55) when it's activated.

#### 11.2. UPC/EAN



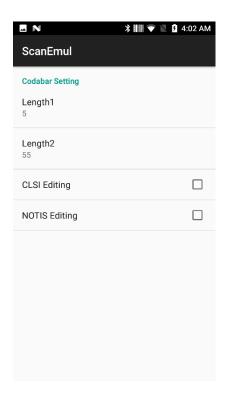
- Supplemental Mode: Supplementals are bar codes appended according to specific format conventions (e.g., UPC A+2, UPC E+2, EAN 13+2).
- Supplemental AIM ID Format : Select an output format when reporting UPC/EAN bar codes with Supplementals with Transmit Code ID Character.
- UPC Reduced Quiet Zone : Enable or disable decoding UPC bar codes with reduced quiet zones.
- Coupon Report: Traditional coupon symbols (old coupon symbols) are composed of two bar codes: UPC/EAN and Code128. A new coupon symbol is composed of a single Databar Expanded bar code.

#### 11.3. Data Matrix



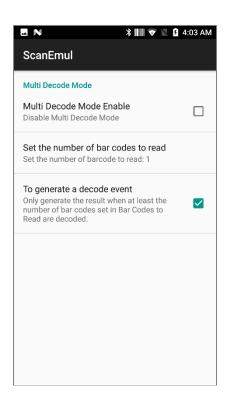
- Data Matrix has additional option :
  - ✓ Data Matrix Inverse mode
    - ◆ Regular Only
    - ◆ Inverse Only
    - ◆ Inverse Autodetect

#### 11.4. Codabar



- Set Length: The length of a code refers to the number of characters, including check digit(s) the code contains.
- CLSI Editing: When enabled, this parameter strips the start and stop characters and inserts a space after the first, fifth, and tenth characters of a 14-character Codabar symbol.
- NOTIS Editing: When enabled, this parameter strips the start and stop characters from decoded Codabar symbol.

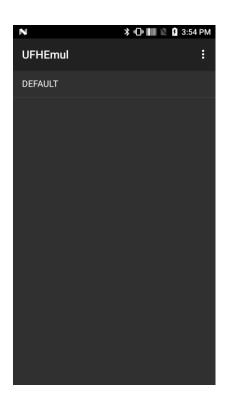
#### 12. Multi Decode Mode



- Multi decode mode
  - Multi Decode Mode: Enables decoding multiple bar codes within the scanner's field of view
  - ✓ Set the number of bar codes to read: The range is 1 to 10 bar codes.
  - ✓ To generate a decode event
    - Enable: Only generate the complete event when at least the number of bar codes set in 'Set the number of bar codes to read' are decoded.
    - ◆ Disable: Generate a decode event after one of more bar codes are decoded

# Chapter 2. UHF Emul

#### 1. EDIT PROFILE



#### **■** Edit Profile

- ✓ Here user can edit setting profiles.
- ✓ DEFAULT profile is created by default.

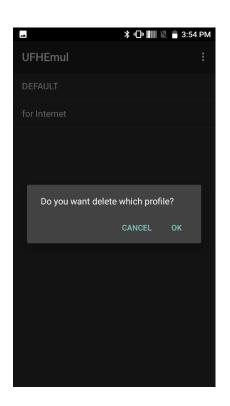
#### 2. EDIT PROFILE - MENU



#### ■ Profile Menu

- ✓ Add Profile: Profiles can be added.
- ✓ Result Window

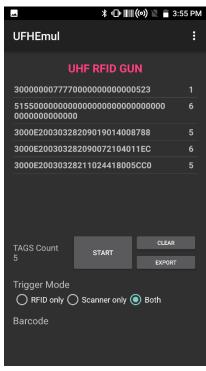
#### 3. EDIT PROFILE - DELETE



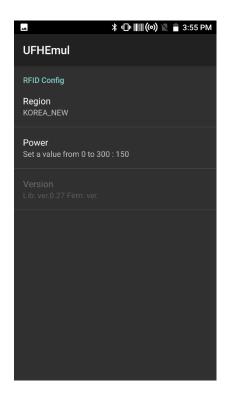
#### ■ Delete Profile

- ✓ Pressing a profile long shows Delete menu.
- ✓ Pressing "OK" deletes a selected Profile.

#### 4-1. Result Window - Inventory



#### 4-2. Result Window - Config



#### ■ It will show simple EPC read and count UI

- START: Starts inventory read.
   Continuously read EPC values of surrounding tags.
- ✓ CLEAR: Clear result
- ✓ Trigger Mode: Determine trigger mode either RFID(UHF tag) reader or Scanning barcode or together.
- ✓ Barcode Result: Barcode scanning result is shown under 'Barcode Result'

#### ■ Config Menu

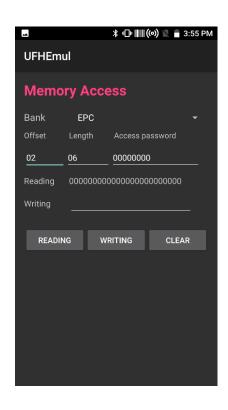
- ✓ Region: Set frequency according to the country regulation.(make sure 2 different Ant. type between KC anc CE)
- ✓ Power: Set output power. Maximum power is 300 Dbm.

The correct value is 30 dBm (30dBm = 1W = 1000mW). The last 0 of '300' is a garbage value which is called from the module so you can ignore it.

How dBm into mW converted is please refer to below link:

https://en.wikipedia.org/wiki/DBm

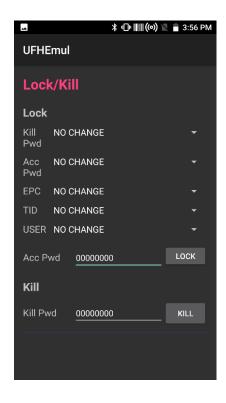
#### 4-3. Result Window - Memory Access



#### ■ Reading / Writing

- ✓ Bank (Reserved, EPC, TID, User) Select.
- ✓ Offset: Starting location of the memory. (Word unit)
- ✓ Length: Length of the data (Word unit)
- ✓ Password: If the tag is locked, Access Password is required to write data.
- Reading: Read data as configured and output data in the TextView.
- ✓ Writing: Data in the EditText will be written as configured.

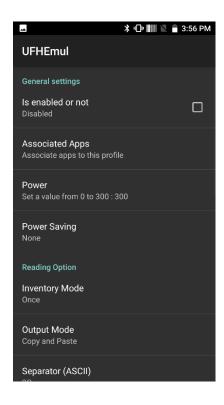
#### 4-4. Result Window - Lock/Kill



#### ■ Memory Lock / Tag Kill

- Lock: Set password to access the tag memory. Access password is stored in reserved area. There are 4 access types
  - O Accessible: Read and write of password is possible. Change permission is also possible.
  - O Always Accessible: Read and write of password is possible. But, change permission is not possible.
  - O Secured Accessible: Read and write of password is not possible. But, change permission is possible.
  - O Always Not Accessible: Read and write of password is not possible. Change permission is also not possible.
- Read / Write accessibility setting is possible in reserved area. EPC, USER area only allow setting for write, where read is always possible. TID is read only.
- ✓ Kill: Kill the tag. Once killed, the tag is no longer active. Kill password in reserved area is required.

#### 5. General Settings



- Is enabled or not: Scanner Activate or Deactivate.
- Associated Apps: Certain apps can be addressed to profile.
- Power: Set output power. Maximum power is 300 Dbm.

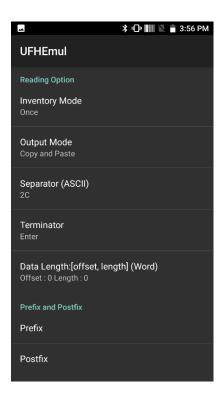
The correct value is 30 dBm (30dBm = 1W = 1000mW). The last 0 of `300` is a garbage value which is called from the module so you can ignore it.

How dBm into mW converted is please refer to below link:

https://en.wikipedia.org/wiki/DBm

■ Power Saving: Turn off the UHF Emul when the set time has elapsed

#### **6. READING OPTION**



- Inventory Mode
  - ✓ Overlap : Inventory regardless of duplicate values
  - ✓ Multiple : Exclude duplicates
  - ✓ Once : Inventory only one tag
- OutPutMode : Output method after reading.
  - ✓ Copy and Paste : Outputs the result to clipboard and paste.
  - ✓ None(Clipboard) : Outputs the result to clipboard.
- Separator (ASCII): It is a separator to output between tags when Inventory Mode is Overlap or Multiple

Example)

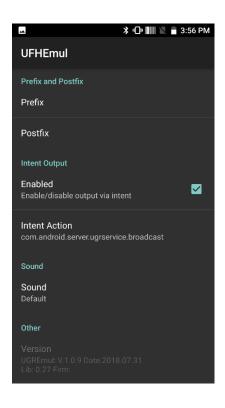
✓ 0D : Enter

✓ 2C : Comma

✓ 09: TAB

- Terminator : Specifies the value that is printed only once at the end of Inventory.
- Data Length : Specifies the start and end points of the TAG

#### 7. Intent Output



#### ■ Intent

- Enabled: User can enable to get output via intent.
- ✓ Intent Action: Selects Actions that should receive UHF tag Data.

#### 8. ETC



#### Prefix and PostFix

- Prefix and Postfix as Ascii Hex: Prefix or Postfix can be used for general control command as Ascii Code (/w Hexcode input) such as escape code.
  - ◆ Ex) 0A31 0A: line feed, 31:'1'
  - Ascii code reference (https://en.wikipedia.org/wiki/ASCII)
- ✓ Prefix and Postfix : Enter character at the front or end of UHF tag data.

#### Sound

- ✓ Sound : Reading sound after reading.
  - ◆ Ex) None, Default.

#### 1. First view of the program

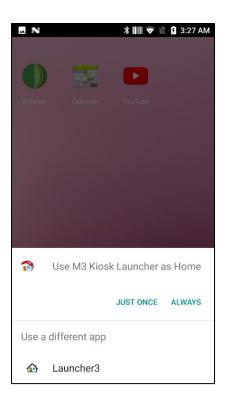


## Chapter 3. AppCenter

#### ■ Main Screen

- ✓ Arrange allowed applications in categories on Home Screen.
- ✓ Inactivate drag down the status bar in User Mode.(System setting mode's untouchable).

#### 2. Default Setting



#### Initial settings

- ✓ Select below 2 steps for autorun of the 'AppCenter'.
  - ♦ Pressed Home Button: 'M3 Kiosk Launcher' – Always Click
  - ♦ Reset Device: 'M3 Kiosk Launcher' Always Click
- Roll back: Settings Apps M3 Kiosk Launcher Clear defaults

#### 3. Login Menu in User



#### ■ User Menu

✓ Press physical menu button then login icon shown up in User mode.



#### 4. Login



#### ■ Login

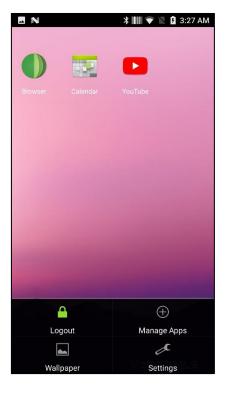
- ✓ Input the Password to enter Admin Mode
- ✓ Default Password is 'mobile'.
- ✓ Password change Modify and replace the xml file in the Internal storage as below.
  '/Android/data/com.m3.appcenter/appcenter\_login .xml'.
  - >> Reboot required to create above folder.

```
- appcenter_login.xml

<?xml version="1.0" encoding="UTF-8"
standalone="true"?>

<password value="mobile"/>
```

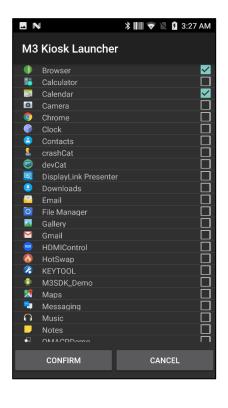
#### 5. Admin Mode



#### ■ Admin Mode

- ✓ Able to set 'Manage Apps', 'Wallpaper', 'Settings' in Admin Mode.
- ✓ Logout : Back to user mode from Admin mode.
- ✓ Manage Apps : Managing Apps on Home Screen.
- ✓ Wallpaper : Change background image.
- ✓ Settings: Launch Android setting app.

#### 6. Manage Apps



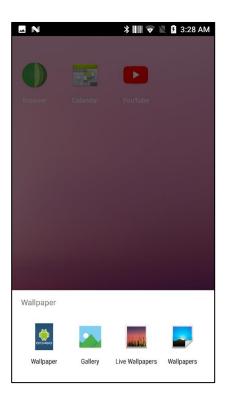
#### Manage Apps

- Managing Apps on Home Screen.
- This setting's saved into Internal storage as below.

'/Android/data/com.m3.appcenter/m3ap pc enter. xml'.

If you'd like to deploy same configuration, you can copy this .xml file to other units.

#### 7. Wallpaper

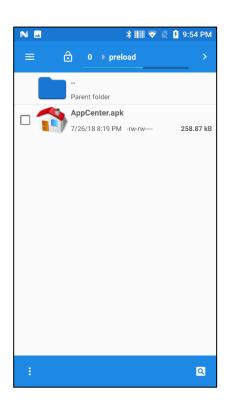


#### ■ Wallpaper

- ✓ Change the background home image.
- ✓ Gallery's photos and default wallpaper can be used.

(Live Wallpapers cannot be used.)

#### 8. Apk Path

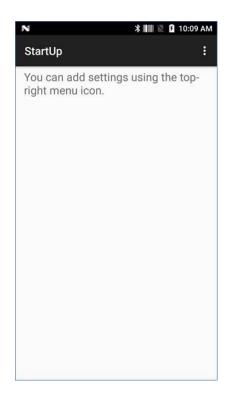


#### ■ Apk Path

✓ SM15 is included by default in the preload directory.

### Chapter 4. StartUp

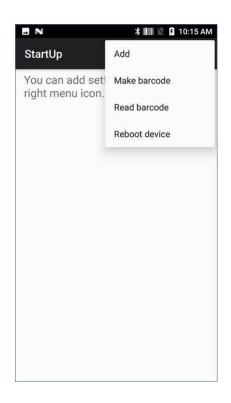
#### 1-1. Main screen



#### Main screen

✓ Main screen of the StartUp Application.

#### 1-2. Main screen - option menu



#### Option menu

- ✓ Add: Add provisioning settings\*
- ✓ Make barcode:

Can make a barcode, using settings already made on current device.

✓ Read barcode:

Can read a barcode, made from other device.

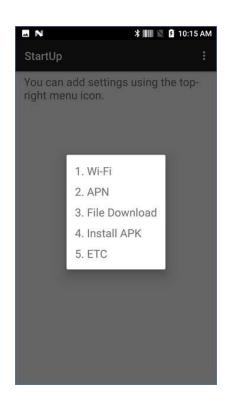
✓ Reboot device:

After setting, the application need to reboot for automated setting. When device was restarted the StartUp will be configure.

Configured settings are saved in 'Internal Storage/Android/data/com.m3.startup/m3.xml'. If you'd like to deploy same configuration, you can copy this .xml file to other units.

It is not compatible with the 1.x version of the xml file.

#### 1-3. Main screen - add dialog

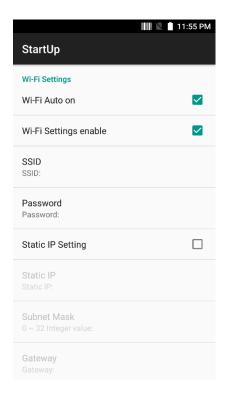


#### Add dialog

- ✓ Wi-Fi: Setting Wireless LAN
- ✓ APN : Setting Access Point Name for Network
- ✓ File Download :It will download any files on Internet.
- ✓ Install APK : APK files can be installed in this menu
- ✓ ETC

  Bluetooth, Display, Volume

#### 2. Wi-Fi Settings



#### ■ Wi-Fi Settings

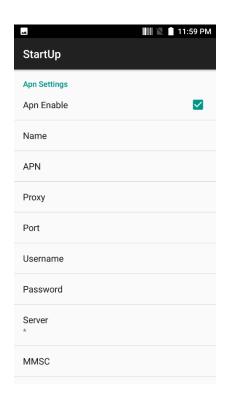
- ✓ Wi-Fi Auto on: Wi-Fi AutoOn when reboot.
- ✓ Wi-Fi Settings enable: Allow to the provision Wi-Fi setting can access an AP. 'Wi-Fi AutoOn on' should be enabled.
- ✓ SSID: Access to SSID(Be careful of Upper/Lower case letter.)
- ✓ Password: Input PW for the SSID.
- ✓ Static IP Setting: Enable Static IP setting.
- ✓ Static IP: Input Static IP address
- ✓ Subnet Mask: Input Subnet Mask.(0~32)

Notation	Netmask
0	0.0.0.0
8	255.0.0.0
16	255.255.0.0
24	255.255.255.0
25	255.255.255.128
32	255.255.255

✓ Gateway: Input Gateway address.

Domain Name Server: Input DNS address.

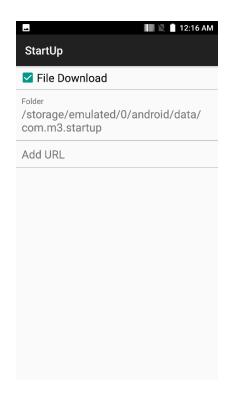
#### 3. APN Settings



#### ■ APN Setting

- ✓ Set the value according to the network environment you want to set.
- ✓ Do not leave the Name, APN, MCC, and MNC fields blank.

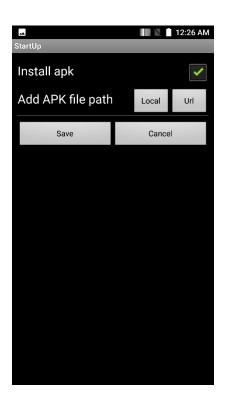
#### 4. File Download



#### ■ File Download

- ✓ File Download : Check to use download function.
- ✓ Folder : Select the destination folder on your device.
- Add URL : Input correct URL want to download.

#### 5. Install APK



#### ■ File Download

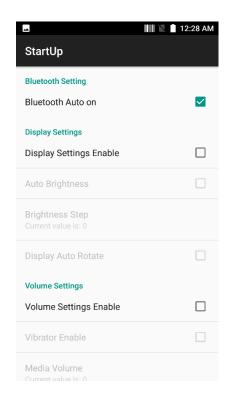
- Install apk : Check to use a install (or download and install) APK.
- √ Add APK file path

Local: Select the APK path on device.

URL: Input correct URL want to

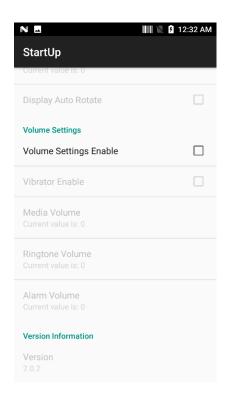
download and install.

#### 6-1. ETC - Bluetooth & Display Settings



- Bluetooth Setting
- Bluetooth Auto on: Bluetooth AutoOn when reboot.
- Display Settings
  - ✓ Display Settings Enable: Allow to Display Setting.
  - ✓ Auto Brightness: Brightness's adjusted by light condition automatically.
  - ✓ Brightness Step: Adjust Brightness.
  - ✓ Display Auto Rotate: Automatically display rotated between portrait and landscape.

#### 6-2. ETC - Volume

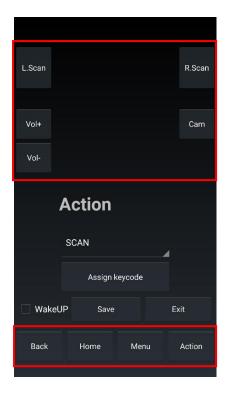


#### ■ Volume Settings

- ✓ Volume Settings Enable: Allow to Volume Control when reboot.
- ✓ Vibrator Enable: Vibrator enabled when reboot.
- Media Volume: Media Volume can be set.
- ✓ Ringtone Volume: Ringtone Volume can be set.
- ✓ Alarm Volume: Alarm Volume can be set.

### Chapter 5. KeyTool

#### 1. Select



#### ■ Select

- ✓ Select the button to setting.
- When selected, the name and function of the butt+on are displayed in the center of the screen.
- ✓ The button is located referring to the physical location of the actual device.

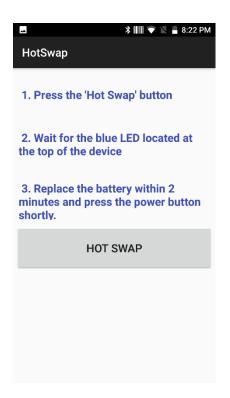
#### 2. Settings



#### ■ Settings

- The current function appears in the select box
- ✓ Select a function from the selection box and use the following functions
- Assign keycode : Designate the selected function.
- ✓ WakeUp : Select to include the wake-up feature.
- ✓ Save: The set data is saved as "keyremap.xml" file in "Android-datakr.co.m3mobile.keyremapper" directory.

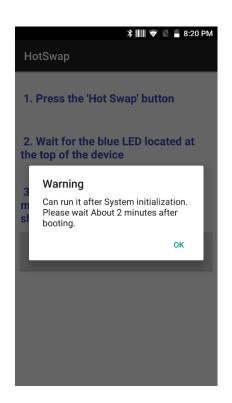
#### 1. Hot Swap



# Chapter 6. Hot Swap

- Hot Swap
  - ✓ Press the 'HotSwap' button
  - ✓ Wait for the bule LED located at the top
    of the device
  - Replace the battery within 2 minutes and press the power button shortly.

#### 2. Restrictions



#### ■ Restrictions

- ✓ Wait 3 minutes after booting.
- ✓ Battery level should be less than 60%

### **Services**

If you experience any trouble while using our product, you can visit **M3 Service center** or send enquires to our **online support web page** (<a href="http://itc.m3mobile.net">http://itc.m3mobile.net</a>), we will do our best to solve your trouble as soon as we can.

M3 FAQ document can help you with troubleshooting.

For any enquires about business program, please contact program provider for faster service.

#### **Contact details**

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#### **Factory / Service Center**

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#### **Online Support Web page**

http://itc.m3mobile.net