



## **M3 Mobile SM10 SDK Guide book**

Release date: Oct, 2016

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### **Copyright and Agreement**

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M3 Mobile does not guarantee the quality and performance of the programs written in unsupported programming language. For supported development tools and languages, please refer to Development Tool and Requirements section.

### **Requirements**

**The following software must be installed**

Microsoft Windows 7 (32-bit and 64-bit) or Microsoft© Windows 8 (32-bit and 64-bit) or Microsoft© Windows 8.1 (32-bit and 64-bit)

Java Development Kit (JDK) v7u7 or higher

Android Developer Tools (ADT) v22.6.0 or higher

Android SDK 4.3.1 (API Version 18)

**Official site provides the Android SDK**

<http://developer.android.com/>

### **Devices Supported**

The following device has been used for validation:

SM10 - 4.3.1 (JellyBean)

SM10LTE – 5.1.1 (Lollipop)

## Revision History

### **M3 SM10 SDK Version 1.0.0**

Release date. 2015-05-20

- Scanner Only

### **M3 SM10 SDK Version 1.0.1**

Release date. 2015-09-24

- Added Key Remap SDK

### **M3 SM10 SDK Version 1.1.0**

Release date. 2016-03-23

- Additional features for the scanner SDK
- It can be used either ScanEmul v.1.1.0 or higher

### **M3 SM10 SDK Version 1.2.0**

Release date. 2016-09-09

- Compatibility with SM10 LTE
- Separated KEY SDK
- Added Scanner Intent SDK (Can be used either ScanEmul version 1.2.4 or higher)

### **M3 SM10 SDK Version 1.2.1(for SM10\_LTE only)**

Release date. 2016-10-28

- Managing of the Symbolologies with Scanner SDK has been disposed. It replaced Intent SDK.
- It can be used either ScanEmul version 1.2.6 or higher.

# 1. SCANNER

## 1.1 Scanner API SDK

### Classes - APIs

- Barcode
  - void setScanner(Boolean enable)
  - void scanStart()
  - void scanDispose()
- BarcodeBroadcast
- BarcodeListener
  - void onBarcode(String barcode)
  - void onBarcode(String barcode, String codeType)
- BarcodeManager
  - void addListener(BarcodeListener bl)
  - void removeListener(BarcodeListener bl)
  - void dismiss()

## Tutorial

### 1. Initialization

```
import com.m3.sdk.scannerlib.Barcode;
import com.m3.sdk.scannerlib.BarcodeListener;
import com.m3.sdk.scannerlib.BarcodeManager;
import com.m3.sdk.scannerlib.Barcode.Symbology;

private Barcode mBarcode = null;
private BarcodeListener mListener = null;
private BarcodeManager mManager = null;
private Symbology mSymbology = null;

mBarcode = new Barcode(this);
mManager = new BarcodeManager(this);
mSymbology = mBarcode.getSymbologyInstance();
mBarcode.setScanner(true);

mListener = new BarcodeListener() {
    @Override
    public void onBarcode(String strBarcode) {
        Log.i("ScannerTest", "result="+strBarcode);
    }

    @Override
    public void onBarcode(String barcode, String codeType) {
        Log.i("ScannerTest", "result="+barcode);
        mTvResult.setText("data: " + barcode + " type: " + codeType);
    }
};

mManager.addListener(mListener);
```

- AndroidManifest.xml

```
<uses-permission android:name="android.permission.WRITE_SETTINGS" />
```

### 2. Start and Stop reading barcode

```
public void onClick(View vw) {
    int id = vw.getId();

    if(id == R.id.startread){
        mBarcode.scanStart();
    }else if(id == R.id.stopread){
        mBarcode.scanDispose();
    }
}
```

### 3. Close

```
mManager.removeListener(mListener);
mManager.dismiss();
mBarcode.setScanner(false);
```

## APIs

- **Barcode class**

```
void setScanner(boolean enable)
```

Enable Scanner status or disable.

**Parameter**

enable

Set Scanner status.

**Return**

Void

```
void scanStart()
```

Shooting the beam for barcode reading

**Parameter**

*None*

**Return**

*void*

```
void scanDispose()
```

Stop the beam

**Parameter**

*None*

**Return**

*void*

- **BarcodeManager class**

```
void addListener(BarcodeListener bl)
```

**Description**

Add User Instance of BarcodeListener class for both Barcode reading result and Symbology set result.

**Parameter**

*bl* BarcodeListener class instance to get callback event

**Return**

*void*

```
void removeListener(BarcodeListener bl)
```

**Description**

Remove the user instance of BarcodeListener class added.

**Parameter**

*bl* BarcodeListener class instance to be removed.

**Return**

*void*

```
void dismiss()
```

**Description**

Terminate BarcodeManager.

**Parameter**

*None*

**Return**

*void*

# 1.2 Scanner Intent SDK

## 1. Intent Constant Values

```
SCANNER_ACTION_SETTING_CHANGE = "com.android.server.scannerservice.settingchange";
SCANNER_ACTION_PARAMETER = "android.intent.action.SCANNER_PARAMETER";
SCANNER_ACTION_ENABLE = "com.android.server.scannerservice.m3onoff";
SCANNER_ACTION_START = "android.intent.action.M3SCANNER_BUTTON_DOWN";
SCANNER_ACTION_CANCEL = "android.intent.action.M3SCANNER_BUTTON_UP";
SCANNER_ACTION_BARCODE = "com.android.server.scannerservice.broadcast";

SCANNER_EXTRA_ENABLE = "scanneronoff";
SCANNER_EXTRA_BARCODE_DATA = "m3scannerdata";
SCANNER_EXTRA_BARCODE_CODE_TYPE = "m3scanner_code_type";
SCANNER_EXTRA_MODULE_TYPE = "m3scanner_module_type";
```

## 2. Register IntentFilter

```
IntentFilter filter = new IntentFilter();
filter.addAction(SCANNER_ACTION_BARCODE);
registerReceiver(BarcodeIntentBroadcast,filter);
```

## 3. Send Intent

### Scanner Enable/Disable

Intent Action

*SCANNER\_ACTION\_ENABLE*

Intent Extra

Name	Value	Description
SCANNER_EXTRA_ENABLE	1	Enable
	0	Disable

### Scanner Read Start

Intent Action

*SCANNER\_ACTION\_START*

Intent Extra

*None*

## Scanner Read Stop

Intent Action

*SCANNER\_ACTION\_CANCEL*

Intent Extra

*None*

## Getting Scanner Parameter

Intent Action

*SCANNER\_ACTION\_PARAMETER*

Intent Extra

Name	Value	Description
"symbology"	*Parameter number	
"value"	-1	

*(\*Please send email for detail information about the parameters to 'it@m3mobile.co.kr')*

## Setting Scanner Parameter

Intent Action

*SCANNER\_ACTION\_PARAMETER*

Intent Extra

Name	Value	Description
"symbology"	*Parameter number	
"value"	*Value number	

*(\*Please send email for detail information about the parameters to 'it@m3mobile.co.kr')*

## Sound

Intent Action

*SCANNER\_ACTION\_SETTING\_CHANGE*

Intent Extra



Name	Value	description
"setting"	"sound"	
"sound_mode"	0	Sound none
"sound_mode"	1	Beep sound
"sound_mode"	2	Ding dong sound

## Vibration

Intent Action

*SCANNER\_ACTION\_SETTING\_CHANGE*

Intent Extra

Name	Value	description
"setting"	"vibration"	
"vibration_value"	1	Vibration On
	0	Vibration Off

## Scanner Button Enable/Disable

Intent Action

*SCANNER\_ACTION\_SETTING\_CHANGE*

Intent Extra

Name	Value	description
"setting"	"key_press"	
"key_press_value"	1	Can press the Scanner key
	0	Can't press the key

## Read Mode

Intent Action

*SCANNER\_ACTION\_SETTING\_CHANGE*

Intent Extra

Name	Value	description
------	-------	-------------

"setting"	"read_mode"	
"read_mode_value"	0	Async read mode
	1	Sync read mode
	2	Continuous read mode

## Output Mode

Intent Action

*SCANNER\_ACTION\_SETTING\_CHANGE*

Intent Extra

Name	Value	description
"setting"	"output_mode"	
"output_mode_value"	0	Copy and Paste
	1	Keyboard Emulation
	2	None (Copy to clipboard)

## Scanner End Character

Intent Action

*SCANNER\_ACTION\_SETTING\_CHANGE*

Intent Extra

Name	Value	description
"setting"	"end_char"	
"end_char_value"	0	Enter
	1	Space
	2	Tab
	3	Keyboard Enter
	4	Keyboard space
	5	Keyboard tab
	6	None

## Prefix/Postfix

Intent Action

*SCANNER\_ACTION\_SETTING\_CHANGE*

Intent Extra

Name	Value	description
"setting"	"prefix"	
"prefix_value"	String value	Prefix value
"postfix_value"	String value	Sufix value

## 2. Key Remap (Only use SM10)

### Classes - APIs

- KeyRemap
  - Constant
    - ◆ static int KEY\_DISABLE = 0
    - ◆ static int KEY\_SCAN = 249
    - ◆ static int KEY\_CAM = 212
    - ◆ static int KEY\_MENU = 139
    - ◆ static int KEY\_HOME = 102
    - ◆ static int KEY\_BACK = 158
    - ◆ static int KEY\_VOLUME\_DOWN = 114
    - ◆ static int KEY\_VOLUME\_UP = 115
    - ◆ static int KEY\_SEARCH = 528
    - ◆ static int KEY\_FUNCTION = 464
    - ◆ static int KEY\_F1 = 466
    - ◆ static int KEY\_F2 = 467
    - ◆ static int KEY\_F3 = 468
    - ◆ static int KEY\_F4 = 469
    - ◆ static int KEY\_F5 = 470
    - ◆ static int KEY\_F6 = 471
    - ◆ static int KEY\_F7 = 472
    - ◆ static int KEY\_F8 = 473
  - Member classes
    - ◆ KeyLScan LScan
    - ◆ KeyRScan RScan
    - ◆ KeyAction Action
    - ◆ KeyCam Cam
    - ◆ KeyVolUp VolUp
    - ◆ KeyVolDown VolDown
    - ◆ KeyBack Back
    - ◆ KeyHome Home
    - ◆ KeyMenu Menu
  - Common Functions
    - ◆ getDefaultKey()
    - ◆ setDefaultKey()

◆ setKey(int)

◆ getKey()

- KeyLScan
- KeyRScan
- KeyCam
- KeyVolUp
- KeyVolDown
- KeyBack
- KeyHome
- KeyMenu
- KeyAction

## Tutorial

- AndroidManifest.xml

```
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
...
    android:sharedUserId="android.uid.system"
... >
```

- Application signature needed which M3Mobile deploy the 'M3SM10\_platform.jks' file.
  - Download : [Link](#)
  - Setting : 'Window' tab – 'Preferences' – 'Android' – 'Build' – input the jks file to 'custom debug keystore' (on eclipse)

### 1. Initialization

```
import com.m3.sdk.key.KeyRemap;

private KeyRemap mKey = new KeyRemap();
```

### 2. Get/Set Key code

```
// get
int nCode = 0;
nCode = mKey.VolUp.getKey();

// set
nCode = KeyRemap.KEY_DISABLE;
mKey.VolUp.setKey(nCode);
```

### 3. Get/Set Default Key code

```
// get
int nCode = 0;
nCode = mKey.VolUp.getDefaultKey();

// set
mKey.VolUp.setDefaultKey();
```

## APIs

### ● KeyRemap

```
int getDefaultKey()
```

Get 'Default Key code'.

#### Parameter

None

#### Return

Int

Key Code

#### Example

```
// get
int nCode = 0;
nCode = mKey.VolUp.getDefaultKey();
```

```
boolean setDefaultKey()
```

Set the key as 'Default Key Code'.

#### Parameter

None

#### Return

boolean

true or false

#### Example

```
// set
mKey.VolUp.setDefaultKey();
```

```
boolean setKey(int setKeyCode)
```

Change the key setting.

**Parameter**

int                      Desired Key Code

**Return**

boolean                true or false

**Example**

```
nCode = KeyRemap.KEY_DISABLE;  
mKey.VolUp.setKey(nCode);
```

```
int getKey()
```

Get 'Key Code'.

**Parameter**

None

**Return**

int  
Assigned key code

**Example**

```
int nCode = 0;  
nCode = mKey.VolUp.getKey();
```